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

POSTAL RATE AND FEE CHANGES, 2000	**Docket No. R2000-1**

DIRECT TESTIMONY
OF
JENNIFER L. EGGLESTON
ON BEHALF OF
UNITED STATES POSTAL SERVICE

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DIRECT TESTIMONY
OF
JENNIFER L. EGGLESTON

AUTOBIOGRAPHICAL SKETCH

My name is Jennifer Eggleston. I joined the Postal Service in July 1997 as an Economist in the Product Cost Studies division of Product Finance, which has since be renamed the Special Studies division in the office of Activity Based Management. Since joining the Postal Service, I have been involved with many issues dealing with Parcel Post and Standard (A) parcels. I have visited several Bulk Mail facilities (BMCs), Processing and Distribution Centers (P&DCs), delivery units, and other postal facilities. My previous work includes the Bulk Parcel Return Service (BPRS) Cost Study provided to the Postal Rate Commission in October 1998 to fulfill the requirements of Docket No. MC97-4 and testimony in Docket No. MC99-4 (BPRS Expedited Minor Classification Case).

Before joining the Postal Service, I worked as an Economist for Research Triangle Institute (RTI), a non-profit research firm in North Carolina. I worked with two separate groups at RTI. In the environmental economics group, I was tasked with estimating the potential costs and benefits of specific government regulations. In the health economics group, my main responsibility was to perform cost and benefit analysis of new drug treatments. I also worked for one year for the Naval Center for Cost Analysis in Crystal City, VA. My main responsibility was estimating the costs of procuring weapons systems.

I earned a Bachelor's Degree in Economics from James Madison University in 1992 and a Master's degree in Economics from North Carolina State University in 1995.

I. PURPOSE OF TESTIMONY

The purpose of this testimony is to provide several rate witnesses with cost data to support their testimonies. This testimony provides Witness Plunkett transportation and mail processing cost data to support Parcel Post worksharing and dropship discounts. These cost data support the inter-BMC, intra-BMC, DBMC, DSCF, and DDU rates, as well as OBMC, BMC-presort, and pre-barcode discounts. They also support the Parcel Post nonmachinable surcharge and oversize parcel rates. In addition, this testimony provides Witness Kiefer (USPS-T-37) with cost data to support worksharing discounts for Special Standard.

This testimony also provides cost data for two special services. It supplies Witness Mayo (USPS-T-39) with cost data to support the Bulk Parcel Return Service (BPRS) fee and to support eliminating the Merchandise Return Service (MRS) fee.

In addition to supplying data to rate witnesses, another objective of this testimony is to provide Witness Campbell (USPS-T-29) with transportation costs for stamped envelopes.

II. MATERIALS RELATED TO THIS TESTIMONY

The following materials are associated with my testimony:

1. LR-I-103: Standard Mail (B) Parcel Post Mail Processing and Window Service Costs

LR-I-103 documents how several inputs to the Parcel Post and Bound Printed Matter (BPM) cost models are developed. The inputs developed in this library reference are costs by basic function for Parcel Post and BPM, costs for operation 07 for Parcel Post, costs for ASFs for Parcel Post, and window service costs divided between DBMC and Non-DBMC Parcel Post.

2. LR-I-104: Program Documentation for Appendix I.

This library reference documents the computer program used for the Parcel Post cubic-feet-per-piece regression analysis. The regression analysis is described in Appendix I of this testimony.

3. LR-I-105: Standard Mail (B) Parcel Post Volume, Cubic Feet and Weight Data.

LR-I-105 contains Parcel Post data and the documentation necessary to support the data. Data included in this library reference includes GFY 1998 Parcel Post volume, cubic feet, and weight data by weight and zone, BMC/ASF distribution data, and NMO/machinable distribution by BMC. This library reference also includes GFY 1999, PQ3 volume and cubic feet data for oversize and balloon-rate parcels.

4. LR-I-171: Electronic Version of Attachments

LR-I-171 contains the electronic version of the attachments to my testimony.

III. PARCEL POST MAIL PROCESSING TESTIMONY

A. Introduction/Background

This section provides the mail processing cost data used by Witness Plunkett to support the following rate categories:

- the intra-BMC rate;
- the nonmachinable (NMO) surcharge for inter-BMC, intra-BMC, and DBMC;
- the oversize NMO rate for inter-BMC, intra-BMC and DBMC; and
- the pre-barcode discount.

The cost data developed to support the OBMC, BMC-presort, machinable DBMC, DSCF, DDU, oversize NMO DSCF, and oversize NMO DDU rates will be discussed in the next section.

As it has been done historically, the cost data supporting these rates are the estimated volume variable cost differences between two rate categories. For example, the data supplied to support the inter-BMC NMO surcharge is the estimated volume variable unit cost difference between an inter-BMC NMO and an inter-BMC machinable parcel.

B. Description of Methodology Using Mailflow Models.

The methodology used in this rate case is similar to the methodology used by Witness Daniel in Docket No. R97-1, USPS-T-29. Updated data were used as available. The methodology has four parts.

1. Use mail flow models/cost summary worksheets to estimate the volume variable unit costs associated with the direct labor operations for each type of mailstream (i.e. machinable inter-BMC parcels).

2. Calculate a weighted average of all the modeled costs using the before-rates volumes (only rate categories existing in 1998 will be included in the weighted average).

3. Tie the weighted average cost to the Cost and Revenue Analysis Report (CRA) and produce both a fixed and proportional CRA adjustment factor.

4. Apply the proportional and fixed CRA adjustment factors to the estimated cost of each mail stream, then compare these adjusted estimated costs to derive estimated cost differences.

Each part will be discussed separately below.

1. Mailflow Models/Cost Summary Worksheets

Attachment A, pages 7 through 15 display the mailflow model/cost summary worksheets. All are similar in format. All of the inputs to the cost summary worksheets come from Attachment A, pages 3-5.

The first column of data in the cost summary worksheets shows the number of handlings a parcel receives in that mailstream. The next column on the cost summary worksheets is the "units per hour" or productivity for each operation. The conversion factors are shown in the third column of the cost summary worksheets. Conversion factors are the number of parcels that are included in one handling. Usually this refers to the number of parcels that fit into each type of container. When parcels are handled individually, the conversion factor equals one.

The estimation of the conversion factors is displayed on page 6 of Attachment A. There are two ways conversion factors are estimated. The methodology used to estimate the conversion factor for pallets, postal paks, pallet boxes, and sacks on an in-house container (IHC) is displayed at the top of page 6 of Attachment A. These conversion factors are estimated by calculating the number of average-sized parcels that would fit into each type of container, given the average fullness of that container. For postal paks, pallet boxes, and sacks on an in-house container (IHC), it is assumed that 10 percent of the container is filled with air. This is the same assumption used in Docket No. R97-1. This assumption is used to reflect the fact that parcels tend to be dumped rather than placed neatly in these containers. Since parcels tend to be

stacked rather than dumped on pallets, the 10 percent air assumption is not used for pallets.

The second method for estimating conversion factors is to extrapolate data from a conversion factor study that was first presented in Docket No. R84-1.[1] This method is used to calculate conversion factors for sacks, sacks in an OTR, over-the-road containers (OTR), all-purpose container (APC), and hampers. The conversion factors are calculated by multiplying the ratio of the average cube of a parcel in 1998 to the average cube of a parcel in 1984.

The fourth column in the cost summary worksheets displays piggyback factors. Piggyback factors account for indirect costs associated with the direct labor costs of each operation.

The fifth column in the cost summary worksheets is the cost per operation. This is calculated as the product of the test year mail processing wage rate and piggyback factor divided by the product of the conversion factor and units per workhour.

The sixth column displays the cost per facility. This is calculated by multiplying the cost per operation by the number of handlings.

2. Calculate the Weighted Average of all Cost Summary Worksheets.

At the bottom of each of the cost summary sheets is the total modeled cost of that mailstream. The model weight is displayed directly below the modeled cost. Model weights are derived from a combination of BY98 and test-year-before-rates (TYBR) data. Rate categories that did not exist in BY98 are not given a weight and therefore not included in the weighted average modeled cost. Row 1 on page 1 of Attachment A shows the total weighted average modeled cost, 84.0 cents.

3. Calculate the CRA Adjustment Factors

CRA adjustment factors are used to tie the modeled costs to the costs reported in the Cost and Revenue Analysis Report (CRA). Page 2 of Attachment A shows the separation of CRA cost pools into two categories: proportional and fixed. Proportional

[1] Docket No. R84-1, Exhibit USPS-14I. This is the most current study of the number of parcels in BMC containers. This study was used by the Commission in Docket No. R97-1.

cost pools are those cost pools that are included in the model. Fixed cost pools are those cost pools that are not included in the model. Fixed cost pools are not included in the model for one of two reasons. Either the fixed cost pool is not worksharing-related or the cost pool is not parcel-related.

The next step is to calculate the CRA adjustment factors. The proportional CRA adjustment factor is calculated by dividing the sum of CRA proportional costs by the total weighted average modeled cost. This is shown on page 1 of Attachment A. The proportional CRA adjustment factor is 1.154. The fixed CRA adjustment factor is the sum of the fixed CRA components. The fixed CRA adjustment factor is 30.7 cents.

4. Apply CRA Adjustment Factors and Estimate Cost differences

The next step is to apply the CRA adjustment factors to the modeled cost of each mailstream. Since the proportional CRA adjustment factor accounts for differences in modeled costs compared to their respective CRA cost pools, the proportional adjustment factor is multiplied by the modeled cost of each mailstream. Since the fixed CRA adjustment factor accounts for those cost pools that were not incorporated into the model, it is added to each of the modeled costs after they have been multiplied by the proportional CRA adjustment factor. This is shown in Table 2, on page 1 of Attachment A.

The last step is to estimate the cost differences related to each of the rate categories mentioned above. This is shown in Table 3 on page 1 of Attachment A. These are the cost estimates that Witness Plunkett uses to develop the Parcel Post rates.

C. CHANGES IN THE METHODOLOGY FROM DOCKET NO. R97-1

There are two major changes to the mail processing models presented in this testimony compared to the mail processing models presented in the last rate case. The first major change is the inclusion of parcel singulators. Parcel singulators will separate the parcels into a single mail stream and will have the ability to read a barcode on all six sides of each parcel. Since parcel singulators will take the place of some of the labor on the secondary parcel sorting machine (PSM), they will reduce the direct labor cost of

this operation. This change is accounted for in the model by adjusting the number of handlings on the secondary PSM by the percent of parcel volume that will be "handled" by the parcel singulator. In addition, it is assumed that three percent of all barcodes will be unreadable by the parcel singulators and will have to be keyed by a clerk.[2] This is accounted for in the model by increasing the number of handlings at the primary PSM.[3]

The second major change to the cost summary worksheets is the addition of a "move" operation before and after the NMO sort at the BMCs. The "move" before the sort was added to account for that fact that while machinable parcels travel to the PSM on the conveyor, NMOs are often manually moved to the NMO sort area. Since there are some instances where NMOs are inducted into the conveyor system, the number of handlings associated with the "move" before the NMO sort is less than one.

The "move" after the NMO sort is added to account for the fact that NMOs are sometimes moved manually from the sort area to the docks.[4] Since some NMOs will be moved from the sort area to the dock using the towveyor system, the number of handlings associated with the "move" after the NMO sort is also less than one.

The proportion of NMO volume moved manually was estimated in the following manner.[5] First, it was assumed that if a BMC has the ability to induct NMOs into the conveyor system, then all non-oversize NMOs at that BMC are inducted into the conveyor system. Second, it was assumed that if a BMC has a working towveyor, all NMOs in wheeled containers (in-house containers (IHC), over-the-road containers (OTR), and other-wheeled containers (OWC)) in that BMC are moved using the towveyor.[6]

The assumptions for oversize NMOs vary from the assumption of other NMOs in one way. Since by definition oversize NMOs are very large parcels, it was assumed

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[2] Assumption used by Operations.

[3] The parcels with unreadable barcodes will either be sent to the primary parcel machine or sent to a keyer on the secondary parcel machine. In either case, the cost of the keying the parcel is similar to the cost of an additional handling on the primary PSM.

[4] For machinable parcels, the "sweep" operation includes the costs associated with moving a machinable parcel from the sort area to the dock.

[5] See USPS-T-26, Attachment Y.

[6] A towveyor consists of a track built into the BMC floor in which wheeled containers can be attached and then moved around the building.

that one hundred percent of oversize NMOs are too large for the conveyor system and will be moved manually to the sort area.

D. Methodology for each Cost Difference

1. Intra-BMC Cost Savings

Intra-BMC parcels are parcels that both originate and destinate within the same BMC service area. For this reason they are only handled at one BMC and incur fewer BMC-related costs than inter-BMC parcels.

As can be seen in Table 2 on page 1 of Attachment A, the modeled costs of an intra-BMC machinable parcel and an inter-BMC machinable parcel are 92.2 cents and 120.6 cents, respectively. Both of these costs are adjusted using the CRA adjustment factors. The cost difference between an inter-BMC machinable parcel and an intra-BMC machinable parcel is calculated in Table 3 on the same page. The estimated cost difference is 32.8 cents.

2. Inter-BMC, Intra-BMC, and DBMC NMO Cost Difference

The nonmachinable surcharges applies to parcels more than 34 inches long, 17 inches wide, or 17 inches high; weighs more than 35 pounds; or meet certain other criteria.[7] NMOs are more expensive to process than machinable parcels for several reasons. By definition NMOs are parcels that cannot be sorted on the PSM. Therefore, they are either manually sorted or sorted on a less efficient mechanical sorter. This is reflected in the model through lower productivities associated with the "sort" operation. Since the productivity of sorting a NMO is less than the productivity of sorting a machinable parcel, each NMO parcel has more costs associated with it. In addition, since NMOs are more burdensome to sort, they are currently only sorted to 3-digits at

[7] Other criteria defining nonmachinable parcels are: a parcel containing more than 24 ounces of liquid in glass containers, or 1 gallon or more of liquid in metal or plastic containers; an insecurely wrapped or metal-banded parcel; a can (paint, etc), roll or tube, or wooden or metal box; a shrub or tree; a perishable, such as eggs; books, printed matter, and business forms weighing 25 pounds; a high density parcel weighing more 15 pounds and exerting more than 60 pounds per square foot pressure on its smallest side; and a film case weighing more than 5 pounds or with strap-type closures, except any film case authorized to be entered as a machinable parcel under DMM § E630.1.4

the BMC. This means that they will incur additional costs associated with receiving a sort at the plant. Since machinable parcels are sorted to 5-digits at the destination BMC, they simply need to be crossdocked at the plant.

Another reason why NMOs are more expensive to process than machinable parcels is that they are larger than machinable parcels. In BY98, the average size of a NMO was 1.99 cubic feet and the average size of a machinable parcel was .58 cubic feet. Since NMOs are larger than machinable parcels, fewer fit into each type of container. This is reflected in the model through lower conversion factors. Since conversion factors are used to unitize containerized costs, smaller conversion factors will result in more costs being allocated to each parcel.

Table 2 on page 1 of Attachment A displays the modeled and adjusted modeled costs of inter-BMC, intra-BMC and DBMC NMOs. Next, the adjusted modeled costs of NMOs are compared to the adjusted modeled cost of machinable parcels for each of the three rate categories. The estimated cost difference is used by Witness Plunkett to derive the nonmachinable surcharge. The estimated cost differences for inter-BMC, intra-BMC, and DBMC NMOs are 179.0, 117.3, and 127.7 cents respectively.

3. Inter-BMC, Intra-BMC, and DBMC Oversize NMO Cost Difference.

Oversize NMOs are parcels that have a length plus girth between 108 inches and 130 inches. These parcels are more costly to handle than other NMOs for many of the same reasons that NMOs are more costly to handle than machinable parcels. Since oversize parcels are larger than other NMOs, fewer oversize parcels fit in each type of container. This is reflected in the conversion factors shown on page 6 of Attachment A. Since a smaller number of parcels fit into each container, the costs of loading, unloading, and moving that container are distributed among a smaller number of parcels. In addition, while some non-oversize NMOs may be sorted on mechanized equipment, oversize parcels have to be sorted manually.

The adjusted modeled costs for inter-BMC, intra-BMC parcels and DBMC oversize NMOs are shown in Table 2 on page 1 of Attachment A. Table 3 on the same page shows the estimated cost differences between the adjusted modeled cost of NMOs and oversize NMOs for each of the three rate categories. The estimated cost differences for inter-BMC, intra-BMC, and DBMC are 1115.5, 563.7, and 771.6 cents,

respectively. These estimated cost differences are used by Witness Plunkett to derive the oversize NMO parcel rate.

4. Pre-barcode Cost Savings

The difference between a pre-barcoded parcel and a non pre-barcoded parcel is how it is handled on the PSM. The clerk on the PSM must key the ZIP Code on non pre-barcoded parcels. In contrast, for a pre-barcoded parcel the clerk needs only orient the parcel so that the scanner can read the barcode. The cost savings associated with a pre-barcoded parcel are modeled in Attachment B page 1. Since the only operation affected by the presence of a barcode is the PSM, it is the only operation modeled.

Since parcels handled by the parcel singulator will avoid the direct labor costs associated with a clerk having to handle the parcel, the inclusion of the parcel singulator increases the modeled cost savings of the pre-barcoded parcel. This is incorporated in the model by adjusting the number of handlings on the secondary PSM downward by six percent, the percent of parcels that will be "handled" by a parcel singulator in the test year.

The cost savings associated with the parcel singulator are partially offset by the fact that some of the barcodes will not be readable. This is incorporated into the model by assuming that three percent of the pre-barcoded parcels "handled" by the parcel singulator will need to be keyed.[8] The cost of keying a parcel includes the cost of ribbon and label used to apply the barcode. After applying both the proportional and the fixed CRA adjustment factor, the estimated per piece cost savings is 2.9 cents.[9]

[8] Assumption used by Operations

[9] The proportional CRA adjustment factor accounts for variances in the inputs, such as an increase in the number of handlings of non pre-barcoded parcel due to several factors, including miskeying on the PSM and the probability of the barcode either missing the parcel or falling off the parcel.

IV. DROPSHIP PARCEL POST

A. Introduction/Background

This section estimates the non-transportation cost savings to support the following rate categories:

- the machinable DBMC rate,
- the BMC presort discount,
- the OBMC presort discount,
- the normal and oversize NMO DSCF rate, and
- the normal and oversize NMO DDU rate.

Although the DBMC rate was introduced in Docket No. R90-1, the other rates and discounts (DSCF rate, DDU rate, OBMC discount and BMC-presort discount) were not introduced until Docket No. R97-1. Since these rates were not implemented until January 10, 1999, the base year cost and volume data do not include any information on these rate categories and discounts. In addition, these new rates and discounts were implemented less than one year before this cost study was completed. Since with any new rate it takes awhile for the mailers to ramp up to using the new rate category, there was not a large period of time to collect data. As a result, it was necessary to make several assumptions in estimating the cost savings associated with these new rates and discounts. Since the rate categories and discounts are not fully examined, the assumptions used in this cost study were made in a manner to mitigate the possibility of overstating cost savings. For this reason, the CRA adjustment factor discussed in Section III.B of this testimony is not applied to the cost saving estimates in this section.

The summary of the estimated cost savings for this section is shown in Attachment C. Attachment D displays some of the data that are used for inputs for the models. Attachment E displays the FY1998 Revenue, Pieces and Weight (RPW) volume summary that is also used in the models.

B. Methodology

The methodology for each of the rate categories and discounts is discussed separately below.

1. DBMC

The cost savings for DBMC are the estimated cost savings of DBMC parcels compared to intra-BMC parcels. The methodology used in this testimony is similar to the one used by Witness Crum in Docket No. R97-1. Cost savings are estimated for two separate categories: 1) window service and 2) mail processing.

a. Window Service Cost Savings

Page 1 of Attachment F displays the methodology for estimating the window service cost savings. In order to estimate the window service cost savings, it is first necessary to separate the total window service costs for all Parcel Post into two categories: DBMC and non-DBMC parcels. This is done by assuming that total window service costs are distributed to DBMC and non-DBMC parcels in the same proportion as direct window service costs. Next, unit window service costs are calculated by dividing window service costs for DBMC and non-DBMC parcels by their corresponding volumes.

Next, the unit cost difference between DBMC and non-DBMC is calculated by subtracting the DBMC window service unit cost from the non-DBMC window service unit cost. This cost difference in then multiplied by both the wage adjustment factor and the window service piggyback factor to calculate the total window service cost savings associated with DBMC. The estimated window service cost savings is 10.5 cents.

b. Mail Processing Cost Savings

The methodology used in this testimony to estimate the DBMC mail processing costs savings is similar to the methodology used by Witness Crum in Docket No. R97-1, with two modifications. As can be seen in Attachment F, page 2, the first step in this analysis is to estimate the outgoing mail processing costs that DBMC parcels avoid. During the course of the Docket No. R97-1 rate case proceedings it was pointed out

that several costs included in this estimate would not necessarily be avoided by DBMC parcels.

The first cost that should be excluded from the outgoing mail processing costs that DBMC parcels avoid is the outgoing mail processing costs at Auxiliary Service Facilities (ASFs) when the ASFs are functioning like BMCs. ASFs are plants that sometimes perform functions similar to a processing and distribution center (PD&C) and at other times perform functions similar to a BMC. In the latter, the costs at the ASF are similar to costs that DBMC parcels incur at the BMC. Therefore, DBMC parcels do not avoid these costs and they should be excluded from the outgoing mail processing costs that DBMC parcels avoid. To be able to exclude these costs, it is first necessary to know what percentage of the outgoing mail processing costs at ASFs are associated with the ASFs acting like a BMC. In Docket No. R97-1, Witness Crum did not make this distinction because of a lack of adequate data, although Witness McGrane provided rebuttal testimony that estimated the maximum percent of outgoing ASF costs that should be excluded from the costs DBMC parcels avoid.[10]

For this analysis, data from the field were collected to estimate this percent. It was found that ASFs perform "BMC-like" functions for 36.1 percent of their parcel volume. This percent is used as an estimate of the percent of outgoing mail processing costs that should be excluded from the costs DBMC parcels avoid.

The second issue raised in Docket No. R97-1 was that it is not appropriate to assume that DBMC parcels avoid platform acceptance costs at other facilities. Even though DBMC parcels will actually avoid these costs at the upstream facilities, they may incur similar costs at the BMC. This is because parcels that are entered at the delivery unit or plant will instead arrive at the BMC in postal paks. In contrast, the majority of DBMC mail is bedloaded. Therefore, DBMC parcels may incur platform acceptance costs at the BMC that are similar to the costs other parcels incur when they are entered upstream from the BMC. Outgoing platform acceptance costs are shown in row 4 on page 2 of Attachment F.

It was also suggested in the Docket No. R97-1 that mail preparation costs should be excluded from the mail processing costs that DBMC parcels avoid. In his rebuttal testimony, Witness McGrane explained that DBMC parcels do in fact avoid these costs.

Therefore this testimony assumes that DBMC parcels avoid outgoing mail preparation costs at facilities upstream of the BMC.

The outgoing mail processing costs that DBMC parcels avoid is shown in row 5 on page 2 of Attachment F. The appropriate piggyback factor has already been incorporated into this cost. Next, the unit cost is calculated by dividing the total cost in row 5 by the volume of Parcel Post that is entered upstream of BMC/ASF. This volume is estimated on page 3 of Attachment F. Next, the unit cost in row 7 is multiplied by the wage adjustment factor to derive the estimated mail processing costs avoided by DBMC parcels, 59.3 cents.

2. BMC Presort

The estimated cost savings of BMC presort is shown on page 1 of Attachment G. The cost savings are estimated by subtracting the modeled BMC presorted cost per piece (column 2) from the modeled nonpresorted (inter-BMC) cost per piece (column 1).

The BMC presorted cost per piece is estimated on page 2 of Attachment G. It is estimated using a methodology similar to the mail processing models discussed in Section III of this testimony. The operations in the model have been changed to reflect the fact that the BMC presorted parcels only need to be crossdocked at the origin BMC. In addition, the conversion factors have been changed to reflect the BMC presort requirements. Machinable parcels must be sorted in a 69 inch pallet box with a minimum of 52 inches of mail in each, and NMOs must be sorted onto pallets with a minimum of height of 42 inches of mail.[11]

The estimated BMC presort unit cost savings is 23.2 cents.

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[10] Docket No.R97-1, USPS-RT-12.

[11] BMC presort requirement from DMM § M045.8.3. The cost analysis assumes that on average the pallet boxes and pallets will be filled halfway between the minimum requirement and the maximum fullness.

3. Origin BMC

The estimated cost savings of Origin BMC (OBMC) parcels are shown on Attachment H page 1. Since the OBMC discount is off the inter-BMC rate, the cost savings are the costs avoided by an OBMC parcel compared to an inter-BMC parcel. The estimated cost savings has two parts. The first part is the costs an OBMC parcel avoids by being dropped at the origin BMC. Since they avoid the costs at the facilities upstream of the BMC, these costs are equivalent to the costs a DBMC parcel avoids.[12] The second part of the cost savings is the cost avoided by the OBMC parcels being presorted by destination BMC. These avoided costs are the same costs a BMC-presorted parcel avoids. Therefore, the estimated costs avoided by an OBMC parcel are the sum of the DBMC unit cost savings and the BMC presort unit cost savings. This estimated OBMC cost savings is 93.0 cents.

4. DSCF

The estimated cost savings of a DSCF parcel compared to a DBMC parcel is shown on Attachment I page 1. The cost savings are estimated by comparing the modeled costs of DBMC in Section III of this testimony to the modeled cost of DSCF parcels. DSCF modeled costs are calculated using a mail processing model similar to the models discussed in Section III of this testimony. Machinable, NMO, and oversize NMO DSCF parcels are modeled separately. The inputs to the mail processing model have been changed to reflect the DSCF requirements. The requirements for DSCF give mailers several options.[13] As mentioned earlier, since there was not enough time to gather adequate detailed data, assumptions had to be made in the cost analysis. These assumptions were made in a manner that would mitigate the probability of overstating cost savings.

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[12] Although both DBMC and OBMC parcels avoid the costs at facilities upstream of the BMC, DBMC parcels avoid these costs compared to an intra-BMC parcels while OBMC parcels avoid these costs compared to inter-BMC parcels.

[13] Options for pallets include: (1) minimum 50 pieces and 250 lbs OR 36 inches of mail on a pallet, (2) minimum of 35 pieces and 200 lbs on a pallet with a documented average of 50 pieces on a pallet. Sacks can also be used with a minimum of 7 parcels per sack. Sacks could be bedloaded or palletized. Overflow sacks can also be used with the pallets.

One assumption in the model is that only pallets are being used for the DSCF rate. Although mailers have the choice of using sacks or pallets, the area coordinators in the field reported that mailers were using only pallets. Therefore, this analysis assumes that only pallets are used. This is reflected by a zero number of handlings for sacks in the model on page 2 of Attachment I.

The next assumption is the average number of parcels on a DSCF pallet. The requirements for DSCF give mailers several options for minimum pallet requirements. The number of machinable, nonmachinable, and oversize parcels on a DSCF pallet is estimated in Attachment D, page 1. The average for each requirement was estimated using the minimum number and maximum number of parcels on a pallet. Since it is unlikely that fifty NMOs will fit on a pallet, it was assumed that NMOs are only entered using the 36" of mail rule. Also, since many mailers had expressed fear that they did not have an adequate number of parcels to meet the requirements for machinable parcels, the minimum number was weighted by 0.7 and the maximum number of pieces was weighted by 0.3.[14]

Another assumption used in the DSCF mail processing model is that 12.3 percent of the pallet volume is dropped at BMCs. This assumption is derived from the assumption that 12.3 percent of parcel volume has direct transportation from the BMC to the DDU. In these cases, mailers are required to enter DSCF volume at the BMC. Although mailers are allowed to request an exception to this rule, at the time of this cost analysis it did not appear that any exceptions had been granted. In addition, the cost estimate is not very sensitive to this assumption since the parcels are only handled once, either at the BMC or at the SCF.

The estimated cost savings for a DSCF parcel is calculated separately for a NMO and a machinable parcel. Then the proportion of machinable and the proportion of NMO parcels are used to calculate a weighted average of the cost savings. The estimated cost savings for the average DSCF piece are 42.8 cents. The estimated cost

[14] As mentioned above, this assumption is also made in a manner that will reduce the estimated cost savings. Not only is the average number of pallets on a DSCF parcel not known, it is also not known the quantity of overflow sacks that are used. A large number of overflow sacks containing only a few parcels per sack could reduce the cost savings if each sack is not attached to its corresponding pallet.

difference between the average DSCF parcel and the oversize NMO parcel are 364.0 cents.

5. DDU

The non-transportation cost savings for a DDU parcel is estimated as the cost that a DDU parcel avoids compared to a DBMC parcel. Since DDU parcels are required to be unloaded by the mailer, the only mail processing costs they incur are the costs associated with sorting the parcels to the carrier at the delivery unit. Since the DBMC mail processing model in Attachment A does not include any handling costs at the delivery unit other than unloading costs, the model essentially estimates the costs that a DDU parcel avoids.

The estimated cost savings of the average DDU parcel is calculated as the weighted average of the modeled cost of a machinable DBMC parcel and a NMO DBMC parcel. This calculation is shown on page 1 of Attachment J. The estimated cost savings of an oversized NMO DDU parcel is calculated as the modeled cost of an oversize NMO DBMC parcel. The estimated cost savings for a DDU parcel and an oversize NMO DDU parcel are 73.0 and 555.8.cents, respectively.

V. PARCEL POST TRANSPORTATION

A. Introduction/Background

The cost analysis presented in this part of the testimony takes the transportation costs allocated to Parcel Post by TRACS and develops Parcel Post transportation unit costs. This analysis estimates the unit cost per cubic foot for each zone for each of the following three rate categories: inter-BMC, intra-BMC and DBMC. In addition, the unit cost per cubic foot is estimated for DSCF and the unit cost per cubic foot savings is estimated for DDU.

The Parcel Post transportation model presented in this testimony uses the same methodology used by Witness Hatfield in Docket R97-1.[15] The methodology introduced by Witness Hatfield incorporated several major improvements. The two main improvements were dividing transportation costs into transportation function (local, intermediate, and long distance) and dividing costs into distance-related and non-distance-related.[16] These two concepts are briefly described below.

1. Transportation Functions

The transportation functions are defined in the Parcel Post transportation model as follows:

- **Local**: Costs associated with transporting parcels between facilities that are within the service area of a P&DC, primarily between AOs and P&DCs. Local costs include the costs of postal owned vehicles.

- **Intermediate:** Costs associated with transporting parcels between facilities that are within the service area of a BMC, primarily between P&DCs and BMCs.

- **Long distance:** Costs associated with transporting parcels between facilities that are in different BMC service areas, primarily between two BMCs. Long distance cost is associated only with inter-BMC parcels.

[15] Docket No. R97-1, USPS-T-16.

2. Zone Related (ZR) vs. Non-Zone Related (NZR)

The Postal Service measures great circle distance (GCD) as the distance between the 3-digit origin and the 3-digit destination of a parcel.[17] GCD can be quite different from the distance a parcel actually travels. Since the true cost of transportation is associated with the distance a parcel actually travels, GCD is not always an accurate indicator of the cost. Witness Hatfield made a distinction between when the distance a parcel travels is related to GCD (zone-related) and when it is not related to GCD (non-zone related).

The following table displays the results of this analysis.

Table V-1. Zone and Non-Zone Costs

	Inter-BMC	Intra-BMC	DBMC
Local	Non-zone related	Non-zone related	Non-zone related
Intermediate	Non-zone related	Non-zone related	Zone related
Long-Distance	Zone related*	N/A	N/A

There is an asterisk by zone related for inter-BMC long-distance costs because although the majority of these costs are considered to be zone related, there are some exceptions. The first exception is the costs related to hub and spoke networks. These include the Eagle Network, the Western Air Network, and a proportion of Christmas air costs. No matter where the origin and destination are (within each hub and spoke network) the parcel must first travel from the origin to the hub, and then travel from the

[16] For the remainder of this testimony, these costs will be referred to as zone related and non-zone related. This is to avoid confusion with other witnesses that use the term 'distance related' in a different manner.

[17] The earth is divided into units of area 30 minutes square, identical with a quarter of the area formed by the intersecting parallels of latitude and meridians of longitude. Postal zones are based on the distance between these units of area. The distance

hub to the destination. Therefore, GCD distance is not a good indicator of actual distance traveled. The other exception is the terminal costs of commercial and Christmas air. In Docket No. R94-1, PRC Op, pages III-54-56; the Commission stated that terminal costs should not be considered zone related because every flight receives these costs regardless of the distance they travel.

B. Methodology

This section of my testimony provides an overview of the methodology. For a more detailed discussion of the methodology and the justifications for using the methodology, please see Docket No. R97-1, USPS-T-16.

The development of Parcel Post transportation unit costs are discussed in the following four sub-sections.

1. Estimation of parcel post cube-weight relationships.
2. Cubic feet and cubic foot miles.
3. Division of Parcel Post transportation costs by function and rate category.
4. Calculation of unit transportation costs.

1. Estimation of Parcel Post Cube-Weight Relationships

One of the pieces of information needed for this analysis is the cube-weight relationship of Parcel Post. This relationship is used for two purposes. It is used by Witness Plunkett to derive rates and it is used in this testimony to estimate the total cubic feet in each zone. The later will be discussed in more detail in Section V.B.2.of this testimony.

The regression analysis used to estimate the cube-weight relationship is described in Appendix I. Following Witness Hatfield's methodology in Docket No. R97-1, the cube-weight relationship is estimated separately for inter-BMC, intra-BMC, and DBMC parcels. The results are expressed in terms of an estimated cubic feet per parcel for each pound increment. The results of the regression analysis are shown in Attachment K. Pages 1 and 2 display the equation results. Page 3 shows the results graphically.

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measured from the center of the unit of area containing a point representing the 3-digit

2. Cubic Feet and Cubic Foot Miles

In order to develop unit transportation costs it is necessary to estimate the number of cubic feet in each zone for each of the three rate categories. This is done by multiplying the test-year before-rates volume estimates in each rate cell by the corresponding estimated cubic feet per parcel estimate in Attachment K. The cubic feet estimates for each rate cell are shown on pages 1 through 6 of Attachment L. The total cubic feet per zone for each of the rate categories are summarized on page 7 of Attachment L.

Other data that are needed in this analysis are the total cubic-foot miles in each zone for each of the three rate categories. These data are needed to distribute distance-related costs. These data come from LR-I-105 and are shown on page 7 of Attachment L.

3. Division of Parcel Post Transportation Costs by Function and Rate Category.

There are 4 steps to divide the Parcel Post transportation costs into functions and rate categories.

a. Separate base year costs into functions.
b. Estimate test year costs.
c. Estimate the number of legs traveled by rate category and function.
d. Distribute test year costs to three rate categories: inter-BMC, intra-BMC and DBMC.

a. Separate Base Year Costs Into Functions

The first step is to distribute base year costs from USPS-T-11, WP.B., cost segment 14.1 into the three transportation functions: local, intermediate, and long distance. In addition, long distance costs are broken down into two categories, ZR and NZR. This is shown on page 1 of Attachment M.[18]

ZIP Code area of dispatch. DMM § GO301.1.

[18] As mentioned earlier in this testimony, these costs were referred to as distance and non-distance related in Docket No. R97-1, USPS-T-16.

b. Estimate Test Year Costs

The next step in dividing Parcel Post transportation costs into functions and rate categories is to use the percentage of base year costs in each function to allocate total test year costs to each function. This step is shown on page 2 of Attachment M. At the bottom of this page, test-year local costs are adjusted by adding test-year postal owned vehicle costs.

As can be seen, plant load costs and Alaska air non-preferential costs are pulled out of all other intermediate costs. This is because these two costs are attributed only to the inter-BMC and intra-BMC rate categories, while the rest of intermediate costs are attributed to all three rate categories. This is different from how these costs were handled in the last rate case.

Although plant load costs were allocated among all three rate categories in the last rate case, it was decided to not allocate these costs to DBMC parcels in this analysis. Since plant load costs are the costs associated with the Postal Service's picking up parcels at a mailer's plant, and since by definition DBMC parcels must be dropped off at the destination BMC, plant load costs cannot be associated with DBMC parcels.

Alaska non-preferential air costs were not included in the Parcel Post transportation model in the last rate case. Instead, the pricing witness incorporated these costs into the rate design separately from other transportation costs. It should be pointed out the base-year Alaska non-preferential air costs used in this model are from the roll-forward Cost Segments and Components report (LR-I-2). These costs do not match the Alaska non-preferential air costs in the base-year transportation work papers (USPS-T-11 WP.B.). That is because the Postal Service is using the Commission's approach and therefore only allocating a proportion of Alaska non-preferential air transportation costs to Parcel Post. The base year transportation work papers show the total Alaska non-preferential air costs. The roll-forward cost segment and components report shows only the costs attributed to Parcel Post.

c. Estimate the Number of Legs Traveled by Rate Category and Function.

Before distributing test year costs to each rate category, it is first necessary to estimate the average number of legs the average parcel travels on each transportation

function of each rate category. Table V-2 shows the full path of the inter-BMC mailstream. If a parcel follows the full path of the inter-BMC mailstream, it will incur costs associated with 2 legs of local transportation, 2 legs of intermediate transportation, and one leg of long distance transportation.

Table V-2. Full Path of an Inter-BMC Parcel

	Local Leg	Intermediate Leg	Long Distance Leg
AO to P&DC	1		
P&DC to origin BMC		1	
Origin BMC to destination BMC			1
BMC to P&DC		1	
P&DC to AO	1		
Total Legs	2	2	1

Table V-3 displays the full intra-BMC mailstream. If a parcel follows the full intra-BMC path, it will incur costs associated with 2 legs of local transportation and 2 legs of intermediate transportation.

Table V-3. Full Path of Intra-BMC Parcel

	Local Leg	Intermediate Leg
AO to P&DC	1	
P&DC to BMC		1
BMC to P&DC		1
P&DC to AO	1	
Total Legs	2	2

If a parcel follows the complete DBMC mailstream it will incur costs associated with one intermediate leg and one local leg of transportation. Table V-4 displays the full DBMC mailstream.

Table V-4. Full Path of a DBMC Parcel

	Local Leg	Intermediate Leg
BMC to P&DC		1
P&DC to AO	1	
Total Legs	1	1

In reality, not all parcels travel the full path of either the intra-BMC or the inter-BMC mailstreams. The Parcel Post transportation model assumes that 3.17 percent of intra-BMC parcels are held out at local AOs, 4.48 percent of inter-BMC parcels are entered at the origin BMC, and 7.11 percent of DBMC parcels are entered at SCFs.[19] Table V-5 displays the adjusted number of legs for Parcel Post in the Parcel Post transportation model.

Table V-5. Parcel Post Transportation Model - Number of Legs, Adjusted

	Inter BMC	Intra-BMC	DBMC
Local	1.96	1.94	1
Intermediate	1.96	1.94	.93
Long Distance	1		

[19] These assumptions were used by the Commission in Docket No. R97-1.

d. Distribute Test Year Costs to Inter-BMC, Intra-BMC and DBMC

The next step is to distribute test year costs to three rate categories: inter-BMC, intra-BMC and DBMC. Costs are not distributed to either of the DSCF or DDU rate categories because these rate categories did not exist in the base year and are not included in the test-year cost data used in this testimony.[20]

Costs are distributed based on total cubic feet in the rate category and number of legs traveled in that function. This distribution is shown on page 3 of Attachment M. As mentioned earlier, plant load costs and Alaska nonpreferential air costs are only allocated to the inter-BMC and intra-BMC rate categories.

4. Calculation of Unit Transportation Costs

The final step is to calculate the unit transportation costs. This will be discussed separately for each rate category.

a. Inter-BMC Unit Transportation Costs.

The calculation of unit transportation costs for the inter-BMC rate category is shown on page 2 of Attachment N. The first column shows the percentage of cubic feet in each zone. These are used to distribute the NZR costs (local, intermediate and NZR long distance costs) to zones. These calculations are shown in columns 3, 4, and 6. The second column displays the percentage of cubic foot miles in each zone. These are used to allocate ZR costs (ZR long distance costs) to zone. These calculations are shown in column 5.

The next step is to calculate the unit cost per cubic foot in each zone for each transportation function. This is done by dividing the total costs in each zone (columns 3-6) by the total inter-BMC cubic feet in each zone (Attachment L, page 7, column 1). Next, the total unit cost per cubic foot for each zone is calculated as the sum of the unit cost per cubic foot for each transportation function. This is shown in column 11 on page 2 of Attachment N.

[20] Cost adjustments for DSCF and DDU parcels are made in the final cost adjustment.

b. Intra-BMC Unit Transportation Costs.

The methodology used to calculate unit transportation costs for intra-BMC parcels is slightly different than the methodology used for inter-BMC parcels. There are two reasons for this. First, there is no need for cubic foot miles, because none of the intra-BMC transportation costs are zone related. Second, it is assumed that fifty percent of the local intra-BMC parcels are held out at the AO. This assumption is consistent with methodology used by the Commission in Docket R97-1. The held-out parcels will avoid most of the transportation with the exception of local transportation costs that are incurred below the delivery unit. These costs, intra-city and box route, are pulled out of the local costs, and distributed separately.

The calculation of the unit cost of transportation for intra-BMC parcels is displayed on page 3 of Attachment N. Column 1 shows the total cubic feet in the *local zone* and *the non-local zones*.[21] These data come from page 7 of Attachment L. Column 2 displays the average number of local and intermediate legs. Since 50 percent of local intra-BMC parcels incur zeros legs of local transportation, and since 50 percent incur 2 legs of local transportation, on average, local intra-BMC parcels incur one leg of local transportation.[22]

Column 3 on page 3 of Attachment N displays the average cubic foot legs for *local* and *non-local zone*. This is calculated as the product of cubic feet (column 1) and average number of legs (column 2). Column 4 shows the percent of cubic foot legs in *local* and *non-local zones*. Column 5 uses the percentage shown in column 4 to distribute local costs to *local zone* and *non-local zones*. Intra-city and box route costs are shown separately. Column 6 uses the percentages in column 4 to distribute intermediate costs to *local zone* and *non-local zones*.

Column 7 on page 3 of Attachment N calculates the unit local cost for each zone. The local unit cost in *local zone* is calculated as the total local cost in *local zone* (column 5) divided by the total cubic feet in *local zone* (column 1) plus the total intra-city

[21] The term "local zone" is from the rate chart (local zone, zone 1/2, zone 3, zone 4, etc). "Non-local zone" refers to zones 1/2 through zone 8. The term "local" refers to the separation of costs into cost function (local, intermediate, and long distance). In order to avoid confusion the terms "local zone" and "non-local zone" will be italicized.

[22] As mentioned earlier, it is assumed that 50 percent of local intra-BMC parcels are held out at the local AO. These parcels will incur zero legs of local transportation.

and box route cost (column 5) divided by the total cubic feet of all intra-BMC (column 1). Local unit costs for zones 1/2 through zone 8 is calculated as the total local cost in *non-local zones* (column 5) divided by the total cubic feet in *non-local zone* (column 1) plus the total intra-city and box route cost (column 5) divided by the total cubic feet in all zones (column 1).

Intermediate unit costs are calculated in column 8. These costs are calculated similarly to local costs, without the extra step of adding in intra-city and box route costs. Column 9 displays the total unit costs, the sum of local and intermediate unit costs.

c. DBMC Unit Transportation Costs.

The methodology to calculate DBMC unit costs is very similar to the one used for inter-BMC unit costs. These calculations are shown in Attachment N page 4. The main difference is which transportation functions are ZR and NZR. As discussed earlier, it is assumed that DBMC intermediate costs are ZR and therefore are allocated to zone by cubic-foot miles. This is displayed in column 4. DBMC local costs are assumed to be NZR and allocated to zone by cubic feet. Local costs by zone are displayed in column 3. There are no DBMC long-distance costs.

Unit local costs (column 5) are calculated as local costs by zone (column 3) divided by DBMC cubic feet by zone (Attachment L, page 7, column 9). Unit intermediate costs (column 6) are calculated in a similar manner. However, since it is assumed that 7.11 percent of cubic feet are dropped at SCFs, only the cubic feet dropped at BMCs are used in the calculation of unit intermediate costs. [23] The cubic feet dropped at DBMC is shown in column 11 of Attachment L, page 7.

d. DSCF Unit Transportation Costs.

Since the majority of DSCF parcels is dropped at SCFs and will only incur the costs associated with a local leg of transportation, it is assumed that the DSCF unit cost of transportation is equal to DBMC local unit costs (Attachment N, page 4, column 5). This implicitly assumes that the 12.3 percent of DSCF volume dropped at BMCs incurs

[23] The assumption that 7.11 percent of DBMC parcels are dropped at the destination SCF is consistent with the methodology accepted by the Commission in Docket No. R97-1.

costs associated with a local leg of transportation. The 12.3 percent assumption is a mix of DDUs co-located with SCFs and DDUs that are located near the BMCs. Although the exact mix is not known, since there is a relatively small number of plants compared to the number of delivery units, only a small proportion of the 12.3 percent can be delivery units co-located in plants. Therefore, the majority of the 12.3 percent of parcel volume with direct transportation from BMC to delivery unit is associated with delivery units located close to BMCs and it is not unreasonable to assume that the leg of transportation from BMCs to delivery units is a local leg of transportation.

e. DDU Unit Transportation Cost Savings.

For the DDU rate category, the unit cost savings is calculated on page 5 of Attachment N. DDU parcels only incur a portion of local costs. Since DDU parcels enter the mailstream at the delivery unit, they do not incur any transportation costs associated with transporting a parcel from the SCF to the delivery unit. Local transportation costs can be broken down into two sub-components: (1) highway and POV and (2) water. Since the costs associated with water do not necessarily occur between the SCF and DU, it is assumed that DDU parcels will not avoid water costs.

Next, total intra-SCF costs for all classes of mail are used to estimate the percentage of highway and POV costs a DDU parcel avoids. It is assumed the DDU parcels avoid intra-SCF van and trailer costs and therefore avoids 83.57 percent of all highway and POV costs. Therefore, a DDU parcel avoids 83.07 percent (.8357 * 160,849/161,825) of all local costs. Multiplying the unit cost of DSCF by the percentage of local costs a DDU parcel avoids result in the total DDU unit cost savings, 44.5 cents.

VI. SPECIAL STANDARD MAIL PROCESSING COSTS

A. Introduction/Background

This section of my testimony provides Witness Kiefer with mail processing cost data to support the Special Standard BMC presort and Special Standard 5-digit presort rates.

As discussed in Section III, the cost data supporting these rates is the estimated volume variable cost difference between two rate categories.

B. Methodology

The Special Standard mail processing cost data are developed using the same methodology used to develop Parcel Post mail processing cost data in Section III.

The cost summary worksheets for Special Standard are found on pages 8 through 14 of Attachment P. The inputs to the model are displayed on pages 3 through 7 of the same Attachment. The summary of the cost data is on page 1 of Attachment P. As was done with Parcel Post in Section III, CRA adjustment factors are applied to the modeled costs.

As can be seen on page 1 of Attachment P, the estimated cost difference between nonpresort and BMC presort is 10.4 cents. The estimated cost difference between nonpresort and 5-digit presort is 36.2 cents.

VII. BULK PARCEL RETURN SERVICE

A. Introduction/Background

Bulk Parcel Return Service (BPRS) was introduced in October 1997. It is a service that is available for the return of Standard (A) parcels to the original sender. BPRS requires a minimum annual volume of 10,000 returned parcels per year. To qualify for BPRS, parcels must weigh under a pound, be machinable as defined by DMM § C050.4.0, and carry a "BPRS requested" endorsement.

The Postal Service will deliver the returns to the recipient in bulk at a time and frequency that is convenient to the Postal Service. In addition, recipients have the option of picking up their returned parcels at a designated postal facility. In those instances where the recipients calculate postage due, they must leave an audit trail that can be used by the Postal Service to verify the calculations. In some cases, the Postal Service calculates postage due if it can do so in a low cost manner.

In October 1998, the Postal Service submitted a BPRS cost study to the Commission to fulfill the Postal Service's obligation to develop a more refined per-piece cost estimate for Bulk Parcel Return Service (BPRS) in accordance with the BPRS study plan submitted in Docket No. MC97-4. The following testimony uses the data collected for the October 1998 study (as corrected by letters of December 2, 1999 and December 21, 1999 to the Secretary of the Commission re: Docket No MC97-4 and Docket No. C99-4) to estimate the test year BPRS unit cost.

During the data collection phase, only eight mailers used BPRS. To collect data, the postage due sites for those eight BPRS recipients were visited along with pertinent delivery units, processing and distribution centers (P&DCs), and Bulk Mail Centers (BMCs).[24] Some of the data collected on these visits is summarized in Table VII-1 below. The average weight and average cube of BPRS parcels are calculated in Attachment R.

[24] Site visits occurred between April 20, 1998 and August 30, 1998.

Table VII-1. Characteristics of BPRS Parcels

	Weight per Piece (oz.)	Average Cube Per Piece (Cubic Feet)	Average Daily Volume	No. Days per Week Mailer Receives Returns	Who Calculates Postage Due	Method of Postage Due	Who Takes Mail to Mailers Plant
Mailer 1	15.04	0.08	1,085	6	USPS	Average weight	USPS
Mailer 2	10.35	0.09	810	5	Mailer	Manifest	USPS
Mailer 3	12.50	0.14	455	6	Mailer	Manifest	Mailer
Mailer 4	9.36	0.13	900	5	USPS	Average weight	USPS
Mailer 5	12.80	0.02	760	5	Mailer	Average weight	Mailer
Mailer 6	14.00	0.08	200	6	Mailer	Manifest	Mailer
Mailer 7	9.00	0.04	420	2	Mailer	Manifest	USPS
Mailer 8	9.88	0.02	71	6	USPS	Physically count pieces	Mailer

B. METHODOLOGY

This study calculates the estimated TY01 volume variable unit cost of BPRS. For the purpose of this study, costs are divided into five cost components:

1. collection costs,
2. mail processing costs,
3. transportation costs,
4. delivery costs, and
5. postage due costs.

As mentioned above, site specific data, as well as additional information from plants and BMCs, were collected for this cost study. These data are incorporated into the cost estimates as necessary.

In addition, as with any cost study, the BPRS cost study employs several assumptions. Since BPRS is a relatively new service, most of the assumptions are made in a manner that has more potential to overstate rather than understate costs.[25]

1. Collection Costs

Collection costs is the only cost component estimated entirely using a proxy. A proxy is used because it is impractical to collect data on how BPRS parcels enter the mailstream in the absence of a distinguishing mark on the BPRS parcel that indicates the means by which the parcel was collected. In addition, the volume of BPRS is not large enough to find samples in collected mail.

BY98 single-piece Standard (A) collection costs are used as a proxy for BPRS collection costs. Although single-piece Standard (A) was eliminated as a rate category on January 10th, 1999, it was still in existence during the base year. In addition, since most mailers did not start using BPRS until after halfway through BY98, the BPRS parcels were actually in the single-piece Standard (A) mailstream for part if not most of BY98. For this reason, it was decided that single-piece Standard (A) collection costs were a good proxy for BPRS collection costs. The collection cost estimate is calculated in Attachment S. The ratio of TY01 wages to BY98 wages is used to adjust the cost data to reflect TY01 costs. The total estimated TY01 volume variable unit cost for collection is 3.2 cents.

2. Mail Processing Costs

During the site visits, it was found that BPRS parcels follow the same mailstream as non-dropshipped Parcel Post and single-piece Special Standard. Therefore, the mail processing model discussed in Section III can be used to estimate the mail

[25] There is also some potential for this study to understate BPRS costs in the test year. This potential exists because at the time of the study the lowest volume BPRS mailer had an annual volume of approximately 22,000 BPRS parcels. This is more than twice the required minimum of 10,000. Therefore, the data collected in this study cannot necessarily be extrapolated to mailers with lower annual volumes of mail. Therefore, there is potential for the unit cost of BPRS to rise if a large number of mailers with annual volumes close to the minimum start to use BPRS.

processing costs of BPRS parcels. The total estimated FY01 volume variable unit cost for mail processing is 57.1 cents.

Several inputs in the model were changed to account for the unique characteristics of BPRS parcels. These changes, and the rationale behind each, are discussed below.

a. Change average cubic feet to reflect the average cubic feet of BPRS parcels.

The average cubic feet of a parcel were changed to 0.08 to reflect the average cubic feet of BPRS. Since BPRS parcels are smaller than both Parcel Post and Special Standard, the change in average cubic feet is reflected in higher conversion factors (the smaller the parcel, the more parcels fit in a container).

b. Assume one hundred percent machinability.

BPRS parcels must be machinable as defined by the DMM (DMM § 050.4.0). During the data collection phase, it was confirmed that BPRS parcels are in fact run on parcel sorting machines and no problems with machinability were reported.

c. Assume arrival profile contains no bedloaded loose parcels.

The arrival profile of Special Standard (within the service area) from Docket No. R97-1, LR-H-131, is used as a proxy since both types of mail contain small, lightweight parcels.[26] In addition, Special Standard contains a large proportion of returns that are handled similarly to BPRS parcels.[27] Since the Postal Service does not bedload trucks with loose machinable parcels, it is assumed that all bedloaded mail is in sacks.

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[26] The current rate structure encourages mailers to only use Special Standard for lightweight parcels. Although Special Standard is on average larger and heavier than BPRS, it is closer to BPRS in size and weight than other subclasses for which arrival profile data are available.

[27] For most rate cells the Standard A bulk rate is lower than the Special Standard bulk rate. For this reason, several mailers use Standard A bulk rates for their outgoing parcels and Special Standard rates for their returns. Therefore, a large percent of Special Standard volume is lightweight single-piece parcels and it is believed that a large proportion of these parcels is returns.

d. Use Special Standard CRA adjustment factor

The main use of mail processing models has been to estimate the cost differences between two separate mailflows. For this reason, only the characteristics that differ between the two mailflows need to modeled. A proportional CRA adjustment factor is then used to tie the modeled cost components to those same costs components reported in the CRA. A fixed CRA adjustment factor is used to account for the cost components that are not included in the model.

Some examples of activities that are not included in the model are miskeying on the PSM, parcels falling off the PSM, and parcels hitting the wrong belt on the PSM. There are also costs not included in the model that are specific to returns. These are costs associated with the necessity of peeling off the old barcode when it covers the return address, obliterating the old barcode, and parcels ending up in loops from being resent to the original address by mistake. Since Special Standard also contains a lot of lightweight returns, the non-modeled components of Special Standard should be similar to non-modeled components of BPRS.

In addition, there are several cost components that are dependent on size.[28] Table VII-2 shows that Special Standard parcels are relatively small, but still twice the size and weight of the average BPRS parcel. Since Special Standard is closer to BPRS in size and weight than other types of Standard parcels, variances in the inputs should be similar for these two types of mail. However, since Special Standard is on average larger and heavier than BPRS, using the Special Standard CRA adjustment factor has the potential to overestimate the true volume variable unit cost of BPRS mail processing. Since this is consistent with the approach taken in this study to make assumptions that will avoid underestimating costs, the Special Standard CRA adjustment factor is used.[29]

[28] One example of costs that vary with size is the costs associated with sweeping containers. The smaller the parcel, the less often containers need to be swept.

[29] The proportional CRA adjustment factor is 1.04 and the fixed CRA adjustment factor is 21.1 cents.

Table VII-2. Average Cube and Weight of BPRS vs. Special Standard

	Average Weight (oz)	Average Cubic Feet
BPRS	12.2	.08
Special Standard[30]	25.8	.15

f. Only model two mailstreams.

It is assumed that one hundred percent of BPRS parcels are machinable non-dropshipped parcels. Accordingly, only two mailstreams are modeled: machinable inter-BMC mail and machinable intra-BMC mail.

g. Adjust mailflow with BPRS Specific information.

Since BPRS parcels are returned in bulk to the recipient, there are several instances where the parcels do not follow the complete mailstream. For example, in one case the Postal Service delivers the returns directly to the recipient from the destination BMC. Information about the processing path of BPRS parcels is used in the mail processing model to adjust the number of handlings at the destination SCF and destination delivery unit. Page 5 of Attachment T shows the calculations behind these adjustments.

h. Weight inter-BMC modeled costs by (20/21) and intra-BMC modeled costs by (1/21).

Seven out of the eight BPRS recipients receive returns on a national basis. Rather than incur the costs of collecting Origin-Destination (O-D) specific information for a product still in its infancy,[31] an assumption was used for the intra/inter mix of BPRS.

[30] 1998 Cost and Revenue Analysis, BY98 Average cubic feet = total cubic feet (28,342,000) divided by volume (191,093,000) = .148.

[31] Several of the mailers had been using BPRS for only a couple of weeks during the data collection phase of this study. This precluded the possibility of coordinating an analysis to determine whether the BPRS O-D profile is subject to significant seasonal variation.

Since there are twenty-one BMCs across the country, it is assumed that BPRS parcels will use the intra-BMC mailstream 1/21 or 4.8 percent of the time. Since BMCs are not evenly distributed throughout the country, this is a simplified assumption. The maximum amount this assumption could underestimate cost is by 0.4 cents. This is the difference between the unit cost estimated in this analysis and the unit cost that would be estimated if it were assumed that 100 percent of BPRS parcels use the inter-BMC mailstream. If instead, it were assumed that 100 percent of the BPRS parcels use the intra-BMC, the estimated mail processing cost would fall by 8.3 cents to 48.8 cents.

3. Transportation Costs

In the data collection phase of this study, it was found that BPRS parcels followed the same transportation network as Parcel Post. For this reason, transportation costs are estimated using data from Section V of this testimony. The cost per cubic foot per transportation leg from the Parcel Post transportation model in section V of this testimony are multiplied by the estimated number of legs traveled by a BPRS parcel. This is shown on page 1 of Attachment U.

The number of legs traveled by a BPRS parcel is estimated on page 2 of Attachment U. First, the average number of legs for local and intermediate is estimated separately for each mailer. The rationale behind each estimate is described at the bottom of page 2 of Attachment U. The average number of long distance legs was assumed to be 0.95 for each mailer. This accounts for the assumption that 95 percent of BPRS parcels use the inter-BMC mailstream.

Next, the weighted average of the number of legs is calculated for each transportation function (local, intermediate and long distance). The final result for the average number of legs for local, intermediate and long distance transportation is 1.53, 1.82, and 0.95, respectively.

There are two other main assumptions behind the estimated cost of BPRS transportation. The first is that is assumed that BPRS parcels use the inter-BMC mailstream 95.2 percent (20/21) of the time and intra-BMC 4.8 percent (1/21) of the time. This assumption affects the cost estimate in two ways.

1. Since inter-BMC parcels incur a long distance cost and intra-BMC parcels do not, the estimated cost increases as the percent of parcels assumed to use the inter-BMC mailstream increases. For this reason, the 4.8 percent intra-BMC assumption has a larger impact on transportation costs than mail processing costs. Since it is assumed that 95.2 percent of BPRS parcels travel through the inter-BMC network, there is little chance that this assumption leads to an underestimation of transportation costs. Even it were assumed that 100 percent of BPRS parcels use the inter-BMC network, the estimated cost would rise from 42.3 to 43.7 cents, a difference of only 1.3 cents. If instead it were assumed that 100 percent of BPRS parcels use the intra-BMC mailstream, the estimated unit cost of transportation would decline to 16.1 cents.

2. Implicit in the estimated BPRS long distance transportation cost is the average distance traveled by inter-BMC Parcel Post. If O-D specific information had been available, the cost per cubic foot for each zone could be multiplied by average cubic feet of BPRS in each zone. The cost of a long distance leg used in the BPRS transportation model is greater than the cost of a long distance leg in the Parcel Post model for every zone, up to zone 5. Since several of the mailers are located in an area that will rarely use zones above zone 5, this assumption should not lead to underestimating costs.

The second assumption is that none of the BPRS parcels are held out at the local AO. This differs from the Parcel Post transportation model, where it was assumed that 3.17 percent of intra-BMC parcels are held out at the local AO. Since it is not know what percent of BPRS parcels are held out at local AOs, this assumption was made in a manner that ensures that costs are not overestimated. This assumption does not have a large impact on the cost estimate, especially since such a small percentage of BPRS parcels are assumed to use the intra-BMC mailstream.

The estimated test year volume variable transportation unit cost of BPRS is 42.3 cents.

4. Bulk Delivery Costs

The first step in estimating the BPRS delivery cost is to estimate a separate delivery cost for each of the eight mailers. Four of the eight BPRS recipients do not have their returns delivered to them by the Postal Service. These four pick up their returns at a minimum of once a day.[32] Typically, the returns were worked near the dock and did not need to be moved until the mailer loaded the truck. Although there may be some costs associated with greeting the mailer and taking up dock space, these costs are difficult to quantify, and are most likely negligible on a per piece basis due to the large volume of mail. Therefore the delivery costs for these four mailers are assumed to be zero.

The other four BPRS recipients have their returns delivered to them by the Postal Service. The delivery trucks are either postal owned vehicles or contracted transportation. None of the transportation to these four mailers' plants was put into place specifically for BPRS. In most cases, the trucks not only dropped off returns, but also picked up mail.[33] In one case, there was a possibility that the truck would not make a stop at the mailer's plant if volumes were sufficiently low.[34] On the days that BPRS parcels were delivered to this mailer, BPRS was not usually the only mail delivered.

Since the delivery leg of transportation is not dependent on BPRS, the full cost of that leg of transportation should not be attributed to BPRS. Therefore, a costing methodology is needed that can be adjusted for the characteristics of BPRS. The cost of a local leg of transportation is used to model the cost of delivery for these four mailers. This methodology has two benefits. The first benefit is that both the cost of postal owned vehicles and the cost of contracted transportation are included in the cost of a local leg of transportation. In addition, this cost can be adjusted for the average cube of BPRS parcels for each recipient. Attachment V shows this analysis.

The final step in estimating delivery cost is to calculate the weighted average of delivery cost for all eight BPRS mailers. Since half of them have an estimated cost of

[32] Other types of returns were picked up in addition to BPRS.
[33] Postal employees could not distinguish which was the original reason for the trip; picking up mail or delivering returned parcels.

delivery equal to zero, the weighted average volume variable test year unit cost of delivery is only 3.3 cents.

5. Postage Due Costs

For the purpose of this cost study, the following elements will be included in the calculation of postage due:

1. The manual sortation of parcels into a container that only contains BPRS parcels.
2. The steps involved in calculating postage due.
3. The steps involved with auditing the postage due calculations of the BPRS recipients.

Since BPRS recipients vary by daily volume and type of postage due, a separate postage due cost was estimated for each BPRS recipient. Attachment W, pages 3 through 10, display these calculations. Next, a weighted average is calculated by weighting the cost of postage due for each mailer by that mailer's weekly volume. This calculation is displayed in Attachment W, page 1. The estimated test year volume variable unit cost of postage due is 4.6 cents.

[34] The truck may pick up mail while it is at the mailer's plant, but would only make the run if there were enough returns to justify a trip.

C. Summary

The summary of the results is shown in the Table VII-3 below. The total estimated test year volume variable unit cost of BPRS is 110.5 cents.

Table VII-3. Summary of Unit Costs

COST COMPONENTS	UNIT COSTS (cents)
Collection	3.2
Mail Processing	57.1
Transportation	42.3
Delivery	3.3
Postage Due	4.6
Total	110.5

VIII. MERCHANDISE RETURN SERVICE

A. Introduction/Background

In her testimony (USPS-T-39), Witness Mayo has proposed the elimination of the Merchandise Return Service (MRS) per-piece fee. This cost analysis gives cost support for that proposal. MRS was introduced in 1979 (Docket No. MC79-4). Originally MRS was a two-part card system. One card was sent though the mail and another card/label was attached to the returned parcel.

To use MRS, an individual had to bring the MRS parcel to the window at a post office. The window clerk would weigh and rate the parcel and write the postage due amount on a MRS card. Then the MRS card, which was similar to a postcard, was mailed to the postage due unit at the destination postal facility. Total postage due was calculated at each respective postage due unit by adding up the amounts written on all the MRS cards for a particular mailer. The second part of MRS was the 'card' or label placed on the parcel. The card was a signal that the parcel was being paid for by the mailer through the postage due unit. Since the postcard was used to calculate postage due and postage due was determined at the window, window service acceptance was required to use this service. The original MRS cost study estimated the cost of acceptance, processing, and delivery of the postcard and the related cost of postage due.

The procedure to use MRS was changed with rate implementation in February 1985 to the one-part card/label system that is used today. To return a parcel to a mailer, the customer simply puts the mailer-supplied MRS label on the parcel and places the parcel into the mailstream. Weighing and rating is performed at the postage due unit in the destination postal facility. Since the parcel does not need to be weighed and rated at the window, window service acceptance is no longer a requirement of MRS.[35]

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[35] For security reasons, parcels over one pound cannot be put into collection boxes. For this reason, individuals may still bring some MRS parcels to the window for acceptance. However, these parcels will only need to be handed to the window clerk, not weighed and rated at the window. In addition, individuals can still avoid going to the post office by leaving the MRS parcel at their mailbox for their carrier to pick up.

In 1986, the MRS cost study was updated to account for the changes in MRS. The new cost study had three components:

1. distribution and separation,
2. weighing and rating, and
3. billing and trust fund accounting.

Since that time, the service has remained relatively unchanged, and therefore so has the cost study methodology. The next section re-analyzes the previous cost methodology used in Docket No. R97-1, which is essentially the methodology used from 1986 to 1997.

B. Previous Cost Study Methodology Re-analyzed

The previous cost study did not explicitly state the benchmark it used. For this reason, it is first necessary to determine the appropriate benchmark. To determine the appropriate benchmark, it is important to ask what service is MRS actually offering. MRS allows a business mailer to pay for postage on a return that has been opened and resealed by one of their customers. Without MRS, an individual would have to take the package to the local post office, go to the window, and pay for the postage before the mail piece could enter the mail stream. Therefore, the appropriate benchmark is a parcel that an individual sends to a business mailer by taking it to the window for weighing and rating.

The previous cost study can now be analyzed using this benchmark. As discussed above, the cost study consisted of three cost components. Each cost component is discussed separately below.

1. Distribution and Separation

To estimate the cost of the first component, distribution and separation, the previous cost study assumed that MRS parcels receive an additional sort. However, when MRS parcels are compared to the appropriate benchmark, it can be shown that this is not an accurate assumption. All parcels destinating at the same mailer will follow the same path until the postage due facility where a clerk may sort each "type" of return

into separate containers. The existence of MRS might add a separation to an already existing sort, but most likely will not add a full sort. In fact, if there were not a separate fee charged for MRS, MRS would not have to be separated from other "non-prepaid" returns such as undeliverable as addressed (UAA) parcels. Therefore, if a separate fee were not charged, MRS would not even cause an additional separation to an existing sort for mailers that also receive other non-prepaid returns.

Even with a separate fee, there are cases where the existence of MRS does not even cause an additional separation to occur. For example, for some mailers the Postal Service uses weight averaging to calculate postage due. For these mailers, each container of parcels is weighed and postage due is calculated using a predetermined weighted-average equation. In these cases, MRS does not need to be separated from the other types of parcels. Therefore, the assumption that MRS parcels receive an additional sort is not valid and the cost of a sort should not be attributed to MRS.

2. Weighing and Rating

The previous MRS cost study assumed that the second cost component, weighing and rating, is included in the original postage. This is a valid assumption. The benchmark parcels are weighed and rated at the window by the window clerk. In contrast, MRS parcels are weighed and rated at the postage due unit by a postage due clerk. There is no reason why this function should be more costly at the postage due unit than at the window. In fact, it makes sense that weighing and rating parcels in bulk is more efficient than weighing and rating parcels at the window by a window clerk who must "meet and greet" each customer.[36]

[36] As mentioned earlier, due to the fact that parcels under one pound cannot be placed in collection boxes, there may still be some instances where individuals bring the MRS parcel to the window for acceptance. However, the MRS parcel only needs to be handed to the window clerk, not weighed and rated. Therefore the MRS parcel is weighed and rated in a more efficient manner than the benchmark parcel.

3. Billing and Trust Fund Accounting

For the third cost component, billing and trust fund accounting, the previous cost study uses Business Reply Mail (BRM) billing and trust fund accounting data as a proxy. The problem with this approach is that this cost component is already included in the postage rate. The Postal Service "bills" individuals at the window. Surely collecting money from each individual at the window is less efficient than billing one company for many parcels. Therefore it is not appropriate to attribute billing and trust fund accounting to MRS.

C. Summary

By comparing costs associated with MRS to the costs associated with the benchmark, it can be shown that there are no additional costs associated with MRS. Therefore, this cost analysis supports eliminating the MRS per-piece fee.

USPS-T-26
Appendix I

Parcel Post Cube-Weight Relationship

Pages 1-4: Description of Cube-Weight Relationship Estimation

I. INTRODUCTION

The purpose of Appendix I of this testimony is to show how the estimated cubic feet per piece by weight increment (cube-weight relationships) are calculated for each rate category of Parcel Post. Using data from USPS LR-I-105, the cubic feet per piece by weight increment for each rate category were estimated using the weighted least squares method of estimation. The econometric methods used to estimate the cube-weight relationships in this docket are identical to those employed by Witness Hatfield in Docket No. R97-1 (USPS-T-16).

II. INPUTS

The only input data necessary to estimate the cube-weight relationship for each rate category are the total cubic feet and total volume by each weight increment for each rate category of Parcel Post. Again, the input data was obtained from USPS LR-I-105. A complete listing of the input data can be found in USPS LR-I-104 on pages 8-13. Using these data, several calculations are made to develop the variables that are used in the estimation. Table 1 describes each of the variables in the input data set and its source:

TABLE 1
CUBE-WEIGHT RELATIONSHIP INPUT VARIABLES

Variable Name	Description	Source
RATECAG	Rate category within Parcel Post.	N/A.
LBS	Weight increment.	N/A.
CF	Total cubic feet in the given weight increment.	All data are from USPS LR-I-105.
PCS	Total volume in the given weight increment.	All data are from USPS LR-I-105
CFPERPC	Cubic feet per piece in the given weight increment.	CF / PCS.
LNLBS	The natural log of the weight increment.	LN(LBS).
LNLBS2	The natural log of the weight increment, squared.	$LN(LBS)^2$.
LNCFPPC	The natural log of cubic feet per piece.	LN(CFPERPC).

All of the above data serve as inputs into the estimation of the cube-weight relationships and are shown on pages 15 and 16 (inter-BMC), pages 21 and 22 (intra-BMC), and pages 27 and 28 (DBMC) of USPS LR-104.

III. ESTIMATION

As discussed by Witness Hatfield in Docket No. R97-1 (USPS-T-16), three separate cube-weight relationships are estimated, one for each rate category of Parcel Post.[1] The model used to estimate each relationship is the same as the model recommended by the Commission in Docket No. R94-1.[2] The model is a translog model with the dependent variable being LNCFPPC and the independent variables being LNLBS and LNLBS2. Thus the model has the form:

$$\ln(cf / pc_i) = a + b[\ln(lbs_i)] + c[\ln(lbs_i)]^2 \qquad (1)$$

[1] For a discussion of why three separate relationships were estimated, see USPS-T-16 at 12-14.
[2] PRC Op., Docket No. R94-1, page V-116.

Where the "*i*" subscript represents the weight increment (2 through 70). Because the dependent variable represents the average cubic feet per piece for a given weight increment, "cf/pc_i" can be written as:

$$cf / pc_i = \frac{\sum_{j=1}^{j=pcs_i} cf_j}{pcs_i} \quad (2)$$

Where "pcs_i" is the total number of pieces in weight increment "*i*", "cf_j" is the number of cubic feet for the "j^{th}" parcel in weight increment "*i*". Therefore, the average cubic feet per piece in weight increment "*i*" is the sum of the cubic feet of all the parcels in weight increment "*i*" divided by the number of pieces in weight increment "*i*".

When estimating a relationship where each observation of the dependent variable represents an average of data (in this case pieces in each weight increment), the proper estimation technique is a form of weighted least squares using volume (pcs_i) as the weighting variable.[3] For example, the average cubic feet per piece for a parcel in the two-pound weight increment is determined by taking the average of millions of parcels. The average cubic feet per piece for a parcel in the 70-pound weight increment is the average of only thousands of parcels; the relative number of pieces from which each average is calculated needs to be accounted for in the model.

Using weighted least squares is relatively straightforward. First, the regression equation must be weighted using the appropriate variable. Then, ordinary least squares (OLS) can be used to estimate the weighted model. In estimating the cube-weight relationship in Parcel Post using weighted least squares, Equation 1 is transformed to the following:

$$\ln\left(cf / pc_i\right)\sqrt{pcs_i} = a\sqrt{pcs_i} + b\left[\ln\left(lbs_i\right)\right]\sqrt{pcs_i} + c\left[\ln\left(lbs_i\right)\right]^2\sqrt{pcs_i} \quad (3)$$

[3] For a discussion of why weighted least squares is appropriate when dealing with pooled data, please see J. Johnston, *Econometric Methods* 293-296 (McGraw-Hill 1984).

The parameter estimates and analysis of variance for the inter-BMC, intra-BMC, and DBMC are shown on pages 17, 23, and 29 of LR-I-104, respectively. The parameter estimates are used in the Parcel Post analysis on pages 1 and 2 of Exhibit K. The statistics associated with the results are summarized in the following table:

	Inter-BMC	Intra-BMC	DBMC
Intercept t-stat	-99.106	-75.395	-44.725
LNLBS t-stat	45.349	32.369	20.775
LNLBS2 t-stat	-14.078	-11.868	-5.474
R-square	.9963	.9913	.9846
Adjusted R-square	.9962	.9910	.9841

In all three relationships, all of the dependent variables, including the intercepts, were significant at the 99 percent level. In addition, in all three relationships, the equation itself is significant at the 99 percent level.

Pages 18-19, 24-25, and 30-31 of USPS LR-I-104 show the results of the inter-BMC, intra-BMC, and DBMC regressions for all observations respectively. Pages 20, 26, and 32 of USPS LR-I-104 show a plot of the actual values of cubic feet per piece by weight increment and the predicted values of cubic feet per piece by weight increment for inter-BMC, intra-BMC and DBMC respectively.

Finally, pages 33-34 of USPS LR-I-104 show a summary of the estimated cubic feet per piece for all three rate categories. The SAS program code and log file that were used to produce the estimates of the cube-weight relationships for each rate category are included in pages 35-41 of USPS LR-I-104. All input data, programs, and output are available on diskette in USPS LR-I-104.

PARCEL POST MAIL PROCESSING COST SUMMARY AND DEVELOPMENT

Table 1: Nonmodel Cost Factor Development

Weighted Avg Model Cost	*1/*	$0.840
Proportional Cost Pools	*2/*	$0.970
CRA Proportional Adjustment	*3/*	1.154
CRA Fixed Adjustment	*4/*	$0.307

Table 2: Total Cost Development

	Model Cost [1]	Proportional Adjustment [2]	Fixed Adjustment [3]	Adjusted Cost [4]
Inter Mach	$1.206	1.154	0.307	$1.698
Inter NMO	$2.757	1.154	0.307	$3.489
Inter NMO > 108"	$10.873	1.154	0.307	$12.854
Intra Mach	$0.922	1.154	0.307	$1.371
Intra NMO	$1.939	1.154	0.307	$2.544
Intra NMO > 108"	$7.609	1.154	0.307	$9.087
DBMC Mach	$0.673	1.154	0.307	$1.084
DBMC NMO	$1.780	1.154	0.307	$2.361
DBMC >108"	$5.558	1.154	0.307	$6.721

Table 3: Unit Cost Difference Summary

		Costs
Intra mach cost savings (compared to Inter mach)	6/	$0.328
Cost Data to support NMO surcharge		
Inter NMO cost difference	5/	$1.790
Intra NMO cost difference	7/	$1.173
DBMC NMO cost difference	8/	$1.277
Cost Data to support NMO >108 rate		
Inter NMO > 108 cost difference	9/	$11.155
Intra NMO > 108 cost difference	11/	$5.637
DBMC NMO > 108 cost difference	10/	$7.716

Sources

Row 1/: Weighted average model costs from Attachment A pages 7 to 15.
Row 2/: Sum of CRA costs in proportional pools, Attachment A page 2 divided by 100 to convert to dollars.
Row 3/: Proportional cost pools divided by weighted averaged modeled costs.
Row 4/: Sum of CRA costs in fixed costs pools, Attachment A, page 2 divided by 100 to convert to dollars.
Row 5/: Total costs of inter NMO [4] minus total costs of inter mach [4].
Row 6/: Total costs of inter mach [4] - total costs of inter mach [4].
Row 7/: Total costs of intra NMO [4] minus total costs of intra mach [4].
Row 8/: Total cost of DBMC NMO [4] minus total cost of DBMC mach [4].
Row 9/: Total cost of inter mach > 108 [4] minus total cost of inter mach [4].
Row 10/: Total cost of intra NMO > 108 [4] minus total cost of intra mach [4].
Row 11/: Total cost of DBMC NMO>108 [4] minus total cost of DBMC mach [4].
Column [1]: Model costs from Attachment A, pages 7 to 15.
Column [2]: Proportional CRA adjustment factor = row (3).
Column [3]: Fixed CRA adjustment factor = row (4).
Column [4]: Total Costs = model costs times proportional adjustment plus fixed adjustment.

PARCEL POST MAIL PROCESSING CRA COST POOLS

From USPS LR-I-81

Cost Pools		Total (Cents)	Proportional (Cents)	Fixed (Cents)
MODS 11	BCS/	0.004		0.004
MODS 11	OCR/	0.007		0.007
MODS 12	FSM/	0.565		0.565
MODS 12	LSM/	0.000		0.000
MODS 13	MECPARC	0.328	0.328	
MODS 13	SPBS OTH	1.618		1.618
MODS 13	SPBSPRIO	0.347		0.347
MODS 13	1SACKS_M	0.916		0.916
MODS 14	MANF	0.138		0.138
MODS 14	MANL	0.254		0.254
MODS 14	MANP	2.398	2.398	
MODS 14	PRIORITY	0.303		0.303
MODS 15	LD15	0.000		0.000
MODS 17	1BULK PR	0.036		0.036
MODS 17	1CANCMPP	0.240		0.240
MODS 17	1OPBULK	1.357		1.357
MODS 17	1OPPREF	2.595		2.595
MODS 17	1PLATFRM	10.853	10.853	
MODS 17	1POUCHNG	2.059		2.059
MODS 17	1SACKS_H	1.938		1.938
MODS 17	1SCAN	0.169		0.169
MODS 18	BUSREPLY	0.245		0.245
MODS 18	EXPRESS	0.011		0.011
MODS 18	MAILGRAM	0.000		
MODS 18	REGISTRY	0.278		0.278
MODS 18	REWRAP	0.231		0.231
MODS 18	1EEQMT	0.178		0.178
MODS 19	INTL	0.841		0.841
MODS 41	LD41	0.011		0.011
MODS 42	LD42	0.000		0.000
MODS 43	LD43	5.411		5.411
MODS 44	LD44	0.335		0.335
MODS 48	LD48 EXP	0.000		0.000
MODS 48	LD48_SSV	0.203		0.203
MODS 49	LD49	0.146		0.146
MODS 79	LD79	0.218	0.218	
MODS 99	1SUPP_F1	0.439		0.439
MODS 99	1SUPP_F4	1.068		1.068
Mods Subtotal		**35.741**	**13.797**	**21.943**
BMCS	NMO	6.682	6.682	
BMCS	OTHR	25.058	25.058	
BMCS	PLA	26.864	26.864	
BMCS	PSM	9.370	9.370	
BMCS	SPB	3.628	3.628	
BMCS	SSM	3.452	3.452	
BMC Subtotal		**75.052**	**75.052**	**0.000**
NON MODS	ALLIED	6.822		6.8217
NON MODS	AUTO/MEC	0.119		0.1188
NON MODS	EXPRESS	0.000		0.0000
NON MODS	MANF	0.199		0.1985
NON MODS	MANL	0.401		0.4006
NON MODS	MANP	8.131	8.1308	
NON MODS	MISC	1.179		1.1789
NON MODS	REGISTRY	0.028		0.0277
Non Mods Subtotal		**16.877**	**8.131**	**8.746**
Total		**127.670**	**96.980**	**30.690**

Productivities, Conversion Factors, and Variabilities for Direct Labor Operations

	Productivities (Units per Wkhr)		Conversion Factors 1/ Machinable	NMO
UNLOADING				
Unload sacked machinable parcels to extended conveyor	187.0	2/	5.1	n/a
Unload machinable parcels to extended conveyor	622.8	2/	1.0	n/a
Unload non-machinable parcels	161.4	2/	n/a	1.0
Unload non-machinable parcels to IHC only (proxy for sacks)	154.1	2/	5.1	1.0
Unload machinable parcels sacked in OTRs	20.8	2/	81.8	n/a
Unload parcels loose in OTRs	20.8	2/	69.0	27.1
Unload Wiretainer/Hamper/APC (Other Wheeled Cont. - OWC)	20.8	2/	29.3	11.5
Unload Pallets	12.3	2/	78.0	26.8
Unload Postal Paks	12.3	2/	95.1	n/a
Unload Pallet Box (of BMC presorted parcels)	12.3	2/	98.5	n/a
Unload Pallets (of BMC presorted NMOs)	12.3	2/	n/a	26.8
DUMPING & SACK HANDLING				
Dump Sacks in OTRs	6.4	2/	81.8	n/a
Dump OTRs (loose)	6.4	2/	69.0	27.1
Dump Other Wheeled Containers (OWC)	6.4	2/	29.3	11.5
Dump Pallets	6.4	2/	78.0	26.8
Dump Postal Paks	6.4	2/	95.1	n/a
Dump Pallet Boxes	6.4	2/	98.5	n/a
Sack shake out	71.8	2/	5.1	n/a
Manually dump sacks at Non-BMC	110.9	3/	5.1	n/a
Sack sorter (PIRS 98)	428.2	4/	5.1	n/a
PARCEL SORTING MACHINE DISTRIBUTION				
Primary Rate	874.0	4/		
Secondary Rate	1296.6	4/	1.0	n/a
100 percent Key Rate	806.0	5/	1.0	n/a
NONMACHINABLE OUTSIDES DISTRIBUTION				
NMO Distribution	98.6	4/	n/a	1.0
NMO Distribution at SCFs	433.0	6/	n/a	1.0
OTHER OPERATIONS				
Tend container loader/sweep runouts (Origin BMC - Postal Pak)	5.4	2/	95.1	n/a
Tend container loader/sweep runouts (Destinating BMC - OTR)	5.4	2/	69.0	n/a
Crossdock BMC Presorted Pallets	7.0	2/	n/a	26.8
Crossdock BMC Presorted Pallet Boxes	7.0	2/	98.5	n/a
Crossdock IHCs w/5-d sacks or NMOs	7.0	2/	74.8	21.8
Sack and Tie	124.5	2/	1.0	n/a
LOADING				
Bedload NMOs to van from IHCs (proxy for machinables)	176.6	2/	1.0	1.0
Bedload Sacked Machinables	182.5	2/	5.1	n/a
Load loose parcels in OTRs to van	10.4	2/	69.0	27.1
Load sacked machinables in OTRs to van	10.4	2/	81.8	n/a
Load Other Wheeled Containers (OWC) to van	10.4	2/	29.3	11.5
Load pallets to van	13.4	2/	78.0	26.8
Load Postal Paks to van	13.4	2/	95.1	n/a
Load Pallet Box to van	13.4	2/	98.5	n/a
Variabillties				
BMC Platform	0.946	7/		
BMC Other	0.987	7/		
PSM	1.000	7/		
SSM	1.000	7/		
SSB	1.000	7/		
NMO Distribution at BMCs	1.000	7/		
Platform Non-BMC	0.896	7/		
NMO Distribution at Non-BMCs	0.522	7/		

Sources

1/: Attachment A, page 6, conversion factors.
2/: Docket No. R97-1 USPS-T-29, Appendix V, page 15.
3/: Proxy based on Planning Guidelines (PGLs).
4/: National Database, PIRS, FY98.
5/: National Database, PIRS FY93, (pure keying, no prebarcode).
6/: LR-I-107, MODS, Operation 200.
7/: USPS-T-17, Table 1, variabilities.

Arrival and Dispatch Profiles

	Arrival and Dispatch Percentages	
Mail Flow Arrival Profile at Originating BMCs		
Machinable Parcels Arriving in Bedloaded Sacks at BMC	4.3%	1/
Machinable Parcels Arriving Bedloaded at BMC	7.0%	1/
Machinable Parcels Arriving sacked in OTRs at BMC	11.5%	1/
Machinable Parcels Arriving loose in OTRs at BMC	51.1%	1/
Machinable Parcels Arriving Palletized at BMC	1.6%	1/
Machinable Parcels Arriving in Pallet Boxes at BMC	0.9%	1/
Machinable Parcels Arriving in Hampers/APC/OWC (OWC) at BMC	23.6%	1/
Non-Machinable Parcels Arriving Bedloaded at BMC	4.0%	1/
Non-Machinable Parcels Arriving Palletized at BMC	1.3%	1/
Non-Machinable Parcels Arriving in OTR Containers at BMC	72.5%	1/
Non-Machinable Parcels Arriving in Hampers/APC/OWC (OWC) at BMC	22.2%	1/
Mail Flow Arrival Profile from Origin BMCs to Destination BMCs		
Machinable Parcels Arriving in Postal Paks at Destination BMC (from Origin BMC)	100.0%	2/
NMOs Arriving Palletized at Destination BMC (from Origin BMC)	100.0%	2/
Mail Flow Arrival at Destinating BMCs for DBMC parcels		
Machinable Parcel Arriving Bedloaded at DBMC	96.2%	3/
Machinable Parcels Arriving on Pallets at DBMC	0.3%	3/
Machinable Parcels Arriving in OTRs at BMC	0.8%	3/
Machinable Parcels Arriving in Gaylords at DBMC	2.6%	3/
Machinable Parcels arriving in OWC at DBMC	0.1%	3/
Non-Machinable Parcels Arriving Bedloaded at DBMCs	98.5%	3/
Non-Machinable Parcels Arriving in Pallet Boxes at DBMC	0.7%	3/
Non-Machinable Parcels Arriving on Pallets at DBMC	0.8%	3/
Mail Flow Dispatch Profiles From BMCs to Service Area		
Machinable Parcels Dispatched in Bedloaded Sacks to Service Area	23.8%	4/
Machinable Parcels Dispatched loose in OTRs to Service Area	60.3%	4/
Machinable Parcels Dispatched sacked in OTRs to Service Area	2.9%	4/
Machinable Parcels Dispatched in Hampers/APC/OWC (OWC) to Service Area	13.0%	4/
Non-Machinable Parcels Dispatched Bedloaded to Service Area	12.9%	5/
Non-Machinable Parcels Dispatched on Pallets to Service Area	31.0%	5/
Non-Machinable Parcels Dispatched in OTRs to Service Area	53.6%	5/
Non-Machinable Parcels Dispatched in Hampers/APC/OWC (OWC) to Service Area	2.5%	5/
Mail Flow Dispatch Profiles to Delivery Unit		
Machinable Parcels Dispatched in Bedloaded Sacks ot Delivery Unit	26.7%	6/
Machinable Parcels Dispatched loose in OTRs to Service Area to Delivery Unit	60.3%	6/
Machinable Parcels Dispatched in OWC to Delivery Unit	13.0%	6/
Non-Machinable Parcels Dispatched Bedloaded to Delivery Unit	26.7%	7/
Non-Machinable Parcels Dispatched in OTRs to Delivery Unit	60.3%	7/
Non-Machinable Parcels Dispatched in Hampers/APC/OWC (OWC) to Delivery Unit	13.0%	7/

Sources

1/: Docket No. R97-1 USPS LR-H-131, Table 1. Assume 61.6 of bedloaded is loose and 38.4 is sacked.
Assume 81.6 percent of mail in OTRs is loose and 18.4 percent is sacked (Docket No. R97-1, LR-H-132, page 277).

2/: Assumptions that 100 percent of parcels going from BMC to BMC will be in Postal Paks.

3/: Unload Profile and # of handlings are from Docket No. R97-1 USPS-LR-H-131, Table 2.

4/: Docket No. R97-1 USPS LR-H-132, Attachment 1, page 274.

5/: Docket No. R97-1 USPS LR-H-132, Attachment 3, page 278.

6/: Assume same as dispatch profile as BMC, but sacks in OTRs get bedloaded.

7/: Use Dispatch profile of machinables as a proxy, use bedloaded sacks for bedloaded NMOs.

Other Inputs

Wage Rate with Premium Pay Factor Applied	$27.199	1/
Premium Pay Factor	0.963	2/
TY Other mail processing wage rate	$28.244	3/
Mail Processing Operation Specific Piggyback Factors		
Parcel Sorting Machine	1.782	4/
NMO Sorting at BMC	1.532	4/
NMO Sorting at SCF	1.504	4/
Other Operations at BMCs	1.602	4/
Sack Sorting Machine - BMC	1.935	4/
Platform Non-BMC	1.651	4/
Platform BMC	1.744	4/
Mail Flow Operating Assumptions		
Percent with direct transportation to destinating delivery unit from BMC	12.3%	5/
Percent Sorted to 5-Digits by Primary Parcel Sorting Machine	20.2%	6/
Destinating BMCs will feed barcoded destinating mail unfiltered to secondary	21.7%	7/
Probability that mail fed directly to nonspecific secondary will receive more than one sort	50.0%	8/
Probability that Mail sent to secondary will go to Scheme 2	50.0%	8/
Probability that barcode on secondary will not be readable	3.0%	9/
Proportion of parcel singulators (SSIU) being at secondary	6.0%	10/
Proportion sent from secondary to primary due to SSIU	0.2%	11/
Probability of Inter-BMC parcel going to primary psm at destination BMC	82.8%	12/
Probability of Inter-BMC parcel being handled by keyer on secondary psm at destination BMC	89.3%	13/
Probability of Intra-BMC and DBMC parcels going to primary psm	100.1%	14/
Probability of Intra-BMC and DBMC parcels being handled by a keyer on the secondary psm	79.7%	15/
Probability that NMOs will NOT be inducted on the conveyor system (not used for NMOs over 108)	38.9%	16/
Probability that NMOs will be NOT be moved using towveyor (not used for pallets)	29.7%	16/
Probability that oversize NMOS will NOT be inducted on the conveyor system	100.0%	17/

Sources

1/: (2) * (3).
2/: USPS-T-21, Attachment 15, premium pay factor.
3/: LR-I-106, other mail processing wage rate.
4/: USPS-T-21, Attachment 14, TY cost pool piggyback factors.
5/: USPS LR-PCR-40, page 64.
6/: USPS-T-26, Attachment Y, page 1, [10].
7/: USPS-T-26, Attachment Y, page 1, [9].
8/: Assumption that mail going to secondary PSM will be evenly split between scheme 1 and scheme 2.
9/: Assumption used by Operations
10/: Assumption used by Operations.
11/: (9) * (10).
12/: Percent of parcels not sent directly to secondary [1 - row (7)]
plus percent of parcels sent unfiltered to secondary that will be resent to primary due to unreadable barcodes [row (7) * row (11)]
plus percent of parcels sent from primary to secondary that will be resent to primary due to unreadable barcodes [1 - row (6)] * [1 - row (7)]*[row (11)].
plus percent of parcels sent unfiltered to secondary with readable barcodes that are sorted to 5-digits on primary [1-row (11)]*[row (7)*row (6)].
13/: Percent of parcels sent directly to secondary [row (7)]
plus percent of parcels sent from primary to secondary [1 - row (7)] * [1 - row (6)]
plus percent of parcels sent unfiltered that will receive an additional sort [row (7) * row (8)].
All of this multiplied the probability the mail will NOT be run on a SSIU [1 - row (10)].
14/: 1 plus the percent of parcels sent back from the secondary for keying [1+ [1- row (6)] * row (11)]].
15/: The number of parcels sent from the primary to the secondary that will not be handled by a parcel singulator [1 row (6)] * [1 - row (11)].
16/: Attachment Y, page 1.
17/: Assumption, oversize parcels will not be run on conveyor.

Conversion Factor Calculations

Container Type	[1] Outside Dim. Per Container (Inches)	[2] Inside Dim. Per Container (Inches)	[3] Cubic Feet Per Container	[4] Effective Parcel Capacity (# of Parcels)	[5] Capacity at Average Fullness (# of Parcels)	[6] Average % FULL
Machinable						
Pallet	48x40x48	48x40x48	53.3	91.8	78.0	85%
Postal Pak	48x40x69	46.5x38.5x69	71.5	111.9	95.1	85%
Pallet Box	48x40x69	46.5x38.5x69	71.5	111.9	98.5	88%
Sacks on In-house Container	65x41.5x36	65x41.5x36	56.2	88.0	74.8	85%
NMOs						
Pallet	48x40x48	48x40x48	53.3	26.8	26.8	100%
Presorted Pallet	48x40x48	48x40x48	53.3	26.8	26.8	100%
In-house Container	65x41.5x36	65x41.5x36	56.2	25.7	21.8	85%
Pallet Box	48x40x69	46.5x38.5x69	71.5	32.6	27.7	85%
Oversize NMOs						
108"-130" on Pallet	48x40x48	48x40x48	53.3	4.9	4.9	100%
108"-130" in IHC	65x41.5x36	65x41.5x36	56.2	4.7	4.7	100%

Pieces Per Container	[7] Machinable R84-1 FY82	[8] Machinable R01-1 FY98	[9] Nonmachinable R84-1 FY82	[10] Nonmachinable R01-1 FY98	[11] 108"-130" R01-1 FY98
Sack	7.92	5.1	n/a	n/a	n/a
Sack in OTR	126.7	81.8	n/a	n/a	n/a
OTR	106.9	69.0	42.0	27.1	5.0
APC	55.2	35.7	21.7	14.0	2.6
Hamper	35.6	23.0	14.0	9.0	1.7

	[12] Cubic Feet Per Parcel Post: Machinable	[13] Cubic Feet Per Parcel Post: NMO	[14] Cubic Feet Per Parcel Post: CRA	[15] Cubic Feet Per Parcel Post: 108"-130"	[16] No. of Sacks on IHC	[17] No. of Sacks on Postal Pak
FY98	0.581	1.992	0.833	10.84	14.61	18.59
FY82			0.538			

Sources

Column [1]: Container Methods, Handbook PO-502 (September 1992), USPS LR-H-133.
Column [2]: Container Methods, Handbook PO-502 (September 1992), USPS LR-H-133.
Column [3]: (Length * width * height) / (12*12*12).
Column [4]: (Column [3]) / ((column [13]) * air factor), to account for "effective cube" and (column [3]) / ((column [14]) * air factor) and (column [3]) / ((column [16]) * air factor).
Air factor =1 for pallets, and 1.1 for all else.
Column [5]: Effective cubic capacity (column [4]) * average % fullness (column [6]).
Column [6]: Pallets, postal paks and IHCs should be as full as practicable before dispatch so it is reasonable to assume these containers will be at least 85% full.
The majority of pallet boxes come from mailers who must have 75 percent full boxes, and tend to fill them to maximize capacity.
Therefore 88 percent, the average of 75 and 100 percent was used.
Column [7]: Docket No. R84-1, Exhibit USPS-14I.
Column [8]: Pieces per container in Docket No. R84-1 (column [7]) * FY82 cubic feet per piece (column [14]) / FY98 cubic feet per piece (column [14]).
Column [9]: Docket No. R84-1, Exhibit USPS-14I.
Column [10]: Pieces per container in Docket No. R84-1 (column [9]) * FY82 cubic feet per piece (column [14]) / FY98 cubic feet per piece (column [14]).
Column [11]: Column [10] * column [13] / column [15].
Column [12]: LR-I-105, Attachment E, FY98 machinable cubic feet/ machinable pieces.
Column [13]: LR-I-105, Attachment E, FY98 NMO cubic feet / NMO pieces.
Column [14]: FY82 CRA, cubic feet / pieces . FY98 CRA, cubic feet / pieces.
Column [15]: LR-I-105, Attachment H.
Column [16]: No. of parcels on IHC (column 5) divided by no. of parcels in a sack (column 8).
Column [17]: No of parcels on a parcel (column5) divided by no. of parcels in a sack (column 8).

Machinable Nonpresort Inter-BMC Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.1404**
Unload Containers[1]	1.0000				0.0470	0.0470
Bedload Sacks	0.0434	182.5	5.1	1.65	0.0481	0.0021
Bedload loose	0.0696	176.6	1	1.65	0.2542	0.0177
Load Sacks in OTRs	0.1152	10.4	81.8	1.65	0.0527	0.0061
Load Loose in OTRs	0.5108	10.4	69.0	1.65	0.0625	0.0319
Load Pallets	0.0160	13.4	78.0	1.65	0.0430	0.0007
Load Pallet Boxes	0.0090	13.4	98.5	1.65	0.0341	0.0003
Load OWCs	0.2360	10.4	29.3	1.65	0.1471	0.0347
Origin BMC						**0.3639**
Unload Bedload Sack	0.0434	187.0	5.1	1.74	0.0496	0.0022
Unload Bedload Loose	0.0696	622.8	1.0	1.74	0.0762	0.0053
Unload Sacks in OTR	0.1152	20.8	81.8	1.74	0.0278	0.0032
Unload loose in OTR	0.5108	20.8	69.0	1.74	0.0330	0.0168
Unload Pallet	0.0160	12.3	78.0	1.74	0.0495	0.0008
Unload Pallet Box	0.0090	12.3	98.5	1.74	0.0393	0.0004
Unload Other Wheeled Cont.	0.2360	20.8	29.3	1.74	0.0777	0.0183
Dump OTR of sacks	0.1152	6.4	81.8	1.60	0.0830	0.0096
Dump OTR of loose	0.5108	6.4	69.0	1.60	0.0984	0.0503
Dump Pallet	0.0160	6.4	78.0	1.60	0.0871	0.0014
Dump Pallet Box	0.0090	6.4	98.5	1.60	0.0690	0.0006
Dump Other Wheeled Cont.	0.2360	6.4	29.3	1.60	0.2317	0.0547
Sack Sorter	0.1586	428.2	5.1	1.94	0.0240	0.0038
Sack shakeout	0.1586	71.8	5.1	1.60	0.1186	0.0188
Primary PSM	1.0000	874.0	1.0	1.78	0.0555	0.0555
Sweep Runouts P.Pak	1.0000	5.4	95.1	1.60	0.0851	0.0851
Load Postal Pak	1.0000	13.4	95.1	1.74	0.0372	0.0372
Destination BMC						**0.4446**
Unload Postal Pak	1.0000	12.3	95.1	1.74	0.0407	0.0407
Dump Postal Pak	1.0000	6.4	95.1	1.60	0.0714	0.0714
Primary PSM	0.8285	874.0	1.0	1.78	0.0555	0.0459
Secondary PSM	0.8933	1296.6	1.0	1.78	0.0374	0.0334
Sweep Runouts OTR	0.7327	5.4	69.0	1.60	0.1172	0.0859
Sack and Tie	0.2673	124.5	1.0	1.60	0.3500	0.0935
Bedload Sacks	0.2384	182.5	5.1	1.74	0.0508	0.0121
Load OTRs w/ sacks	0.0289	10.4	81.8	1.74	0.0557	0.0016
Load OTRs w/ loose	0.6025	10.4	69.0	1.74	0.0660	0.0398
Load Hampers/OWC	0.1302	10.4	29.3	1.74	0.1554	0.0202
Destination SCF						**0.1920**
Unload Bedload Sacks	0.2091	154.1	5.1	1.65	0.0570	0.0119
Unload Sacks in OTR	0.0253	20.8	81.8	1.65	0.0263	0.0007
Unload loose in OTR	0.5284	20.8	69.0	1.65	0.0312	0.0165
Unload OWC	0.1142	20.8	29.3	1.65	0.0735	0.0084
Crossdock IHC (Bedload Sack:	0.2091	7.0	74.8	1.65	0.0853	0.0178
Crossdock Sacks in OTR	0.0253	7.0	81.8	1.65	0.0780	0.0020
Crossdock loose in OTR	0.5284	7.0	69.0	1.65	0.0924	0.0488
Crossdock OWC	0.1142	7.0	29.3	1.65	0.2176	0.0248
Bedload Sacks	0.2344	182.5	5.1	1.65	0.0481	0.0113
Load OTRs w/ loose	0.5284	10.4	69.0	1.65	0.0625	0.0330
Load Hampers/OWC	0.1142	10.4	29.3	1.65	0.1471	0.0168
Destination Delivery Unit						**0.0648**
Unload Bedload Sacks	0.2673	154.1	5.1	1.65	0.0570	0.0152
Unload loose in OTR	0.6025	20.8	69.0	1.65	0.0312	0.0188
Unload OWC	0.1302	20.8	29.3	1.65	0.0735	0.0096
Dump Sacks	0.2673	110.9	5.1	1.65	0.0791	0.0212
Total # of Sorts	2.7218			**Model Cost**		**$1.2058**
				Model Weight[2]		**12.0%**
				Wtd Modeled Cost		**$0.1450**

Sources

Column [1]: Attachment A, page 4, arrival and dispatch profiles.
Column [2]: Attachment A, page 3, units per workhour.
Column [3]: Attachment A, page 3, conversion factors.
Column [4]: Attachment A, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * column [3]).
Column [6]: (column [1] * column [5]).

[1] Unload Containers cost at OSCF uses the average cost of unloading containers at origin BMC as proxy.
[2] Weights calculated from test-year-before-rate volumes USPS-T-6.
Proportion of Mach vs. NMO calculated from LR-I-105, Attachment E.

Nonmachinable Nonpresort Inter-BMC Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.3285**
Unload Containers[1]	1.0000				0.1183	0.1183
Bedload NMOs	0.0400	176.6	1.0	1.65	0.2542	0.0102
Load NMOs in OTRs	0.7250	10.4	27.1	1.65	0.1590	0.1153
Load NMOs in OWCs	0.2220	10.4	11.5	1.65	0.3741	0.0831
Load NMOs on Pallets	0.0130	13.4	26.8	1.65	0.1252	0.0016
Origin BMC						**0.8469**
Unload Bedloaded NMOs	0.0400	161.4	1.0	1.74	0.2940	0.0118
Unload NMOs in OTRs	0.7250	20.8	27.1	1.74	0.0839	0.0609
Unload NMOs in OWC	0.2220	20.8	11.5	1.74	0.1975	0.0438
Unload NMOs on Pallets	0.0130	12.3	26.8	1.74	0.1444	0.0019
Move IHCs (from bedload)	0.0156	14.1	21.8	1.60	0.1420	0.0022
Move OTRs	0.2824	14.1	27.1	1.60	0.1141	0.0322
Move OWC	0.0865	14.1	11.5	1.60	0.2685	0.0232
Move Pallets	0.0051	14.1	26.8	1.60	0.1156	0.0006
O. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4225	0.4225
Move Pallets	1.0000	14.1	26.8	1.60	0.1156	0.1156
Load NMOs on Pallets	1.0000	13.4	26.8	1.74	0.1323	0.1323
Destination BMC						**0.8072**
Unload NMOs on Pallets	1.0000	12.3	26.8	1.74	0.1444	0.1444
Move Pallets	0.3895	14.1	26.8	1.60	0.1156	0.0450
D. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4225	0.4225
Move IHCs	0.0384	14.1	4.7	1.60	0.0232	0.0009
Move OTRs	0.1595	14.1	27.1	1.60	0.1185	0.0189
Move Pallets	0.3098	14.1	26.8	1.60	0.0000	0.0000
Move OWC	0.0074	14.1	11.5	1.60	0.0000	0.0000
Bedload from IHC	0.1291	176.6	1.0	1.74	0.2685	0.0347
Load NMOs in OTRs	0.5363	10.4	27.1	1.74	0.1680	0.0901
Load NMOs on Pallet	0.3098	13.4	26.8	1.74	0.1323	0.0410
Load NMOs in OWC	0.0248	10.4	11.5	1.74	0.3952	0.0098
Destination SCF						**0.6248**
Unload Bedload to IHC	0.1061	154.1	1.0	1.65	0.2914	0.0309
Unload OTRs	0.4407	20.8	27.1	1.65	0.0795	0.0350
Unload Pallet	0.3098	12.3	26.8	1.65	0.1367	0.0423
Unload OWC	0.0204	20.8	11.5	1.65	0.1870	0.0038
Move IHC	0.1061	14.1	21.8	1.65	0.1463	0.0155
Move OTRs	0.4407	14.1	27.1	1.65	0.1176	0.0518
Move Pallet	0.3098	14.1	26.8	1.65	0.1191	0.0369
Move OWC	0.0204	14.1	11.5	1.65	0.2767	0.0056
Manual Sort	0.8770	433.0	1.0	1.50	0.0945	0.0829
Move IHC	0.2443	14.1	21.8	1.65	0.1463	0.0357
Move OTRs	0.5069	14.1	27.1	1.65	0.1176	0.0596
Move OWC	0.1258	14.1	11.5	1.65	0.2767	0.0348
Bedload NMOs	0.2443	176.6	1.0	1.65	0.2542	0.0621
Load OTRs w/ loose	0.5069	10.4	27.1	1.65	0.1590	0.0806
Load Hampers/OWC	0.1258	10.4	11.5	1.65	0.3741	0.0471
Destination Delivery Unit						**0.1501**
Unload Bedload NMOs	0.2673	154.1	1.0	1.65	0.2914	0.0779
Unload loose in OTR	0.6025	20.8	27.1	1.65	0.0795	0.0479
Unload OWC	0.1302	20.8	11.5	1.65	0.1870	0.0243
Total # of Sorts	2.0000					

Model Cost	**$2.7575**
Model Weight[2]	**1.6%**
Wtd Modeled Cost	**$0.0446**

Sources

Column [1]: Attachment A, page 4, arrival and dispatch profiles.
Column [2]: Attachment A, page 3, units per workhour.
Column [3]: Attachment A, page 3, conversion factors.
Column [4]: Attachment A, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * column [3]).
Column [6]: (column [1] * column [5]).

[1] Unload Containers cost at OSCF uses the average cost of unloading containers at origin BMC as proxy.
[2] Weights calculated from test-year-before-rate volumes USPS-T-6.
Proportion of Mach vs. NMO calculated from LR-I-105, Attachment E.

Nonmachinable Nonpresort Inter-BMC Cost Development

Length plus Girth Between 108" and 130"

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**1.6905**
Unload Containers[1]	1.0000				0.5923	0.5923
Bedload NMOs	0.0400	176.6	1.0	1.65	0.2542	0.0102
Load NMOs in OTRs	0.7250	10.4	5.0	1.65	0.8652	0.6273
Load NMOs in OWCs	0.2220	10.4	2.1	1.65	2.0358	0.4519
Load NMOs on Pallets	0.0130	13.4	4.9	1.65	0.6813	0.0089
Origin BMC						**3.1723**
Unload Bedloaded to IHC	0.0400	154.1	1.0	1.74	0.3078	0.0123
Unload NMOs in OTRs	0.7250	20.8	5.0	1.74	0.4568	0.3312
Unload NMOs in OWC	0.2220	20.8	2.1	1.74	1.0747	0.2386
Unload NMOs on Pallets	0.0130	12.3	4.9	1.74	0.7857	0.0102
Move IHC	0.0400	14.1	4.7	1.60	0.6566	0.0263
Move OTR	0.7250	14.1	5.0	1.60	0.6209	0.4501
Move OWC	0.2220	14.1	2.1	1.60	1.4608	0.3243
Move Pallets	0.0130	14.1	4.9	1.60	0.6290	0.0082
O. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4225	0.4225
Move Pallets	1.0000	14.1	4.9	1.60	0.6290	0.6290
Load NMOs on Pallets	1.0000	13.4	4.9	1.74	0.7197	0.7197
Destination BMC						**2.9956**
Unload NMOs on Pallets	1.0000	12.3	4.9	1.74	0.7857	0.7857
Move Pallets	1.0000	14.1	4.9	1.60	0.6290	0.6290
D. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4225	0.4225
Move IHC	0.0384	14.1	4.7	1.60	0.6566	0.0252
Move OTR	0.1595	14.1	5.0	1.94	0.7499	0.1196
Move Pallets	0.3098	14.1	4.9	1.65	0.6482	0.2008
Move OWC	0.0074	14.1	2.1	1.74	1.5903	0.0117
Bedload from IHC	0.1291	176.6	1.0	1.74	0.2685	0.0347
Load NMOs in OTRs	0.5363	10.4	5.0	1.74	0.9139	0.4901
Load NMOs on Pallet	0.3098	13.4	4.9	1.74	0.7197	0.2230
Load NMOs in OWC	0.0248	10.4	2.1	1.74	2.1505	0.0533
Destination SCF						**2.5440**
Unload Bedload to IHC	0.1061	154.1	1.0	1.65	0.2914	0.0309
Unload OTRs	0.4407	20.8	5.0	1.65	0.4324	0.1906
Unload Pallet	0.3098	12.3	4.9	1.65	0.7438	0.2304
Unload OWC	0.0151	20.8	2.1	1.65	1.0174	0.0154
Move IHC	0.1061	14.1	4.7	1.65	0.6767	0.0718
Move OTRs	0.4407	14.1	5.0	1.65	0.6398	0.2820
Move Pallet	0.3098	14.1	4.9	1.65	0.6482	0.2008
Move OWC	0.0151	14.1	2.1	1.65	1.5055	0.0227
Manual Sort	0.8717	433.0	1.0	1.50	0.0945	0.0824
Move IHC	0.2443	14.1	4.7	1.65	0.6767	0.1653
Move OTRs	0.5069	14.1	5.0	1.65	0.6398	0.3244
Move OWC	0.1205	14.1	2.1	1.65	1.5055	0.1814
Bedload NMOs	0.2443	176.6	1.0	1.65	0.2542	0.0621
Load OTRs w/ loose	0.5069	10.4	5.0	1.65	0.8652	0.4386
Load Hampers/OWC	0.1205	10.4	2.1	1.65	2.0358	0.2453
Destination Delivery Unit						**0.4709**
Unload Bedload NMOs	0.2673	154.1	1.0	1.65	0.2914	0.0779
Unload loose in OTR	0.6025	20.8	5.0	1.65	0.4324	0.2605
Unload OWC	0.1302	20.8	2.1	1.65	1.0174	0.1325
Total # of Sorts	2.0000			**Model Cost**		**$10.8733**

Sources

Column [1]: Attachment A, page 4, arrival and dispatch profiles.
Column [2]: Attachment A, page 3, units per workhour.
Column [3]: Attachment A, page 3, conversion factors.
Column [4]: Attachment A, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * column [3]).
Column [6]: (column [1] * column [5]).

[1]Unload Containers cost at OSCF uses the average cost of unloading containers at origin BMC as proxy.

Machinable Nonpresort Intra-BMC Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.1404**
Unload Containers[1]	1.0000				0.0470	0.0470
Bedload Sacks	0.0434	182.5	5.1	1.65	0.0481	0.0021
Bedload loose	0.0696	176.6	1	1.65	0.2542	0.0177
Load Sacks in OTRs	0.1152	10.4	81.8	1.65	0.0527	0.0061
Load Loose in OTRs	0.5108	10.4	69.0	1.65	0.0625	0.0319
Load Pallets	0.0160	13.4	78.0	1.65	0.0430	0.0007
Load Pallet Boxes	0.0090	13.4	98.5	1.65	0.0341	0.0003
Load OWCs	0.2360	10.4	29.3	1.65	0.1471	0.0347
Destination BMC						**0.5246**
Unload Bedload Sack	0.0434	187.0	5.1	1.74	0.0496	0.0022
Unload Bedload Loose	0.0696	622.8	1.0	1.74	0.0762	0.0053
Unload Sacks in OTR	0.1152	20.8	81.8	1.74	0.0278	0.0032
Unload loose in OTR	0.5108	20.8	69.0	1.74	0.0330	0.0168
Unload Pallet	0.0160	12.3	78.0	1.74	0.0495	0.0008
Unload Pallet Boxes	0.0090	12.3	98.5	1.74	0.0393	0.0004
Unload Other Wheeled Cont.	0.2360	20.8	29.3	1.74	0.0777	0.0183
Dump OTR of sacks	0.1152	6.4	81.8	1.60	0.0830	0.0096
Dump OTR of loose	0.5108	6.4	69.0	1.60	0.0984	0.0503
Dump Pallet	0.0160	6.4	78.0	1.60	0.0871	0.0014
Dump Pallet Boxes	0.0090	6.4	98.5	1.60	0.0690	0.0006
Dump Other Wheeled Cont.	0.2360	6.4	29.3	1.60	0.2317	0.0547
Sack Sorter	0.1586	428.2	5.1	1.94	0.0240	0.0038
Sack shakeout	0.1586	71.8	5.1	1.60	0.1186	0.0188
O. Primary (scan)	1.0014	874.0	1.0	1.78	0.0555	0.0555
Secondary (scan)	0.7969	1296.6	1.0	1.78	0.0374	0.0298
Sweep Runouts OTR	0.7327	5.4	69.0	1.60	0.1172	0.0859
Sack and Tie	0.2673	124.5	1.0	1.60	0.3500	0.0935
Bedload Sacks	0.2384	182.5	5.1	1.74	0.0508	0.0121
Load OTRs w/ sacks	0.0289	10.4	81.8	1.74	0.0557	0.0016
Load OTRs w/ loose	0.6025	10.4	69.0	1.74	0.0660	0.0398
Load Hampers/OWC	0.1302	10.4	29.3	1.74	0.1554	0.0202
Destination SCF						**0.1920**
Unload Bedload Sacks	0.2091	154.1	5.1	1.65	0.0570	0.0119
Unload Sacks in OTR	0.0253	20.8	81.8	1.65	0.0263	0.0007
Unload loose in OTR	0.5284	20.8	69.0	1.65	0.0312	0.0165
Unload OWC	0.1142	20.8	29.3	1.65	0.0735	0.0084
Crossdock IHC (Bedload Sack	0.2091	7.0	74.8	1.65	0.0853	0.0178
Crossdock Sacks in OTR	0.0253	7.0	81.8	1.65	0.0780	0.0020
Crossdock loose in OTR	0.5284	7.0	69.0	1.65	0.0924	0.0488
Crossdock OWC	0.1142	7.0	29.3	1.65	0.2176	0.0248
Bedload Sacks	0.2344	182.5	5.1	1.65	0.0481	0.0113
Load OTRs w/ loose	0.5284	10.4	69.0	1.65	0.0625	0.0330
Load Hampers/OWC	0.1142	10.4	29.3	1.65	0.1471	0.0168
Destination Delivery Unit						**0.0648**
Unload Bedload Sacks	0.2673	154.1	5.1	1.65	0.0570	0.0152
Unload loose in OTR	0.6025	20.8	69.0	1.65	0.0312	0.0188
Unload OWC	0.1302	20.8	29.3	1.65	0.0735	0.0096
Dump Sacks	0.2673	110.9	5.1	1.65	0.0791	0.0212
Total # of Sorts	1.7984					

Model Cost	**$0.9218**
Model Weight[2]	**7.0%**
Wtd Modeled Cost	**$0.0646**

Sources

Column [1]: Attachment A, page 4, arrival and dispatch profiles.
Column [2]: Attachment A, page 3, units per workhour.
Column [3]: Attachment A, page 3, conversion factors.
Column [4]: Attachment A, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * column [3]).
Column [6]: (column [1] * column [5]).

[1] Unload Containers cost at OSCF uses the average cost of unloading containers at origin BMC as proxy.
[2] Weights calculated from test-year-before-rate volumes USPS-T-6.
Proportion of Mach vs. NMO calculated from LR-I-105, Attachment E.

Nonmachinable Nonpresort Intra-BMC Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.3285**
Unload Containers[1]	1.0000				0.1183	0.1183
Bedload NMOs	0.0400	176.6	1.0	1.65	0.2542	0.0102
Load NMOs in OTRs	0.7250	10.4	27.1	1.65	0.1590	0.1153
Load NMOs in OWCs	0.2220	10.4	11.5	1.65	0.3741	0.0831
Load NMOs on Pallets	0.0130	13.4	26.8	1.65	0.1252	0.0016
Destination BMC						**0.8352**
Unload Bedloaded NMOs	0.0400	161.4	1.0	1.74	0.2940	0.0118
Unload NMOs in OTRs	0.7250	20.8	27.1	1.74	0.0839	0.0609
Unload NMOs in OWC	0.2220	20.8	11.5	1.74	0.1975	0.0438
Unload NMOs on Pallets	0.0130	12.3	26.8	1.74	0.1444	0.0019
Move IHCs (from bedload)	0.0156	14.1	21.8	1.60	0.1420	0.0022
Move OTRs	0.2824	14.1	27.1	1.60	0.1141	0.0322
Move OWC	0.0865	14.1	11.5	1.60	0.2685	0.0232
Move Pallets	0.0051	14.1	26.8	1.60	0.1156	0.0006
D. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4225	0.4225
Move IHCs	0.0384	14.1	25.65	1.60	0.1207	0.0046
Move OTRs	0.1595	14.1	27.1	1.60	0.1141	0.0182
Move OWC	0.0074	14.1	11.5	1.60	0.2685	0.0020
Move Pallets	0.3098	14.1	26.8	1.60	0.1156	0.0358
Bedload from IHC	0.1291	176.6	1.0	1.74	0.2685	0.0347
Load NMOs in OTRs	0.5363	10.4	27.1	1.74	0.1680	0.0901
Load NMOs in OWC	0.0248	10.4	11.5	1.74	0.3952	0.0098
Load NMOs on Pallet	0.3098	13.4	26.8	1.74	0.1323	0.0410
Destination SCF						**0.6248**
Unload Bedload to IHC	0.1061	154.1	1.0	1.65	0.2914	0.0309
Unload OTRs	0.4407	20.8	27.1	1.65	0.0795	0.0350
Unload OWC	0.0204	20.8	11.5	1.65	0.1870	0.0038
Unload Pallet	0.3098	12.3	26.8	1.65	0.1367	0.0423
Move IHC	0.1061	14.1	21.8	1.65	0.1463	0.0155
Move OTRs	0.4407	14.1	27.1	1.65	0.1176	0.0518
Move OWC	0.0204	14.1	11.5	1.65	0.2767	0.0056
Move Pallet	0.3098	14.1	26.8	1.65	0.1191	0.0369
Manual Sort	0.8770	433.0	1.0	1.50	0.0945	0.0829
Move IHC	0.2443	14.1	21.8	1.65	0.1463	0.0357
Move OTRs	0.5069	14.1	27.1	1.65	0.1176	0.0596
Move OWC	0.1258	14.1	11.5	1.65	0.2767	0.0348
Bedload NMOs	0.2443	176.6	1.0	1.65	0.2542	0.0621
Load OTRs w/ loose	0.5069	10.4	27.1	1.65	0.1590	0.0806
Load Hampers/OWC	0.1258	10.4	11.5	1.65	0.3741	0.0471
Destination Delivery Unit						**0.1501**
Unload Bedload NMOs	0.2673	154.1	1.0	1.65	0.2914	0.0779
Unload loose in OTR	0.6025	20.8	27.1	1.65	0.0795	0.0479
Unload OWC	0.1302	20.8	11.5	1.65	0.1870	0.0243
Total # of Sorts	1.0000					

Model Cost	**$1.9385**
Model Weight[2]	**0.6%**
Wtd Modeled Cost	**$0.0118**

Sources

Column [1]: Attachment A, page 4, arrival and dispatch profiles.
Column [2]: Attachment A, page 3, units per workhour.
Column [3]: Attachment A, page 3, conversion factors.
Column [4]: Attachment A, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * column [3]).
Column [6]: (column [1] * column [5]).

[1]Unload Containers cost at OSCF uses the average cost of unloading containers at origin BMC as proxy.
[2] Weights calculated from test-year-before-rate volumes USPS-T-6.
Proportion of Mach vs. NMO calculated from LR-I-105, Attachment E.

Nonmachinable Nonpresort Inter-BMC Cost Development
Length plus Girth Between 108" and 130"

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**1.6905**
Unload Containers[1]	1.0000				0.5923	0.5923
Bedload NMOs	0.0400	176.6	1.0	1.65	0.2542	0.0102
Load NMOs in OTRs	0.7250	10.4	5.0	1.65	0.8652	0.6273
Load NMOs in OWCs	0.2220	10.4	2.1	1.65	2.0358	0.4519
Load NMOs on Pallets	0.0130	13.4	4.9	1.65	0.6813	0.0089
Destination BMC						**2.8711**
Unload Bedloaded to IHC	0.0400	154.1	1.0	1.74	0.3078	0.0123
Unload NMOs in OTRs	0.7250	20.8	5.0	1.74	0.4568	0.3312
Unload NMOs in OWC	0.2220	20.8	2.1	1.74	1.0747	0.2386
Unload NMOs on Pallets	0.0130	12.3	4.9	1.74	0.7857	0.0102
Move IHC	0.0400	14.1	4.7	1.60	0.6566	0.0263
Move OTR	0.7250	14.1	5.0	1.60	0.6209	0.4501
Move OWC	0.2220	14.1	2.1	1.60	1.4608	0.3243
Move Pallet	0.0130	14.1	4.9	1.60	0.6290	0.0082
D. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4225	0.4225
Move IHC	0.0119	14.1	4.7	1.60	0.6566	0.0078
Move OTR	0.2156	14.1	5.0	1.60	0.6209	0.1339
Move OWC	0.0660	14.1	2.1	1.60	1.4608	0.0965
Move Pallet	0.0130	14.1	4.9	1.60	0.6290	0.0082
Bedload from IHC	0.1291	176.6	1.0	1.74	0.2685	0.0347
Load NMOs in OTRs	0.5363	10.4	5.0	1.74	0.9139	0.4901
Load NMOs on Pallet	0.3098	13.4	4.9	1.74	0.7197	0.2230
Load NMOs in OWC	0.0248	10.4	2.1	1.74	2.1505	0.0533
Destination SCF						**2.5766**
Unload Bedload to IHC	0.1061	154.1	1.0	1.65	0.2914	0.0309
Unload OTRs	0.4407	20.8	5.0	1.65	0.4324	0.1906
Unload Pallet	0.3098	12.3	4.9	1.65	0.7438	0.2304
Unload OWC	0.0204	20.8	2.1	1.65	1.0174	0.0207
Move IHC	0.1061	14.1	4.7	1.65	0.6767	0.0718
Move OTRs	0.4407	14.1	5.0	1.65	0.6398	0.2820
Move Pallet	0.3098	14.1	4.9	1.65	0.6482	0.2008
Move OWC	0.0204	14.1	2.1	1.65	1.5055	0.0307
Manual Sort	0.8770	433.0	1.0	1.50	0.0945	0.0829
Move IHC	0.2443	14.1	4.7	1.65	0.6767	0.1653
Move OTRs	0.5069	14.1	5.0	1.65	0.6398	0.3244
Move OWC	0.1258	14.1	2.1	1.65	1.5055	0.1894
Bedload NMOs	0.2443	176.6	1.0	1.65	0.2542	0.0621
Load OTRs w/ loose	0.5069	10.4	5.0	1.65	0.8652	0.4386
Load Hampers/OWC	0.1258	10.4	2.1	1.65	2.0358	0.2561
Destination Delivery Unit						**0.4709**
Unload Bedload NMOs	0.2673	154.1	1.0	1.65	0.2914	0.0779
Unload loose in OTR	0.6025	20.8	5.0	1.65	0.4324	0.2605
Unload OWC	0.1302	20.8	2.1	1.65	1.0174	0.1325
Total # of Sorts	1.0000			**Model Cost**		**$7.6091**

Sources
Column [1]: Attachment A, page 4, arrival and dispatch profiles.
Column [2]: Attachment A, page 3, units per workhour.
Column [3]: Attachment A, page 3, conversion factors.
Column [4]: Attachment A, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * column [3]).
Column [6]: (column [1] * column [5]).

[1]Unload Containers cost at OSCF uses the average cost of unloading containers at origin BMC as proxy.

Machinable DBMC Model Cost Summary[1]

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Destination BMC						**0.4163**
Unload Bedload	0.9620	622.8	1.0	1.74	0.0762	0.0733
Unload Pallets	0.0030	12.3	78.0	1.74	0.0495	0.0001
Unload OTR	0.0080	20.8	69.0	1.74	0.0330	0.0003
Unload Pallet Box	0.0260	12.3	98.5	1.74	0.0393	0.0010
Unload OWC	0.0010	20.8	29.3	1.74	0.0777	0.0001
Dump Pallets	0.0030	6.4	78.0	1.60	0.0871	0.0003
Dump OTR	0.0080	6.4	69.0	1.60	0.0984	0.0008
Dump Pallet Box	0.0260	6.4	98.5	1.60	0.0690	0.0018
Dump OWC	0.0010	6.4	29.3	1.60	0.2317	0.0002
O. Primary (scan)	1.0014	874.0	1.0	1.78	0.0555	0.0555
Secondary (scan)	0.7969	1296.6	1.0	1.78	0.0374	0.0298
Sweep Runouts OTR	0.7327	5.4	69.0	1.60	0.1172	0.0859
Sack and Tie	0.2673	124.5	1.0	1.60	0.3500	0.0935
Bedload Sacks	0.2384	182.5	5.1	1.74	0.0508	0.0121
Load OTRs w/ sacks	0.0289	10.4	81.8	1.74	0.0557	0.0016
Load OTRs w/ loose	0.6025	10.4	69.0	1.74	0.0660	0.0398
Load OWC	0.1302	10.4	29.3	1.74	0.1554	0.0202
Destination SCF						**0.1920**
Unload Bedload Sacks	0.2091	154.1	5.1	1.65	0.0570	0.0119
Unload Sacks in OTR	0.0253	20.8	81.8	1.65	0.0263	0.0007
Unload loose in OTR	0.5284	20.8	69.0	1.65	0.0312	0.0165
Unload OWC	0.1142	20.8	29.3	1.65	0.0735	0.0084
Crossdock Bedload Sacks	0.2091	7.0	74.8	1.65	0.0853	0.0178
Crossdock Sacks in OTR	0.0253	7.0	81.8	1.65	0.0780	0.0020
Crossdock loose in OTR	0.5284	7.0	69.0	1.65	0.0924	0.0488
Crossdock OWC	0.1142	7.0	29.3	1.65	0.2176	0.0248
Bedload Sacks	0.2344	182.5	5.1	1.65	0.0481	0.0113
Load OTRs w/ loose	0.5284	10.4	69.0	1.65	0.0625	0.0330
Load OWC	0.1142	10.4	29.3	1.65	0.1471	0.0168
Destination Delivery Unit						**0.0648**
Unload Bedload Sack	0.2673	154.1	5.1	1.65	0.0570	0.0152
Unload loose in OTR	0.6025	20.8	69.0	1.65	0.0312	0.0188
Unload OWC	0.1302	20.8	29.3	1.65	0.0735	0.0096
Dump Sacks	0.2673	110.9	5.1	1.65	0.0791	0.0212
Total # of Sorts	1.7984					

Model Cost	**$0.6731**
Model Weight[2]	**74.7%**
Wtd Modeled Cost	**$0.5030**

Sources

Column [1]: Attachment A, page 4, arrival and dispatch profiles.
Column [2]: Attachment A, page 3, units per workhour.
Column [3]: Attachment A, page 3, conversion factors.
Column [4]: Attachment A, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * column [3]).
Column [6]: (column [1] * column [5]).

[1] DBMC model costs are calculated in this testimony for the sole purpose of comparing an average Parcel Post model cost to the CRA parcel post mail processing cost pools in order to calculate the CRA proportional adjustment factor.

[2] Weights calculated from test-year-before-rate volumes USPS-T-6.
Proportion of Mach vs. NMO calculated from LR-I-105, Attachment E.

Nonmachinable DBMC Model Cost Summary[2]

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Destination BMC						**1.0051**
Unload Bedload	0.9850	161.4	1.0	1.74	0.2940	0.2895
Unload Pallet Box	0.0070	12.3	27.7	1.74	0.1394	0.0010
Unload Pallets	0.0080	12.3	26.8	1.74	0.1444	0.0012
Move IHC (from bedload)	0.3836	14.1	21.8	1.60	0.1420	0.0545
Move Pallet Boxes	0.0027	14.1	27.7	1.60	0.1116	0.0003
Move Pallets	0.0031	14.1	26.8	1.60	0.1156	0.0004
D. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4225	0.4225
Move IHCs	0.0384	14.1	25.7	1.60	0.1207	0.0046
Move OTRs	0.1595	14.1	27.7	1.60	0.1116	0.0178
Move Pallets	0.3098	14.1	26.8	1.60	0.1156	0.0358
Move OWCs	0.0074	14.1	11.5	1.60	0.2685	0.0020
Bedload from IHC	0.1291	176.6	1.0	1.74	0.2685	0.0347
Load NMOs in OTRs	0.5363	10.4	27.1	1.74	0.1680	0.0901
Load NMOs on Pallet	0.3098	13.4	26.8	1.74	0.1323	0.0410
Load NMOs in OWC	0.0248	10.4	11.5	1.74	0.3952	0.0098
Destination SCF						**0.6248**
Unload Bedload to IHC	0.1061	154.1	1.0	1.65	0.2914	0.0309
Unload OTRs	0.4407	20.8	27.1	1.65	0.0795	0.0350
Unload Pallet	0.3098	12.3	26.8	1.65	0.1367	0.0423
Unload OWC	0.0204	20.8	11.5	1.65	0.1870	0.0038
Move IHC	0.1061	14.1	21.8	1.65	0.1463	0.0155
Move OTRs	0.4407	14.1	27.1	1.65	0.1176	0.0518
Move Pallet	0.3098	14.1	26.8	1.65	0.1191	0.0369
Move OWC	0.0204	14.1	11.5	1.65	0.2767	0.0056
Manual Sort	0.8770	433.0	1.0	1.50	0.0945	0.0829
Move IHC	0.2443	14.1	21.8	1.65	0.1463	0.0357
Move OTRs	0.5069	14.1	27.1	1.65	0.1176	0.0596
Move OWC	0.1258	14.1	11.5	1.65	0.2767	0.0348
Bedload NMOs	0.2443	176.6	1.0	1.65	0.2542	0.0621
Load OTRs w/ loose	0.5069	10.4	27.1	1.65	0.1590	0.0806
Load Hampers/OWC	0.1258	10.4	11.5	1.65	0.3741	0.0471
Destination Delivery Unit						**0.1501**
Unload Bedload NMOs	0.2673	154.1	1.0	1.65	0.2914	0.0779
Unload loose in OTR	0.6025	20.8	27.1	1.65	0.0795	0.0479
Unload OWC	0.1302	20.8	11.5	1.65	0.1870	0.0243
Total # of Sorts	1.0000					

Model Cost	**$1.7799**
Model Weight[2]	**4.0%**
Wtd Modeled Cost	**$0.0715**

Sources

Column [1]: Attachment A, page 4, arrival and dispatch profiles.
Column [2]: Attachment A, page 3, units per workhour.
Column [3]: Attachment A, page 3, conversion factors.
Column [4]: Attachment A, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * column [3]).
Column [6]: (column [1] * column [5]).

[1]DBMC model costs are calculated in this testimony for the sole purpose of comparing an average Parcel Post model cost to the CRA parcel post mail processing cost pools in order to calculate the CRA proportional adjustment factor.

[2] Weights calculated from test-year-before-rate volumes USPS-T-6.
Proportion of Mach vs. NMO calculated from LR-I-105, Attachment E.

Nonmachinable DBMC Model Cost Summary[1]

Length plus Girth Between 108" and 130"

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Destination BMC						**2.5110**
Unload Bedload	0.9850	161.4	1.0	1.74	0.2940	0.2895
Unload Pallets[2]	0.0150	12.3	4.9	1.74	0.7857	0.0118
Move IHC (from bedload)	0.9850	14.1	4.7	1.60	0.6566	0.6467
Move Pallets	0.0150	14.1	4.9	1.60	0.6290	0.0094
D. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4225	0.4225
Move IHCs	0.0384	14.1	4.7	1.60	0.6566	0.0252
Move OTRs	0.1595	14.1	5.0	1.60	0.6209	0.0990
Move Pallets	0.3098	14.1	4.9	1.60	0.6290	0.1948
Move OWCs	0.0074	14.1	2.1	1.60	1.4608	0.0108
Bedload from IHC	0.1291	176.6	1.0	1.74	0.2685	0.0347
Load NMOs in OTRs	0.5363	10.4	5.0	1.74	0.9139	0.4901
Load NMOs on Pallet	0.3098	13.4	4.9	1.74	0.7197	0.2230
Load NMOs in OWC	0.0248	10.4	2.1	1.74	2.1505	0.0533
Destination SCF						**2.5766**
Unload Bedload to IHC	0.1061	154.1	1.0	1.65	0.2914	0.0309
Unload OTRs	0.4407	20.8	5.0	1.65	0.4324	0.1906
Unload Pallet	0.3098	12.3	4.9	1.65	0.7438	0.2304
Unload OWC	0.0204	20.8	2.1	1.65	1.0174	0.0207
Move IHC	0.1061	14.1	4.7	1.65	0.6767	0.0718
Move OTRs	0.4407	14.1	5.0	1.65	0.6398	0.2820
Move Pallet	0.3098	14.1	4.9	1.65	0.6482	0.2008
Move OWC	0.0204	14.1	2.1	1.65	1.5055	0.0307
Manual Sort	0.8770	433.0	1.0	1.50	0.0945	0.0829
Move IHC	0.2443	14.1	4.7	1.65	0.6767	0.1653
Move OTRs	0.5069	14.1	5.0	1.65	0.6398	0.3244
Move OWC	0.1258	14.1	2.1	1.65	1.5055	0.1894
Bedload NMOs	0.2443	176.6	1.0	1.65	0.2542	0.0621
Load OTRs w/ loose	0.5069	10.4	5.0	1.65	0.8652	0.4386
Load Hampers/OWC	0.1258	10.4	2.1	1.65	2.0358	0.2561
Destination Delivery Unit						**0.4709**
Unload Bedload NMOs	0.2673	154.1	1.0	1.65	0.2914	0.0779
Unload loose in OTR	0.6025	20.8	5.0	1.65	0.4324	0.2605
Unload OWC	0.1302	20.8	2.1	1.65	1.0174	0.1325
Total # of Sorts	1.0000			**Model Cost**		**$5.5585**

Sources

Column [1]: Attachment A, page 4, arrival and dispatch profiles.
Column [2]: Attachment A, page 3, units per workhour.
Column [3]: Attachment A, page 3, conversion factors.
Column [4]: Attachment A, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * column [3]).
Column [6]: (column [1] * column [5]).

[1]DBMC model costs are calculated in this testimony for the sole purpose of comparing an average Parcel Post model cost to the CRA parcel post mail processing cost pools in order to calculate the CRA proportional adjustment factor.

[2]Assumes oversize parcels will not arrive in pallet boxes, so # of handling for pallets and pallet boxes were combined.

Prebarcoding Cost Savings Development Summary

Operation Description	[1] # handlings	[2] units/hr	[3] conversion factor	[4] pigbk factor	[5] $ per oper.	[6] $ per facility	[7] Cost of ribbon and label	[8] Modeled Cost	[9] CRA Adjustment Factor Proportional	[10] CRA Adjustment Factor Fixed	[11] Adjusted Cost
NON-BARCODED											
Parcel Sorting Machine (Key)	1.0000	806.0	1.0	1.782	$0.0601	$0.0601	0.0005	$0.0606	1.154	0.307	$0.377
BARCODED											
Parcel Sorting Machine (Scan)	0.9400	1296.6	1.0	1.782	$0.0374	$0.0351	N/A	$0.0351			
Parcel Sorting Machine (Key)	0.0018	806.0	1.0	1.782	$0.0601	$0.0001	0.0000	$0.0001			
Total								$0.0352	1.154	0.307	$0.348

Total Test Year Attributable Costs Avoided by Nonpresort Prebarcoded Machinable Parcels	1/	**$0.029**

Sources

Column [1]: Number of handlings for scan is reduced to reflect parcel singulators.
Column [2]: Attachment A, page 3, units per workhour.
Column [3]: Handle one parcel at a time.
Column [4]: Attachment A, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2]* column [3]).
Column [6]: Column [1] * column [5].
Column [7]: Docket No. R97-1, USPS-T-29, Exhibit E, page 6, column 5.
Column [8]: Column [6] + column [7].
Column [9]: Attachment A, page 1, row 3.
Column [10]: Attachment A, page 1, row 4.
Column [11]: Modeled Cost [8] * proportional adjustment factor [9] + fixed adjustment factor [10].
Row 1/: Non-Barcoded adjusted cost[11] - barcoded adjusted cost [11].

Non-Transportation Cost Savings Summary

Rate Category		Modeled Cost Difference
BMC Presort Modeled Cost Savings	1/	**$0.232**
DBMC Cost savings	2/	**$0.698**
Window Acceptance Modeled Cost Savings	3/	$0.105
Mail Processing Modeled Cost Savings	4/	$0.593
OBMC	5/	**$0.930**
Window Acceptance Modeled Cost Savings	6/	$0.105
Mail Processing Modeled Cost Savings	7/	$0.593
BMC Presort Modeled Cost Savings	8/	$0.232
DSCF		
Modeled Cost Savings	9/	**$0.428**
Additional Cost of Oversize (DSCF oversize NMO modeled cost -DSCF mach modeled cost)	10/	**$3.640**
DDU		
Weighted average of DDU mach and NMO modeled cost savings.	11/	**$0.730**
NMO oversize DDU Modeled Cost Savings (compared to DBMC)	12/	**$5.558**

Sources
Row 1/: Attachment G, page 1, row 6.
Row 2/: Row (3) + row (4).
Row 3/: Attachment F, page 1, row 16.
Row 4/: Attachment F, page 2, row 10.
Row 5/: Row (6) + row (7) + row (8).
Row 6/: Attachment H, page 1, row 1.
Row 7/: Attachment H, page 1, row 2.
Row 8/: Attachment H, page 1, row 3.
Row 9/: Attachment I, page 1, row 12.
Row 10/: Attachment I, page 1, row 9
Row 11/: Attachment J, page 1, row 4.
Row 12/: Attachment J, page 1, row 5.

INPUTS FOR DROPSHIP MODELS

Inputs for Dropship Models

Proportion of Volume	Mach	NMO	
DBMC	0.95	0.05	1/
DSCF	0.95	0.05	2/
Inter-BMC	0.92	0.08	3/
Intra-BMC	0.92	0.08	4/
Piggyback Factors			
Window Service		1.450	5/
Wage Adjustment Factor			
window service		1.124	6/
mail processing		1.124	7/
Average number of Sacks on an IHC		14.6	8/

DSCF specific inputs

Proportion of DSCF dropped at BMCs	12.30%	9/		
Proportion of DSCF using requirements	Mach	NMO	Over 108	
Sacks	0	0	N/A	10/
Pallet and Pallet Boxes	1	1	N/A	11/
Average Number of parcels	Mach	NMO	Over 108	
Sacks	10	N/A	N/A	12/
Pallet and pallet boxes	62.1	22.5	4.3	13/

Calculation of Average # of Parcels on a Pallet

	Min [1]	Max [2]	Average [3]
Mach			
Pallet (min 36, max 48")	68.90	91.8	75.8
Pallet Box (min 36 ", max 60")	58.40	97.3	70.1
Pallet (ave 50)			50.0
Pallet box (ave 50)			50.0
Pallet (min 50 pieces , max 48")	50	91.8	62.5
Pallet Box (min 50 pieces, max 60")	50	97.3	64.2
Average Mach			**62.1**
NMO			
Pallet (min 36" max 48")	20.1	26.8	23.5
Pallet Box (min 36 " max 60")	14.5	28.4	21.5
Average NMO			**22.5**
Oversize			
Pallet (min 36" max 48")	3.7	4.9	
Average Oversize			**4.3**

Sources

Row 1/: LR-I-105. Machinable DBMC volume / total DBMC volume and NMO DBMC volume/total DBMC volume.
Row 2/: Assume same percent as DBMC.
Row 3/: LR-I-105. Machinable Inter-BMC volume / total inter-BMC volume and NMO inter- BMC volume/total inter-BMC volume.
Row 4/: LR-I-105. Machinable intra-BMC volume / total intra-BMC volume and NMO intra- BMC volume/total intra-BMC volume.
Row 5/: USPS-T-21, Attachment 10, BY piggyback factor.
Row 6/: LR-I-106, TY wage rate / BY wage rate.
Row 7/: LR-L-106, TY wage rate/ BY wage rate.
Row 8/: Attachment A, page 6, column [16].
Row 9/: Percent of Volume with direct transportation to delivery units.
Row 10/: Area Coordinators reported no use of sacks for DSCF discount.
Row 11/: Area Coordinators reported that all mailers used pallets for DSCF discount.
Row 12/: Assumption behind requirement (due to zero handlings, not used).
Row 13/: Developed Below. Average of different requirement.

Column [1]: Calculated using model in Attachment A, page 6.
Column [2]: Calculated using model in Attachment A, page 6.
Column [3]: Weighted average of column [1] and column [2].
For machinable, weights minimum by 0.7 and maximum by 0.3.
For NMO< weights both machinable and NMO by 0.5

REVENUE, PIECES, AND WEIGHT (RPW) VOLUME SUMMARY
GOVERNMENT FISCAL YEAR 1998

	Book Revenue Adjusted Pieces	Alaska Bypass	OMAS	Grand Total
Inter-BMC	63,060,966		1,253,092	64,314,058
Intra-BMC	40,189,365	1,931,382	0	42,120,747
DBMC	209,409,172		303,822	209,712,994
Total	312,659,503	1,931,382	1,556,914	316,147,799

Source: Fiscal Year 1998 Billing Determinants and Revenue, Pieces, and Weight Adjustment System (LR-I-12

Window Service and Platform Costs Avoided by DBMC Parcels

Window Service Parcel Post Costs

Base Year 1998 Window Service Cost Segment 3.2 total	1/	$7,364,000
Window Service CS 3.2 direct Costs	2/	$7,293,000
DBMC	3/	$329,000
Non-DBMC	4/	$6,964,000
Proportion of DBMC of Total Window Service Costs	5/	4.51%
Proportion of Non-DBMC of Total Window Service Costs	6/	95.49%
Total Window Service Costs by Rate Category Allocated in Proportion to Direct Costs		
DBMC	7/	$332,203
Non-DBMC	8/	$7,031,797
Parcel Post Volumes		
DBMC Volume	9/	209,712,994
Non-DBMC Volume	10/	106,434,805
Cost per Piece		
DBMC	11/	$0.0016
Non-DBMC	12/	$0.0661
Difference in cost per piece	13/	$0.0645
Wage Adjustment Factor	14/	1.124
Window Service Piggyback Factor	15/	1.45
Total Estimated Window Service cost savings per piece	16/	$0.105

Sources

Row 1/: USPS-T-11, Exhibit A.
Row 2/: Row (3) + row (4).
Row 3/: LR-I-103.
Row 4/: LR-I-103.
Row 5/: Row (3) / row (2).
Row 6/: Row (4) / row (2).
Row 7/: Row (1) * row (5).
Row 8/: Row (1) * row (6).
Row 9/: Attachment E, page 1.
Row 10/: Attachment E, page 1.
Row 11/: Row (7) / row (9).
Row 12/: Row (8) / row (10).
Row 13/: Row (12) - row (11).
Row 14/: Attachment D, page 1, row (6).
Row 15/: Attachment D, page 1, row (5).
Row 16/: Row (13) * row (14) * row (15).

Outgoing Mail Processing Costs at Non-BMC Facilities Avoided by DBMC Parcel Post

BY 1998 Outgoing Mail Processing Costs (excluding BMCs)	$53,134,000	1/
Outgoing ASF Costs	$2,018,000	2/
Percent of time ASFs act like BMCs	36.10%	3/
Non-BMC outgoing platform acceptance cost	$902,145	4/
Total	$51,503,324	5/
BY 98 Parcel Post Volume Entered Upstream of BMC/ASF	97,724,531	6/
Unit Costs Avoided	$0.527	7/
Wage Rate Adjustment Factor	1.124	8/
Estimated Test Year Costs Avoided	$0.593	9/

Sources

Row 1/: LR-I-103.
Row 2/: LR-I-103.
Row 3/: USPS-T-26, Attachment Y, page 2.
Row 4/: Outgoing OP7 costs from LR-I-103 multiplied by cost pool piggyback factors.
Row 5/: (Row (1) - [row (2) * row (3)] - row (4)).
Row 6/: Attachment E, page 1 (RPW).
Row 7/: Row (5) / row (6).
Row 8/: Attachment D, page 1, mail processing wage adjustment factor.
Row 9/: Row (7) * row (8).

Volume of Parcel Post Pieces Entered Upstream of BMC/ASF

Estimate of Inter-BMC Parcel Post volume deposited at BMCs by mailers in FY1998	**8,360,828**	1/
Proportion of Inter-BMC volume deposited at BMC by mailers	0.13	2/
FY 1998 Inter-BMC Volume	64,314,058	3/
Total Piece Volume Plantloaded to BMCs	**349,447**	4/
Proportion of Parcel Post volume that is plantloaded by USPS	0.5%	5/
Proportion of Plantloaded Piece volume that is plantloaded to BMCs	68.4%	6/
FY 1998 non-DBMC Parcel Post Volume	106,434,805	7/
FY 1998 DBMC Volume	**209,712,994**	8/
Total Piece Volume Plantloaded to or Deposited (by a mailer) at a BMC or beyond	**218,423,268**	9/
FY 1998 Total Parcel Post Volume	**316,147,799**	10/
Total Piece Volume Plant Loaded to or Deposited Upstream of a BMC/ASF	**97,724,531**	11/

Sources

Row 1/: Row (2) * row (3).
Row 2/: Docket R97-1, USPS-T-28, Exhibit B.
Row 3/: Attachment E, page 1, inter-BMC volume.
Row 4/: Row (5) * row (6) * row (7).
Row 5/: 1993 Plant load study, R94-1, LR-G-157.
Row 6/: Docket No. R90-1 USPS-T-12, page 25.
Row 7/: Attachment E, page 1. inter-BMC volume + intra-BMC volume.
Row 8/: Attachment E, page 1, DBMC volume.
Row 9/: Row (1) + row (4) + row (8).
Row 10/: Attachment E, page 1.
Row 11/: Row (10) - row (9).

BMC Presort Parcel Post Cost Savings

Operation	[1] Nonpresorted Cost/Piece	[2] BMC Presorted Cost/Piece		[3] Difference (Savings)
Machinable Parcel Post				
Origin BMC unload	$0.0470	$0.0394		$0.0076
Origin BMC	$0.2797	$0.0631		$0.2166
Origin BMC Load	$0.0372	$0.0361		$0.0011
DBMC Unload	$0.0407	$0.0394		$0.0012
BMC Savings			1/	$0.2266
Nonmachinable Parcel Post				
Origin BMC unload	$0.1183	$0.1540		-$0.0357
Origin BMC	$0.5963	$0.2466		$0.3497
Origin BMC Load	$0.1323	$0.1411		-$0.0088
DBMC Unload	$0.1444	$0.1540		-$0.0097
BMC Savings			2/	$0.2955
Oversize Parcel Post				
Origin BMC unload	$0.5923	$0.8405		-$0.2483
Origin BMC	$1.8603	$1.3457		$0.5146
Origin BMC Load	$0.7197	$0.7699		-$0.0502
DBMC Unload	$0.7857	$0.8405		-$0.0548
BMC Savings			3/	$0.1612

Proportion of Inter-BMC volume that is Machinable	4/	0.92
Proportion of Inter-BMC volume that is Nonmachinable	5/	0.08
Total BMC Presort Related Savings	6/	**$0.232**

Sources

Column [1]: Attachment A, pages 7-9.

Column [2]: Attachment G, page 2, column 6.

Row 1/: Sum of cost savings for machinable Parcel Post.

Row 2/: Sum of cost savings for nonmachinable Parcel Post.

Row 3/: Sum of cost savings for oversize nonmachinable Parcel Post.

Row 4/: Machinable inter-BMC volume divided by total inter-BMC volume.

Row 5/: Nonmachinable inter-BMC volume divided by total nonmachinable inter-BMC volume.

Row 6/: [Row (4) * machinable BMC Savings] + [row (5) * nonmachinable BMC savings].

BMC PRESORTED PARCEL POST COST PER PIECE

Operation	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper	[6] cost
Machinable BMC Presort						
Origin BMC						
Unload Pallet Box	1.0000	12.3	98.1	1.74	$0.0394	$0.0394
Crossdock Pallet Box	1.0000	7.0	98.1	1.60	$0.0631	$0.0631
Load Pallet Box	1.0000	13.4	98.1	1.74	$0.0361	$0.0361
Destination BMC						
Unload Pallet Box	1.0000	12.3	98.1	1.74	$0.0394	$0.0394
Nonmachinable BMC Presort						
Origin BMC						
Unload Pallets	1.0000	12.3	25.1	1.74	$0.1540	$0.1540
Crossdock Pallets	1.0000	7.0	25.1	1.60	$0.2466	$0.2466
Load NMOs Pallets	1.0000	13.39	25.1	1.74	$0.1411	$0.1411
Destination BMC						
Unload Pallets	1.0000	12.27	25.1	1.74	$0.1540	$0.1540
Oversize Parcels						
Origin BMC						
Unload Pallets	1.0000	12.3	4.6	1.74	$0.8405	$0.8405
Crossdock Pallets	1.0000	7.0	4.6	1.60	$1.3457	$1.3457
Load NMOs Pallets	1.0000	13.4	4.6	1.74	$0.7699	$0.7699
Destination BMC		0.0				
Unload Pallets	1.0000	12.3	4.6	1.74	$0.8405	$0.8405

Sources

Column [1]: Each handled only one time.

Column [2]: Attachment A, page 3, units per workhour.

Column [3]: Conversion factor. Reflects the average between the minimum requirements and maximum fullness.
'Mach min 52", max 69". NMO min 42", max 48 ". Oversize min 42", max 48".

Column [4]: LR-I-77, test year operation specific piggyback factors.

Column [5]: (Wage rate * column [4]) / (column [2] * column [3]).

Column [6]: Column [5] * column [1].

Costs Avoided by Depositing Inter-BMC Parcels at the Origin BMC with Presort to the Destination BMC

DBMC Savings		
Window Acceptance	0.105	1/
Mail Processing	0.593	2/
Total BMC Presort Related Savings	0.232	3/
Total OBMC Mail Processing Savings	0.930	4/

Sources

Row 1/: Attachment F, page 1, row 16.
Row 2/: Attachment F, page 2, row 10.
Row 3/: Attachment G, page 1, row 6.
Row 4/: Row (1) + row (2) + row (3).

Summary of DSCF Savings (compared to DBMC)

DBMC Mailprocessing modeled Costs		
Mach	$0.673	1/
NMO	$1.780	2/
Over 108	$5.558	3/
DSCF Modeled Costs		
Machinable	$0.272	4/
NMO	$0.753	5/
Over 108	$3.933	6/
DSCF Cost Savings		
Machinable	$0.401	7/
NMO	$1.027	8/
Additional Cost of over 108 compared to average DSCF Parcel	$3.640	9/
Proportion of Mach	0.95	10/
Proportion of NMO	0.05	11/
Average DSCF Cost Savings (no oversize)	$0.428	12/

Sources

Row 1/: Attachment A, page 13, modeled cost of machinable DBMC.
Row 2/: Attachment A, page 14, modeled cost of nonmachinable DBMC.
Row 3/: Attachment A, page 15, modeled cost of oversize nonmachinable DBMC.
Row 4/: Attachment I, page 2, modeled cost of machinable DSCF.
Row 5/: Attachment I, page 2, modeled cost of nonmachinable DSCF.
Row 6/: Attachment I, page 2, modeled cost of oversize nonmachinable DSCF.
Row 7/: Row (1) - row (4).
Row 8/: Row (2) - row (5).
Row 9/: Row (6) - [row (4) * row (10) + row (5) * row (11)].
Row 10/: Attachment D, page 1, row 2.
Row 11/: Attachment D, page 1, row 2.
Row 12/: [Row (7) * row (10)] + [row (8) * row (11)].

DSCF Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
MACHINABLE						
Destination BMC						**$0.0269**
Unload Pallet/Pallet Box	0.1230	12.3	62.1	1.74	$0.0623	$0.0077
Cross dock Pallet/Pallet Box	0.1230	7.0	62.1	1.60	$0.0997	$0.0123
Load Pallet/Pallet Box	0.1230	13.4	62.1	1.74	$0.0570	$0.0070
Destination SCF						**$0.1865**
Unload Pallet/Pallet Box	0.8770	12.3	62.1	1.65	$0.0589	$0.0517
Unload Bedloaded Sacks	0.0000	154.1	10.0	1.65	$0.0291	$0.0000
Crossdock Pallet/Pallet Box	0.8770	7.0	62.1	1.60	$0.0997	$0.0874
Crossdock bedloaded sacks	0.0000	7.0	146.1	1.60	$0.0424	$0.0000
Load Pallet/Pallet Box	0.8770	13.4	62.1	1.65	$0.0540	$0.0474
Bedload Sacks	0.0000	182.5	10.0	1.65	$0.0246	$0.0000
Destination Delivery Unit						**$0.0589**
Unload Pallet/Pallet Box	1.0000	12.3	62.1	1.65	$0.0589	$0.0589
Unload Bedloaded Sacks	0.0000	154.1	10.0	1.65	$0.0291	$0.0000
Dump Sacks	0.0000	110.9	10.0	1.65	$0.0405	$0.0000
TOTAL						**$0.2724**
NONMACHINABLE						
Destination BMC						**$0.0745**
Unload Pallet/Pallet Box	0.1230	12.3	22.5	1.74	$0.1722	$0.0212
Crossdock Pallet/Pallet Box	0.1230	7.0	22.5	1.60	$0.2757	$0.0339
Load Pallet/Pallet Box	0.1230	13.4	22.5	1.74	$0.1578	$0.0194
Destination SCF						**$0.5158**
Unload Pallet/Pallet Box	0.8770	12.3	22.5	1.65	$0.1630	$0.1430
Crossdock Pallet/Pallet Box	0.8770	7.0	22.5	1.60	$0.2757	$0.2418
Load Pallet/Pallet Box	0.8770	13.4	22.5	1.65	$0.1493	$0.1310
Destination Delivery Unit						**$0.1630**
Unload Pallet/Pallet Box	1.0000	12.3	22.5	1.65	$0.1630	$0.1630
TOTAL						**$0.7533**
OVERSIZE						
Destination BMC						**$0.3890**
Unload Pallets	0.1230	12.3	4.3	1.74	$0.8992	$0.1106
Cross dock pallets	0.1230	7.0	4.3	1.60	$1.4396	$0.1771
Load Pallets	0.1230	13.4	4.3	1.74	$0.8236	$0.1013
Destination SCF						**$2.6929**
Unload Pallets	0.8770	12.3	4.3	1.65	$0.8512	$0.7465
Crossdock Pallets	0.8770	7.0	4.3	1.60	$1.4396	$1.2625
Load Pallets	0.8770	13.4	4.3	1.65	$0.7797	$0.6838
Destination Delivery Unit						**$0.8512**
Unload Pallets	1.0000	12.3	4.3	1.65	$0.8512	$0.8512
TOTAL						**$3.9331**

Weighted Average of DSCF mach and NMO **$0.2932**

Sources

Column [1]: Attachment D, page 1, row 9.
Column [2]: Attachment A, page 3, units per workhour.
Column [3]: Attachment D, page 1, row 13.
Column [4]: Attachment A, page 5, piggyback factors.
Column [5]: (Adjusted wage rate * column [4]) / (column [2] * column [3]).
Column [6]: (Column [1]) *(column [5]).

DDU Cost Savings

		Modeled Costs		
		Mach	NMO	Over 108
Costs Avoided by DDU	1/	$0.673	$1.780	$5.558
Percent of Mach	2/	0.95		
Percent of NMO	3/	0.05		

Average DSCF Cost Savings (no oversize)	4/	$0.730
Oversize DSCF Cost Savings	5/	$5.558

Sources

Row 1/: Attachment A, page 13 to 15, modeled DBMC costs.
Row 2/: Attachment D, page 1, row 2.
Row 3/: Attachment D, page 1, row 2.
Row 4/: Machinable cost avoided * percent of machinable [row (2)] + NMO cost avoided * percent of NMO [row (3)].
Row 5/: Oversize cost avoided in row (1).

Summary of Cube-Weight Relationship Results

Parcel Post Cube-Weight Relationship by Rate Category

Model Specification: $LN(CF/PC) = a + b(LN(Lbs)) + c(LN(Lbs))^2$

	[1] Intra-BMC		[2] Inter-BMC		[3] DBMC
a=	-2.40267	a=	-2.095821	a=	-1.982081
b=	1.37654	b=	1.202857	b=	1.203941
c=	-0.14155	c=	-0.101297	c=	-0.092312

LBS	[4] Estimated CF/PC	[5] Estimated CF/PC	[6] Estimated CF/PC
2	0.21947	0.26962	0.30364
3	0.34603	0.40795	0.46263
4	0.46468	0.53634	0.61234
5	0.57473	0.65555	0.75312
6	0.67661	0.76660	0.88580
7	0.77103	0.87046	1.01120
8	0.85873	0.96796	1.13007
9	0.94039	1.05980	1.24307
10	1.01660	1.14659	1.35076
11	1.08789	1.22882	1.45362
12	1.15475	1.30693	1.55208
13	1.21756	1.38129	1.64650
14	1.27669	1.45222	1.73719
15	1.33246	1.52000	1.82445
16	1.38513	1.58488	1.90852
17	1.43497	1.64709	1.98962
18	1.48218	1.70680	2.06795
19	1.52697	1.76421	2.14369
20	1.56952	1.81945	2.21701
21	1.60997	1.87268	2.28804
22	1.64847	1.92402	2.35691
23	1.68516	1.97357	2.42376
24	1.72015	2.02146	2.48869
25	1.75355	2.06777	2.55179
26	1.78545	2.11259	2.61317
27	1.81596	2.15600	2.67291
28	1.84514	2.19808	2.73109
29	1.87307	2.23889	2.78779
30	1.89984	2.27849	2.84306
31	1.92549	2.31695	2.89698
32	1.95009	2.35432	2.94960
33	1.97370	2.39065	3.00099
34	1.99636	2.42598	3.05118
35	2.01813	2.46036	3.10024

Column [1]: Intra-BMC parameter estimates are from USPS LRI-104.

Column [2]: Inter-BMC parameter estimates are from USPS LR-I-104.

Column [3]: DBMC parameter estimates are from USPS LR-I-104.

Column [4]: Exp (a + b * (LN(LBS)) + c * $(LN(LBS))^2$), using column 1 parameters.

Column [5]: Exp (a + b * (LN(LBS)) + c * $(LN(LBS))^2$), using column 2 parameters.

Column [6]: Exp (a + b * (LN(LBS)) + c * $(LN(LBS))^2$), using column 3 parameters.

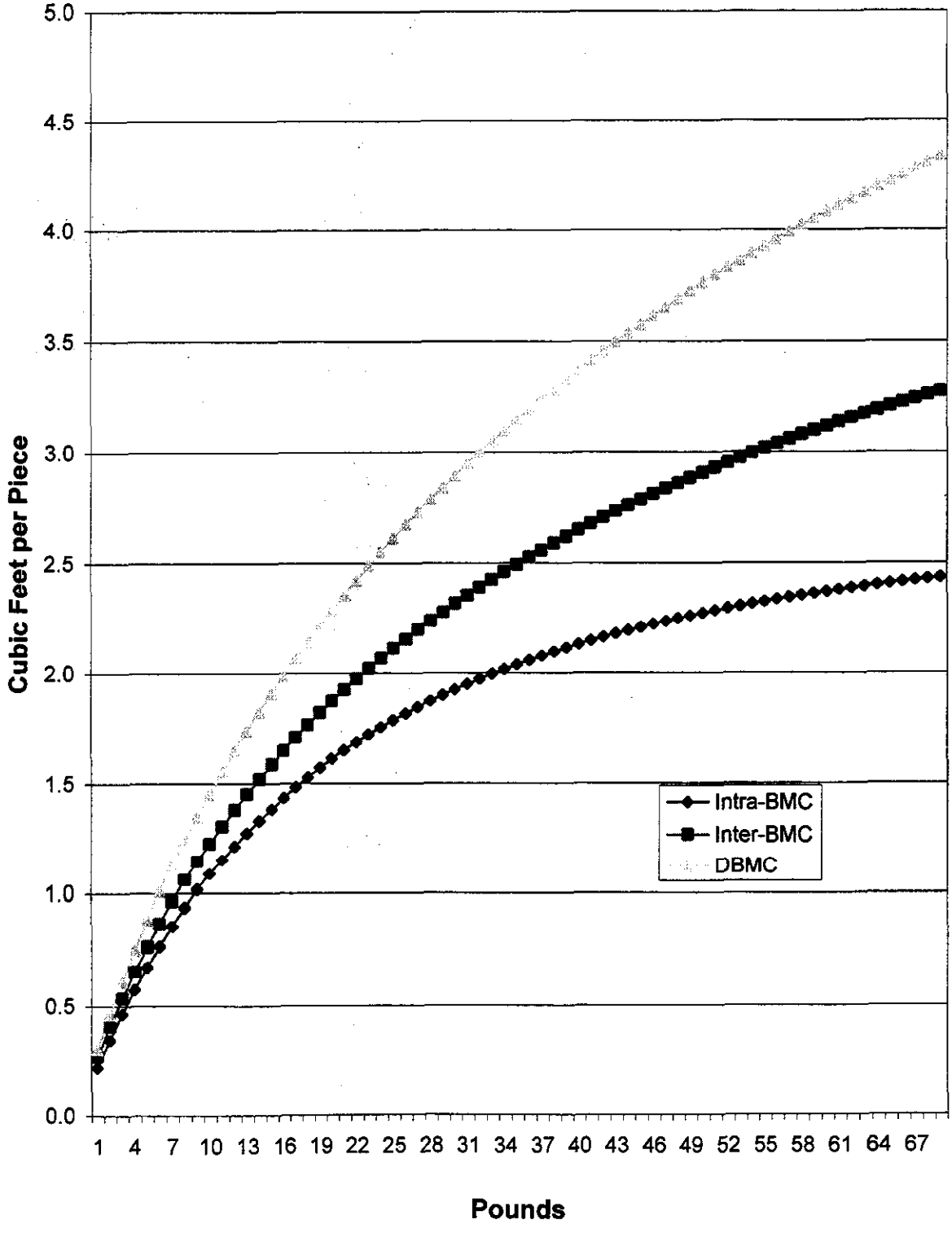
Summary of Cube-Weight Relationship Results

Parcel Post Cube-Weight Relationship by Rate Category (Continued)

LBS	[1] Intra-BMC Estimated CF/PC	[2] Inter-BMC Estimated CF/PC	[3] DBMC Estimated CF/PC
36	2.03905	2.49384	3.14820
37	2.05916	2.52644	3.19511
38	2.07850	2.55821	3.24100
39	2.09710	2.58919	3.28593
40	2.11501	2.61939	3.32991
41	2.13225	2.64885	3.37300
42	2.14885	2.67761	3.41521
43	2.16484	2.70568	3.45658
44	2.18025	2.73310	3.49713
45	2.19510	2.75988	3.53691
46	2.20941	2.78605	3.57592
47	2.22322	2.81163	3.61420
48	2.23653	2.83665	3.65177
49	2.24937	2.86111	3.68864
50	2.26177	2.88505	3.72486
51	2.27372	2.90847	3.76042
52	2.28526	2.93139	3.79536
53	2.29640	2.95384	3.82968
54	2.30715	2.97582	3.86342
55	2.31753	2.99735	3.89658
56	2.32756	3.01844	3.92918
57	2.33724	3.03911	3.96124
58	2.34659	3.05937	3.99278
59	2.35561	3.07923	4.02379
60	2.36433	3.09870	4.05431
61	2.37275	3.11779	4.08435
62	2.38089	3.13653	4.11391
63	2.38874	3.15490	4.14300
64	2.39633	3.17293	4.17165
65	2.40366	3.19063	4.19986
66	2.41074	3.20800	4.22764
67	2.41758	3.22505	4.25501
68	2.42418	3.24179	4.28196
69	2.43056	3.25824	4.30852
70	2.43672	3.27438	4.33470

Column [1]: Exp (a + b * (LN(LBS)) + c * (LN(LBS))^2), using column 1 parameters from page 1.
Column [2]: Exp (a + b * (LN(LBS)) + c * (LN(LBS))^2), using column 2 parameters from page 1.
Column [3]: Exp (a + b * (LN(LBS)) + c * (LN(LBS))^2), using column 3 parameters from page 1.

Parcel Post Cube-Weight Relationship
Average Cube/Piece vs. Weight Increment



Parcel Post Cubic Foot and Cubic Foot Mile Input Data

Inter-BMC Cubic Feet by Zone and Weight Increment

LBS	Local	Zones 1 & 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Total
2		455,544	817,035	1,261,749	657,199	282,560	213,371	314,987	4,002,445
3		384,985	769,736	1,269,767	893,101	225,962	164,285	262,307	3,970,143
4		377,758	719,663	1,162,550	648,465	163,684	134,035	208,670	3,414,825
5		307,731	581,362	898,799	638,843	215,349	98,963	113,957	2,855,005
6		269,639	442,947	733,153	636,585	162,449	64,959	121,835	2,431,567
7		230,292	371,230	618,871	510,198	226,163	93,113	115,545	2,165,412
8		169,117	333,111	475,957	450,753	162,359	96,157	83,348	1,770,802
9		115,519	243,242	348,165	319,250	172,365	86,565	37,832	1,322,937
10		92,859	229,572	298,569	371,067	133,960	78,031	42,027	1,246,085
11		96,479	153,202	280,341	358,580	146,187	47,636	64,614	1,147,040
12		54,755	145,559	186,229	220,921	143,811	46,132	37,150	834,557
13		66,633	107,941	210,856	235,996	138,341	52,628	31,042	843,437
14		36,931	105,038	158,805	210,642	119,965	64,313	16,010	711,704
15		40,271	101,019	177,850	158,618	94,707	16,246	33,265	621,975
16		55,066	94,762	124,686	169,243	121,941	60,177	20,256	646,130
17		43,702	89,403	139,638	171,726	113,149	38,522	7,792	603,930
18		16,823	56,148	96,678	89,417	65,485	41,558	23,236	389,345
19		12,548	33,132	109,887	90,538	84,426	39,323	13,472	383,326
20		25,024	32,497	151,794	79,322	58,270	38,619	23,848	409,374
21		35,095	59,783	90,292	95,265	97,017	27,378	23,459	428,288
22		20,670	43,975	71,275	86,010	34,862	16,143	35,812	308,746
23		16,769	51,850	42,500	64,589	47,230	15,919	36,477	275,335
24		13,903	3,321	60,830	36,743	28,658	24,475	19,524	187,455
25		19,183	24,176	93,508	57,303	22,719	25,351	47,385	289,624
26		15,011	36,383	45,512	74,299	46,545	24,256	25,686	267,691
27		21,283	23,893	74,101	52,247	60,432	18,134	49,917	300,008
28		17,822	11,213	21,952	31,504	48,200	15,605	12,498	158,794
29		13,304	19,018	34,552	59,263	8,304	16,042	13,174	163,656
30		2,587	28,611	32,640	15,643	44,672	25,500	30,819	180,472
31		10,090	13,544	36,094	46,403	23,620	32,986	14,663	177,400
32		748	3,386	16,963	35,738	12,577	11,056	17,333	97,802
33		389	17,086	13,611	19,751	14,697	12,352	23,953	101,839
34		19,442	2,584	20,002	40,589	12,561	10,126	26,966	132,268
35		14,672	14,352	5,651	18,372	23,220	9,387	16,396	102,050
36		745	21,939	18,799	8,045	18,948	10,589	11,318	90,383
37		809	13,558	14,775	5,954	12,253	5,336	21,144	73,829
38		442	6,624	11,231	49,653	6,215	20,920	10,420	105,505
39		0	3,315	13,861	9,682	7,376	24,974	10,767	69,974
40		941	8,442	2,275	23,069	10,399	3,218	11,388	59,733
41		4,837	10,978	3,239	16,817	5,241	5,635	7,366	54,114
42		0	1,265	10,356	5,819	2,952	4,140	10,424	34,958
43		2,837	689	28,232	14,122	5,138	6,649	5,280	62,947
44		3,801	0	8,421	8,336	4,311	3,007	9,951	37,828
45		15,523	4,118	29,891	10,618	4,658	2,844	19,684	87,338
46		1,015	29,885	4,340	27,566	666	6,201	7,236	76,909
47		0	2,817	1,321	15,844	23,770	806	7,156	51,714
48		0	536	3,358	7,212	93,336	3,439	12,086	119,968
49		0	2,670	15,249	4,508	3,363	84	3,445	29,320
50		128	1,157	1,889	2,411	1,849	5,115	2,166	14,715

All data are calculated by multiplying the number of pieces in each rate cell (USPS-36) by the corresponding estimated cubic feet per piece for inter-BMC parcels (Attachment K).

Parcel Post Cubic Foot and Cubic Foot Mile Input Data

Inter-BMC Cubic Feet by Zone and Weight Increment (Continued)

LBS	Local	Zones 1 & 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Total
51		0	2,021	4,852	2,345	800	12,259	2,081	24,358
52		0	809	8,408	0	5,709	2,791	5,759	23,475
53		0	15,729	6,543	3,656	1,925	10,080	10,842	48,775
54		460	1,971	12,599	25,027	6,657	7,793	2,058	56,565
55		0	0	579	5,376	577	1,813	1,840	10,185
56		292	324	2,305	1,300	6,750	390	2,253	13,614
57		0	1,704	3,018	6,784	1,838	2,281	719	16,345
58		0	0	45	1,325	1,786	1,149	9,494	13,799
59		0	280	870	4,129	683	1,008	4,623	11,592
60		0	0	472	2,367	2,024	436	1,842	7,140
61		0	697	2,721	1,268	539	2,672	1,690	9,586
62		0	0	334	0	657	80	4,629	5,700
63		0	0	2,342	0	966	1,999	2,012	7,319
64		0	0	94	3	0	0	1,338	1,434
65		786	0	6,127	601	624	2,714	919	11,771
66		0	494	47	4,743	3,183	139	3,212	11,817
67		0	0	0	924	729	9,842	1,357	12,851
68		775	0	0	0	634	0	2,264	3,673
69		0	0	48	565	851	885	531	2,881
70		0	0	48	630	0	2,935	7,084	10,697
Total	0	3,106,035	5,911,793	9,582,517	7,914,879	3,593,854	1,923,568	2,181,632	34,214,278

All data are calculated by multiplying the number of pieces in each rate cell (USPS-36) by the corresponding estimated cubic feet per piece for inter-BMC parcels (Attachment K).

Parcel Post Cubic Foot and Cubic Foot Mile Input Data

Intra-BMC Cubic Feet by Zone and Weight Increment

LBS	Local	Zones 1 & 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Total
2	280,445	1,818,207	260,653	34,531	178				2,394,015
3	168,745	1,461,419	270,321	52,685	1,465				1,954,635
4	138,301	1,259,097	250,543	50,906	908				1,699,755
5	91,308	933,259	219,397	36,404	1,002				1,281,370
6	52,294	609,119	144,497	30,354	2,736				839,000
7	45,081	560,131	107,493	36,267	132				749,105
8	31,282	492,464	88,857	19,427	1,449				633,479
9	33,860	354,732	109,860	17,738	536				516,725
10	26,366	257,781	51,516	10,496	342				346,501
11	21,834	247,611	58,847	9,807	511				338,609
12	17,228	174,055	47,252	8,836	57,022				304,393
13	13,105	176,777	46,691	5,354	58,241				300,168
14	9,802	143,719	44,072	5,814	0				203,408
15	6,792	117,584	27,890	8,494	0				160,759
16	47,503	138,940	28,348	9,580	188				224,559
17	12,186	174,119	17,543	4,672	0				208,520
18	4,633	101,393	31,405	2,180	0				139,611
19	5,142	116,603	10,119	9,373	75,668				216,905
20	7,681	80,266	7,397	6,018	384				101,745
21	9,025	71,040	17,523	1,857	223				99,668
22	3,804	94,105	20,424	82	0				118,414
23	7,641	83,287	11,036	4,053	0				106,017
24	3,566	90,478	9,753	6,194	0				109,991
25	4,842	70,878	7,513	4,107	0				87,340
26	4,595	56,841	18,420	8,711	0				88,567
27	2,251	32,545	6,955	430	0				42,180
28	2,127	73,067	11,623	148	0				86,965
29	2,761	80,252	42,932	0	0				125,946
30	2,884	77,086	12,168	1,226	0				93,363
31	3,726	31,885	2,514	1,673	0				39,798
32	3,859	54,427	4,514	431	0				63,230
33	484	26,273	4,885	321	0				31,964
34	2,184	24,019	7,839	1,650	0				35,692
35	2,142	14,882	1,550	2,728	0				21,301
36	648	40,358	673	4,246	0				45,924
37	935	22,172	1,321	320	0				24,749
38	358	23,267	2,657	3,960	0				30,242
39	2,717	20,566	1,916	377	0				25,576
40	0	7,141	675	1,771	0				9,588
41	1,176	21,671	2,585	1,037	0				26,468
42	841	7,356	2,686	686	0				11,568
43	2,763	20,627	1,305	0	0				24,695
44	0	11,911	10,962	1,409	0				24,281
45	0	19,448	123	845	0				20,416
46	106	5,912	2,124	35	0				8,178
47	749	10,338	920	0	0				12,007
48	1,320	4,458	723	0	0				6,501
49	0	3,482	492	0	0				3,974
50	2,893	13,049	3,201	0	0				19,143

All data are calculated by multiplying the number of pieces in each rate cell (USPS-T-36) by the corresponding estimated cubic feet per piece for intra-BMC parcels (Attachment K).

Parcel Post Cubic Foot and Cubic Foot Mile Input Data

Intra-BMC Cubic Feet by Zone and Weight Increment (Continued)

LBS	Local	Zones 1 & 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Total
51	205	9,319	489	0	0				10,014
52	1,455	13,981	452	324	0				16,212
53	0	2,942	0	0	0				2,942
54	215	7,310	3,939	0	0				11,464
55	0	10,605	0	0	0				10,605
56	0	2,912	561	0	0				3,473
57	1,066	947	5,995	0	0				8,007
58	0	628	148	0	0				776
59	1,071	6,859	0	0	0				7,930
60	0	692	1,310	0	0				2,002
61	0	4,412	711	0	0				5,123
62	4,725	625	422	0	0				5,772
63	0	430	666	0	0				1,096
64	0	6,694	0	431	0				7,126
65	0	1,706	0	217	0				1,923
66	0	0	0	0	0				0
67	0	218	366	0	0				584
68	0	1,168	0	0	0				1,168
69	0	0	0	0	0				0
70	0	482	0	0	0				482
Total	1,092,724	10,402,027	2,049,770	408,204	200,985	0	0	0	14,153,710

All data are calculated by multiplying the number of pieces in each rate cell (USPS-T-36) by the corresponding estimated cubic feet per piece for intra-BMC parcels (Attachment K).

Parcel Post Cubic Foot and Cubic Foot Mile Input Data

DBMC Cubic Feet by Zone and Weight Increment

LBS	Local	Zones 1 & 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Total
2		20,027,895	3,397,021	609,959	30,475				24,065,350
3		26,849,310	4,596,075	829,700	20,827				32,295,911
4		21,016,955	3,548,060	657,247	22,383				25,244,645
5		17,151,793	3,082,313	516,865	40,700				20,791,671
6		13,477,978	2,618,972	311,742	23,935				16,432,626
7		12,660,540	2,386,694	467,025	9,125				15,523,384
8		9,663,622	1,554,090	284,927	20,337				11,522,976
9		7,303,015	1,235,185	164,482	0				8,702,683
10		5,704,908	915,329	204,119	0				6,824,356
11		5,316,488	990,498	224,040	13,117				6,544,144
12		4,468,150	730,192	98,497	27,932				5,324,771
13		3,337,580	596,382	90,611	0				4,024,573
14		2,852,895	612,915	61,310	0				3,527,119
15		2,699,862	308,077	79,080	0				3,087,019
16		1,975,499	566,579	32,361	0				2,574,440
17		1,657,315	307,959	27,210	0				1,992,484
18		1,355,289	283,595	17,622	0				1,656,506
19		1,375,600	362,042	20,790	0				1,758,432
20		1,101,250	195,030	8,856	0				1,305,136
21		1,150,803	258,573	28,116	0				1,437,492
22		1,418,748	249,190	25,927	0				1,693,865
23		1,076,935	124,642	43,271	15,070				1,259,917
24		843,422	137,079	24,717	0				1,005,218
25		756,462	125,735	19,955	0				902,152
26		660,852	116,599	20,390	0				797,841
27		405,204	85,080	33,588	0				523,872
28		437,453	96,030	1,310	0				534,793
29		317,081	203,875	2,460	0				523,416
30		504,906	105,227	13,675	0				623,808
31		298,469	39,425	26,385	0				364,280
32		466,807	88,426	445	0				555,678
33		250,817	32,444	4,728	0				287,990
34		256,202	12,427	1,385	0				270,015
35		142,810	30,575	0	0				173,384
36		194,010	55,008	6,555	30,004				285,576
37		233,403	5,470	0	0				238,873
38		178,766	41,667	0	0				220,433
39		254,277	86,364	0	0				340,641
40		242,275	15,889	7,667	0				265,831
41		139,126	1,709	1,848	0				142,683
42		128,401	21,832	0	0				150,232
43		155,250	12,642	2,760	0				170,651
44		135,816	118,875	0	0				254,690
45		76,884	26,631	2,003	0				105,519
46		111,767	8,417	7,923	0				128,107
47		196,573	2,325	0	0				198,898
48		141,353	28,323	0	0				169,676
49		82,991	2,761	0	0				85,752
50		97,641	1,389	0	0				99,030

All data are calculated by multiplying the number of pieces in each rate cell (USPS-T-36) by the corresponding estimated cubic feet per piece for DBMC parcels (Attachment K).

Parcel Post Cubic Foot and Cubic Foot Mile Input Data

DBMC Cubic Feet by Zone and Weight Increment (Continued)

LBS	Local	Zones 1 & 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Total
51		135,279	18,013	0	0				153,292
52		69,432	2,965	0	0				72,397
53		51,148	0	0	0				51,148
54		22,020	3,920	0	0				25,940
55		104,333	0	0	0				104,333
56		67,217	0	0	0				67,217
57		784	12,847	0	0				13,631
58		14,927	0	0	0				14,927
59		35,319	1,185	0	0				36,505
60		2,446	1,541	0	0				3,987
61		7,184	901	4,603	0				12,688
62		3,384	0	0	0				3,384
63		42,987	0	4,563	0				47,550
64		4,073	3,140	0	0				7,213
65		1,614	8,834	0	0				10,447
66		28,319	1,245	0	0				29,564
67		2,083	0	0	0				2,083
68		0	0	0	0				0
69		0	0	0	190				190
70		6,866	2,344	0	0				9,210
Total	0	171,950,860	30,478,571	4,990,718	254,095	0	0	0	207,674,244

All data are calculated by multiplying the number of pieces in each rate cell (USPS-T-36) by the corresponding estimated cubic feet per piece for DBMC parcels (Attachment K).

Parcel Post Cubic Foot and Cubic Foot Mile Input Data

Summary of Cubic Feet and Cubic Foot Miles by Rate Category and Zone

TY01 Cubic Feet by Zone

Zone	[1] Inter-BMC	[2] Intra-BMC	[3] DBMC	[4] Total
Local	0	1,092,724	0	1,092,724
1-2	3,106,035	10,402,027	171,950,860	185,458,923
3	5,911,793	2,049,770	30,478,571	38,440,134
4	9,582,517	408,204	4,990,718	14,981,439
5	7,914,879	200,985	254,095	8,369,959
6	3,593,854	0	0	3,593,854
7	1,923,568	0	0	1,923,568
8	2,181,632	0	0	2,181,632
Total	**34,214,278**	**14,153,710**	**207,674,244**	**256,042,233**
Total excluding local		**13,060,986**		

FY98 Cubic Foot Miles by Zone

Zone	[5] Inter-BMC	[6] Intra-BMC	[7] DBMC	[8] Total
Local	0	0	0	0
1-2	432,932,306	775,919,494	7,277,767,860	8,486,619,660
3	1,804,376,449	732,532,855	4,721,122,626	7,258,031,930
4	5,311,079,868	206,660,162	1,117,081,231	6,634,821,261
5	8,053,970,014	56,500,142	158,449,980	8,268,920,136
6	5,388,290,403	0	0	5,388,290,403
7	3,749,894,571	0	0	3,749,894,571
8	6,286,695,170	0	0	6,286,695,170
Total	**31,027,238,781**	**1,771,612,653**	**13,274,421,697**	**46,073,273,131**

DSCF Cubic Foot Calculations

Zone	[9] Total DBMC Cubic Feet	[10] DSCF Cubic Feet	[11] Regular DBMC Cubic Feet
Local	0	0	0
1-2	171,950,860	14,759,616	157,191,244
3	30,478,571	0	30,478,571
4	4,990,718	0	4,990,718
5	254,095	0	254,095
6	0	0	0
7	0	0	0
8	0	0	0
Total	**207,674,244**	**14,759,616**	**192,914,628**

Sources

Column [1]: Attachment L page 2, total cubic feet for each zone.
Column [2]: Attachment L, page 4, total cubic feet for each zone.
Column [3]: Attachment L, page 6, total cubic feet for each zone.
Column [4]: Column [1] + column [2] + column [3].
Column [5]: USPS LR-I-105, Attachment E.
Column [6]: USPS LR-I-105, Attachment E.
Column [7]: USPS LR-I-105, Attachment E.
Column [8]: Column [5] + column [6] + column [7].
Column [9]: Column [3].
Column [10]: Attachment M, page 3, row 16, multiplied by total DBMC cubic feet.
Column [11]: Column [9] - column [10].

Division of Parcel Post Transportation Costs

Division of Total Parcel Post Costs Into Function (all figures are in thousands)

	[1] Total Parcel Post Transportation Costs	[2] Local Costs[1]	[3] Intermediate Costs[1]	[4] Long Distance - ZR Costs [1]	[5] Long Distance - NZR Costs[1]
Domestic Airmail					
Passenger Air[2]	$2,349			$874	$1,475
Intra-Alaska preferential	$2,086		$2,086		
Intra-Alaska non-pref[3]	$7,806		$7,806		
Intra-Hawaii	$645		$645		
Eagle Network[4]	$63				$63
Western air[4]	$3				$3
Christmas[6]	$47			$33	$14
Air taxi[5]	$5,266	$0	$4,268.62	$367.34	$630.04
Total Domestic Airmail (without Alaska)	**$10,459**	**$0**	**$7,000**	**$1,274**	**$2,185**
Domestic Airmail Percent	***100.00%***	***0.00%***	***66.92%***	***12.18%***	***20.89%***
Highway Service					
Intra-SCF	$66,813	$66,813			
Inter-SCF	$22,283		$22,283		
Plant loaded	$1,778		$1,778		
Intra-BMC	$86,465		$86,465		
Inter-BMC	$60,637			$60,637	
Alaskan highway service	$1,475		$1,475		
Contract term van damage[5]	$365	$102	$170	$93	$0
Area bus	$3				
Empty equipment[5]	$1,698	$474	$794	$430	$0
Total Highway Service	**$241,517**	**$67,389**	**$112,965**	**$61,160**	**$0**
Plant loaded Percent			***0.74%***		
Highway Service Percent	***100.00%***	***27.90%***	***46.04%***	***25.32%***	***0.00%***
Railroad Service					
Amtrack	$1,088			$1,088	
Freight rail	$27,754			$27,754	
Plant loaded	$76		$76		
Empty equipment[5]	$3,456	$0	$9	$3,447	$0
Total railroad service	**$32,374**	**$0**	**$85**	**$32,289**	**$0**
Plant Loaded Percent			***0.23%***		
Railroad Service Percent	***100.00%***	***0.00%***	***0.03%***	***99.74%***	***0.00%***
Domestic Water					
Inland	$766	$766			
Offshore	$3,936		$3,936		
Total Domestic Water	**$4,702**	**$766**	**$3,936**	**$0**	**$0**
Domestic Water Percent	***100.00%***	***16.29%***	***83.71%***	***0.00%***	***0.00%***

Sources

[1]Explination of Local, Intermediate and Long Distance Transportation is found in Section V.A.1. in the text of the testimony.

[2]Commercial air costs are split between columns 4 and 5 based on terminal handling (62.8%) and linehaul (37.2%) percentages. LR-I-60.

[3] Alaska Air nonpref costs are from the Base Year Cost Components and Segment Report since these are the costs attributed to Parcel Post.

[4]Network and western air are the only components of long distance transportation cost that are not related to GCD miles.

[5]These accounts are distributed to each cost category based on the distribution of other accounts.

[6] Christmas air costs are split between columns 4 and 5 based on percent of distance-related costs (non-hub and spoke line-haul,70.1 %) and percent of non-distance-related costs (terminal handling and hub and spoke costs, 29.9 %). USPS-T-26, Attachment Z.

Column [1]: USPS-T-11, WP.B.

Column [2]: Parcel Post transportation costs incurred transporting parcels within the service area of a P&DC.

Column [3]: Parcel Post transportation costs incurred transporting parcels within the service area of a BMC.

Column [4]: Parcel Post costs that are related to GCD distance, incurred transporting parcels outside the service area of a BMC.

Column [5]: Parcel Post costs that are *not* related to GCD distance, incurred transporting parcels outside the service area of a BMC.

Division of Parcel Post Transportation Costs

Summary of Test Year Transportation Costs

		Domestic Airmail	Highway Service	Railroad Service	Domestic Water	Total
Test Year Cost Adjustments						
Total Parcel Post Base Year Costs (without Alaska)	1/	$10,459	$241,517	$32,374	$4,702	**$289,052**
Total Parcel Post Test Year Costs (without Alaska)	2/	$12,743	$272,194	$38,652	$5,987	**$329,576**
Test year Alaska non-pref air costs	3/	$9,440				
Total Test Year Costs	4/					**$339,016**
Parcel Post Costs by Function						
Base Year Local Cost Percentage	5/	0.00%	27.90%	0.00%	16.29%	
Base Year Intermediate Cost Percentage	6/	66.92%	46.04%	0.03%	83.71%	
Base Year Inter Plant Load Costs	7/		0.74%	0.23%		
Base Year Long Distance ZR Percentage	8/	12.18%	25.32%	99.74%	0.00%	
Base Year Long Distance NZR Percentage	9/	20.89%	0.00%	0.00%	0.00%	
Test Year Local Costs	10/	$0	$75,949	$0	$975	**$76,924**
Test Year Intermediate Costs	11/	$8,528	$125,309	$11	$5,012	**$138,860**
Test Year Intermediate (plantloaded and Alaska Cost)	12/	$9,440	$2,004	$90.74		**$11,535**
Test Year Long Distance DR Costs	13/	$1,552	$68,928	$38,550	$0	**$109,031**
Test Year Long Distance NDR Costs	14/	$2,662	$0	$0	$0	**$2,662**
Test Year Total Long Distance Costs	15/	$4,215	$68,928	$38,550	$0	**$111,694**
Postal Owned Vehicle Costs						
Test Year Postal Owned Vehicle Costs	16/					$57,172
Piggyback Factor	17/					1.485
Total Postal Owned Vehicle Costs	18/					$84,900
Adjusted Test Year Local Costs	19/					**$161,825**

Sources

Row 1/: Total transportation cost by mode from page 1, column 1 of this attachment.
Row 2/: Total transportation cost by mode from test year roll-forward without Alaska non-pref (USPS-T-14. WP.H).
Row 3/: Rolled forward Alaska costs (USPS-T-14 WP.H).
Row 4/: Total test year Parcel Post transportation costs. Total from row (2) + row (3)
Row 5/: Attachment M, page 1, column 2, local cost percentages by mode.
Row 6/: Attachment M, page 1, column 3, intermediate cost percentages by mode.
Row 7/: Attachment M, page 1, column 3, intermediate plantload cost percentages
Row 8/: Attachment M, page 1, column 4, long distance (distance related) cost percentages by mode.
Row 9/: Attachment M, page 1, column 5, long distance (non-distance related) cost percentages by mode.
Row 10/: Row (2) * row (5).
Row 11/: Row (2) * row (6).
Row 12/: Row (3) for domestic airmail and row (2) * row (7) for all else
Row 13/: Row (2) * row (8).
Row 14/: Row (2) * row (9).
Row 15/: Row (13) + row (14).
Row 16/: USPS-T-14 WP.H.
Row 17/: USPS LR-I-77, piggyback factors.
Row 18/: Row (16) * row (17).
Row 19/: Row (18) + total of row (10).

Division of Parcel Post Transportation Costs

Division of Functional Costs Into Rate Categories

	Local	Inter-mediate	Long Distance	
Transportation costs for all parcel post:	$161,825	$138,860	$111,694	1/
Transportation costs for Inter-BMC and Intra-BMC only		$11,535		2/
Total Transportation Costs	$161,825	$150,395	$111,694	3/
Inter-BMC cubic feet:	34,214,278	34,214,278	34,214,278	4/
Intra-BMC cubic feet:	14,153,710	14,153,710	14,153,710	5/
DBMC cubic feet:	207,674,244	207,674,244	207,674,244	6/
Total parcel post cubic feet:	256,042,233	256,042,233	256,042,233	7/
Percentage of inter-BMC parcels entered at origin BMCs:	4.48%	4.48%	4.48%	8/
Avg. number of local legs traveled by an inter-BMC parcel:	1.96			9/
Avg. number of intermediate legs traveled by an inter-BMC parcel:		1.96		10/
Avg. number of long distance legs traveled by an inter-BMC parcel:			1.00	11/
Percentage of intra-BMC cubic feet held out at the AO:	3.86%	3.86%	3.86%	12/
Avg. number of local legs traveled by an intra-BMC parcel:	1.92			13/
Avg. number of intermediate legs traveled by an intra-BMC parcel:		1.92		14/
Avg. number of long distance legs traveled by an intra-BMC parcel:			0.00	15/
Percentage of DBMC parcels entered at destination SCFs:	7.11%	7.11%	7.11%	16/
Avg. number of local legs traveled by a DBMC parcel:	1.00			17/
Avg. number of intermediate legs traveled by a DBMC parcel:		0.93		18/
Avg. number of long distance legs traveled by a DBMC parcel:			0.00	19/
Transportation costs incurred by DBMC rated parcels:	$111,360	$93,330	$0	20/
Transportation costs incurred by intra-BMC rated parcels:	$14,593	$16,502	$0	21/
Transportation costs incurred by inter-BMC rated parcels:	$35,871	$40,563	$111,694	22/
Transportation costs for all parcel post:	$161,825	$150,395	$111,694	23/

Sources

Row 1/: Attachment M page 2 row 19 (local), row 11 (intermediate), row 15 (long distance).
Row 2/: Attachment M, page 2, row 12.
Row 3/: Row (1) + row (2).
Row 4/: Attachment L, page 7, column 1, total inter-BMC cubic feet.
Row 5/: Attachment L, page 7, column 2, total intra-BMC cubic feet.
Row 6/: Attachment L, page 7, column 3, total DBMC cubic feet.
Row 7/: Row (4) + row (5) + row (6).
Row 8/: Docket No. R97-1 USPS-T-16, Appendix I page 13.
Row 9/: [1 * row (8)] + (2 * [1 - row (8)]) .
Row 10/: [1 * row (8)] + (2 * [1 - row (8)]).
Row 11/: Inter-BMC rated parcels should receive one leg of long distance transportatio
Row 12/: Attachment L, page 7, column 2, intra-BMC local cubic feet divided by intra-BMC total cubic feet.
The resulting quotient is multiplied by .5 to account for half of the intra-BMC parcels being held out at the local AO.
Row 13/: [0 * row (12)] + [2 * (1 - row (12)]).
Row 14/: [0 * row (12)] + (2 * [1 - row (12)]).
Row 15/: Intra-BMC rated parcels should not receive long distance transportation.
Row 16/: Docket No. R97-1 USPS-T-16, Appendix I page 13.
Row 17/: All DBMC parcels should receive one leg of local transportation.
Row 18/: [0 * row (16)] + (1 * [1 - row (16)]).
Row 19/: DBMC parcels should not receive long distance transportation.
Row 20/: Costs distributed based on number of legs and cubic feet.
Row 21/: Costs distributed based on number of legs and cubic feet.
Row 22/: Costs distributed based on number of legs and cubic feet.
Row 23/: Row (17) + row (18) + row (19).

Summary of Parcel Post Unit Transportation Costs by Zone

Cost per Cubic Foot by Zone for Each Rate Category

Inter-BMC	[1]	[2]	[3]	[4]	[5]
Zone	**Local costs**	**Intermediate costs**	**Long distance ZR costs**	**Long distance NZR costs**	**Total inter-BMC costs**
Local	N/A	N/A	N/A	N/A	N/A
1-2	$1.0484	$1.1855	$0.4898	$0.0778	$2.8016
3	$1.0484	$1.1855	$1.0725	$0.0778	$3.3843
4	$1.0484	$1.1855	$1.9476	$0.0778	$4.2594
5	$1.0484	$1.1855	$3.5758	$0.0778	$5.8876
6	$1.0484	$1.1855	$5.2686	$0.0778	$7.5804
7	$1.0484	$1.1855	$6.8505	$0.0778	$9.1622
8	$1.0484	$1.1855	$10.1262	$0.0778	$12.4380

Intra-BMC	[6]	[7]	[8]
Zone	**Local costs**	**Intermediate costs**	**Total intra-BMC costs**
Local	$0.6200	$0.6064	$1.2264
1-2	$1.0654	$1.2127	$2.2782
3	$1.0654	$1.2127	$2.2782
4	$1.0654	$1.2127	$2.2782
5	$1.0654	$1.2127	$2.2782
6	N/A	N/A	N/A
7	N/A	N/A	N/A
8	N/A	N/A	N/A

DBMC	[9]	[10]	[11]
Zone	**Local**	**Intermediate costs**	**DBMC costs**
Local	N/A	N/A	N/A
1-2	$0.5362	$0.3255	$0.8617
3	$0.5362	$1.0891	$1.6253
4	$0.5362	$1.5737	$2.1100
5	$0.5362	$4.3843	$4.9206
6	N/A	N/A	N/A
7	N/A	N/A	N/A
8	N/A	N/A	N/A

DSCF Costs	$0.5362 1/
DDU Cost Avoidance (DSCF costs less DDU costs in $/cf)	$0.4454 2/

Sources

Column [1]: Attachment N, page 2, column 7.
Column [2]: Attachment N, page 2, column 8.
Column [3]: Attachment N, page 2, column 9.
Column [4]: Attachment N, page 2, column 10.
Column [5]: Column [1] + column [2] + column [3] + column [4].
Column [6]: Attachment N, page 3, column 7.
Column [7]: Attachment N, page 3, column 8.
Column [8]: Column [6] + column [7].
Column [9]: Attachment N, page 4, column 5.
Column [10]: Attachment N, page 4, column 6.
Column [11]: Column [9] + column [10].
Row 1/: Same as DBMC local costs, column [9].
Row 2/: Attachment N, page 5, row 12.

Parcel Post Transportation Costs By Rate Category and Zone

Calculation of Inter-BMC Transportation Costs per Cubic Foot by Zone

Inter-BMC parcel transportation costs by function and distance relation

Local costs incurred by inter-BMC parcels (non-distance related)	$35,871 1/
Intermediate costs incurred by inter-BMC parcels (non-distance related)	$40,563 2/
Long distance costs incurred by inter-BMC parcels (distance related)	$109,031 3/
Long distance costs incurred by inter-BMC parcels (non-distance related)	$2,662 4/
Total inter-BMC parcel costs	**$188,127 5/**

	[1]	[2]	[3]	[4]	[5]	[6]
Zone	**Percentage of inter-BMC cubic feet**	**Percentage of inter-BMC cubic foot miles**	**Local costs (000)**	**Intermediate costs (000)**	**Long distance costs - ZR (000)**	**Long distance costs - NZR (000)**
Local	0.00%	0.00%	$0	$0	$0	$0
1-2	9.08%	1.40%	$3,256	$3,682	$1,521	$242
3	17.28%	5.82%	$6,198	$7,009	$6,341	$460
4	28.01%	17.12%	$10,047	$11,361	$18,663	$746
5	23.13%	25.96%	$8,298	$9,383	$28,302	$616
6	10.50%	17.37%	$3,768	$4,261	$18,935	$280
7	5.62%	12.09%	$2,017	$2,280	$13,177	$150
8	6.38%	20.26%	$2,287	$2,586	$22,092	$170
Total	**100.00%**	**100.00%**	**$35,871**	**$40,563**	**$109,031**	**$2,662**

	[7]	[8]	[9]	[10]	[11]	[12]
Zone	**Local unit costs ($/CF)**	**Intermediate unit costs ($/CF)**	**Long distance - ZR unit costs ($/CF)**	**Long distance - NZR unit costs ($/CF)**	**Total unit costs ($/CF)**	**Reconcile to total costs (000)**
Local	N/A	N/A	N/A	N/A	N/A	N/A
1-2	$1.0484	$1.1855	$0.4898	$0.0778	$2.8016	$8,702
3	$1.0484	$1.1855	$1.0725	$0.0778	$3.3843	$20,007
4	$1.0484	$1.1855	$1.9476	$0.0778	$4.2594	$40,816
5	$1.0484	$1.1855	$3.5758	$0.0778	$5.8876	$46,600
6	$1.0484	$1.1855	$5.2686	$0.0778	$7.5804	$27,243
7	$1.0484	$1.1855	$6.8505	$0.0778	$9.1622	$17,624
8	$1.0484	$1.1855	$10.1262	$0.0778	$12.4380	$27,135
Total						**$188,127**

Sources

Row 1/: Attachment M, page 3, row 22.
Row 2/: Attachment M, page 3, row 22.
Row 3/: Attachment M, page 2, row 13.
Row 4/: Attachment M, page 2, row 14.
Row 5/: Row (1) + row (2) + row (3) + row (4).
Column [1]: Attachment L, page 7, column 1, inter-BMC cubic feet in the given zone divided by total inter-BMC cubic feet.
Column [2]: Attachment L, page 7, column 5, inter-BMC cubic foot miles in the given zone divided by total inter-BMC cubic foot miles.
Column [3]: Row (1) * column [1].
Column [4]: Row (2) * column [1].
Column [5]: Row (3) * column [2].
Column [6]: Row (4) * column [1].
Column [7]: Column [3] * 1000 / Attachment L, page 7, column 1 (inter-BMC cubic feet by zone).
Column [8]: Column [4] * 1000 / Attachment L, page 7, column 1 (inter-BMC cubic feet by zone).
Column [9]: Column[5] * 1000 / Attachment L, page 7, column 1 (inter-BMC cubic feet by zone).
Column [10]: Column [6] * 1000 / Attachment L, page 7, column 1 (inter-BMC cubic feet by zone).
Column [11]: Column [7] + column [8] + column [9] + column [10].
Column [12]: Column [11] * Attachment L, page 7, column 1 (inter-BMC cubic feet by zone).

Parcel Post Transportation Costs By Rate Category and Zone

Calculation of Intra-BMC Rated Parcel Costs per Cubic Foot by Zone

Intra-BMC parcel transportation costs by function and distance relation

Local costs incurred by intra-BMC parcels (non-distance related)	$14,593 1/
Intermediate costs incurred by intra-BMC parcels (non-distance related)	$16,502 2/
Long distance costs incurred by intra-BMC parcels	$0 3/
Total intra-BMC parcel costs	**$31,095 4/**
Percent of local intra-BMC that is held out	50.00% 5/

	[1]	[2]	[3]	[4]	[5]	[6]
	Cubic feet	**Average Local / Intermediate Legs**	**Average Cubic foot-legs**	**Percent**	**Local Trans Costs**	**Intermediate Trans Costs**
Local zone	1,092,724	1	1,092,724	4.02%	$487	$663
Non-local zone	13,060,986	2	26,121,973	95.98%	$11,635	$15,839
Intra-city / box route adjustment	6/				$2,471	
Total	**14,153,710**		**27,214,697**	**100.00%**	**$14,593**	**$16,502**

	[7]	[8]	[9]	[10]
Zone	**Local unit costs ($/CF)**	**Intermediate unit costs ($/CF)**	**Total unit costs ($/CF)**	**Reconcile to total costs (000)**
Local	$0.6200	$0.6064	$1.2264	$1,340
1-2	$1.0654	$1.2127	$2.2782	$23,697
3	$1.0654	$1.2127	$2.2782	$4,670
4	$1.0654	$1.2127	$2.2782	$930
5	$1.0654	$1.2127	$2.2782	$458
6	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A
Total				**$31,095**

Sources

Row 1/: Attachment M, page 3, row 21.
Row 2/: Attachment M, page 3, row 21.
Row 3/: Attachment M, page 3, row 21.
Row 4/: Row (1) + row (2) + row (3).
Row 5/: Assumption from Docket no. R97-1, USPS-T-16.
Row 6/: Row 1 * Attachment N, page 5, row 10. (even held out parcels incur these costs).
Column [1]: Attachment L, page 7, column 2, intra-BMC cubic feet in the local zone and in all other zones.
Column [2]: Local zone legs reflect half of the local parcels being held out at the AO. Non-local zone legs reflect typical intra-BMC parcel.
Column [3]: Column [1] * column [2].
Column [4]: Percentage of cubic foot legs from column [3].
Column [5]: [Row (1) - row (5)] * column [4].
Column [6]: Row (2) * column [4].
Column [7]: Local zone unit cost = (local zone costs from column [4] / local zone cubic feet from column [1]) + row (5) / total cubic feet.
Non-local zone unit cost = (non-local zone costs from column [4] / non-local zone cubic feet from column [1]) + row (5) / total cubic fee
Column [8]: Local zone unit cost = local zone costs from column [5] / local zone cubic feet from column [1].
Non-local zone unit cost = non-local zone costs from column [5] / non-local zone cubic feet from column [1].
Column [9]: Column [5] + column [6].
Column [10]: Column [7] * Attachment L, page 7, column 2 (intra-BMC cubic feet by zone).

Parcel Post Transportation Costs By Rate Category and Zone

Calculation of DBMC Rated Parcel Costs per Cubic Foot by Zone

DBMC parcel transportation costs by distance relation

Local costs incurred by DBMC parcels (non-distance related)	$111,360 1/
Intermediate costs incurred by DBMC parcels (distance related)	$93,330 2/
Long distance costs incurred by DBMC parcels	$0 3/
Total DBMC parcel costs	**$204,691** 4/

	[1]	[2]	[3]	[4]
Zone	Percentage of DBMC cubic feet	Percentage of DBMC cubic foot miles	Local costs (000)	Intermediate costs (000)
Local	0.00%	0.00%	$0	$0
1-2	82.80%	54.83%	$92,204	$51,169
3	14.68%	35.57%	$16,343	$33,193
4	2.40%	8.42%	$2,676	$7,854
5	0.12%	1.19%	$136	$1,114
6	0.00%	0.00%	$0	$0
7	0.00%	0.00%	$0	$0
	0.00%	0.00%	$0	$0
Total	**100.00%**	**100.00%**	**$111,360**	**$93,330**

	[5]	[6]	[7]	[8]
Zone	Local / DSCF Unit Costs ($/CF)	Intermediate Unit Costs ($/CF)	Total DBMC Unit Costs ($/CF)	Reconcile to Total Costs (000)
Local	N/A	N/A	N/A	N/A
1-2	$0.5362	$0.3255	$0.8617	$143,373
3	$0.5362	$1.0891	$1.6253	$49,537
4	$0.5362	$1.5737	$2.1100	$10,530
5	$0.5362	$4.3843	$4.9206	$1,250
6	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A
Total				**$204,691**

Sources

Row 1/: Attachment M, page 3, row 20.
Row 2/: Attachment M, page 3, row 20.
Row 3/: Attachment M, page 3, row 20.
Row 4/: Row (1) + row (2) + row (3).
Column [1]: Attachment L, page 7, column 3, DBMC cubic feet in the given zone divided by total DBMC cubic feet.
Column [2]: Attachment L, page 7, column 7, DBMC cubic foot miles in the given zone divided by total DBMC cubic foot miles.
Column [3]: Row (1) * column [1].
Column [4]: Row (2) * column [2].
Column [5]: Column [3] / Attachment L, page 7, column 3 (DBMC cubic feet by zone, all cubic feet will have a local leg).
Column [6]: Column [4] / Attachment L, page 7, column 11 (regular DBMC cubic feet by zone since this is the cubic feet that will have an intermediate leg).
Column [7]: Column [5] + column [6].
Column [8]: (Column [5] * Attachment L, page 7, column 10) + (column [7] * Attachment L, page 7, column 11).

Parcel Post Transportation Costs By Rate Category and Zone

Calculation of DDU Avoided Costs per Cubic Foot

Test year local parcel post transportation costs		
Highway and POV	$160,849	1/
Water	$975	2/
Total	**$161,825**	3/
Total intra-SCF highway transportation costs by contract type		
Intra-SCF vans	244,999	4/
Intra-SCF trailers	121,983	5/
Intra-city	25,473	6/
Box-route	46,681	7/
Total	**439,137**	8/
Percentage of intra-SCF highway and POV costs avoided by DDU parcels	**83.57%**	9/
Percentage of local transportation costs avoided by DDU parcels	**83.07%**	10/
DSCF transportation cost per cubic foot ($/cf)	**$0.5362**	11/
DSCF - DDU transportation cost difference ($/cf)	**$0.4454**	12/
	$0.0908	

Sources

Row 1/: Attachment M, page 2, row (10) total local highway + row (18) POV costs.
Row 2/: Attachment M, page 2, row 10, total local domestic water costs.
Row 3/: Row (1) + row (2).
Row 4/: Attachment USPS-22, Table A1.
Row 5/: Attachment USPS-22, Table A1.
Row 6/: Attachment USPS-22, Table A1.
Row 7/: Attachment USPS-22, Table A1.
Row 8/: Row (4) + row (5) + row (6) + row (7).
Row 9/: [Row (4) + row (5)] / row (8).
Row 10/: [Row (9) * row (1)] / row (3).
Row 11/: Attachment N, page 4, column 5.
Row 12/: Row (10) * row (11).

Calculations used for Stamped Envelopes Transportation Costs Only

		Costs per C.F.	
		Parcel Post	**Stamped Envelope**
Inter-BMC		[1]	[2]
	Local	$1.0484	$0.5362
	Intermediate	$1.1855	$0.6064
	Long Dist -Dist Related	$3.1867	$3.1867
	Long Dist - NDR	$0.0778	$0.0778
	Total		**$4.4071**
DBMC			
	Local	$0.5362	$0.5362
	Intermediate	$0.4838	$0.5208
	Total		**$1.0570**

Sources

Column [1]: Average cost per cubic feet for parcel post. Calculated by dividing total cost divided by total cubic feet.

Column [2]: Average cost per cubic feet of parcel post adjusted for stamped envelope.

SPECIAL STANDARD MAIL PROCESSING COST SUMMARY

Table 1: Nonmodel Cost Factor Development

Weighted Avg Model Cost	**1/**	**$0.498**
Proportional Cost Pools	**2/**	**$0.519**
CRA Proportional Adjustment	**3/**	**1.042**
CRA Fixed Adjustment	**4/**	**0.211**

Table 2: Total Cost Development

	Modeled Costs [1]	Proportional Adjustment [2]	Fixed Adjustment [3]	Adjusted Costs [4]
Avg. Nonpresort	$0.518	1.04	0.21	$0.751
Avg. BMC cost	$0.419	1.04	0.21	$0.648
Avg. 5-D Presort	$0.171	1.04	0.21	$0.389

Table 3: Cost Difference Cost Summary

		Cost Difference
Avg. Nonpresort		
Avg. BMC cost	5/	$0.104
Avg. 5-D Presort	6/	$0.362

Sources

Row 1/: Weighted average model costs from Attachment P, pages 8 - 14.
Row 2/: Sum of CRA Costs in proportional pools, Attachment P, page 2.
Row 3/: Proportional cost pools divided by weighted averaged modeled costs.
Row 4/: Sum of CRA Costs in Fixed Costs Pools, Attachment P, page 2.
Row 5/: Total costs of avg. nonpresort [4] minus total costs of Avg. BMC cost.
Row 6/: Total costs of avg. nonpresort [4] minus total costs of avg. 5-D presort [4].
Column [1]: Model costs from Attachment P, pages 8 - 14.
Column [2]: Proportional CRA adjustment factor, same as row (2).
Column [3]: Fixed CRA adjustment factor, same as row (4).
Column [4]: Total costs = model costs times proportional adjustment plus fixed adjustment.

SPECIAL STANDARD MAIL PROCESSING CRA COST POOLS

From USPS LR-I-81

Cost Pool		Total (Cents)	Proportional (Cents)	Fixed (Cents)
MODS 11	BCS/	0.028		0.028
MODS 11	OCR/	0.000		0.000
MODS 12	FSM/	2.761		2.761
MODS 12	LSM/	0.000		0.000
MODS 13	MECPARC	0.104	0.104	
MODS 13	SPBS OTH	2.697		2.697
MODS 13	SPBSPRIO	0.090		0.090
MODS 13	1SACKS_M	0.093		0.093
MODS 14	MANF	0.669		0.669
MODS 14	MANL	0.001		0.001
MODS 14	MANP	1.049	1.049	
MODS 14	PRIORITY	0.087		0.087
MODS 15	LD15	0.000		0.000
MODS 17	1BULK PR	0.019		0.019
MODS 17	1CANCMPP	0.389		0.389
MODS 17	1OPBULK	0.699		0.699
MODS 17	1OPPREF	1.271		1.271
MODS 17	1PLATFRM	2.959	2.959	
MODS 17	1POUCHNG	0.886		0.886
MODS 17	1SACKS_H	0.407		0.407
MODS 17	1SCAN	0.123		0.123
MODS 18	BUSREPLY	0.373		0.373
MODS 18	EXPRESS	0.007		0.007
MODS 18	MAILGRAM	0.000		
MODS 18	REGISTRY	0.063		0.063
MODS 18	REWRAP	0.166		0.166
MODS 18	1EEQMT	2.970		2.970
MODS 19	INTL	0.008		0.008
MODS 41	LD41	0.002		0.002
MODS 42	LD42	0.000		0.000
MODS 43	LD43	2.948		2.948
MODS 44	LD44	0.132		0.132
MODS 48	LD48 EXP	0.000		0.000
MODS 48	LD48_SSV	0.007		0.007
MODS 49	LD49	0.489		0.489
MODS 79	LD79	0.008		0.008
MODS 99	1SUPP_F1	0.275		0.275
MODS 99	1SUPP_F4	0.594		0.594
Mods Subtotal		**22.375**	**4.112**	**18.263**
BMCS	NMO	1.494	1.494	
BMCS	OTHR	12.775	12.775	
BMCS	PLA	13.427	13.427	
BMCS	PSM	13.552	13.552	
BMCS	SPB	1.344	1.344	
BMCS	SSM	1.626	1.626	
BMC Subtotal		**44.218**	**44.218**	**0.000**
NON MODS	ALLIED	1.812		1.812
NON MODS	AUTO/MEC	0.006		0.006
NON MODS	EXPRESS	0.000		0.000
NON MODS	MANF	0.608		0.608
NON MODS	MANL	0.006		0.006
NON MODS	MANP	3.581	3.581	
NON MODS	MISC	0.431		0.431
NON MODS	REGISTRY	0.002		0.002
Non Mods Subtotal		**6.445**	**3.581**	**2.865**
Total		73.039	51.910	21.128

Productivities and Conversion Factors for Direct Labor Operations

	Productivities (Units per Wkhr)		Conversion Factors 1/ Machinable	NMO
UNLOADING				
Unload sacked machinable parcels to extended conveyor	187.0	2/	20.4	n/a
Unload machinable parcels to extended conveyor	622.8	2/	1.0	n/a
Unload non-machinable parcels	161.4	2/	n/a	1.0
Unload non-machinable parcels to IHC only (proxy for sacks)	154.1	2/	20.4	1.0
Unload machinable parcels sacked in OTRs	20.8	2/	326.4	n/a
Unload parcels loose in OTRs	20.8	2/	309.9	309.9
Unload Wiretainer/Hamper/APC (Other Wheeled Cont. - OWC)	20.8	2/	131.7	131.7
Unload Pallets	12.3	2/	302.9	302.9
Unload Postal Paks	12.3	2/	369.1	n/a
Unload Pallet Boxes	12.3	2/	382.1	382.1
Unload Pallets (of BMC presorted NMOs)	12.3	2/	n/a	356.3
DUMPING & SACK HANDLING				
Dump Sacks in OTRs	6.4	2/	326.4	n/a
Dump OTRs (loose)	6.4	2/	309.9	309.9
Dump Other Wheeled Containers (OWC)	6.3	2/	131.7	131.7
Dump Pallets	6.4	2/	302.9	302.9
Dump Postal Paks	6.4	2/	369.1	n/a
Dump Pallet Boxes	6.4	2/	382.1	n/a
Sack shake out	71.8	2/	20.4	n/a
Manually dump sacks at Non-BMC	110.9	3/	20.4	n/a
Sack sorter	428.2	4/	20.4	n/a
PARCEL SORTING MACHINE DISTRIBUTION				
Primary Rate	874.0	4/	1.0	n/a
Secondary Rate	1296.6	4/	1.0	n/a
NONMACHINABLE OUTSIDES DISTRIBUTION				
NMO Distribution	98.6	4/	n/a	1.0
NMO Secondary Distribution at SCFs	433.0	5/	n/a	1.0
OTHER OPERATIONS				
Tend container loader/sweep runouts (Origin BMC - Postal Pak)	5.4	2/	369.1	n/a
Tend container loader/sweep runouts (Destinating BMC - OTR)	5.4	2/	309.9	n/a
Crossdock BMC Presorted Pallets	7.0	2/	n/a	356.3
Crossdock BMC Presorted Pallet Boxes	7.0	2/	382.1	382.1
Crossdock IHCs w/5-d sacks or NMOs	7.0	2/	290.1	290.1
Crossdock IHCs w/5-d presorted sacks	7.0	2/	290.1	
Sack and Tie	124.5	2/	1.0	n/a
LOADING				
Bedload NMOs to van (proxy for machinables)	176.6	2/	1.0	1.0
Bedload Sacked Machinables	182.5	2/	20.4	n/a
Load loose parcels in OTRs to van	10.4	2/	309.9	309.9
Load sacked machinables in OTRs to van	10.4	2/	326.4	n/a
Load Other Wheeled Containers (OWC) to van	10.4	2/	131.7	131.7
Load pallets to van	13.4	2/	302.9	302.9
Load Postal Paks to van	13.4	2/	369.1	n/a
Load Pallet Box to van	13.4	2/	382.1	382.1
Variabilities				
BMC Platform	0.946	6/		
BMC Other	0.987	6/		
PSM	1.000	6/		
SSM	1.000	6/		
SSB	1.000	6/		
NMO Distribution at BMCs	1.000	6/		
Platform Non-BMC	0.896	6/		
NMO Distribution at Non-BMCs	0.522	6/		

Sources

1/: Conversion Factors, Attachment P, page 7.
2/: Docket No. R97-1 USPS-T-29, Appendix V, page 15.
3/: Proxy based on Planning Guidelines (PGLs).
4/: National Database, PIRS FY98.
5/: LR-I-107, MODS, Operation 200.
6/: USPS-T-17, Table 1, variabilities.

Arrival and Dispatch Profiles

Mail Flow Arrival Profile at Originating BMCs and Dispatch Profiles	Arrival and Dispatch Percentages		
Machinable Parcels Arriving in Bedloaded Sacks at BMC	2.2%	6/	1/
Machinable Parcels Arriving Bedloaded at BMC	3.4%	6/	1/
Machinable Parcels Arriving sacked in OTRs at BMC	11.6%	6/	1/
Machinable Parcels Arriving loose in OTRs at BMC	51.2%	6/	1/
Machinable Parcels Arriving in Hampers/APC/OWC (OWC) at BMC	29.7%	6/	1/
Machinable Parcels Arriving Palletized at BMC	0.7%	6/	1/
Machinable Parcels Arriving in Pallet Boxes	1.2%	6/	1/
			1/
Non-Machinable Parcels Arriving Bedloaded at BMC	2.3%	6/	1/
Non-Machinable Parcels Arriving Palletized at BMC	0.1%	6/	1/
Non-Machinable Parcels Arriving in OTR Containers at BMC	72.6%	6/	1/
Non-Machinable Parcels Arriving in Hampers/APC/OWC (OWC) at BMC	24.1%	6/	1/
Non-Machinable Parcels Arriving in Pallet Boxes	0.9%	6/	1/
Mail Flow Arrival Profile from Origin BMCs to Destination BMCs			
Machinable Parcels Arriving in Postal Paks at Destination BMC (from Origin BMC)	100.0%	7/	2/
NMOs Arriving Palletized at Destination BMC (from Origin BMC)	100.0%	7/	2/
Mail Flow Dispatch Profiles from BMCs to Service Area			
Machinable Parcels Dispatched in Bedloaded Sacks to Service Area	23.8%	8/	3/
Machinable Parcels Dispatched loose in OTRs to Service Area	60.3%	8/	3/
Machinable Parcels Dispatched sacked in OTRs to Service Area	2.9%	8/	3/
Machinable Parcels Dispatched in Hampers/APC/OWC (OWC) to Service Area	13.0%	8/	3/
Non-Machinable Parcels Dispatched Bedloaded to Plant	12.9%	9/	4/
Non-Machinable Parcels Dispatched on Pallets to Plant	31.0%	9/	4/
Non-Machinable Parcels Dispatched in OTRs to Plant	53.6%	9/	4/
Non-Machinable Parcels Dispatched in Hampers/APC/OWC (OWC) to Plant	2.5%	9/	4/
Mail Flow Dispatch Profiles to Delivery Unit			
Machinable Parcels Dispatched in Bedloaded Sacks	26.7%	10/	5/
Machinable Parcels Dispatched loose in OTRs	60.3%	10/	5/
Machinable Parcels Dispatched in Hampers/APC/OWC (OWC) to Delivery Units	13.0%	10/	5/
Non-Machinable Parcels Dispatched Bedloaded to Delivery Unit	26.7%	11/	6/
Non-Machinable Parcels Dispatched in OTRs to Delivery Unit	60.3%	11/	6/
Non-Machinable Parcels Dispatched in Hampers/APC/OWC (OWC) to Delivery Unit	13.0%	11/	6/

Sources

1/: Docket no. R97-1, USPS LR-H-131, Table 3. Assume 61.9 percent of bedloaded is loose and 38.4 is sacked. Assume 81.6 percent of OTR is loose and 18.4 is sacked (Docket No.R97-1, USPS LR-H-132, page 277).
2/: Assumption that 100 percent of parcels going from BMC to BMC will be in postal paks.
3/: Docket No. R97-1 USPS LR-H-132, Attachment 1, page 274.
4/: Docket No. R97-1 USPS LR-H-132, Attachment 3, page 278.
5/: Assume same dispatch profile as leave BMC, but take sacks out of OTRs and bedload.
6/: Use machinable profiles as a proxy.

Other Inputs

Wage Rate with Premium Pay Factor Applied	$27.142 1/
Premium Pay Factor	0.961 2/
TY Mail Processing wage rate	$28.244 3/
Mail Processing Operation Specific Piggyback Factors	
Parcel Sorting Machine	1.782 4/
NMO Sorting at BMC	1.532 4/
NMO Sorting at SCF	1.504 4/
Other Operations at BMCs	1.602 4/
Sack Sorting Machine - BMC	1.935 4/
Platform Non-BMC	1.651 4/
Platform BMC	1.744 4/
Mail Flow Operating Assumptions	
Percent with direct transportation to destinating delivery unit from BMC	12.3% 5/
Percent Sorted to 5-Digits by Primary Parcel Sorting Machine	20.2% 6/
Destinating BMCs will feed barcoded destinating mail unfiltered to secondary	21.7% 7/
Probability that mail fed directly to nonspecific secondary will receive more than one sort	50.0% 8/
Probability that Mail sent to secondary will go to Scheme 2	50.0% 8/
Probability that barcode on secondary will not be readable	3.0% 9/
Proportion of parcel singulators (SSIU) being at secondary	6.0% 10/
Proportion sent from secondary to primary due to SSIU	0.2% 11/
Probability that Inter-BMC parcel go to primary psm at destination BMC	82.8% 12/
Probability that Inter-BMC parcel are handled by keyer on secondary psm at destination BMC	89.3% 12/
Probability that Intra-BMC and BMC presort parcels go to primary psm	100.1% 12/
Probability that Intra-BMC and BMC presort parcels are handled by a keyer on the secondary psm	79.7% 12/
Probability that NMOs are NOT inducted on the conveyor system (not used for NMOs over 108)	38.9% 13/
Probability that NMOs are NOT moved using towveyor (not used for pallets)	29.7% 13/

Sources

1/: (2) * (3).
2/: USPS-T-21, Attachment 15, premium pay factor.
3/: LR-I-106, other mail processing wage rate.
4/: USPS-T-21, Attachment 14, test year cost pool piggyback factors.
5/: Docket No. MC07-2 LR-PCR-40, page 64.
6/: Attachment A, page 5, row 6.
7/: Attachment A, page 5, row 7.
8/: Assumption that mail going to secondary PSM is evenly split between scheme 1 and scheme 2.
9/: Assumption made by Operations.
10/: Assumption made by Operations.
11/: (9) * (10).
12/: Attachment A, page 5, (12) through (15).
13/: Attachment A, page 5, row 16.

Volume Percentages

Percent within Presort		
Nonpresort	81.5%	1/
BMC Presort	17.8%	2/
5-D Presort	0.8%	3/
Percent of Inter vs. Intra		
Intra-BMC	38.5%	4/
Inter-BMC	61.5%	5/
Percent of Mach vs. NMOs		
Machinable	87.0%	6/
NonMachinable	13.0%	7/
Percent within Nonpresort		
Inter Mach	53.5%	8/
Inter NMO	8.0%	9/
Intra Mach	33.5%	10/
Intra NMO	5.0%	11/

Percent within all rate categories		
Inter Mach	43.6%	12/
Inter NMO	6.5%	13/
Intra Mach	27.3%	14/
Intra NMO	4.1%	15/
BMC Presort	15.5%	16/
BMC Presort NMO	2.3%	17/
5-D Presort	0.8%	18/

Sources

Row 1/: USPS LR-I-125 (FY98 Billing Determinants) percent of single piece.
Row 2/: USPS LR-I-125 (FY98 Billing Determinants) percent of total bulk times percent of pounds at BMC presort rate.
Row 3/: USPS LR-I-125 (FY98 Billing Determinants) percent of total bulk times percent of pounds at 5-D presort rate.
Row 4/: Parcel Post Proxy, USPS LR-I-125 (FY98 Billing Determinants), percent of intra compared to combined intra and inter volume.
Row 5/: 1- row (4).
Row 6/: Docket No. R97-1 USPS LR-H-131, electronic version, tables2.xls (table 3).
Row 7/: Docket No. R97-1 USPS LR-H-131, electronic version, tables2.xls (table 3).
Row 8/: Docket No. R97-1 USPS-T-29, Exhibit F, page 1.
Row 9/: Row (4) * row (6).
Row 10/: Row (4) * row (7).
Row 11/: Row (5) * row (6).
Row 12/: Row (5) * row (7).
Row 13/: Row (1) * row (9).
Row 14/: Row (1) * row (10).
Row 15/: Row (1) * row (11).
Row 16/: Row (1) * row (12).
Row 17/: Row (2) * row (6).
Row 18/: Row (2) * row (7).
Row 19/: Row (3).

Conversion Factor Calculations

Container Type	[1] Outside Dim. Per Container (Inches)	[2] Inside Dim. Per Container (Inches)	[3] Cubic Feet Per Container	[4] Effective Parcel Capacity (# of Parcels)	[5] Capacity at Average Fullness (# of Parcels)	[6] Average % FULL
Machinable						
Pallet	48x40x48	48x40x48	53.3	356.3	302.9	85%
Postal Pak	48x40x69	46.5x38.5x69	71.5	434.2	369.1	85%
Pallet Box	48x40x69	46.5x38.5x69	71.5	434.2	382.1	88%
Sacks on In-house Container	65x41.5x36	65x41.5x36	56.2	341.3	290.1	85%
Non-Machinable						
Pallet	48x40x48	48x40x48	53.3	356.3	302.9	85%
Presorted Pallet	48x40x48	48x40x48	53.3	356.3	356.3	100%
Pallet Box	48x40x69	46.5x38.5x69	71.5	434.2	382.1	88%
In-house Container	65x41.5x36	65x41.5x36	56.2	341.3	290.1	85%

	[7] Machinable	[8] Machinable	[9] Nonmachinable	[10] Nonmachinable
Pieces Per Container	**R84-1 FY82**	**R97-1 FY96**	**R84-1 FY82**	**R97-1 FY96**
Sack	15.89	20.4	n/a	n/a
Sack in OTR	254.2	326.4	n/a	n/a
OTR	241.3	309.9	241.3	309.9
APC	124.7	160.1	124.7	160.1
Hamper	80.4	103.2	80.4	103.2

	[11] Cubic Feet Per Special Standard	[12] Cubic Feet Per Special Standard	[13] Cubic Feet Per Special Standard
	Machinable	**Non-Machinable**	**CRA**
FY98	0.150	0.150	0.150
FY82			0.192

Sources

Column [1]: Container Methods, Handbook PO-502 (September 1992), Docket No. R97-,1 USPS LR-H-133.
Column [2]: Container Methods, Handbook PO-502 (September 1992), Docket No. R97-1, USPS LR-H-133.
Column [3]: Length * width * height.
Column [4]: (Column [3]) / ((column [12]) * air factor), and (column [3]) / ((column [13]) * air factor), to account for "effective cube".
Air factor = 1 for pallets, 1.1 for all else.
Column [5]: Effective cubic capacity (column [4]) * average % fullness (column [6]).
Column [6]: Pallets, postal paks and IHCs should be as full as practicable before dispatch so it is reasonable to assume these containers will be at least 85% full.
Column [7]: Docket No. R84-1, Exhibit USPS-14I.
Column [8]: Pieces per container (column [7]) * FY82 cubic feet per piece (column [13]) / FY98 cubic feet per piece (column [13]).
Column [9]: Docket No. R84-1, Exhibit USPS-14I.
Column [10]: Pieces per container (column [9]) * FY82 cubic feet per piece (column [13]) / FY98 cubic feet per piece (column [13]).
Column [11]: USPS-T-11, Exhibit C, FY98 CRA, cubic ceet/ pieces.
Column [12]: USPS-T-11, Exhibit C, FY98 CRA cubic feet / pieces.
Column [13]: USPS-T-11, Exhibit C, FY98 CRA, cubic feet/ pieces.

Machinable Nonpresort Inter-BMC Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.0403**
Unload Containers[1]	1.0000				0.0128	0.0128
Bedload Sacks	0.0215	182.5	20.4	1.65	0.0120	0.0003
Bedload loose	0.0345	176.6	1	1.65	0.2537	0.0088
Load Sacks in OTRs	0.1156	10.4	326.4	1.65	0.0132	0.0015
Load Loose in OTRs	0.5124	10.4	309.9	1.65	0.0139	0.0071
Load OWCs	0.2970	10.4	131.7	1.65	0.0327	0.0097
Load Pallets	0.0070	13.4	302.9	1.65	0.0110	0.0001
Load Pallet Boxes	0.0120	13.4	382.1	1.65	0.0088	0.0001
Origin BMC						**0.1340**
Unload Bedload Sack	0.0215	187.0	20.4	1.74	0.0124	0.0003
Unload Bedload Loose	0.0345	622.8	1.0	1.74	0.0760	0.0026
Unload Sacks in OTR	0.1156	20.8	326.4	1.74	0.0070	0.0008
Unload loose in OTR	0.5124	20.8	309.9	1.74	0.0073	0.0038
Unload Other Wheeled Cont.	0.2970	20.8	131.7	1.74	0.0173	0.0051
Unload Pallet	0.0070	12.3	302.9	1.74	0.0127	0.0001
Unload Pallet Boxes	0.0120	12.3	382.1	1.74	0.0101	0.0001
Dump OTR of sacks	0.1156	6.4	326.4	1.60	0.0208	0.0024
Dump OTR of loose	0.5124	6.4	309.9	1.60	0.0219	0.0112
Dump Other Wheeled Cont.	0.2970	6.3	131.7	1.60	0.0522	0.0155
Dump Pallet	0.0070	6.4	302.9	1.60	0.0224	0.0002
Dump Pallet Boxes	0.0120	6.4	382.1	1.60	0.0177	0.0002
Sack Sorter	0.1371	428.2	20.4	1.94	0.0060	0.0008
Sack shakeout	0.1371	71.8	20.4	1.60	0.0297	0.0041
Primary PSM	1.0000	874	1.0	1.78	0.0553	0.0553
Sweep Runouts P.Pak	1.0000	5.4	369.1	1.60	0.0219	0.0219
Load Postal Pak	1.0000	13.4	369.1	1.74	0.0096	0.0096
Destination BMC						**0.2372**
Unload Postal Pak	1.0000	12.3	369.1	1.74	0.0105	0.0105
Dump Postal Pak	1.0000	6.4	369.1	1.60	0.0184	0.0184
Primary PSM	0.8285	874	1.0	1.78	0.0553	0.0458
Secondary PSM	0.8933	1297	1.0	1.78	0.0373	0.0333
Sweep Runouts OTR	0.7327	5.4	309.9	1.60	0.0261	0.0191
Sack and Tie	0.2673	124.5	1.0	1.60	0.3492	0.0934
Bedload Sacks	0.2384	182.5	20.4	1.74	0.0127	0.0030
Load OTRs w/ sacks	0.0289	10.4	326.4	1.74	0.0139	0.0004
Load OTRs w/ loose	0.6025	10.4	309.9	1.74	0.0147	0.0088
Load Hampers/OWC	0.1302	10.4	131.7	1.74	0.0345	0.0045
Destination SCF						**0.0440**
Unload Bedload Sacks	0.2091	154.1	20.4	1.65	0.0143	0.0030
Unload Sacks in OTR	0.0253	20.8	326.4	1.65	0.0066	0.0002
Unload loose in OTR	0.5284	20.8	309.9	1.65	0.0069	0.0037
Unload OWC	0.1142	20.8	131.7	1.65	0.0163	0.0019
Crossdock Bedload Sacks	0.2091	7.0	290.1	1.65	0.0219	0.0046
Crossdock Sacks in OTR	0.0253	7.0	326.4	1.65	0.0195	0.0005
Crossdock loose in OTR	0.5284	7.0	309.9	1.65	0.0205	0.0109
Crossdock OWC	0.1142	7.0	131.7	1.65	0.0483	0.0055
Bedload Sacks	0.2344	182.5	20.4	1.65	0.0120	0.0028
Load OTRs w/ loose	0.5284	10.4	309.9	1.65	0.0139	0.0073
Load Hampers/OWC	0.1142	10.4	131.7	1.65	0.0327	0.0037
Destination Delivery Unit						**0.0154**
Unload Bedload Sacks	0.2673	154.1	20.4	1.65	0.0143	0.0038
Unload loose in OTR	0.6025	20.8	309.9	1.65	0.0069	0.0042
Unload OWC	0.1302	20.8	131.7	1.65	0.0163	0.0021
Dump Sacks	0.2673	110.9	20.4	1.65	0.0198	0.0053
Total # of Sorts	2.7218		**Model Cost**			**0.4710**
			Model Weight[2]			**43.6%**
			Wtd Modeled Cost			**0.2055**

Sources

Column [1]: Attachment P, page 4, arrival and dispatch profiles.
Column [2]: Attachment P, page 3, units per workhour.
Column [3]: Attachment P, page 7, conversion factors.
Column [4]: Attachment P, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * (column [3]).
Column [6]: Column [1] * column [5].

[1] Unload Containers cost at OSCF uses the average cost of unloading containers at origin BMC as proxy.
[2] Weights calculated in Attachment P, page 6.

Nonmachinable Nonpresort Inter-BMC Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.0402**
Unload Containers[1]	1.0000				0.0163	0.0163
Bedload NMOs	0.0230	176.6	1.0	1.65	0.2537	0.0058
Load NMOs in OTRs	0.7260	10.4	309.9	1.65	0.0139	0.0101
Load NMOs in OWCs	0.2410	10.4	131.7	1.65	0.0327	0.0079
Load NMOs on Pallets	0.0010	13.4	302.9	1.65	0.0110	0.0000
Load NMOs on Pallet Boxes	0.0090	13.4	382.1	1.65	0.0088	0.0001
Origin BMC						**0.4651**
Unload Bedloaded NMOs	0.0230	161.4	1.0	1.74	0.2933	0.0067
Unload NMOs in OTRs	0.7260	20.8	309.9	1.74	0.0073	0.0053
Unload NMOs in OWC	0.2410	20.8	131.7	1.74	0.0173	0.0042
Unload NMOs on Pallets	0.0010	12.3	302.9	1.74	0.0127	0.0000
Unload NMOs on Pallet Boxes	0.0090	12.3	382.1	1.74	0.0101	0.0001
Move IHCs (bedload)	0.0090	14.1	290.1	1.60	0.0106	0.0001
Move OTRs	0.2828	14.1	309.9	1.60	0.0100	0.0028
Move OWCs	0.0939	14.1	131.7	1.60	0.0235	0.0022
Move Pallets	0.0004	14.1	302.9	1.60	0.0102	0.0000
Move Pallet Boxes	0.0090	14.1	382.1	1.60	0.0081	0.0001
O. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4217	0.4217
Move Pallets	1.0000	14.1	302.9	1.60	0.0102	0.0102
Load NMOs on Pallets	1.0000	13.4	302.9	1.74	0.0117	0.0117
Destination BMC						**0.4907**
Unload NMOs on Pallets	1.0000	12.3	302.9	1.74	0.0127	0.0127
Move Pallets	0.3895	14.1	302.9	1.60	0.0102	0.0040
D. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4217	0.4217
Move IHCs (bedloaded)	0.0384	14.1	290.1	1.60	0.0106	0.0004
Move OTRs	0.1595	14.1	309.9	1.60	0.0100	0.0016
Move Pallets	0.3098	14.1	302.9	1.60	0.0102	0.0032
Move OWCs	0.0074	14.1	131.7	1.60	0.0235	0.0002
Bedload from IHC	0.1291	176.6	1.0	1.74	0.2680	0.0346
Load NMOs in OTRs	0.5363	10.4	309.9	1.74	0.0147	0.0079
Load NMOs on Pallet	0.3098	13.4	302.9	1.74	0.0117	0.0036
Load NMOs in OWC	0.0248	10.4	131.7	1.74	0.0345	0.0009
Destination SCF						**0.2142**
Unload Bedload to IHC	0.1061	154.1	1.0	1.65	0.2908	0.0309
Unload OTRs	0.4407	20.8	309.9	1.65	0.0069	0.0031
Unload Pallet	0.3098	12.3	302.9	1.65	0.0121	0.0037
Unload OWC	0.0204	20.8	131.7	1.65	0.0163	0.0003
Move IHC	0.1061	14.1	290.1	1.65	0.0110	0.0012
Move OTRs	0.4407	14.1	309.9	1.65	0.0103	0.0045
Move Pallet	0.3098	14.1	302.9	1.65	0.0105	0.0033
Move OWC	0.0204	14.1	131.7	1.65	0.0242	0.0005
Manual Sort	0.8770	433.0	1.0	1.50	0.0943	0.0827
Move IHC	0.2443	14.1	290.1	1.65	0.0110	0.0027
Move OTRs	0.5069	14.1	309.9	1.65	0.0103	0.0052
Move OWC	0.1258	14.1	131.7	1.65	0.0242	0.0030
Bedload NMOs	0.2443	176.6	1.0	1.65	0.2537	0.0620
Load OTRs w/ loose	0.5069	10.4	309.9	1.65	0.0139	0.0070
Load Hampers/OWC	0.1258	10.4	131.7	1.65	0.0327	0.0041
Destination Delivery Unit						**0.0840**
Unload Bedload NMOs	0.2673	154.1	1.0	1.65	0.2908	0.0777
Unload loose in OTR	0.6025	20.8	309.9	1.65	0.0069	0.0042
Unload OWC	0.1302	20.8	131.7	1.65	0.0163	0.0021
Total # of Sorts	2.0000		**Model Cost**			**1.2943**
			Model Weight[2]			**6.5%**
			Wtd Modeled Cost			**0.0844**

Sources

Column [1]: Attachment P, page 4, arrival and dispatch profiles.
Column [2]: Attachment P, page 3, units per workhour.
Column [3]: Attachment P, page 7, conversion factors.
Column [4]: Attachment P, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * (column [3]).
Column [6]: Column [1] * column [5].

[1] Unload Containers cost at OSCF uses the average cost of unloading containers at origin BMC as proxy.
[2] Weights calculated in Attachment P, page 6.

Machinable Nonpresort Intra-BMC Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper	[6] $ per facility
Origin SCF						**0.0403**
Unload Containers[1]	1.0000				0.0128	0.0128
Bedload Sacks	0.0215	182.5	20.4	1.65	0.0120	0.0003
Bedload loose	0.0345	176.6	1	1.65	0.2537	0.0088
Load Sacks in OTRs	0.1156	10.4	326.4	1.65	0.0132	0.0015
Load Loose in OTRs	0.5124	10.4	309.9	1.65	0.0139	0.0071
Load OWCs	0.2970	10.4	131.7	1.65	0.0327	0.0097
Load Pallets	0.0070	13.4	302.9	1.65	0.0110	0.0001
Load Pallet Boxes	0.0120	13.4	382.1	1.65	0.0088	0.0001
Destination BMC						**0.2615**
Unload Bedload Sack	0.0215	187.0	20.4	1.74	0.0124	0.0003
Unload Bedload Loose	0.0345	622.8	1.0	1.74	0.0760	0.0026
Unload Sacks in OTR	0.1156	20.8	326.4	1.74	0.0070	0.0008
Unload loose in OTR	0.5124	20.8	309.9	1.74	0.0073	0.0038
Unload Other Wheeled Cont.	0.2970	20.8	131.7	1.74	0.0173	0.0051
Unload Pallet	0.0070	12.3	302.9	1.74	0.0127	0.0001
Unload Pallet Boxes	0.0120	12.3	382.1	1.74	0.0101	0.0001
Dump OTR of sacks	0.1156	6.4	326.4	1.60	0.0208	0.0024
Dump OTR of loose	0.5124	6.4	309.9	1.60	0.0219	0.0112
Dump Other Wheeled Cont.	0.2970	6.3	131.7	1.60	0.0522	0.0155
Dump Pallet	0.0070	6.4	302.9	1.60	0.0224	0.0002
Dump Pallet Boxes	0.0120	6.4	382.1	1.60	0.0177	0.0002
Sack Sorter	0.1371	428.2	20.4	1.94	0.0060	0.0008
Sack shakeout	0.1371	71.8	20.4	1.60	0.0297	0.0041
Primary PSM	1.0014	874.0	1.0	1.78	0.0553	0.0554
Secondary PSM	0.7969	1296.6	1.0	1.78	0.0373	0.0297
Sweep Runouts OTR	0.7327	5.4	309.9	1.60	0.0261	0.0191
Sack and Tie	0.2673	124.5	1.0	1.60	0.3492	0.0934
Bedload Sacks	0.2384	182.5	20.4	1.74	0.0127	0.0030
Load OTRs w/ sacks	0.0289	10.4	326.4	1.74	0.0139	0.0004
Load OTRs w/ loose	0.6025	10.4	309.9	1.74	0.0147	0.0088
Load Hampers/OWC	0.1302	10.4	131.7	1.74	0.0345	0.0045
Destination SCF						**0.0440**
Unload Bedload Sacks	0.2091	154.1	20.4	1.65	0.0143	0.0030
Unload Sacks in OTR	0.0253	20.8	326.4	1.65	0.0066	0.0002
Unload loose in OTR	0.5284	20.8	309.9	1.65	0.0069	0.0037
Unload OWC	0.1142	20.8	131.7	1.65	0.0163	0.0019
Crossdock Bedload Sacks	0.2091	7.0	290.1	1.65	0.0219	0.0046
Crossdock Sacks in OTR	0.0253	7.0	326.4	1.65	0.0195	0.0005
Crossdock loose in OTR	0.5284	7.0	309.9	1.65	0.0205	0.0109
Crossdock OWC	0.1142	7.0	131.7	1.65	0.0483	0.0055
Bedload Sacks	0.2344	182.5	20.4	1.65	0.0120	0.0028
Load OTRs w/ loose	0.5284	10.4	309.9	1.65	0.0139	0.0073
Load Hampers/OWC	0.1142	10.4	131.7	1.65	0.0327	0.0037
Destination Delivery Unit						**0.0154**
Unload Bedload Sacks	0.2673	154.1	20.4	1.65	0.0143	0.0038
Unload loose in OTR	0.6025	20.8	309.9	1.65	0.0069	0.0042
Unload OWC	0.1302	20.8	131.7	1.65	0.0163	0.0021
Dump Sacks	0.2673	110.9	20.4	1.65	0.0198	0.0053
Total # of Sorts	1.7984		**Model Cost**			**0.3613**
			Model Weight[2]			**27.3%**
			Wtd Modeled Cost			**0.0985**

Sources

Column [1]: Attachment P, page 4, arrival and dispatch profiles.
Column [2]: Attachment P, page 3, units per workhour.
Column [3]: Attachment P, page 7, conversion factors.
Column [4]: Attachment P, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * (column [3]).
Column [6]: Column [1] * column [5].

[1]Unload Containers cost at OSCF uses the average cost of unloading containers at origin BMC as proxy.
[2]Weights calculated in Attachment P, page 6.

Nonmachinable Nonpresort Intra-BMC Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.0402**
Unload Containers[1]	1.0000				0.0163	0.0163
Bedload NMOs	0.0230	176.6	1.0	1.65	0.2537	0.0058
Load NMOs in OTRs	0.7260	10.4	309.9	1.65	0.0139	0.0101
Load NMOs in OWCs	0.2410	10.4	131.7	1.65	0.0327	0.0079
Load NMOs on Pallets	0.0010	13.4	302.9	1.65	0.0110	0.0000
Load NMOs on Pallet Boxes	0.0090	13.4	382.1	1.65	0.0088	0.0001
Destination BMC						**0.4955**
Unload Bedloaded NMOs	0.0230	161.4	1.0	1.74	0.2933	0.0067
Unload NMOs in OTRs	0.7260	20.8	309.9	1.74	0.0073	0.0053
Unload NMOs in OWC	0.2410	20.8	131.7	1.74	0.0173	0.0042
Unload NMOs on Pallets	0.0010	12.3	302.9	1.74	0.0127	0.0000
Unload NMOs on Pallet Boxes	0.0090	12.3	382.1	1.74	0.0101	0.0001
Move IHCs (bedloaded)	0.0090	14.1	290.1	1.60	0.0106	0.0001
Move OTRs	0.2828	14.1	309.9	1.60	0.0100	0.0028
Move OWCs	0.0939	14.1	131.7	1.60	0.0235	0.0022
Move Pallets	0.0004	14.1	302.9	1.60	0.0102	0.0000
Move Pallet Boxes	0.0090	14.1	382.1	1.60	0.0081	0.0001
D. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4217	0.4217
Move IHCs (bedloaded)	0.0384	14.1	290.1	1.60	0.0106	0.0004
Move OTRs	0.1595	14.1	309.9	1.60	0.0100	0.0016
Move Pallets	0.3098	14.1	302.9	1.60	0.0102	0.0032
Move OWCs	0.0074	14.1	131.7	1.60	0.0235	0.0002
Bedload from IHC	0.1291	176.6	1.0	1.74	0.2680	0.0346
Load NMOs in OTRs	0.5363	10.4	309.9	1.74	0.0147	0.0079
Load NMOs on Pallet	0.3098	13.4	302.9	1.74	0.0117	0.0036
Load NMOs in OWC	0.0248	10.4	131.7	1.74	0.0345	0.0009
Destination SCF						**0.2142**
Unload Bedload to IHC	0.1061	154.1	1.0	1.65	0.2908	0.0309
Unload OTRs	0.4407	20.8	309.9	1.65	0.0069	0.0031
Unload Pallet	0.3098	12.3	302.9	1.65	0.0121	0.0037
Unload OWC	0.0204	20.8	131.7	1.65	0.0163	0.0003
Move IHC	0.1061	14.1	290.1	1.65	0.0110	0.0012
Move OTRs	0.4407	14.1	309.9	1.65	0.0103	0.0045
Move Pallet	0.3098	14.1	302.9	1.65	0.0105	0.0033
Move OWC	0.0204	14.1	131.7	1.65	0.0242	0.0005
Manual Sort	0.8770	433.0	1.0	1.50	0.0943	0.0827
Move IHC	0.2443	14.1	290.1	1.65	0.0110	0.0027
Move OTRs	0.5069	14.1	309.9	1.65	0.0103	0.0052
Move OWC	0.1258	14.1	131.7	1.65	0.0242	0.0030
Bedload NMOs	0.2443	176.6	1.0	1.65	0.2537	0.0620
Load OTRs w/ loose	0.5069	10.4	309.9	1.65	0.0139	0.0070
Load Hampers/OWC	0.1258	10.4	131.7	1.65	0.0327	0.0041
Destination Delivery Unit						**0.0840**
Unload Bedload NMOs	0.2673	154.1	1.0	1.65	0.2908	0.0777
Unload loose in OTR	0.6025	20.8	309.9	1.65	0.0069	0.0042
Unload OWC	0.1302	20.8	131.7	1.65	0.0163	0.0021
Total # of Sorts	1.0000		**Model Cost**			**0.8340**
			Model Weight[2]			**4.1%**
			Wtd Modeled Cost			**0.0340**

Sources

Column [1]: Attachment P, page 4, arrival and dispatch profiles.
Column [2]: Attachment P, page 3, units per workhour.
Column [3]: Attachment P, page 7, conversion factors.
Column [4]: Attachment P, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * (column [3]).
Column [6]: Column [1] * column [5].

[1]Unload Containers cost at OSCF uses the average cost of unloading containers at origin BMC as proxy.
[2]Weights calculated in Attachment P, page 6.

Machinable BMC Presort Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.0183**
Unload Pallet Box	1.0000	12.3	382.1	1.65	0.0096	0.0096
Load Pallet Box	1.0000	13.4	382.1	1.65	0.0088	0.0088
Origin BMC						**0.0355**
Unload Pallet Box	1.0000	12.3	382.1	1.74	0.0101	0.0101
Crosssdock Pallet Box	1.0000	7.0	382.1	1.60	0.0162	0.0162
Load Pallet Box	1.0000	13.4	382.1	1.74	0.0092	0.0092
Destination BMC						**0.2422**
Unload Pallet Box	1.0000	12.3	382.1	1.74	0.0101	0.0101
Dump Pallet Box	1.0000	6.4	382.1	1.60	0.0177	0.0177
Primary PSM	1.0014	874.0	1.0	1.78	0.0553	0.0554
Secondary PSM	0.7969	1296.6	1.0	1.78	0.0373	0.0297
Sweep Containers	0.7327	5.4	309.9	1.60	0.0261	0.0191
Sack & Tie	0.2673	124.5	1.0	1.60	0.3492	0.0934
Bedload Vans	0.2384	182.5	20.4	1.74	0.0127	0.0030
Load OTRs w/ sacks	0.0289	10.4	326.4	1.74	0.0139	0.0004
Load OTRs w/ loose	0.6025	10.4	309.9	1.74	0.0147	0.0088
Load OWC	0.1302	10.4	131.7	1.74	0.0345	0.0045
Destination SCF						**0.0440**
Unload Bedload Sacks	0.2091	154.1	20.4	1.65	0.0143	0.0030
Unload OTRs w/sacks	0.0253	20.8	326.4	1.65	0.0066	0.0002
Unload OTRs w/ loose	0.5284	20.8	309.9	1.65	0.0069	0.0037
Unload OWC	0.1142	20.8	131.7	1.65	0.0163	0.0019
Crossdock Bedload Sacks	0.2091	7.0	290.1	1.65	0.0219	0.0046
Crossdock Sacks in OTR	0.0253	7.0	326.4	1.65	0.0195	0.0005
Crossdock loose in OTR	0.5284	7.0	309.9	1.65	0.0205	0.0109
Crossdock OWC	0.1142	7.0	131.7	1.65	0.0483	0.0055
Bedload Sacks	0.2344	182.5	20.4	1.65	0.0120	0.0028
Load OTRs w/ loose	0.5284	10.4	309.9	1.65	0.0139	0.0073
Load Hampers/OWC	0.1142	10.4	131.7	1.65	0.0327	0.0037
Destination Delivery Unit						**0.0154**
Unload Bedload Sacks	0.2673	154.1	20.4	1.65	0.0143	0.0038
Unload loose in OTR	0.6025	20.8	309.9	1.65	0.0069	0.0042
Unload OWC	0.1302	20.8	131.7	1.65	0.0163	0.0021
Dump Sacks	0.2673	110.9	20.4	1.65	0.0198	0.0053
Total # of Sorts	1.7984		**Model Cost**			**0.3555**
			Model Weight[1]			**15.5%**
			Wtd Modeled Cost			**0.0549**

Sources

Column [1]: Attachment P, page 4, arrival and dispatch profiles.
Column [2]: Attachment P, page 3, units per workhour.
Column [3]: Attachment P, page 7, conversion factors.
Column [4]: Attachment P, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * (column [3]).
Column [6]: Column [1] * column [5].

[1] Weights calculated in Attachment P, page 6.

Nonmachinable BMC Presort Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.0196**
Unload Pallets	1.0000	12.3	356.3	1.65	0.0103	0.0103
Load NMOs Pallets	1.0000	13.4	356.3	1.65	0.0094	0.0094
Origin BMC						**0.0381**
Unload Pallets	1.0000	12.3	356.3	1.74	0.0108	0.0108
Crossdock Pallets	1.0000	7.0	356.3	1.60	0.0173	0.0173
Load NMOs Pallets	1.0000	13.4	356.3	1.74	0.0099	0.0099
Destination BMC						**0.4860**
Unload Pallets	1.0000	12.3	356.3	1.74	0.0108	0.0108
Move Pallets	0.3895	14.1	356.3	1.60	0.0087	0.0034
D. Primary NMO Sort	1.0000	98.6	1.0	1.53	0.4217	0.4217
Move IHCs (bedloaded)	0.0384	14.1	290.1	1.60	0.0106	0.0004
Move OTRs	0.1595	14.1	309.9	1.60	0.0100	0.0016
Move Pallets	0.0921	14.1	302.9	1.60	0.0102	0.0009
Move OWCs	0.0074	14.1	131.7	1.60	0.0235	0.0002
Bedload from IHC	0.1291	176.6	1.0	1.74	0.2680	0.0346
Load NMOs in OTRs	0.5363	10.4	309.9	1.74	0.0147	0.0079
Load NMOs on Pallets	0.3098	13.4	302.9	1.74	0.0117	0.0036
Load NMOs in OWC	0.0248	10.4	131.7	1.74	0.0345	0.0009
Destination SCF						**0.2142**
Unload Bedload to IHC	0.1061	154.1	1.0	1.65	0.2908	0.0309
Unload OTRs	0.4407	20.8	309.9	1.65	0.0069	0.0031
Unload Pallets	0.3098	12.3	302.9	1.65	0.0121	0.0037
Unload OWC	0.0204	20.8	131.7	1.65	0.0163	0.0003
Move IHC	0.1061	14.1	290.1	1.65	0.0110	0.0012
Move OTRs	0.4407	14.1	309.9	1.65	0.0103	0.0045
Move Pallet	0.3098	14.1	302.9	1.65	0.0105	0.0033
Move OWC	0.0204	14.1	131.7	1.65	0.0242	0.0005
Manual Sort	0.8770	433.0	1.0	1.50	0.0943	0.0827
Move IHC	0.2443	14.1	290.1	1.65	0.0110	0.0027
Move OTRs	0.5069	14.1	309.9	1.65	0.0103	0.0052
Move OWC	0.1258	14.1	131.7	1.65	0.0242	0.0030
Bedload NMOs	0.2443	176.6	1.0	1.65	0.2537	0.0620
Load OTRs w/ loose	0.5069	10.4	309.9	1.65	0.0139	0.0070
Load OWC	0.1258	10.4	131.7	1.65	0.0327	0.0041
Destination Delivery Unit						**0.0840**
Unload Bedload NMOs	0.2673	154.1	1.0	1.65	0.2908	0.0777
Unload loose in OTR	0.6025	20.8	309.9	1.65	0.0069	0.0042
Unload OWC	0.1302	20.8	131.7	1.65	0.0163	0.0021
Total # of Sorts	1.0000		**Model Cost**			**0.8419**
			Model Weight[1]			**2.3%**
			Wtd Modeled Cost			**0.0194**

Sources

Column [1]: Attachment P, page 4, arrival and dispatch profiles.
Column [2]: Attachment P, page 3, units per workhour.
Column [3]: Attachment P, page 7, conversion factors.
Column [4]: Attachment P, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * (column [3]).
Column [6]: Column [1] * column [5].

[1] Weights calculated in Attachment P, page 6.

5-Digit Presort

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.0263**
Unload Sack	1.0000	154.1	20.4	1.65	0.0143	0.0143
Bedload Sacks	1.0000	182.5	20.4	1.65	0.0120	0.0120
Origin BMC						**0.0311**
Unload Bedload Sack	1.0000	187.0	20.4	1.74	0.0124	0.0124
SSM	1.0000	428.2	20.4	1.94	0.0060	0.0060
Bedload Sacks	1.0000	182.5	20.4	1.74	0.0127	0.0127
Destination BMC						**0.0311**
Unload Bedload Sack	1.0000	187.0	20.4	1.74	0.0124	0.0124
SSM	1.0000	428.2	20.4	1.94	0.0060	0.0060
Bedload Sacks	1.0000	182.5	20.4	1.74	0.0127	0.0127
Destination SCF						**0.0482**
Unload Bedload Sack	1.0000	154.1	20.4	1.65	0.0143	0.0143
Crossdock Bedload Sacks	1.0000	7.0	290.1	1.65	0.0219	0.0219
Bedload Sacks	1.0000	182.5	20.4	1.65	0.0120	0.0120
Destination Delivery Unit						**0.0340**
Unload Bedload Sacks	1.0000	154.1	20.4	1.65	0.0143	0.0143
Dump Sacks	1.0000	110.9	20.4	1.65	0.0198	0.0198
Total # of Sorts	1.0000		**Model Cost**			**0.1708**
			Model Weight[1]			**0.8%**
			Wtd Modeled Cost			**0.0013**

Sources

Column [1]: Attachment P, page 4, arrival and dispatch profiles.
Column [2]: Attachment P, page 3, units per workhour.
Column [3]: Attachment P, page 7, conversion factors.
Column [4]: Attachment P, page 5, piggyback factors.
Column [5]: (TY wage rate * column [4]) / (column [2] * (column [3]).
Column [6]: Column [1] * column [5].

[1] Weights calculated in Attachment P, page 6.

SUMMARY OF BPRS COSTS

	Unit Costs
Collection	$0.032
Mail Processing	$0.571
Transportation	$0.423
Delivery	$0.033
Postage Due	$0.046
Total Cost	$1.105

Average Cube of BPRS Parcels

Mailers	Average Cube (c.f.)	Average Weight (oz)	Average Weekly Volume	Weighting Factor [1]	Cube times Weighting Factor	Weight times Weighting Factor
Mailer 1	0.08	15.04	6,510	0.2706	0.0208	4.0702
Mailer 2	0.09	10.35	4,050	0.1684	0.0152	1.7425
Mailer 3	0.14	12.50	2,730	0.1135	0.0158	1.4186
Mailer 4	0.13	9.36	4,500	0.1871	0.0234	1.7510
Mailer 5	0.02	12.80	3,800	0.1580	0.0038	2.0220
Mailer 6	0.08	14.00	1,200	0.0499	0.0039	0.6984
Mailer 7	0.04	9.00	839	0.0349	0.0013	0.3140
Mailer 8	0.02	9.88	426	0.0177	0.0004	0.1750
			24,055		0.0845	12.1917

Weighted Average Cube (cubic feet)	**0.08**
Weighted Average Weight (oz.)	**12.2**

[1] Average Volume of each mailer divided by the total volume.

COLLECTION COSTS
BULK PARCEL RETURN SERVICE

STANDARD A SINGLE PIECE	Direct Attributable Costs [1]	Street Support Factor [2]	Test Year Adjustment Factor (FY98-FY01) [3]	Piggyback Factors BY 1998 [4]	Total Attributable Costs (FY 98) [5]
Window Acceptance Costs [1A]	1,065,000		1.124	1.450	$1,736,287
City Carrier Collection Costs **[1B]**					
SPR					
Load	84,401	1.326	1.140	1.382	$176,347
Time at Stop	158,696	1.326	1.140	1.382	$331,579
Access	674,560	1.326	1.140	1.382	$1,409,424
Letter					
Load	62,289	1.172	1.140	1.382	$115,049
Time at Stop	117,121	1.172	1.140	1.382	$216,324
Access	311,734	1.172	1.140	1.382	$575,778
Rural Carrier Collection Costs **[1C]**					
Evaluated Routes	179,967		1.116	1.241	$249,342
Other Routes	19,739		1.116	1.241	$27,348
Total Attributable Costs [6]					**$4,837,478**
Total Volume [7]					**150,276,000**
Cost Per Piece [8]					**$0.0322**

Wage Rates	base year [9]	test year [10]	Adjust Factor [11]
window service	$26.39	$29.67	1.124
city carrier	$25.92	$29.56	1.140
rural carries	$21.38	$23.87	1.116

Sources
[1]: USPS-T-11, BY 98 Single Piece Standard A Direct Costs
[1A]: USPS-T-1,1 Exhibit A (BY CRA), C/S 3.2.
[1B]: Elemental load costs, USPS-T-11, WP. B. workshet 7.0.3; columns 1,2,11,15 ,17, and 18.
[1C]: Rural carrier costs, USPS-T-11 WP.B. worksheet 10.1.2 columns 8&9 and w/s 10.2.2 columns 8&9.
[2]: Street support factor.
[3]: FY 2001 wages/ FY 1998 wages. Calculated in [11].
[4]: USPS-T-21, Attachment 13, base year operation specific and cost pool piggyback factors.
[5]: For 1A and 1C = [1] * [3]* [4]. For 1B = [1] * [2] * [3] * [4].
[6]: [1A] + [1B] + [1C]
[7]: USPS-T-11, Exhibit C, cost and revenue analysis, BY 1998.
[8]: [6] / [7].
[9]: LR-I-11, base year wage rates
[10]: LR-I-11, test year wage rates
[11]: [10] / [9].

BPRS MAIL PROCESSING COST SUMMARY

Weighted Avg Model Cost	**1/**	$0.345
Proportional Cost Pools	**2/**	1.042
CRA Proportional Adjustment	**3/**	$0.211
Estimated Cost	**4/**	$0.571

Sources

Row 1/: Weighted Estimated Mail Processing Costs from pages 6 and 7 of this attachment.
Row 2/: Proportional CRA adjustment factor from Special Standard mail from Attachment P, page 1, row 3.
Row 3/: Fixed CRA adjustment factor from Special Standard B mail from Attachment P, page 4.
Row 4/: Model cost [1] * proportional CRA adj. factor (2)+ fixed CRA adj. factor (3).

Productivities, Conversion Factors, and Variabilities for Direct Labor Operations

	Units/Wkhr		Conversion Factors	
UNLOADING	Marginal			
Unload sacked machinable parcels to extended conveyor	187.0	1/	36.4	3/
Unload machinable parcels to extended conveyor	622.8	1/	1.0	4/
Unload Bedloaded Sacks (Unload NMOs to IHC used as proxy)	154.1	1/	36.4	3/
Unload machinable parcels sacked in Over the Road Cont. (OTRs)	20.8	1/	581.6	3/
Unload parcels loose in OTRs	20.8	1/	552.1	3/
Unload Wiretainer/Hamper/APC/ OWC	20.8	1/	234.6	3/
Unload Pallets	12.3	1/	539.7	3/
Unload Postal Paks or Pallet Box	12.3	1/	657.6	3/
DUMPING & SACK HANDLING				
Dump Sacks in OTRs	6.4	1/	581.6	3/
Dump OTRs (loose)	6.4	1/	552.1	3/
Dump Other Wheeled Containers (OWC)	6.4	1/	234.6	3/
Dump Pallets	6.4	1/	539.7	3/
Dump Postal Paks or Pallet Box	6.4	1/	657.6	3/
Sack shake out	71.8	1/	36.4	3/
Manually dump sacks at Non-BMC	99.4	2/	36.4	3/
Sack sorter	428.2	2/	36.4	3/
PARCEL SORTING MACHINE DISTRIBUTION				
Primary Rate	874	2/	1.0	4/
Secondary Rate	1296.6	2/	1.0	4/
OTHER OPERATIONS				
Tend container loader/sweep runouts (Origin BMC - Postal Pak)	5.4	1/	657.6	3/
Tend container loader/sweep runouts (Destinating BMC - OTR)	5.4	1/	552.1	3/
Crossdock Container	7.0	1/	n/a	11/
Crossdock Bedloaded Sacks (crossdock IHC's with NMO's used as proxy)	7.0	1/	517.0	3/
Sack and Tie	124.5	1/	1.0	4/
LOADING				
Bedload Loose	176.6	1/	1.0	4/
Bedload Sacked Machinables	182.5	1/	36.4	3/
Load loose parcels in OTRs to van	10.4	1/	552.1	3/
Load sacked machinables in OTRs to van	10.4	1/	581.6	3/
Load Other Wheeled Containers (OWC) to van	10.4	1/	234.6	3/
Load pallets to van	13.4	1/	539.7	3/
Load Postal Paks or Pallet Box to van	13.4	1/	657.6	3/
Variabilities				
BMC Platform	0.946	4/		
BMC Other	0.987	4/		
PSM	1.000	4/		
SSM	1.000	4/		
SSB	1.000	4/		
NMO Distribution at BMCs	1.000	4/		
Platform Non-BMC	0.896	4/		
NMO Distribution at Non-BMCs	0.522	4/		

Sources
Row 1/: Attachment A, page 3.
Row 2/: National Database: PIRS FY98.
Row 3/: Converts from containers to number of parcels, calculated on page 4 of this attachment.
Row 4/: USPS-T-17, Table 1, variabilities.

Other Inputs

Wage Rate with Premium Pay Factor Applied	$27.14	1/
Premium Pay Factor	0.961	2/
TY Other Mail Processing Wage Rate	$28.244	3/
Mail Processing Operation Specific Piggyback Factors		
Parcel Sorting Machine	1.782	4/
Other Operations at BMCs	1.602	4/
Sack Sorting Machine - BMC	1.935	4/
Platform Non-BMC	1.651	4/
Platform BMC	*1.744*	4/
Mail Flow Arrival and Dispatch Profiles		
Machinable Parcels Arriving in Bedloaded Sacks at BMC	5.6%	5/
Machinable Parcels Arriving sacked in OTRs at BMC	11.6%	5/
Machinable Parcels Arriving loose in OTRs at BMC	51.5%	5/
Machinable Parcels Arriving in Hampers/APC/OWC at BMC	29.6%	5/
Machinable Parcels Arriving Palletized at BMC	0.7%	5/
Machinable Parcels Arriving in Pallet Boxes	1.0%	5/
Machinable Parcels Arriving in Postal Paks at Destination BMC	100.0%	6/
Machinable Parcels Dispatched in Bedloaded Sacks to Service Area	23.8%	7/
Machinable Parcels Dispatched loose in OTRs to Service Area	60.3%	7/
Machinable Parcels Dispatched sacked in OTRs to Service Area	2.9%	7/
Machinable Parcels Dispatched in Hampers/APC/OWC to Service Area	13.0%	7/
Percentage of Parcels that use each Leg		
Percent with direct transportation to destinating delivery unit from BMC	16.3%	8/
Percent that travel from destination BMC to destination SCF	66.8%	8/
Percent that go from BMC to mailer	16.8%	8/
Percent that travel from destination SCF to destination delivery unit	47.5%	8/
Percent that travel from destination SCF to mailer	19.3%	8/
Percent of Mail that travels from BMC to SCF that also travels from SCF to AO	71.1%	8/
Mail Flow Operating Assumptions		
Probability of Inter-BMC parcel going to primary psm at destination BMC	82.8%	9/
Probability of Inter-BMC parcel going to secondary psm at destination BMC	89.3%	10/
Probability of Intra-BMC parcels going to primary psm	100.1%	11/
Probability of Intra-BMC parcels going to secondary psm	79.7%	12/

Sources

Row 1/: (2) * (3).
Row 2/: USPS-T-21, Attachment 15, premium pay factor.
Row 3/: LR-I-106, test year other mail processing wage rate.
Row 4/: USPS-T-21, Attachment 14, test year cost pool piggyback factors.
Row 5/: Arrival profile from Service Area for Fourth-Class Special Rate(Docket No. R97-1, LR-H-131, table 3), from Service Area,
Assume all of bedloaded is sacked since it comes from service area.
Assume 81.6 percent of OTRs are loose, 18.4 percent are sacked (Docket No. R97.1 LR-H-132).
Row 6/: Assumption that 100 percent of machinable parcels going from BMC to BMC will be in Postal Paks
Row 7/: Attachment A, page 4, row 5.
Row 8/: Attachment T, page 5, column 10.
Row 9/: Attachment A, page 5, row 12.
Row 10/: Attachment A, page 5, row 13.
Row 11/: Attachment A, page 5, row 14.
Row 12/: Attachment A, page 5, row 15.

Conversion Factor Calculations

Container Type	[1] Outside Dim. Per Container	[2] Inside Dim. Per Container	[3] Cubic Feet Per Container	[4] Effective Cubic Capacity	[5] Capacity at Average Fullness	[6] Average % FULL
Pallet	48x40x48	48x40x48	53.3	634.9	539.7	85%
Postal Pak or Pallet Box[1]	48x40x69	46.5x38.5x69	71.5	773.7	657.6	85%
Sacks on In-house Container	65x41.5x36	65x41.5x36	56.2	608.2	517.0	85%

Pieces Per Container	[7] R84-1 FY82	[8] R2000 FY98
Sack	15.89	36.4
Sack in OTR	254.2	581.6
OTR	241.3	552.1
APC	124.7	285.3
Hamper	80.4	184.0

Cube	[9] Average Cubic Feet of BPRS	[10] Average Cube Form 22 CRA
BPRS (FY98)	0.084	
Special Standard (FY82)		0.19

Sources

Columns [1 & 2]: Container Methods, Handbook PO-502 (September 1992) ,Docket No. R97-1, LR-H-133.
Column [3]: Length * width * height.
Column [4]: (Column [3]) / ((column [9]) * air factor). Air factor = 1 for pallets, 1.1 for all other containers
Column [5]: Effective cubic capacity (column [4]) * average % fullness (column [6]).
Column [6]: Pallets, postal paks and IHCs should be as full as practicable before dispatch so it is reasonable to assume these containers will be at least 85% full.
Column [7]: Docket No. R84-1, Exhibit USPS-14I (pieces per container for special standard).
Column [8]: Column [7] * (cubic feet in FY82 for special standard[10] / average cubic feet of BPRS[9]).
Column [9]: Average cube of BPRS parcels from October 1998 Cost Study. Used to adjust conversion factors from Special Standard to BPRS.
Column [10]: FY82 CRA at 12. Average cubic foot of special standard. Used to adjust conversion factors from Special Standard to BPRS.

1 Unlike the Parcel Post model (Section III) and Special Standard model (Section VI), for BPRS the same conversion factor is used for both postal paks and pallet boxes This is because for BPRS, both are being filled by USPS and therefore are assumed to be the same percent full. For Parcel Post and Special Standard the it is assumed that mailer's fill pallet boxes on average 88 percent full.

Calculation of BPRS Mailflow beyond the Destination BM

Type of Path	Number of Parcels on each Path per Week									
	[1] Mailer 1	[2] Mailer 2	[3] Mailer 3	[4] Mailer 4	[5] Mailer 5	[6] Mailer 6	[7] Mailer 7	[8] Mailer 8	[9] Total	[10] Percent of Mail
Travels from BMC to SCF	6,510			4,500	3,800		839	426	16,075	66.83%
Travels from BMC to AO			2,730			1,200			3,930	16.34%
Travels from BMC to mailer		4,050							4,050	16.84%
Travels from SCF to AO	6,510			4,500				426	11,436	47.54%
Travels from SCF to Mailer					3,800		839		4,639	19.29%
Percent of mail that travels from BMC to SCF, that also goes from SCF to AO /1										71.14%
Weekly Volume /2	6,510	4,050	2,730	4,500	3,800	1,200	839	426	24,055	

Sources:

Column [1]: Travels complete transportation path.
Column [2]: Mail is delivered to the mailer directly from the BMC. Therefore, the BPRS parcels skip one leg of local trans. and one leg of intermediate transportation
Column [3]: Mail is transported from the BMC directly to the AO. Parcels skip one one local leg of transportation.
Column [4]: Travels complete transportation path.
Column [5]: Mailer picks up at returns at P&DC. Mail skips one local leg of transportation.
Column [6]: Mail is transported from the BMC directly to the AO. Parcels skip one one local leg of transportation.
Column [7]: Mail is delivered to mailer from P&DC. Parcels skip one local leg of transportation.
Column [8]: Travels complete transportation path.
Column [9]: The sum of columns [1] through [9].
Column [10]: Column [9] divided by the Total Weekly Volume.
Row 1/: Total volume of mail that travels from SCF to AO divided by total volume of mail that travels from BMC to SCF.
Row 2/: Daily volume for each mailer times the number of days per week they receive mail.

Machinable Inter-BMC Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.0167**
Unload Containers[1]	1.0000				0.0059	0.0059
Bedload Sacks	0.0560	182.5	36.4	1.65	0.0068	0.0004
Load Sacks in OTRs	0.1161	10.4	581.6	1.65	0.0074	0.0009
Load Loose in OTRs	0.5149	10.4	552.1	1.65	0.0078	0.0040
Load OWCs	0.2960	10.4	234.6	1.65	0.0183	0.0054
Load Pallets	0.0070	13.4	539.7	1.65	0.0062	0.0000
Load Pallet Boxes	0.0100	13.4	657.6	1.65	0.0051	0.0001
Origin BMC						**0.0988**
Unload Bedload Sack	0.0560	187.0	36.4	1.74	0.0070	0.0004
Unload Sacks in OTR	0.1161	20.8	581.6	1.74	0.0039	0.0005
Unload loose in OTR	0.5149	20.8	552.1	1.74	0.0041	0.0021
Unload Other Wheeled Cont.	0.2960	20.8	234.6	1.74	0.0097	0.0029
Unload Pallet	0.0070	12.3	539.7	1.74	0.0071	0.0001
Unload Pallet Boxes	0.0100	12.3	657.6	1.74	0.0059	0.0001
Dump OTR of sacks	0.1161	6.4	581.6	1.60	0.0117	0.0014
Dump OTR of loose	0.5149	6.4	552.1	1.60	0.0123	0.0063
Dump Other Wheeled Cont.	0.2960	6.4	234.6	1.60	0.0289	0.0086
Dump Pallet	0.0070	6.4	539.7	1.60	0.0126	0.0001
Dump Pallet Boxes	0.0100	6.4	657.6	1.60	0.0103	0.0001
Sack Sorter	0.1721	428.2	36.4	1.94	0.0034	0.0006
Sack shakeout	0.1721	71.8	36.4	1.60	0.0167	0.0029
Primary PSM	1.0000	874.0	1.0	1.78	0.0553	0.0553
Sweep Runouts P.Pak	1.0000	5.4	657.6	1.60	0.0123	0.0123
Load Postal Pak	1.0000	13.4	657.6	1.74	0.0054	0.0054
Destination BMC						**0.2088**
Unload Postal Pak	1.0000	12.3	657.6	1.74	0.0059	0.0059
Dump Postal Pak	1.0000	6.4	657.6	1.60	0.0103	0.0103
Primary PSM	0.8285	874.0	1.0	1.78	0.0553	0.0458
Secondary PSM	0.8933	1296.6	1.0	1.78	0.0373	0.0333
Sweep Runouts	0.7327	5.4	552.1	1.60	0.0146	0.0107
Sack and Tie	0.2673	124.5	1.0	1.60	0.3492	0.0934
Bedload Sacks	0.2384	182.5	36.4	1.74	0.0071	0.0017
Load OTRs w/ sacks	0.0289	10.4	581.6	1.74	0.0078	0.0002
Load OTRs w/ loose	0.6025	10.4	552.1	1.74	0.0082	0.0050
Load Hampers/OWC	0.1302	10.4	234.6	1.74	0.0194	0.0025
Destination SCF						**0.0188**
Unload Bedload Sacks	0.1593	154.1	36.4	1.65	0.0080	0.0013
Unload Sacks in OTR	0.0193	20.8	581.6	1.65	0.0037	0.0001
Unload loose in OTR	0.4026	20.8	552.1	1.65	0.0039	0.0016
Unload OWC	0.0870	20.8	234.6	1.65	0.0092	0.0008
Crossdock Bedload Sacks	0.1593	7.0	517.0	1.65	0.0123	0.0020
Crossdock Sacks in OTR	0.0193	7.0	581.6	1.65	0.0109	0.0002
Crossdock loose in OTR	0.4026	7.0	552.1	1.65	0.0115	0.0046
Crossdock OWC	0.0870	7.0	234.6	1.65	0.0271	0.0024
Bedload Sacks	0.1786	182.5	36.4	1.65	0.0068	0.0012
Load OTRs w/ loose	0.4026	10.4	552.1	1.65	0.0078	0.0031
Load Hampers/OWC	0.0870	10.4	234.6	1.65	0.0183	0.0016
Destination Delivery Unit						**0.0057**
Unload Bedload Sacks	0.1707	154.1	36.4	1.65	0.0080	0.0014
Unload loose in OTR	0.3849	20.8	552.1	1.65	0.0039	0.0015
Unload OWC	0.0832	20.8	234.6	1.65	0.0092	0.0008
Dump Sacks	0.1707	99.4	36.4	1.65	0.0124	0.0021

Model Cost	**$0.3489**
Model Weight[2]	**95.2%**
Wtd Modeled Cost	**$0.3323**

Sources

Column [1]: Page 3 of this attachment, mailflow arrival and dispatch profile.
Column [2]: Page 2 of this attachment, units per workhours.
Column [3]: Page 4 of this attachment, conversion factors.
Column [4]: Page 3 of this attachment, piggyback factors.
Column [5]: = (Wage rate * column [4]) / (column [2] * column [3]).
Column [6]: = Column [1] * column [5] .

[1] Unload containers cost at origin SCF uses the average cost of unloading containers at origin BMC as proxy.

[2] =(20/21) Assumption explained in section VII of this testimony.

Machinable Intra-BMC Model Cost Summary

	[1] # handlings	[2] units/hr	[3] conversion	[4] piggyback	[5] $ per oper.	[6] $ per facility
Origin SCF						**0.0167**
Unload Containers[1]	1.0000				0.0059	0.0059
Bedload Sacks	0.0560	182.5	36.4	1.65	0.0068	0.0004
Load Sacks in OTRs	0.1161	10.4	581.6	1.65	0.0074	0.0009
Load Loose in OTRs	0.5149	10.4	552.1	1.65	0.0078	0.0040
Load OWCs	0.2960	10.4	234.6	1.65	0.0183	0.0054
Load Pallets	0.0070	13.4	539.7	1.65	0.0062	0.0000
Load Pallet Boxes	0.0100	13.4	657.6	1.65	0.0051	0.0001
Destination BMC						**0.2244**
Unload Bedload Sack	0.0560	187.0	36.4	1.74	0.0070	0.0004
Unload Sacks in OTR	0.1161	20.8	581.6	1.74	0.0039	0.0005
Unload loose in OTR	0.5149	20.8	552.1	1.74	0.0041	0.0021
Unload Other Wheeled Cont.	0.2960	20.8	234.6	1.74	0.0097	0.0029
Unload Pallet	0.0070	12.3	539.7	1.74	0.0071	0.0001
Unload Pallet Boxes	0.0100	12.3	657.6	1.74	0.0059	0.0001
Dump OTR of sacks	0.1161	6.4	581.6	1.60	0.0117	0.0014
Dump OTR of loose	0.5149	6.4	552.1	1.60	0.0123	0.0063
Dump Other Wheeled Cont.	0.2960	6.4	234.6	1.60	0.0289	0.0086
Dump Pallet	0.0070	6.4	539.7	1.60	0.0126	0.0001
Dump Pallet Boxes	0.0100	6.4	657.6	1.60	0.0103	0.0001
Sack Sorter	0.1721	428.2	36.4	1.94	0.0034	0.0006
Sack shakeout	0.1721	71.8	36.4	1.60	0.0167	0.0029
Primary PSM	1.0014	874.0	1.0	1.78	0.0553	0.0554
Secondary PSM	0.7969	1296.6	1.0	1.78	0.0373	0.0297
Sweep Runouts OTR	0.7327	5.4	552.1	1.60	0.0146	0.0107
Sack and Tie	0.2673	124.5	1.0	1.60	0.3492	0.0934
Bedload Sacks	0.2384	182.5	36.4	1.74	0.0071	0.0017
Load OTRs w/ sacks	0.0289	10.4	581.6	1.74	0.0078	0.0002
Load OTRs w/ loose	0.6025	10.4	552.1	1.74	0.0082	0.0050
Load Hampers/OWC	0.1302	10.4	234.6	1.74	0.0194	0.0025
Destination SCF						**0.0188**
Unload Bedload Sacks	0.1593	154.1	36.4	1.65	0.0080	0.0013
Unload Sacks in OTR	0.0193	20.8	581.6	1.65	0.0037	0.0001
Unload loose in OTR	0.4026	20.8	552.1	1.65	0.0039	0.0016
Unload OWC	0.0870	20.8	234.6	1.65	0.0092	0.0008
Crossdock Bedload Sacks	0.1593	7.0	517.0	1.65	0.0123	0.0020
Crossdock Sacks in OTR	0.0193	7.0	581.6	1.65	0.0109	0.0002
Crossdock loose in OTR	0.4026	7.0	552.1	1.65	0.0115	0.0046
Crossdock OWC	0.0870	7.0	234.6	1.65	0.0271	0.0024
Bedload Sacks	0.1786	182.5	36.4	1.65	0.0068	0.0012
Load OTRs w/ loose	0.4026	10.4	552.1	1.65	0.0078	0.0031
Load Hampers/OWC	0.0870	10.4	234.6	1.65	0.0183	0.0016
Destination Delivery Unit						**0.0057**
Unload Bedload Sacks	0.1707	154.1	36.4	1.65	0.0080	0.0014
Unload loose in OTR	0.3849	20.8	552.1	1.65	0.0039	0.0015
Unload OWC	0.0832	20.8	234.6	1.65	0.0092	0.0008
Dump Sacks	0.1707	99.4	36.4	1.65	0.0124	0.0021

Model Cost	**$0.2657**
Model Weight[2]	**4.8%**
Wtd Modeled Cost	**$0.0127**

Sources

Column [1]: Page 3 of this attachment, mailflow arrival and dispatch profile.
Column [2]: Page 2 of this attachment, units per workhours.
Column [3]: Page 4 of this attachment, conversion factors.
Column [4]: Page 3 of this attachment, piggyback factors.
Column [5]: = (Wage rate * column [4]) / (column [2] * column [3]).
Column [6]: = Column [1] * column [5]).

[1]Unload Containers cost at origin SCF uses the average cost of unloading containers at origin BMC as proxy.

[2] =(1/21) Assumption Explained in Section VII of this testimony.

Estimation of Transportation Cost per Cubic Foot for BPRS

	[1] Cost per cubic foot per leg	[2] Weighted Avg. No. of Legs	[3] Cost per Cubic Foot.
Local Leg	$0.54	1.76	$0.94
Intermediate Leg	$0.60	1.59	$0.96
Long Distance Leg	$3.26	0.95	$3.11

Percent of Inter-BMC	0.95	1/
Percent of Intra-BMC	0.05	2/
Total Cost per cubic foot	$5.014	3/
Average Cube	0.08	4/
Total Cost of Transportation	**$0.423**	5/

Sources

Rows (1 & 2): Assumption explained in Section VII.B.2.
Row 3/: Sum of cost per cubic foot for all legs in column [3].
Row 4/: Average cube of BPRS parcels.
Row 5/: Row (3) * row (4).
Column [1]: Cost per c.f. per intra-BMC leg (page 2 of this attachment)* row(1) + cost per c.f. of inter-BMC (page 2 of this attachment)*row (2).
Column [2]: Attachment U, page 2, column 9.
Column [3]: Column [1] * column [2].

Calculation of Average Number of Legs Traveled by BPRS Parcels

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
	Mailer 1	**Mailer 2**	**Mailer 3**	**Mailer 4**	**Mailer 5**	**Mailer 6**	**Mailer 7**	**Mailer 8**	**Weighted Average**
Local	2	1	2	2	1	2	1	2	1.76
Intermediate	2	1	1	2	2	1	2	2	1.59
Long Distance	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Weekly Volume 1/	6,510	4,050	2,730	4,500	3,800	1,200	839	426	
Average Cube 2/	0.08	0.09	0.14	0.13	0.02	0.08	0.04	0.02	
Total Cube 3/	501	365	379	563	91	93	32	9	
Weighting Factor 4/	0.2466	0.1794	0.1867	0.2769	0.0447	0.0458	0.0157	0.0042	

Sources

Column [1]: Travels complete transportation path.
Column [2]: Mail is delivered to the mailer directly from the BMC. Therefore, the BPRS parcels skip one leg of local transportation and one leg of intermediate transportation.
Column [3]: Mail is transported from the BMC directly to the AO. Assume parcel skips a leg equal to an intermediate leg of transportation.
Column [4]: Travels complete transportation path.
Column [5]: Mailer picks up at returns at P&DC. Mail skips one local leg of transportation.
Column [6]: Mail is transported from the BMC directly to the AO. Assume parcel skips a leg equal to an intermediate leg of transportation.
Column [7]: Mail is delivered to mailer from P&DC. Parcels skip one local leg of transportation.
Column [8]: Travels complete transportation path.
Column [9]: The sum of the number of legs for each mailer times the appropriate weighting factor.
Row 1/: Daily volume for each mailer times the number of days per week they receive mail.
Row 2/: Average cube of mail for each mailer.
Row 3/: Weekly volume * average cube.
Row 4/: Cube for each mailer divided by total cube.

Calculation of Transportation costs per leg per cubic foot

	[1] Cost per cubic foot per leg	[2] Avg. # of legs	[3] Cost per cubic foot	[4] Total Cost	[5] Cubic Feet	[6] Percent
Inter-BMC						
Local	$0.54	1.96	$1.05	$35,871,214	34,214,278	
Intermediate	$0.60	1.96	$1.19	$40,562,585	34,214,278	
Long Distance	$3.26					
Distance Related		1.00	$3.19	$109,031,172	34,214,278	
Non-Distance Related		1.00	$0.08	$2,662,479	34,214,278	
Intra-BMC						
Local	$0.54					
Local Zone		1.00	$0.45	$486,719	1,092,724	4.02%
Non-Local Zone		2.00	$0.89	$11,635,194	13,060,986	95.98%
Intra-city		1.92	$0.17	$2,471,303	14,153,710	
Intermediate	$0.61	1.00	$0.61	$662,579	1,092,724	
Local Zone		2.00	$1.21	$15,839,192	13,060,986	
Non-Local Zone						

Sources

Column [1]: Average cost per cubic foot leg for each type of transportation.
Column [2]: Average number of legs used in parcel post transportation model (Attachment M, page 3 and Attachment N page 3).
Column [3]: Total cost [4] / total cube [5].
Column [4]: Total cost of type of transportation, Attachment M, pages 2 (rows 13 & 14) &3 (row 22) .
Column [5]: Total cube for each type of transportation, Attachment L, page 7.
Column [6]: From Attachment N page 3, column 4.

Calculation of Delivery Costs for BPRS

	[1] Cost per Cubic Foot for Local Transportation Leg	[2] Average Cube of Parcels Delivered	[3] Cost per Delivery per Piece	[4] Weighting Factor	[5] Delivery Cost Times Weighting Factor
Mailer 1	0.54	0.08	$0.04	0.2706	0.0112
Mailer 2	0.54	0.09	$0.05	0.1684	0.0081
Mailer 3	0.54	0.00	$0.00	0.1135	0.0000
Mailer 4	0.54	0.13	$0.07	0.1871	0.0125
Mailer 5	0.54	0.00	$0.00	0.1580	0.0000
Mailer 6	0.54	0.00	$0.00	0.0499	0.0000
Mailer 7	0.54	0.04	$0.02	0.0349	0.0007
Mailer 8	0.54	0.00	$0.00	0.0177	0.0000

Delivery Cost	$0.0325

Sources

Column [1]: Cost per cubic foot of local leg of transportation. Attachment U, page 1, column 1.
Column [2]: Average cube of mailer.
Column [3]: Column [1] * column [2].
Column [4]: Weighting factor based on weekly volume.
Column [5]: Column [3] * column [4].

Postage Due - Summary of Costs

	[1] Total Postage Due	[2] Weekly Volume	[3] Weight	[4] Weighted Postage Due
Mailer 1	$0.02	6,510	0.2706	0.0064
Mailer 2	$0.07	4,050	0.1684	0.0126
Mailer 3	$0.04	2,730	0.1135	0.0046
Mailer 4	$0.07	4,500	0.1871	0.0124
Mailer 5	$0.02	3,800	0.1580	0.0031
Mailer 6	$0.05	1,200	0.0499	0.0026
Mailer 7	$0.05	839	0.0349	0.0017
Mailer 8	$0.17	426	0.0177	0.0030
		24,055		

Modeled Postage Due Cost	**$0.0464** 1/

Sources

Column [1]: Total postage due as calculated on pages 3 through 10 of this attachment.
Column [2]: From page 2 of this attachment.
Column [3]: (Mailer$_i$ volume)/ (total volume).
Column [4]: Column [1] * column [3].
Row 1/: Sum of all rows in column [4].

Inputs

Wage rates - Actual wages

clerk/ mailhandler	$27.974	1/

Piggyback factors

Sorting parcels	1.461	2/
Calculating postage due	1.456	3/
Auditing	1.456	3/

Volumes	[1] Daily Volume	[2] Number of Days	[3] Weekly Volume
Mailer 1	1,085	6	6,510
Mailer 2	810	5	4,050
Mailer 3	455	6	2,730
Mailer 4	900	5	4,500
Mailer 5	760	5	3,800
Mailer 6	200	6	1,200
Mailer 7	420	2	839
Mailer 8	71	6	426

Sources
Row 1/: LR-I-11, clerk/mailhandler TY wage rate.
Row 2/: USPS-T-21, Attachment 14, piggyback for manual sorting at non-mods facilities.
Row 3/: USPS-T-21, Attachment 14, piggyback for mods 18 BUSREPLY.
Column [1]: Data collected on site visits.
Column [2]: Data collected on site visits.
Column [3]: Column [1] * column[2].

Postage Due - Mailer 1

Total Postage Due Cost for Mailer 1	1/	$0.024

Cost of Sorting and Postage Due, Complex[1]		
1,085	Average daily volume of BPRS mail	2/
1,298	Average daily volume of total returns	3/
0.836	Percent of returns that are BPRS	4/
26.143	Average days a month returns are worked	5/
1.000	Average days a month do elaborate postage due	6/
3.000	Average hours spent sorting mail	7/
1.785	Average hours spent on postage due and worksheets	8/
0.096	Average hours per day on sorting BPRS spread over month	9/
0.057	Average hours per day on BPRS postage due spread over month	10/
$27.97	Wage rate	11/
1.461	Piggyback factor for sorting parcels	12/
1.456	Piggyback factor for calculating postage due	13/
$6.244	Cost of sorting and elaborate postage due	14/
$0.006	Cost per piece	15/
Cost of Postage Due, Simple [2]		
0.083	Hours per container (weigh)	16/
7.140	Average number of containers per day	17/
0.595	Average hours a day, on days do simple postage due	18/
25.143	Average days do simple postage per month	19/
14.960	Average hours a month do simple postage due	20/
0.572	Average hours a day, spread over all days in a month	21/
0.478	Average hours per day attributed to BPRS	22/
0.0004	Average hours per BPRS piece	23/
27.97	Wage rate	24/
1.456	Piggyback factor for calculating postage due	25/
$0.018	Cost per piece of simple postage due	26/
Cost of Audit		
N/A		

Sources

Row 1/: Row (15) + row (27).
Row 2/: Data collected from postal facility.
Row 3/: Data collected from postal facility.
Row 4/: Row (2) / row (3).
Row 5/: Work mail 6 out of 7 days a week, assume 30.5 days a month on average =((6/7)*30.5).
Row 6/: Sort mail and calculate complex postage due one day out of the month.
Row 7/: Data collected from postal facility. 3 hours to sort.
Row 8/: Data collected from postal facility, 15 minutes per container.
Row 9/: Row (8) / row (5) * row (4).
Row 10/: Row (8) / row (5) * row (4).
Row 11/: Page 2 of this attachment.
Row 12/: Page 2 of this attachment.
Row 13/: Page 2 of this attachment.
Row 14/: Row (9) * row (11) * row (12) + row (10) * row (11) * row (13).
Row 15/: Row (14) / row (2).
Row 16/: Data collected from postal facility - 5 minutes per container.
Row 17/: Data collected from postal facility.
Row 18/: Row (16) * row (17).
Row 19/: Row (5) - row (6).
Row 20/: Row (18) * row (19).
Row 21/: Row (20) / row (5).
Row 22/: Row (22) * row (4).
Row 23/: Row (22) / row (2).
Row 24/: Page 2 of this attachment.
Row 25/: Page 2 of this attachment.
Row 26/: Row (23) *row (24) * row (25).

[1] One day of the month, mail is sorted and postage due is calculated.
[2] Other days of month a weighted factor is used to estimate postage due.

Postage Due - Mailer 2

Total Postage Due Cost for Mailer 2 1/	$0.075

Cost of Sorting		
810	Average daily volume of BPRS (5 days a week)	2/
46	Average hours per week sorting for all returns	3/
9.200	Average hours per day sorting for all returns	4/
0.500	Percent of returns that are BPRS	5/
0.250	Percent of time to sort BPRS versus other returns	6/
1.150	Average daily hours allocated to sorting BPRS	7/
0.001	Average hours per piece	8/
$27.97	Wage rate	9/
1.461	Piggyback factor for sorting parcels	10/
$0.058	Cost per piece of sorting	11/
Cost of Calculating Postage Due		
N/A		
Cost of Auditing		
0.333	Average hours per day	12/
810	Average pieces per day	13/
0.000	Average hours per piece	14/
$27.97	Wage rate (clerk)	15/
1.456	Piggyback factor for auditing	16/
$0.017	Cost per piece of auditing	17/

Sources

Row 1/: Row (11) + row (17).
Row 2/: Data collected from postal facility.
Row 3/: Data collected from postal facility.
Row 4/: Row (3) / (5 days a week).
Row 5/: Estimate made by clerk.
Row 6/: Assumption made by observing operation, all other returns must be weighed and postage must be calculated.
Row 7/: Row (4) * row (5) * row (6).
Row 8/: Row (7) / row (2).
Row 9:/ Page 2 of this attachment.
Row 10/: Page 2 of this attachment.
Row 11/: Row (8) * row (9) * row (10).
Row 12/: Estimate from BMEU clerk (20 minutes).
Row 13/: Data collected from BMEU clerk.
Row 14/: Row (12) / (13).
Row 15/: Page 2 of this attachment.
Row 16/: Page 2 of this attachment.
Row 17/: (14) * (15) * (16).

Postage Due - Mailer 3

Total Postage Due Cost for Mailer 3 1/	$0.041

Cost of Sorting		
455	Average daily volume of BPRS	2/
5.500	Average hours per day sorting for all returns	3/
0.260	Percent of returns that are BPRS	4/
0.250	Percent of time to sort BPRS versus other returns	5/
0.358	Average daily hours allocated to sorting BPRS	6/
0.001	Average hours per piece	7/
$27.97	Wage rate	8/
1.461	Piggyback factor for sorting parcels	9/
$0.032	Cost per piece of sorting	10/
Cost of Calculating Postage Due		
N/A		
Cost of Auditing		
0.083	Average hours per day to sample	11/
0.014	Average hours per day to check list	12/
0.097	Total hours per day in auditing	13/
0.0002	Average hours per piece	14/
$27.97	Wage rate	15/
1.456	Piggyback factor for auditing	16/
$0.009	Cost per piece of auditing	17/

Sources

Row 1/: Row (10) + row (17).
Row 2/: Data collected from postal facility.
Row 3/: Estimate of clerk at postal facility.
Row 4/: Data collected from postal facility.
Row 5/: Assumption from observation.
Row 6/: Row (3) * row (4) * row (5).
Row 7/: Row (6) / row (2).
Row 8/: Page 2 of this attachment.
Row 9/: Page 2 of this attachment.
Row 10/: Row (7) * row (8) * row (10).
Row 11/: Estimate of clerk at postal facility (5 minutes a per day).
Row 12/: Estimate of clerk at postal facility (5 minutes per week divided by 6 days a week).
Row 13/: Row (11) + row (12).
Row 13/: Row (13) / row (2).
Row 15/: Page 2 of this attachment.
Row 16/: Page 2 of this attachment.
Row 17/: (14) * (15) * (16).

Postage Due - Mailer 4

Total Postage Due Cost for Mailer 4	1/	$0.066

Cost of Sorting		
900	Average daily volume of BPRS	2/
1.500	Average hours per day sorting for all returns	3/
0.750	Percent of time to sort BPRS versus other returns	4/
1.125	Average daily hours allocated to sorting BPRS	5/
0.001	Average hours per piece	6/
$27.97	Wage rate	7/
1.461	Piggyback factor for sorting parcels	8/
$0.051	Cost per piece of sorting	9/
Cost of Calculating Postage Due		
0.25	Hours for weighing (per day)	10/
0.08	Estimate of additional hours for paperwork (per day)	11/
0.33	Total hours	12/
0.0004	Hours per piece	13/
$27.97	Wage rate	14/
1.456	Piggyback factor for calculating postage due	15/
$0.015	Cost per piece of calculating postage due	16/
Cost of Auditing		
N/A		

Sources:

Row 1/: Row (9) + row (16).
Row 2/: Data collected from postal facility.
Row 3/: Data collected from postal facility (3 people, 30 minutes).
Row 4/: Estimate of postal clerk.
Row 5/: Row (3) * row (4).
Row 6/: Row (5) / (2).
Row 7/: Page 2 of this attachment .
Row 8/: Page 2 of this attachment.
Row 9/: Row (6) * row (7) * row (8).
Row 10/: Data collected from postal facility.
Row 11/: Data collected from postal facility.
Row 12/: Row (10) + row (11).
Row 13/: Row (12) / row (2).
Row 14/: Page 2 of this attachment.
Row 15/: Page 2 of this attachment.
Row 16/: Row (13) * row (14) * row (15) .

Postage Due - Mailer 5

Total Postage Due Cost for Mailer 5 1/	$0.020

Cost of Sorting		
760	Average daily volume of BPRS	2/
0.333	Average hours per day sorting BPRS	3/
0.0004	Average hours per piece	4/
$27.97	Wage rate	5/
1.461	Piggyback factor for sorting parcels	6/
$0.018	Cost per piece of sorting	7/
Cost of Calculating Postage Due		
N/A		
Cost of Auditing		
0.033	Hours per week	8/
0.00004	Hours per piece	9/
$27.97	Wage rate	10/
1.456	Piggyback factor for auditing	11/
$0.002	Cost per piece of auditing	12/

Sources

Row 1/: Row (7) + (13).
Row 2/: Data collected from postal facility (800 to 900 returns four days a week, 400 returns one day a week).
Row 3/: Data collected from postal facility (20 minutes).
Row 4/: Row (3) / row (2).
Row 5/: Page 2 of this attachment.
Row 6/: Page 2 of this attachment.
Row 7/: Row (4) * Row (5) * Row (6).
Row 8/: Data collected from postal facility (10 minutes once a week).
Row 9/: Row (8) / row (1).
Row 10/: Page 2 of this attachment.
Row 11/: Page 2 of this attachment.
Row 12/: Row (9) * row (10) * row (11).

Postage Due - Mailer 6

Total Postage Due Cost for Mailer 6	1/	$0.052

Cost of Sorting		
200	Average daily volume of BPRS	2/
1.500	Average hours per day sorting for all returns	3/
0.500	Percent of returns that are BPRS	4/
0.250	Percent of time to sort BPRS versus other returns	5/
0.188	Average daily hours allocated to sorting BPRS	6/
0.001	Average hours per piece	7/
$27.97	Wage rate	8/
1.461	Piggyback factor for sorting parcels	9/
$0.038	Cost per piece of sorting	10/
Cost of Calculating Postage Due		
N/A		
Cost of Auditing		
0.069	Average hours per day	11/
0.0003	Average hours per piece	12/
$27.97	Wage rate	13/
1.456	Piggyback factor for auditing	14/
$0.014	Cost per piece of auditing	15/

Sources

Row 1/: Row (10) + row (15).
Row 2/: Data collected from the clerk at postal facility.
Row 3/: Data collected from the clerk at postal facility.
Row 4/: Estimate of clerk at postal facility.
Row 5/: Assumption made by observing operation, all other returns must be weighed and postage must be calculated.
Row 6/: Row (3) * row (4) * row (5).
Row 7/: Row (6) / row (2).
Row 8/: Page 2 of this attachment.
Row 9/: Page 2 of this attachment.
Row 10/: Row (7) * row (8) * row (9).
Row 11/: Estimate of clerk at postal facility (10 minutes, 2.5 times a week).
Row 12/: Row (11) / row (2).
Row 13/: Page 2 of this attachment.
Row 14/: Page 2 of this attachment.
Row 15/: Row (12) * row (13) * row (14).

Postage Due - Mailer 7

Total Postage Due Cost for Mailer 7	**1/**	$0.049

Cost of Sorting		
420	Average daily volume of BRRS	2/
0.333	Average hours per day sorting BPRS	3/
0.001	Average hours per piece	4/
$27.97	Wage rate	5/
1.461	Piggyback factor for sorting parcels	6/
$0.032	Cost per piece of sorting	7/
Cost of Calculating Postage Due		
N/A		
Cost of Auditing		
0.167	Hours spend auditing, on days receive mail	8/
0.0004	Average hours per piece	9/
$27.97	Wage rate (clerk)	10/
1.456	Piggyback factor for auditing	11/
$0.016	Cost per piece of auditing	12/

Sources

Row 1/: Row (7) + row (12).
Row 2/: Data collected from postal facility (3567 pieces per month/ 8.5 days a month).
Row 3/: Data collected from clerk from postal facility, 20 minutes.
Row 4/: Row (3) / row (2).
Row 5/: Page 2 of this attachment.
Row 6/: Page 2 of this attachment.
Row 7/: Row (4) * row (5) * row (6).
Row 8/: Data collected at postal facility. (5 minutes each day, 10 minutes once a week)
Row 9/: Row (8) / row (2).
Row 10/: Page 2 of this attachment.
Row 11/: Page 2 of this attachment.
Row 12/: Row (9) * row (10) * row (11).

Postage Due - Mailer 8

Total Postage Due Cost for Mailer 8 1/	$0.168

Cost of Sorting		
71	Average daily volume of BPRS	2/
0.500	Average hours per day sorting for all returns	3/
0.250	Percent of returns that are BPRS	4/
0.125	Average daily hours allocated to sorting BPRS	5/
0.002	Average hours per piece	6/
$27.97	Wage rate	7/
1.461	Piggyback factor for sorting parcels	8/
$0.072	Cost per piece of sorting	9/
Cost of Calculating Postage Due		
0.167	Average hours for postage due	10/
0.002	Average hours per piece	11/
$27.97	Wage rate	12/
1.456	Piggyback factor for calculating postage due	13/
$0.096	Cost per piece of postage due	14/
Cost of Auditing		
N/A		

Sources

Row 1/: Row (9) + row (14).
Row 2/: Data collected from postal facility.
Row 3/: Data collected from postal facility (30 minutes to sort).
Row 4/: Data collected from postal facility.
Row 5/: Row (3) * row (4).
Row 6/: Row (5) / row (2).
Row 7/: Page 2 of this attachment.
Row 8/: Page 2 of this attachment.
Row 9/: Row (6) * row (7) * row (8)
Row 10/: Data collected at postal facility (10 minutes)
Row 11/: Row (10) / row (2).
Row 12/: Page 2 of this attachment.
Row 13/: Page 2 of this attachment.
Row 14/: Row (11) * row (12) * row (13).

Parcel Post Cost Reductions due to Volume Impacts

Transportation

	PRC Costs (000) [1]	PRC Volume TY/BR (000) [2]	Unit costs [3]	Unit Cost Diff [4]
Inter-BMC	$125,637	55,256		
Intra-BMC	$25,897	49,406		
DBMC	$62,345	136,937		
Non-Dropship	151,535	104,662	$1.45	
Dropship	62,345	136,937	$0.46	$0.99

Mail Processing (Cost Avoided) DBMC.xls

	PRC
1/	0.1756

Sources

1/: PRC work file. DBMC.xls [Avoided]. DBMC avoided mail processing cost without piggybac
[1]: PRC work file. R97Post.xls [Develop] (take out Vehicle Service Driver) G360 to G362
[2]: PRC work file. R97Post.xls. [VOLData]: H38-H41
[3]: [1] / [2].
[4]: Non-dropship unit cost [3] - dropship unit cost [3].

Mail Processing

	1998	2001	
Non-Dropship Volume (pieces)	103,250,276	80,437,687	1/
Dropship Volume (pieces)	209,409,166	298,008,947	2/
	312,659,442	378,446,634	3/
Non-Dropship Volume (percent)	33.02%	21.25%	4/
Dropship Volume (percent)	66.98%	78.75%	5/
C/S 3.1 Mail Processing Costs	$241,341,000	$292,121,960	6/
Unit Mail Processing Costs	$0.77		7/
Unit Cost Diff B/n Dropship and Nondrop	$0.18		8/
Cost of NonDropship	$0.89		9/
Cost of Dropship	$0.71		10/
New Unit Cost	$0.75		11/
New Total Cost	$284,303,164		12/
Cost Reduction	$7,818,796		13/

C/S 14.1 Transportation

	1998	2001	
C/S 14.1 Transportation (Base Year)	$296,858,000	$359,320,384	14/
Transportation Unit Cost	$0.95		15/
Unit Cost Diff B/n Dropship and Nondrop	$0.99		16/
Cost of NonDropship	$1.61		17/
Cost of Dropship	$0.62		18/
New Unit Cost	$0.83		19/
New Total Cost	$315,113,913		20/
Cost Reduction	$44,206,471		21/

Sources:

1 & 2 /: FY98 Billing Determinants (LR-I-125) and FY2001 test year volume forecasts (USPS-T-6).
3/: (1) + (2).
4/: (1) / (3).
5/: (2) / (3).
6/: FY98 CRA, USPS-T-11, Exhibit A. FY2001, USPS-T-14, WP.H.
7/: (6) / (3).
8/: WP1.1, (1).
9/: (10) + (8).
10/: (7) - [(8) * (4)] / [(4) + (5)].
11/: (9) * (4) + (10) * (5).
12/: (9) * (1) + (10) * (2).
13/: (6) - (12).
14/: FY98 CRA, USPS-T-11, Exhibit A. FY2001, USPS-T-14, WP.H.
15/: (14) / (3).
16/: WP1.1, [4].
17/: (16) + (18).
18/: (15) - [(16)* (4)] / [(4) + (5)].
19/: (17) * (4) + (18) * (5).
20/: (17) * (1) + (18) * (2).
21/: (14) - (20).

	DATA COLLECTED BY OPERATIONS				CONVERSIONS		FORM 12 DATA		ADJUSTED DATA			
	% of Parcel Volume Directly Inducted to Secondary [1]	% of Service Area ZIP Codes finalized in the Primary [2]	Container Routing System (CRS) [3]	Conveyor system to transport NMOs from inbound docks to NMO area [4]	CRS [5]	Conveyor [6]	Machinable Volume at each BMC [7]	NMO Volume in BMC [8]	% of Parcel Volume Directly Inducted to Secondary [9]	% of Service Area ZIP Codes finalized in the Primary [10]	CRS [11]	Conveyor system to transport NMOs from inbound docks to NMO area [12]
BMC 01	19.5%	23.6%	no	no	0	0	16,923,519	1,075,094	1.01%	1.22%	0.00%	0.00%
BMC 02	49.4%	29.7%					39,526,571	2,243,588	5.97%	3.60%		
BMC 03	0.0%	26.9%	no	no	0	0	20,223,227	1,286,303	0.00%	1.66%	0.00%	0.00%
BMC 04	59.9%	2.2%	yes	yes	1	1	11,552,900	738,742	2.12%	0.08%	3.84%	3.84%
BMC 05	0.0%	7.8%	yes	no	1	0	11,022,804	765,877	0.00%	0.26%	3.98%	0.00%
BMC 06	55.1%	9.1%	yes	yes	1	1	8,350,921	684,036	1.41%	0.23%	3.56%	3.56%
BMC 07	7.1%	13.4%	yes	no	1	0	14,462,724	1,004,941	0.31%	0.59%	5.22%	0.00%
BMC 08	19.7%	0.0%	yes	yes	1	1	15,505,582	816,181	0.93%	0.00%	4.24%	4.24%
BMC 09	8.9%	16.7%	yes	yes	1	1	13,800,708	1,145,049	0.38%	0.71%	5.95%	5.95%
BMC 10	15.0%	35.1%	yes	yes	1	1	18,321,634	1,124,760	0.84%	1.97%	5.85%	5.85%
BMC 11	7.4%	10.8%	yes	yes	1	1	13,694,002	925,360	0.31%	0.45%	4.81%	4.81%
BMC 12	7.8%	4.0%	yes	yes	1	1	9,412,710	632,290	0.22%	0.11%	3.29%	3.29%
BMC 13	43.2%	3.0%	yes	yes	1	1	12,795,063	811,189	1.69%	0.12%	4.22%	4.22%
BMC 14	0.0%	31.9%	yes	yes	1	1	25,118,957	1,718,404	0.00%	2.45%	8.93%	8.93%
BMC 15	45.3%	6.8%	yes	yes	1	1	6,530,754	540,629	0.91%	0.14%	2.81%	2.81%
BMC 16	30.4%	10.2%	yes	yes	1	1	20,363,454	1,552,991	1.89%	0.63%	8.07%	8.07%
BMC 17	4.9%	34.1%	no	no	0	0	20,605,818	1,202,599	0.31%	2.15%	0.00%	0.00%
BMC 18	31.5%	13.5%	yes	yes	1	1	5,070,626	350,987	0.49%	0.21%	1.82%	1.82%
BMC 19	29.6%	41.9%	no	no	0	0	21,978,832	1,374,799	1.99%	2.82%	0.00%	0.00%
BMC 20	0.0%	12.3%	yes	yes	1	1	8,650,600	704,782	0.00%	0.32%	3.66%	3.66%
BMC 21	22.3%	11.2%	no	no	0	0	13,026,260	783,552	0.89%	0.45%	0.00%	0.00%
							326,937,666	21,482,153	21.66%	20.16%	70.26%	61.05%

Sources:
Columns [1] through [4]: Data collected by Operations.
Columns [6&7]: Adjusts yes and no answers to numerical answers. Yes=1 and no=0.
Columns [7 &8]: LR-I-105, Attachment G.
Column [9]: Column 1 weighted by machinable volume
Column [10]: Column 2 weighted by machinable volume.
Column [11]: Column 6 weighted by NMO volume.
Column [12]: Column 7 weighted by NMO volume.

Estimating the Percent of Volume that ASF act like a BMC and act like a Plant

		ASF 01	ASF 02	ASF 03	ASF 05	ASF 06	ASF 07	ASF 08	Total
ASF acting as plant									
Parent BMC	1/	10%	80%	70%	70%	90%	50%	65%	
ASF acting like BMC									
Other BMC	2/	0%	10%	20%	30%	10%	50%	20%	
Other ASF	3/	90%	10%	10%	0%	0%	0%	15%	
TOTAL	4/	90%	20%	30%	30%	10%	50%	35%	
Outgoing PP Volume	5/	248,930	651,335	204,633	271,631	552,350	1,115,789	1,011,076	4,055,744
Weight	6/	0.0614	0.1606	0.0505	0.0670	0.1362	0.2751	0.2493	
Weighted Average									
ASF as plant	7/	0.61%	12.85%	3.53%	4.69%	12.26%	13.76%	16.20%	**63.90%**
ASF as BMC	8/	5.52%	3.21%	1.51%	2.01%	1.36%	13.76%	8.73%	**36.10%**

Sources:
Row 1/: Data compiled from ASFs.
Row 2/: Data compiled from ASFs.
Row 3/: Data compiled from ASFs.
Row 4/: Row (2) + row (3).
Row 5/: LR-I-105, Attachment F.
Row 6/: Outgoing volume for each ASF divided by total outgoing volume of all ASFs.
Row 7/: Row (1) * Row (6).
Row 8/: Row (4) * Row (6).

Parcel Post Cost Reductions due to Volume Impacts

Transportation

	PRC Costs (000) [1]	PRC Volume TY/BR (000) [2]	Unit costs [3]	Unit Cost Difference [4]
Inter-BMC	$125,637	55,256		
Intra-BMC	$25,897	49,406		
DBMC	$62,345	136,937		
Non-Dropship	151,535	104,662	$1.45	
Dropship	62,345	136,937	$0.46	$0.99

Mail Processing

	PRC
1/	0.1756

Sources

1/: PRC work file. DBMC.xls [Avoided]. DBMC avoided mail processing cost without piggyback
[1]: PRC work file. R97Post.xls [Develop] (take out Vehicle Service Driver) G360 to G362
[2]: PRC work file. R97Post.xls. [VOLData]: H38-H41
[3]: [1] / [2].
[4]: Non-dropship unit cost [3] - dropship unit cost [3].

Mail Processing

	1998	2001	
Non-Dropship Volume (pieces)	103,250,276	80,437,687	1/
Dropship Volume (pieces)	209,409,166	298,008,947	2/
	312,659,442	378,446,634	3/
Non-Dropship Volume (percent)	33.02%	21.25%	4/
Dropship Volume (percent)	66.98%	78.75%	5/
C/S 3.1 Mail Processing Costs	$241,341,000	$292,121,960	6/
Unit Mail Processing Costs	$0.77		7/
Unit Cost Diff B/n Dropship and Nondrop	$0.18		8/
Cost of NonDropship	$0.89		9/
Cost of Dropship	$0.71		10/
New Unit Cost	$0.75		11/
New Total Cost	$284,303,164		12/
Cost Reduction	$7,818,796		13/

C/S 14.1 Transportation

	1998	2001	
C/S 14.1 Transportation (Base Year)	$296,858,000	$359,320,384	14/
Transportation Unit Cost	$0.95		15/
Unit Cost Diff B/n Dropship and Nondrop	$0.99		16/
Cost of NonDropship	$1.61		17/
Cost of Dropship	$0.62		18/
New Unit Cost	$0.83		19/
New Total Cost	$315,113,913		20/
Cost Reduction	$44,206,471		21/

Sources:

1 & 2 /: FY98 Billing Determinants (LR-I-125) and FY2001 test year volume forecasts (USPS-T-6).
3/: (1) + (2).
4/: (1) / (3).
5/: (2) / (3).
6/: FY98 CRA, USPS-T-11, Exhibit A. FY2001, USPS-T-14, WP.H.
7/: (6) / (3).
8/: Attachment X, page 1, (1).
9/: (10) + (8).
10/: (7) - [(8) * (4)] / [(4) + (5)].
11/: (9) * (4) + (10) * (5).
12/: (9) * (1) + (10) * (2).
13/: (6) - (12).
14/: FY98 CRA, USPS-T-11, Exhibit A. FY2001, USPS-T-14, WP.H.
15/: (14) / (3).
16/: Attachment X, page 1, [4].
17/: (16) + (18).
18/: (15) - [(16)* (4)] / [(4) + (5)].
19/: (17) * (4) + (18) * (5).
20/: (17) * (1) + (18) * (2).
21/: (14) - (20).

	DATA COLLECTED BY OPERATIONS				CONVERSIONS		FORM 12 DATA		ADJUSTED DATA			
	% of Parcel Volume Directly Inducted to Secondary [1]	% of Service Area ZIP Codes finalized in the Primary [2]	Container Routing System (CRS) [3]	Conveyor system to transport NMOs from inbound docks to NMO area [4]	CRS [5]	Conveyor [6]	Machinable Volume at each BMC [7]	NMO Volume in BMC [8]	% of Parcel Volume Directly Inducted to Secondary [9]	% of Service Area ZIP Codes finalized in the Primary [10]	CRS [11]	Conveyor system to transport NMOs from inbound docks to NMO area [12]
BMC 01	19.5%	23.6%	no	no	0	0	16,923,519	1,075,094	1.01%	1.22%	0.00%	0.00%
BMC 02	49.4%	29.7%					39,526,571	2,243,588	5.97%	3.60%		
BMC 03	0.0%	26.9%	no	no	0	0	20,223,227	1,286,303	0.00%	1.66%	0.00%	0.00%
BMC 04	59.9%	2.2%	yes	yes	1	1	11,552,900	738,742	2.12%	0.08%	3.84%	3.84%
BMC 05	0.0%	7.8%	yes	no	1	0	11,022,804	765,877	0.00%	0.26%	3.98%	0.00%
BMC 06	55.1%	9.1%	yes	yes	1	1	8,350,921	684,036	1.41%	0.23%	3.56%	3.56%
BMC 07	7.1%	13.4%	yes	no	1	0	14,462,724	1,004,941	0.31%	0.59%	5.22%	0.00%
BMC 08	19.7%	0.0%	yes	yes	1	1	15,505,582	816,181	0.93%	0.00%	4.24%	4.24%
BMC 09	8.9%	16.7%	yes	yes	1	1	13,800,708	1,145,049	0.38%	0.71%	5.95%	5.95%
BMC 10	15.0%	35.1%	yes	yes	1	1	18,321,634	1,124,760	0.84%	1.97%	5.85%	5.85%
BMC 11	7.4%	10.8%	yes	yes	1	1	13,694,002	925,360	0.31%	0.45%	4.81%	4.81%
BMC 12	7.8%	4.0%	yes	yes	1	1	9,412,710	632,290	0.22%	0.11%	3.29%	3.29%
BMC 13	43.2%	3.0%	yes	yes	1	1	12,795,063	811,189	1.69%	0.12%	4.22%	4.22%
BMC 14	0.0%	31.9%	yes	yes	1	1	25,118,957	1,718,404	0.00%	2.45%	8.93%	8.93%
BMC 15	45.3%	6.8%	yes	yes	1	1	6,530,754	540,629	0.91%	0.14%	2.81%	2.81%
BMC 16	30.4%	10.2%	yes	yes	1	1	20,363,454	1,552,991	1.89%	0.63%	8.07%	8.07%
BMC 17	4.9%	34.1%	no	no	0	0	20,605,818	1,202,599	0.31%	2.15%	0.00%	0.00%
BMC 18	31.5%	13.5%	yes	yes	1	1	5,070,626	350,987	0.49%	0.21%	1.82%	1.82%
BMC 19	29.6%	41.9%	no	no	0	0	21,978,832	1,374,799	1.99%	2.82%	0.00%	0.00%
BMC 20	0.0%	12.3%	yes	yes	1	1	8,650,600	704,782	0.00%	0.32%	3.66%	3.66%
BMC 21	22.3%	11.2%	no	no	0	0	13,026,260	783,552	0.89%	0.45%	0.00%	0.00%
							326,937,666	21,482,153	21.66%	20.16%	70.26%	61.05%

Sources:
Columns [1] through [4]: Data collected by Operations.
Columns [6&7]: Adjusts yes and no answers to numerical answers. Yes=1 and no=0.
Columns [7 &8]: LR-I-105, Attachment G.
Column [9]: Column 1 weighted by machinable volume
Column [10]: Column 2 weighted by machinable volume.
Column [11]: Column 6 weighted by NMO volume.
Column [12]: Column 7 weighted by NMO volume.

Estimating the Percent of Volume that ASF act like a BMC and act like a Plant

		ASF 01	ASF 02	ASF 03	ASF 05	ASF 06	ASF 07	ASF 08	Total
ASF acting as plant									
Parent BMC	1/	10%	80%	70%	70%	90%	50%	65%	
ASF acting like BMC									
Other BMC	2/	0%	10%	20%	30%	10%	50%	20%	
Other ASF	3/	90%	10%	10%	0%	0%	0%	15%	
TOTAL	4/	90%	20%	30%	30%	10%	50%	35%	
Outgoing PP Volume	5/	248,930	651,335	204,633	271,631	552,350	1,115,789	1,011,076	4,055,744
Weight	6/	0.0614	0.1606	0.0505	0.0670	0.1362	0.2751	0.2493	
Weighted Average									
ASF as plant	7/	0.61%	12.85%	3.53%	4.69%	12.26%	13.76%	16.20%	**63.90%**
ASF as BMC	8/	5.52%	3.21%	1.51%	2.01%	1.36%	13.76%	8.73%	**36.10%**

Sources:
Row 1/: Data compiled from ASFs.
Row 2/: Data compiled from ASFs.
Row 3/: Data compiled from ASFs.
Row 4/: Row (2) + row (3).
Row 5/: LR-I-105, Attachment F.
Row 6/: Outgoing volume for each ASF divided by total outgoing volume of all ASFs.
Row 7/: Row (1) * Row (6).
Row 8/: Row (4) * Row (6).

Alternative Methodology for Calculating Percent of Transportation that is Distance-Related

	Variable
PERSONNEL SCREENING	15
CHRISTMAS NETWORK LINE HAUL	5,447
CHRISTMAS NETWORK TERMINAL HANDLING	2,026
CHRISTMAS NETWORK EXCISE TAX	325
CHRISTMAS AIR TAXI LINE HAUL	21,454
CHRISTMAS AIR TAXI TERMINAL HANDLING	1,890
CHRISTMAS AIR TAXI EXCISE TAX	1,280
TOTAL CHRISTMAS OPERATIONS	32,437
LINE HAUL	22,734
TERMINAL HANDLING or NETWORK	9,703
SUBTOTAL	32,437
DISTANCE RELATED PERCENTAGE	**70.1%**

Source: USPS-T-11, WP.B.