

# DOCKET SECTION

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

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OFFICE OF THE SECRETARY  
Docket No. R97-1

POSTAL RATE AND FEE CHANGES, 1997

RESPONSE OF UNITED STATES POSTAL SERVICE  
TO INTERROGATORY OF  
THE ADVERTISING MAIL MARKETING ASSOCIATION  
(AMMA/USPS-USPS-2)

The United States Postal Service hereby provides the response to the following interrogatory of the Advertising Mail Marketing Association: AMMA/USPS-USPS-2, filed on December 2, 1997. The Postal Service notes that the questions posed in this interrogatory appear to relate to witness Daniel's testimony designated as USPS-T-29, upon which written discovery is no longer permitted. The Postal Service understands interrogatory AMMA/USPS-USPS-2 to be the last interrogatory AMMA intends to ask on this subject. See Tr. 14/7361-62. By filing this response, the Postal Service does not intend to waive its right to object to further cross-examination related to the subject matter in these responses or to any other discovery request.

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

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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**RESPONSE OF UNITED STATES POSTAL SERVICE TO  
INTERROGATORY OF ADVERTISING MAIL MARKETING ASSOCIATION**

**AMMA/USPS-USPS-2** Please refer to the "Mix of Handlings" column (column 1) at pages 5, 7, and 9 of USPS-T-29, Appendix I.

(a) Please confirm the Witness Daniel has testified that:

The mail flow diagrams used an entry profile based on the presort levels of containers and packages found in the subclass-specific Mail Characteristics Study (USPS-LR-H-105) to determine the sort level at which pieces in the mailstream begin piece distribution . . .

USPS-T-29 at 3 (footnotes omitted).

(b) Please confirm that in response to AMMA/USPS-LR-J-105-3, Witness Talmo, the sponsor of LR-H-105, stated that "there are no results from LR-H-105 used directly or indirectly in USPS-T-29, Appendix I, pages 5, 7, and 9."

(c) Please confirm that in response to AMMA/USPS-USPS-1 (redirected to Witness Daniel) it is stated (i) that "the initial mix of handlings of each of the three categories on pages 5, 7 and 9 [of Appendix I to USPS-T-29] is self evident;" and (ii) that "the sources of the mix of handlings in the first column appearing on pages 5, 7, and 9 of Appendix I consists of the figures presented in the boxes of the corresponding operation in the mail flow diagrams . . ."

(d) If the answers to any of the preceding subparts of this interrogatory is other than an unqualified confirmation, please explain the bases for the answer provided.

(e) Are there any sources other than those enumerated in subparts (a) - (c) of this interrogatory for (i) the data at column [1] of pages 5, 7, and 9 of USPS-T-29, Appendix I; and/or (ii) the figures presented in the boxes of the mail flow diagrams that correspond to pages 5, 7, and 9 of Appendix I to USPS-T-29. If your answer is in the affirmative, please identify the source of such data including page, line and column locations and any required derivations.

**RESPONSE:**

a-c. Confirmed.

d. N/A

e. The mail flow diagrams for Standard (A) Automation 5-Digit, Automation 5-Digit 100% DBCS, and Automation ECR letter mail flows were developed using the same method adopted in the past two Classification Reform cases (Docket Nos. MC95-1 and

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MC96-2). A description of the "Mix of Handlings" section of the cost summary pages is found in witness Daniel's testimony in Docket No. MC96-2, USPS-T-5, Appendix I page 1. Descriptions of the Prebarcoded 5-Digit Flow, the 5-Digit 100% DBCS Flow, and the ECR Prebarcoded Basic Flow also appear on pages 5 and 6 of Appendix I in that testimony. These descriptions explain in more detail the derivation and source of the figures presented in the boxes of the mail flow diagrams. Similar descriptions were provided in witness Takis' (USPS-T-12) Appendix I in Docket No. MC95-1. Copies of the pages of the testimonies referenced in this response are attached.

## **I. Introduction**

The purpose of this appendix is to present and describe the development of the unit cost estimates found in Exhibit USPS-T-12A: Summary of Standard Class Mail Processing Costs (Letters). These costs are derived on the following cost summary sheets which use complex mail flow models to determine the appropriate mix of handlings for a typical piece of mail in each modeled category. The mechanics of the summary sheet, as well as the mail flows and inputs, will be described in detail below and in subsequent appendices.

## **II. Cost Summary Sheets**

There is a separate cost summary sheet for every unit cost developed. All summary sheets, except for the "pre-reform" model for BRR (Other), summarize only one mail flow and have the same structure. The pre-reclassification model has a mix of handlings for basic and 3/5 presort mail in the first two columns and a weighted average in the third. Since this is the only exception to the similar layout of the cost summary sheets, the remaining discussion will assume the layout of all the other sheets.

The total modeled cost is developed using a mix of handlings determined by the mail flows and the productivity in pieces per hour for each machine in the model. The costs also depend on the labor rate assumed in R94-1, piggyback factors to allocate indirect costs, and a premium pay adjustment to account for lower processing priority for Third/Standard Class Mail. Finally, the summary sheet also includes costs for acceptance/verification, sort to P.O. boxes, and bundle sorting.

Each column used in developing the modeled costs are generally described in footnotes on each cost summary sheet. However, each factor used in developing these costs will be described in more detail below. Costs associated with allied labor, dock transfers, etc. are not modeled explicitly but are captured and applied using a non-model cost adjustment factor as described in Section III-A of this testimony.

### **A. Mix of Handlings**

The mix of handlings is found in the first column of the cost summary page. These handlings represent the number of "typical" pieces processed on a machine at each sortation level in a 10,000 piece flow of a particular rate category. The handlings are linked to the mail flow model itself and reference the cell which accounts for any reruns, such as "internal rejects" from the

MPBCS-OSS. An operation which has secondary sorts has "density downflows to itself." These additional handlings are accounted for on the summary page in the mix of handlings column, not in the mail flow. This convention will be described more below in Section IV. E.

## **B. Productivities**

Column [2] of the cost summary sheet represents the productivities of the machines at that sortation level in pieces processed per hour. These productivities are calculated using FY94 MODS total pieces fed divided by total work hours. Total pieces fed (TPF) instead of total pieces handled (TPH) are used because TPH are the total pieces which were successfully handled (i.e., not counting rejects). The model, on the other hand, uses accept rates to determine the number of rejected pieces and accounts for rejected piece being handled again on a different machine. Therefore, since each piece handling needs to be accounted for, and not just the accepted pieces, productivities are calculated using TPF.

Productivities are aggregated for all non-incoming secondary automation equipment (i.e., MLOCs and MPBCS/DBCS) to be consistent with Ms. Callies' testimony in R90-1 and to be consistent with aggregated piggyback factors. Productivities are also aggregated for the first and second pass on the DBCS.

With one exception, productivities are calculated using data from all sites reporting to the MODS system. However, the incoming secondary manual productivity for non-automated sites is calculated using data only from sites which have less than 45% automation TPH. The reasoning behind this will be described in greater detail in the manual section of Appendix II.

The "Productivities" input page found at the end of this appendix lists the MODS codes used in calculating each productivity. Detailed methodology is described in Library Reference MCR-2.

## **C. Wage Rate**

The wage rate is a key factor in determining the direct labor costs in dollars per piece for each machine at each level. The wage rate, or average loaded cost per hour for mail processing clerks, for FY95 is referenced in TR 6/2862, R94-1. The productivities are inverted in column [3] yielding hours per piece. Hours per piece multiplied by dollars per hour equals dollars per piece, as found in column [4].

to match the PRC decision in R94-1. Finally, it assumes twenty-eight percent of the non-barcoded mail is automation compatible based on Third-Class Mail Characteristics data (LR-MCR-4) in order to weight the 3/5 presort Automation Accept and Upgrade Rate data (LR-MCR-1) appropriately.

### **C. Automation Basic Flow**

The *Automation Basic Flow* models the proposed *Automation Basic* rate category for Standard mail. All of this mail will have 11-digit barcodes and come in AADC or mixed AADC trays. Therefore, this mail receives only barcode sorter, letter sorting machine, and manual processing without incurring any bundle sorting costs. No snapshot data are needed since it is assumed that all mail originating at facilities with barcode sorters will be processed on the automated equipment.

Assumptions about how much of this mail will be in each type of tray are found on the "Coverages" input page and are calculated using Third Class Mail Characteristics data (LR-MCR-4). The percentage of mail in AADC trays at facilities that are both AADCs and SCFs is calculated in Mr. Smith's (USPS-T-10) workpapers. We use *First-Class Mail Characteristics* data (LR-MCR-7) since these data were not available in the third-class study. This information also alleviates the need for an entry point profile since it is assumed that the mail will enter at outgoing primary, AADC, or SCF distribution levels depending on tray presort level.

### **D. Automation 3-Digit Flow**

The *Automation 3-Digit Flow* models the proposed *Automation 3-Digit* rate category for Standard mail. All of this mail will have 11-digit barcodes and come in 3-digit trays; therefore, this mail receives only barcode sorter, letter sorting machine, and manual processing without incurring any bundle sorting costs. No snapshot nor entry profile data are needed since it is assumed that all mail destinating at facilities with barcode sorters will be processed on the automated equipment at the incoming primary level.

### **E. Automation 5-Digit Flow**

The *Automation 5-Digit Flow* models the proposed *Automation 5-Digit* rate category for Standard mail. All of this mail will have 11-digit barcodes and come in 5-digit trays; therefore, this mail receives only barcode sorter, letter sorting machine, and manual processing without incurring any bundle sorting costs. No snapshot nor entry profile data are needed since it is assumed that all mail

destinating at facilities with barcode sorters will be processed on the automated equipment at the incoming secondary level.

#### **F. Automation Carrier Route Flow**

The Automation Carrier Route Flow models the proposed Automation Carrier Route rate category for Standard mail. Any carrier route mail with a density of ten or more pieces having an 11-digit barcode sorted to a carrier route not serviced by a delivery barcode sorter (DBCS) will qualify for this category. This mail therefore receives only carrier sequence barcode sorter (CSBCS) or manual processing. No snapshot nor entry profile data are needed since it is assumed that all mail destinating at facilities without delivery barcode sorters will process this mail either manually or on the CSBCS. This mail processing cost is in addition to cost incurred by current carrier route presort mail; therefore, it is added to the CRA benchmark for third-class bulk rate carrier route mail.

#### **G. Regular Basic Flow**

The Regular Basic Flow models the basic portion of the mail in the existing CRA third-class BRR (Other) which does not migrate to the Automation subclass. Since current barcoded and ZIP+4 mail is projected to migrate, this mail is just basic non-barcoded. The new makeup requirements allow non-automation compatible mail to come in bundles, but still receive the basic rate based on container level. Therefore, bundle sorting costs are incurred.

As described further in the Input Sheets section, this model uses the non-barcoded basic section of the "Entry Point Profile" input sheet. It uses the normalized non-barcoded total mix percentage in the "Snapshot" input sheet where the percentage of barcoded mail is forced to zero. Finally, it assumes the same percent of automation compatible mail as current non-barcoded mail, or twenty eight percent. (see LR-MCR-4)

#### **H. Regular 3/5 Presort Flow**

The Regular 3/5 Presort Flow models the 3/5 presort portion of the mail in the existing CRA third-class BRR (Other) which does not migrate to the Automation subclass. Thus this mail is non-barcoded 3/5 presort. The new makeup requirements allow non-automation compatible mail to come in bundles, but receives the 3/5 presort rate based on container level. Therefore, bundle sorting costs are incurred.

As described further in the Input Sheets section, this model uses the non-barcoded 3/5 presort section of the "Entry Point Profile" input sheet. It uses the normalized non-barcoded total mix percentage in the "Snapshot" input sheet, where the percentage of barcoded mail is forced to zero. Finally, it assumes the same percent of automation compatible mail as current non-barcoded mail, or twenty eight percent (Third-Class Mail Characteristics LR-MCR-4), in order to weight the 3/5 presort accept and upgrade rates found in LR-MCR-1.

#### **I. 5-Digit 100% DBCS Flow**

The 5-Digit 100% DBCS Flow models barcoded carrier route mail which migrates to the Automation 5-Digit category because it destinate at carrier routes which are serviced by delivery barcode sorters (DBCS) and therefore does not qualify for the Automation Carrier Route rate. The coverage factors used in the Automation 5-Digit Model will not reflect the mail which migrates. Thus, the percent of mail which could be processed on DBCS would be understated in the Automation 5-Digit model.

This model differs from the Automation 5-Digit Model in that all mail enters on a DBCS at the incoming secondary level instead of being split between MPBCS, CSBCS, DBCS, and manual. The costs developed in this 5-Digit 100% DBCS Flow Model are added to appropriate delivery, transportation, and "other" costs on page 34 of this appendix. A two percent contingency is then applied to get a similar total cost as found in Exhibit USPS-12C. Mr. Moeller, USPS-T-20, weights the total costs for 5-Digit 100% DBCS with the total costs for Automation 5-Digit found in Exhibit USPS-12C at 2 in setting rates for Automation 5-Digit.

#### **J. 0% DBCS 5-Digit Flow**

The 0% DBCS 5-Digit Flow models 5-digit presort pre-barcoded mail which destinate at carrier routes which are not serviced by delivery barcode sorters (DBCS). If a mailing had at least ten pieces for a carrier route it would qualify for the Automation Carrier Route rate. In order to determine the cost avoided by presorting this mail to the carrier route level, this flow models only the piece distribution necessary to sort 5-digit prebarcoded mail to the carrier route level by MPBCS and manual processing. This flow actually models 5587.84 "typical" pieces as a result of zeroing out mail usually on DBCSs. Mr. Moeller, USPS-T-20, uses the difference between costs developed in this 0% DBCS 5-Digit Flow model and the costs of performing a bundle sort on a typical carrier route package from the incoming secondary level to the carrier route level in setting rates. This difference is also found on page 34 of this appendix.



## I. Introduction

The purpose of this appendix is to present and describe the development of the unit cost estimates found in Exhibit USPS-5A, "Development and Summary of Standard Nonprofit Mail Processing Costs (Letters)." These costs are derived on the following cost summary sheets which use complex mail flow models to determine the appropriate mix of handlings for a typical piece of mail in each modeled category. The mechanics of the summary sheet, as well as the mail flows and inputs, will be described in detail below. The models are structured the same as they were in Docket No. MC95-1.

## II. Cost Summary Sheets

There is a separate cost summary sheet for every unit cost developed. All summary sheets summarize only one mail flow and have the same structure. The total modeled cost is developed using a mix of handlings determined by the mail flows and the productivity in pieces per hour for each operation in the model. The costs also depend on the labor rate assumed in Docket No. R94-1, piggyback factors to allocate indirect costs, and a premium pay adjustment to account for lower processing priority for Third/Standard Class Mail. Finally, the summary sheet also includes costs for acceptance/verification, sort to P.O. boxes, and bundle sorting, just as they did in Docket No. MC95-1.

Each column used in developing the modeled costs are generally described in footnotes on each cost summary sheet. However, each factor used in developing these costs will be described in more detail below. Costs associated with allied labor, dock transfers, etc., are not modeled explicitly but are captured and applied using a non-modeled cost adjustment factor, as described in Section II-D of this testimony.

### A. Mix of Handlings

The mix of handlings is found in the first column of the cost summary page. These handlings represent the number of "typical" pieces processed through an operation at each sortation level in a 10,000 piece flow of a particular unique mailstream. The handlings are linked to the mail flow model itself and reference the cell which accounts for any reruns, such as "internal rejects" from the MPBCS-OSS. An operation which has secondary sorts has "density downflows to itself." These additional handlings are accounted for on the summary page in the mix of handlings column, not in the mail flow. This convention will be described more below in Section IV.E of this appendix.

Assumptions about how much of this mail will be in each type of tray are found on the "Coverages" input page and are calculated using Third-Class Mail Characteristics data (USPS-LR-PRR-3). The percentage of mail in AADC trays at facilities that are both AADCs and SCFs is calculated in MC95-1 witness Smith's (USPS-T-10) workpapers at IV-1. This information also alleviates the need for an entry point profile since it is assumed that the mail will enter at outgoing primary, AADC, or SCF distribution level depending on tray presort level.

**C. Standard Class, Nonprofit, Prebarcoded, 3-Digit Flow**

The Prebarcoded 3-Digit Flow models the proposed Prebarcoded 3-Digit rate category for Standard nonprofit mail. All of this mail will have 11-digit barcodes and come in 3-digit trays; therefore, this mail receives only barcode sorter, letter sorting machine, and manual processing without incurring any bundle sorting costs. The model assumes that all mail originating at facilities with barcode sorters will be processed on the automated equipment at the incoming primary level.

**D. Standard Class, Nonprofit, Prebarcoded, 5-Digit Flow**

The Prebarcoded 5-Digit Flow models the proposed Prebarcoded 5-Digit rate category for Standard nonprofit mail. All of this mail will have 11-digit barcodes and come in 5-digit trays; therefore, this mail receives only barcode sorter, letter sorting machine, and manual processing without incurring any bundle sorting costs. The model assumes that all mail originating at facilities with barcode sorters will be processed on the automated equipment at the incoming secondary level.

**E. Standard Class, Nonprofit, Automation Compatible, Presort Basic and 3/5 Flows**

The Nonbarcoded, Automation Compatible, Presort Basic and 3/5 Flows model the portion of Standard, Nonprofit, Presort, Basic and 3/5 which will change as a result of new make-up requirements. All OCR-upgradable mail will be allowed to come in "full" trays, i.e., no bundles. Therefore, these models use the modified "Standard Entry Profile" described below, and do not include a bundle sorting cost. All other aspects of the models are the same as the pre-reclassification reform "benchmark" automation compatible models. The automation compatible unit costs are weighted with the corresponding non-automation compatible unit costs in the same proportion as used in the benchmark model set (65.8% automation compatible and 34.2% non-automation compatible). The non-automation compatible unit costs are the same both pre-

and post-classification reform because the make-up requirements do not change.

#### **F. Enhanced Carrier Route Prebarcoded Basic Flow**

The Enhanced Carrier Route Prebarcoded Basic Flow models the proposed Enhanced Carrier Route Prebarcoded Basic rate category for Standard nonprofit mail. Any carrier route mail with a density of ten or more pieces having an 11-digit barcode sorted to a carrier route not serviced by a delivery barcode sorter (DBCS) will qualify for this category. This mail therefore receives only carrier sequence barcode sorter (CSBCS) or manual processing. It is assumed that all mail destinating at facilities without delivery barcode sorters will process this mail either manually or on the CSBCS. This mail processing cost is in addition to cost incurred by current carrier route presort mail; therefore, it is added to the CRA benchmark for third-class bulk rate nonprofit carrier route mail.

#### **G. 3-Digit and 5-Digit Non-Barcoded AC and Non-AC Flows**

The 3-Digit Non-Barcoded Automation Compatible and 3-Digit Non-Barcoded Non-Automation Compatible Flows model the non-barcoded mail sorted to the 3-digit level. The 5-Digit Non-Barcoded Automation Compatible and 5-Digit Non-Barcoded Non-Automation Compatible Flows model the non-barcoded mail sorted to the 5 digit level. These two models are developed so that Dr. O'Hara, USPS-T-10, can compare 3-Digit Prebarcoded and 5-Digit Prebarcoded mail processing costs with 3- and 5-digit non-barcoded mail processing costs, respectively. These costs are added to the appropriate delivery costs. The barcoding costs avoided are calculated on page 53 of this appendix as a proxy for Periodicals letter barcoding cost avoidance.

These two models basically disaggregate the Nonbarcoded 3/5 Presort Models using the nonprofit third-class mail characteristics data. These models use a side calculation on the "Standard Class Entry Point Profile" input sheet described below. Finally, these models assume the same percentage of automation compatible mail as benchmark model set.

#### **H. 5-Digit 100% DBCS Flow**

The 5-Digit 100% DBCS Flow models carrier route mail which migrates to the Prebarcoded 5-Digit category because it destinales at carrier routes which are serviced by delivery barcode sorters (DBCS) and therefore does not qualify for the Enhanced Carrier Route Prebarcoded Basic rate. The coverage factors used in the Prebarcoded 5-Digit Model will not reflect the mail which migrates.

Thus, the percent of mail which could be processed on DBCS would be understated in the Prebarcoded 5-Digit model.

This model differs from the Prebarcoded 5-Digit Model in that all mail enters on a DBCS at the incoming secondary level instead of being split between MPBCS, CSBCS, DBCS, and manual. The costs developed in this 5-Digit 100% DBCS Flow Model are added to appropriate delivery, transportation, and "other" costs on page 52 of this appendix. A two percent contingency is then applied to get a similar total cost as found in Exhibit USPS-5C. Mr. Moeller, USPS-T-9, weights the total costs for 5-Digit 100% DBCS with the total costs for Prebarcoded 5-Digit found in Exhibit USPS-5C at 2 in setting rates for Prebarcoded 5-Digit.

#### **I. 0% DBCS 5-Digit Flow**

The 0% DBCS 5-Digit Flow models 5-digit presort prebarcoded mail which destinate at carrier routes which are not serviced by delivery barcode sorters (DBCS). If a mailing had at least ten prebarcoded pieces for a carrier route, it would qualify for the Enhanced Carrier Route Prebarcoded Basic rate. In order to determine the cost avoided by presorting this mail to the carrier route level, this flow models only the piece distribution necessary to sort 5-digit prebarcoded mail to the carrier route level by MPBCS and manual processing. This flow actually models 5588 "typical" pieces as a result of zeroing out mail usually on DBCSs. Mr. Moeller, USPS-T-9, looks at the difference between costs developed in this 0% DBCS 5-Digit Flow model and the costs of performing a bundle sort on a typical carrier route package from the incoming secondary level to the carrier route level in setting rates which was taken from witness Takis' MC95-1 testimony. This difference is also found on page 52 of this appendix.

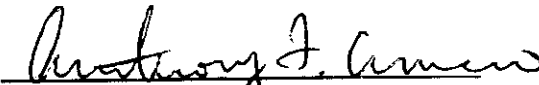
#### **IV. Input Sheets**

##### **A. Third-Class Entry Point Profile**

The Third-Class Entry Point Profile determines at which sortation level mail will enter the pre-classification reform models. It is developed using a combination of third-class mail characteristics data and bundle breaking assumptions. The specific development is detailed in Appendix III. It uses the "Nonprofit Mail Characteristic Percentages" and "Nonprofit Mail Characteristic Volumes" sheets at the end of this appendix. There are different entry point level profiles used in these models depending on the presort level and whether or not the mail being modeled is prebarcoded or automation compatible. It also reflects current, pre-classification reform, make-up rules. Also included on this page are the volumes from the Commission's R94-1 Recommended Decision for

## CERTIFICATE OF SERVICE

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

  
Anthony F. Alverno

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