DOCKET SECTION

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

POSTAL RATE AND FEE CHANGES, 1997

Docket No. R97–1

RESPONSE OF UNITED STATES POSTAL SERVICE
WITNESS DEGEN TO INTERROGATORIES OF
THE DIRECT MARKETING ASSOCIATION, INC.
(DMA/USPS–T12—15–24)

The United States Postal Service hereby provides responses of witness Degen to the following interrogatories of the Direct Marketing Association, Inc.: DMA/USPS–T12—15–24, filed on November 12, 1997. Each interrogatory is stated verbatim and is followed by the response.

Although the cover sheet accompanying these interrogatories claims that they relate to "supplemental" testimony, that is true in only the most trivial of senses. In fact, these are merely further interrogatories concerning the core subject of witness Degen's testimony (USPS-T-12), and are filed as relating to "supplemental" testimony under the most transparent of pretenses. Under the totality of circumstances involved, and given the content of these questions, it is easier to respond than engage in needless motions practice. However, as stated earlier at hearings (Tr. 12/6087-91), the Postal Service will strongly object to any attempt by parties who, despite having had full opportunity to cross-examine Mr. Degen on the types of matters addressed in these interrogatories, try to take another bite at the apple. DMA, for example, declined to conduct cross-examination on October 23 (Tr.

12/6646), and should not be allowed to conduct any additional cross-examination on these interrogatories or any related matters.

To be as clear as possible, the Postal Service considers that, at a minimum, Parts I, II, IV, V, and IX of LR-H-146 are so clearly background documention of the methodology presented in Mr. Degen's direct testimony, USPS-T-12, that they cannot properly be considered "supplemental" in any realistic sense of the term. Mr. Degen provided a substantial number of discovery responses on that methodology, presented a well-attended technical conference, and withstood cross-examination. Since parties have already had ample opportunity to probe Mr. Degen on that methodology as it relates to those portions of LR-H-146, and have in fact availed themselves of that opportunity, the Postal Service will object to any cross-examination which relates primarily or exclusively to the above-specified parts of the library reference during any subsequent hearings in which Mr. Degen testifies.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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Response of United States Postal Service Witness Degen
to Interrogatories of the Direct Marketing Association, Inc.

DMA/USPS-T12-15. Please refer to Library Reference LR-H-146, page II-3, Step 2.

a. (1) Individually for each item type and loose shape, how many unique distributing sets did you use to distribute (nonzero) mixed mail costs to subclass/special service? If you used a distributing set based upon direct item tallies across all MODS cost pools (within item type) as a distributing set (because there were no direct tallies within cost pool and item type) for more than one cost pool, count this distributing set as one unique set.

(2) For each item type, how many of the distributing sets identified in subpart (1) distributed mixed mail costs based upon direct item tallies within cost pool?

(3) For each item type, how many of the distributing sets identified in subpart (1) distributed mixed mail costs based upon direct item tallies across cost pools?

(4) Individually for each item type and loose shape, how many distributing sets were unnecessary because there were no mixed mail costs in the distributed set?

(5) Please confirm that if you add the number of distributing sets from subpart (1) across item types and loose shapes, the sum will be the number of distributing sets used to distribute mixed mail costs to subclass. If you cannot confirm, please explain why and provide the number of mixed mail distributing sets.

b. Individually for each unique distributing set identified in subpart (a)(1), please provide in an electronic spreadsheet format:

(1) the name of the cost pool of the mixed mail costs being distributed,
(2) the item type/loose shape,
(3) whether the distributing set is based upon direct tallies within cost pool, direct tallies across cost pools because there were non direct tallies within cost pool, or direct tallies across cost pools for another reason,
(4) the number of top piece rule tallies, the top piece rule tally cost, and the top piece rule volume variable cost in the distributing set,
(5) the number of counted item tallies, the counted item tally cost, and the counted item volume variable cost in the distributing set,
(6) the number of identical item tallies, the identical item tally cost, and the identical item volume variable cost in the distributing set,
(7) the number of direct piece handling tallies, the direct piece handling tally cost, and the direct piece handling volume variable cost in the distributing set,

(8) the number of uncounted item tallies, the uncounted item tally cost, and the uncounted item volume variable cost in the distributed set,
(9) the number of empty item tallies, the empty item tally cost, and the empty item volume variable cost in the distributed set,
(10) the number of identified container tallies, the identified container tally cost, and the identified container volume variable cost in the distributed set,
(11) the number of unidentified container tallies, the unidentified container tally cost, and the unidentified container volume variable cost in the distributed set, and
(12) the number of empty container tallies, the empty container tally cost, and the empty container volume variable cost in the distributed set.

c. Please provide, in an electronic spreadsheet format, the estimated coefficient of variation and lower and upper 95 percent confidence limits for the costs for each subclass used to develop each distributing set identified in subpart (a)(1). (For example, the distributing set for uncounted/empty letter trays in the letter sorting machine cost pool is direct letter tray costs in that cost pool. For this distributing set, please provide the coefficient of variation and confidence limits for direct letter tray costs by subclass.) Please also provide the formulae used to calculate these statistics, and describe any assumptions necessary in order to apply them.

DMA/USPS-T12-15. RESPONSE:

a. (1)-(4) The requested information can be obtained from the data in spreadsheets DMA15mod.xls, DM15modp.xls, DMA15bmc.xls, and DMA15nmd.xls, which will be filed as part of LR-H-305.

(5) Not confirmed. The total number of distributing sets of tallies from subpart (1) is the number of distributing sets used to distribute uncounted and empty (i.e., "mixed-mail") items to subclass. Additional distribution keys are formed to distribute unidentified and empty containers to subclass; see the response to DMA/USPS-T12-16.

b. (1)-(10) The requested data can be obtained from the data in spreadsheets DMA15mod.xls, DM15modp.xls, DMA15bmc.xls, and DMA15nmd.xls, which will be filed as part of LR-H-305. Note that to provide full detail for subparts (1) and (8)-(10), there is one record per distributed set.

(11)-(12) There are no unidentified or empty containers in the distributed sets of tallies to which the shape/item distribution keys are applied. Such tallies are distributed to subclass in a separate step. See the response to DMA/USPS-T12-16.

c. Data with which the requested coefficients of variation can be computed may be found in spreadsheet DMA15c.xls, which will be filed as part of LR-H-305. This spreadsheet provides IOCS tally costs and estimated variances by cost pool, shape or item type, and subclass. (Because of time and computer constraints, it was not possible to determine variances for the distributing sets per se. It will be necessary to sum the variances over cost pools for certain cost pool/item combinations.) The methodology and formulas are the same as that described by witness Steele in Docket No. R94-1, at Tr. 1/56-58. The coefficients of variation you requested, on their own, can give a misleading impression of the reliability of the distribution procedure. This is because the distribution key entries are ratios of IOCS tally costs; the variance of a ratio will be relatively small if the numerator and denominator are highly correlated. Note that the variance of the distributed mixed-mail item costs is:

$$\text{var}\left[\left(\frac{\text{tally costs in distributing set, subclass i}}{\text{total tally costs in distributing set}}\right) \times \text{costs to be distributed}\right].$$

Since this is the variance of a product of random variables, and the numerator and denominator of the term in parentheses are not independent, the exact variance is intractable. From the data you requested, it is possible to estimate the variance of the total tally costs in each distributing set, and then apply an approximation procedure such as that described at pages IX-3 to IX-4 of LR-H-146, to calculate estimated variances for the distribution key entries—i.e., the ratio in parentheses above.

Response of United States Postal Service Witness Degen
to Interrogatories of the Direct Marketing Association, Inc.

DMA/USPS-T12-16. Please refer to LR-H-146, page II-3, Step 3.

a. (1) Individually for each container type, how many unique distributing sets did you use to determine the item type/loose shape makeup of unidentified/empty containers? If you used a distributing set consisting of tallies across all MODS cost pools (within container type) as a distributing set for unidentified/empty container costs (because there were no identical or identified container tallies within cost pool and container type) for more than one cost pool, count the distributing set as one unique set.

(2) For each container type, how many of the sets identified in subpart (1) distributed unidentified/empty container costs based upon tallies within cost pool?

(3) For each container type, how many of the sets identified in subpart (1) distributed unidentified/empty container costs based upon tallies across cost pools?

(4) Individually for each container type, how many distributing sets were unnecessary because there were no unidentified/empty container costs in the distributed set?

(5) Please confirm that if you add the number of distributing sets from subpart (1) across container types, the sum will be the number of distributing sets used to identify the items and loose shapes in unidentified/empty containers. If you cannot confirm, explain why and provide the number of distributing sets for identifying the contents of unidentified/empty containers.

b. Individually for each unique distributing set identified in subpart (a)(1), please provide in an electronic spreadsheet format:

(1) the name of the cost pool of the mixed mail costs being distributed,
(2) the container type,
(3) whether the distributing set is based upon tallies within the cost pool, tallies across cost pools because there were no identified or identical container tallies within cost pool, or tallies across cost pools for another reason,
(4) the number of identical container tallies, the identical container tally cost, and the identical container volume variable cost in the distributing set,
(5) the number of identified container tallies, the identified container tally cost, and the identified container volume variable cost in the distributing set,

(6) the number of unidentified container tallies, the unidentified container tally cost, and the unidentified container volume variable cost in the distributing set,
(7) the number of empty container tallies, the empty container tally cost, and the empty container volume variable cost in the distributed set.

DMA/USPS-T12-16. RESPONSE:

a. Note that the container distribution programs (MOD3CONT, BMC3, and NONMODS3, in LR-H-146) do not construct shape/item distributions for unidentified/empty containers. Rather, they construct subclass distributions based on sets of tallies consisting of the identical container tallies and identified container tallies (the latter distributed to subclass) of the same container type.

(1)-(4) The requested information can be determined from the data supplied in spreadsheets DMA16mod.xls, DMA16bmc.xls, and DMA16nmd.xls, which will be filed in LR-H-305.

(5) Not confirmed. The total from subpart (1) is the number of distributing sets of tallies used to distribute unidentified/empty container costs to subclass, not to shapes and/or item types.

b. (1)-(7) The requested data may be found in spreadsheets DMA16mod.xls, DMA16bmc.xls, and DMA16nmd.xls, which will be filed in LR-H-305. To provide the full detail for subparts (1) and (7), there is one record for each distributed set in the spreadsheets.

Response of United States Postal Service Witness Degen
to Interrogatories of the Direct Marketing Association, Inc.

DMA/USPS-T12-17. Please refer to LR-H-146, Part 1, where you describe your method for determining accrued mail processing costs by cost pool. Please provide, in an electronic spreadsheet format, BY 1996 mail processing IOCS tally counts, IOCS tally cost, and volume variable cost by cost pool and shape (e.g., cards, letters, flats, IPPs, parcels). For tallies with no shape information, please identify these tallies as having no shape information.

DMA/USPS-T12-17. RESPONSE:

The requested data may be found in spreadsheet DMA-17.xls, which will be filed as LR-H-305.

Response of United States Postal Service Witness Degen
to Interrogatories of the Direct Marketing Association, Inc.

DMA/USPS-T12-18. Please refer to LR-H-146, pages I-2 and I-3, where you describe your method for determining accrued cost by cost pool.

a. Is there any reason to believe that clerks and mailhandlers who primarily worked in operations falling into one specific cost pool (as you defined it in your costing methodology) would have been paid more (or less) than clerks and mailhandlers who work primarily in any other cost pool in FY 1996? If so, please explain fully and quantify the percentage difference in salary between employees working in different cost pools.
b. If all clerks and mailhandlers were paid exactly the same salary, would the expected value of the IOCS tally cost for each cost pool be exactly equal to the accrued cost pool from the pay data system? If not, please explain fully.
c. Please provide the estimated coefficient of variation and upper and lower 95 percent confidence limits around the IOCS tally costs for each cost pool. Please also provide the formulae used to calculate each statistic, and describe any assumptions necessary in order to apply them.
d. Assume that IOCS tally costs and accrued cost pool costs from the pay data system are exactly the same for every cost pool.
   (1) Please confirm that, under this scenario, the volume-variable cost for a tally in a cost pool would be equal to witness Bradley's volume-variability percentage for the cost pool multiplied by the IOCS tally cost for the tally. If not confirmed, please explain fully.
   (2) Please confirm that, in your mail processing costing methodology, the volume-variable cost for a tally in a cost pool is not equal to witness Bradley's volume-variability percentage for the cost pool multiplied by the IOCS tally cost for the tally. If not confirmed, please explain fully.

DMA/USPS-T12-18. RESPONSE:

a. Yes. See my response to DMA/USPS-T12-13.

b. I believe that you mean to say "wage" (i.e., hourly rate of pay) instead of salary. If all clerks and mailhandlers earned the same wage, and assuming that other factors discussed in my response to DMA/USPS-T12-13 can be characterized as random "noise," the expected value of the IOCS costs should be the same as the MODS-based cost pool costs.

c. The requested data were provided with spreadsheet DMA-13b.xls, LR-H-304. The methodology and formulas are the same as that described by witness Steele in Docket No. R94-1, at Tr. 1/56-58.

d. (1) Confirmed. See Tr. 12/6527-8 for a precise definition of "volume variable costs" of a tally.

(2) Confirmed. Note, however, that your hypothetical is extremely artificial. Since IOCS is a sampling system, for the IOCS costs and MODS-based cost pool costs to be equal for every cost pool, it would have to be the case that the sampling error variances for the IOCS cost estimates were zero (they are not) and that wage rates were the same for every clerk and mailhandler (they are not). As indicated in my response to DMA/USPS-T12-13, the difference between the IOCS tally costs for certain cost pools and the MODS-based cost pool costs reflect, in part, limitations of the IOCS tally cost weighting system. In general, the only realistic way to bring the IOCS tally and cost pool costs in line would be (for instance) to perform the tally cost weighting by LDC, CAG, and craft instead of by CAG and craft as is currently the case.

Response of United States Postal Service Witness Degen
to Interrogatories of the Direct Marketing Association, Inc.

DMA/USPS-T12-19. Please refer to LR-H-146, Part II, which describes your methodology for distributing mail processing costs to subclass.

a. Please disaggregate volume-variable identical item costs by subclass.
b. Please disaggregate volume-variable top-pieced item costs by subclass.
c. Please disaggregate volume-variable counted item costs by subclass.

DMA/USPS-T12-19. RESPONSE:

a.-c. The requested data may be found in spreadsheet DMA-19.xls, which will be filed in LR-H-305.

Response of United States Postal Service Witness Degen
to Interrogatories of the Direct Marketing Association, Inc.

DMA/USPS-T12-20. Please refer to LR-H-146, Part II, which describes your methodology for distributing mail processing costs to subclass. Please confirm that Attachment 1 properly reflects your methodology for distributing mail processing costs to subclass/special service. If not confirmed, please correct.

DMA/USPS-T12-20. RESPONSE:

Not confirmed. There are a few mischaracterizations of my distribution methodology in Attachment 1.

1. Description of Mixed—Class Specific. Neither subclass nor shape is recorded for such tallies. Note that tallies with class-specific mixed-mail codes are treated as direct tallies for the purposes of distributing uncounted/empty items and unidentified/empty containers. The costs associated with these activity codes are distributed to subclass in proportion to all other mail processing costs for the same class. See also the response to DMA/USPS-T12-22.
2. Description of Mixed—Uncounted/Empty Items. Note that employees may be handling empty items as well as items not identified as containing identical mail.
3. Description of Mixed—Identified Containers. Under part (2) of the distribution method, note that loose mail in containers is distributed in proportion to piece handlings of the same shape and cost pool. See also Tr. 12/6173.
4. Description of Mixed—Unidentified/Empty Containers. There is no distribution of costs to item type/loose shape. These are distributed to subclass based on

the subclass distribution of identical plus identified containers of the same item type and cost pool. See also Tr. 12/6173.

There may be additional minor differences in characterization between Attachment 1 and Part II of LR-H-146 which I consider inconsequential.

Attachment 1. Proposed Method for Distributing Mail Processing Costs to Subclass/Special Service

Tally Type	Distribution Method*
Direct - Tallies where IOCS data collector recorded subclass/special service and shape of mail being handled. **Piece Handlings** - Tallies where data collector observed employee handling single piece of mail. **Counted Items** - Tallies where data collector counted all subclasses and shapes of mail in item (e.g., bundle, tray, con-con, pallet, or sack). **Top-Piece Rule Items** - Tallies where employee was handling nonidentical mail that is loose, in a bundle, or in a tray, and data collector applied top-piece rule. **Identical Items and Containers** - Tallies where employee was handling an item or container (e.g., wiretainer) containing identical mail in terms of subclass and shape.	Distributed to subclass/special service based upon subclass information recorded by IOCS data collector.
Mixed - Class Specific Tallies where employee was observed handling specific class of mail but where the subclass distribution was not recorded.	Distributed to subclass/special service in proportion to direct tallies of same class.
Mixed - Uncounted/Empty Items Tallies where employee was observed handling item containing nonidentical mail, but for which data collector did not record any information regarding the subclasses of mail in the item.	Distributed to subclass/special service in proportion to direct items of same item type (16 item types).
Mixed - Identified Containers Tallies where data collector observed employee handling a container of nonidentical mail, and for which data collector identified the contents (e.g., items and loose shapes) of the container.	(1) Distributed to item type/loose shape based upon identified container contents (21 item types/loose shapes). (2) Distributed to subclass/special service in proportion to direct items of same item type.
Mixed - Unidentified/Empty Containers Tallies where data collector observed employee handling a container of nonidentical mail or an empty container and for which data collector did not identify container contents.	(1) Distributed to item type/loose shape based upon identified container contents for identical/identified containers of same container type (10 container types). (2) Distributed to subclass/special service in proportion to direct items of same item type.
Not Handling Tallies where employee was not handling pieces of mail, items, or containers.	Distributed to subclass/special service in proportion to distribution of all other mail processing costs.

*With a few exceptions, distributions are within cost pool unless there are no direct tallies within the cost pool to be used as distribution key. The other exceptions are listed below:

1. For MODS Platform, all MODS Allied labor cost pools are used to distribute mixed items in containers to subclass/special service.
2. For MODS 1MISC and 1Support, all function 1 cost pools are used to distribute not handling mail costs to subclass/special service.
3. For MODS 1EEQPT (Empty Equipment), all MODS mail processing cost pools are used to distribute not-handling mail costs to subclass/special service.
4. For MODS LDC48OTH, all MODS function 4 cost pools are used to distribute not-handling mail costs to subclass/special service.
5. For BMC Platform, all BMC cost pools are used to distribute mixed item costs to subclass/special service.
6. For Non-MODS cost pools, activity codes 6XXX (except 6521-23) are distributed by IOCS operation code.
7. For several cost pools, not handling mail costs are assigned to subclasses of mail but not types of special services.

Response of United States Postal Service Witness Degen
to Interrogatories of the Direct Marketing Association, Inc.

DMA/USPS-T12-21. Please refer to LR-H-146, Part II, which describes your methodology for distributing mail processing costs to subclass. Please provide, in electronic spreadsheet format, counts and tally costs of direct item tallies by item type (identifying whether they are identical, top-pieced, or counted), separately for MODS offices, BMCs and non-MODS offices.

DMA/USPS-T12-21. RESPONSE:

For distributing direct item tallies, the requested data have been provided in response to DMA/USPS-T12-15.

Response of United States Postal Service Witness Degen
to Interrogatories of the Direct Marketing Association, Inc.

DMA/USPS-T12-22. Please refer to LR-H-146, page II-3:

a. Describe what happens when an IOCS data collector counts an item, indicating how additional tallies (if any) are generated as a result, and how counted item tally costs are distributed to subclasses;
b. Provide, in electronic spreadsheet format, by item type, how many items were counted by IOCS data collectors in FY 1996; and
c. Explain how counted item tallies with mixed mail codes (i.e., activity codes 53xx-54xx) occur and how they are handled in your method of distributing mail processing costs. In doing so, please refer to the relevant portions of the SAS code provided with LR-H-218, if necessary.

DMA/USPS-T12-22. RESPONSE:

a., c. See Tr. 12/6302, Tr. 12/6304-5, Tr. 12/6335, Tr. 12/6174. See also programs MOD4DIST (lines 373-425), NONMOD4 (lines 300-355), and BMC4 (lines 248-298), all in LR-H-146 and LR-H-218. Note that these line numbers correspond to the right-hand column of line numbers in the LR-H-218 program listings.

b. Data with which this calculation can be performed were provided with LR-H-230.

Response of United States Postal Service Witness Degen
to Interrogatories of the Direct Marketing Association, Inc.

DMA/USPS-T12-23. Please refer to LR-H-146, Part II, page 3, where you discuss your methodology for distributing item costs. Please provide definitions for each possible value of the variable F9253B (as described in LR-H-23).

DMA/USPS-T12-23. RESPONSE:

For tallies taken prior to July 1, 1996, see LR-H-49, page 133 ("Categories of Mail—Mixed Pieces"). For tallies taken after June 30, 1996, see the procedure DISP_24, in program q24.prg, LR-H-53.

Response of United States Postal Service Witness Degen
to Interrogatories of the Direct Marketing Association, Inc.

DMA/USPS-T12-24. Please refer to LR-H-146, pages II-11 to II-12 (titled "Programming Processing Tasks").

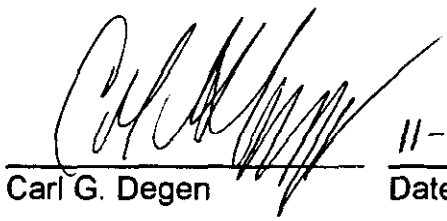
a. Define "Function 1 mail processing cost pools."
b. Define "Function 4 mail processing cost pools."
c. Indicate whether your statement, "across Function 1 mail processing cost pools," is equivalent to "across all MODS 1 & 2 Function 1 mail processing cost pools." If not, please explain fully.
d. Indicate whether your statement, "across Function 4 mail processing cost pools," is equivalent to "across all MODS 1 & 2 Function 4 mail processing cost pools." If not, please explain fully

DMA/USPS-T12-24. RESPONSE:

a.-b. See the source code to program MOD4DIST, lines 141-147, in LR-H-146.

c.-d. Confirmed. Please observe that pages II-11 to II-12 of LR-H-146 refer to program MOD4DIST, which relates specifically to the MODS 1&2 facility group.

I, Carl G. Degen, declare under penalty of perjury that the foregoing answers are true and correct to the best of my knowledge, information, and belief.



11-19-97

Carl G. Degen Date

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.

Eric P. Koetting

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November 19, 1997