

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

POSTAL RATE AND FEE CHANGES
PURSUANT TO PUBLIC LAW 108-18

Docket No. R2005-1

RESPONSES OF UNITED STATES POSTAL SERVICE WITNESS SHAW
TO INTERROGATORIES OF VALPAK DIRECT MARKETING SYSTEMS, INC.
AND VALPAK DEALERS' ASSOCIATION, INC.
(VP/USPS-T2-1, 2(a-b), 4(b-e), 5-6, 8 and 9 [shared])
(April 29, 2005)

The United States Postal Service hereby provides the responses of witness Shaw to interrogatories of Valpak Direct Marketing Systems, Inc. and Valpak Dealers' Association, Inc. (collectively "Valpak"): VP/USPS-T2-1, 2(a-b), 4(b-e), 5-6, 8 and 9 [shared], filed on April 15, 2005. Interrogatories and interrogatory parts – and one interrogatory being answered by two witnesses – from the original set of VP/USPS-T2-1-15 were redirected as follows:

<u>Interrogatory Designation(s):</u>	<u>Redirected to:</u>
VP/USPS-T2-2(c-e), 3, 10-11, 15	Postal Service
VP/USPS-T2-4(a)	Witness Smith
VP/USPS-T2-5(a)	Witness Cutting
VP/USPS-T2-7	Witness Van-Ty-Smith
VP/USPS-T2-9 [shared]	Witness Van-Ty-Smith
VP/USPS-T2-12-14	Witness Bozzo

Each interrogatory is stated verbatim, followed by the response.

Respectfully submitted,
UNITED STATES POSTAL SERVICE

By its attorneys:

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VP/USPS-T2-1. Your testimony at pages 1-2 states, "Employees are sampled independently within Cost Ascertainment Group (CAG) for each of four employee crafts: (1) Clerks, (2) Mailhandlers, (3) City Carriers, and (4) Supervisors. Selected employees are then randomly assigned an instant in time during the sample week for observation." (USPS-T-2, p. 1, l. 22 through p. 2, l. 4.)

- a. With respect to In-Office Cost System ("IOCS") samples, is it reasonable to presume that within each of the above four categories, employees at the sampled facilities have an equal probability of being sampled? Unless your answer is an unqualified affirmative, please explain exactly what should be assumed with respect to sampling of employees.
- b. Are part-time workers included in the IOCS sample? If so, do they have the same probability of being sampled as full-time workers? Please explain.
- c. When certain employees in the sampled crafts work a substantial amount of overtime during a year, do those employees have a greater probability of being sampled than would be the case if they worked no overtime? Please explain how overtime does or does not affect the probability of an employee being sampled.
- d. Does the IOCS assume that the frequency with which mail in each class and subclass occurs in the sample is proportional to the time spent handling each respective class and subclass?

RESPONSE:

- a) Yes, with the exception of offices that process high volumes of international mail. See USPS-LR-K-9/R2005-1, page 9.
- b) Yes. Part-time workers are sampled in the same manner described in USPS-LR-K-9/R2005-1, page 9.
- c) No. When an employee is working overtime the employee selection probabilities do not change. The time of the reading could be adjusted depending on the sampled employee's changed beginning or ending work schedule times. See USPS-LR-I-14/R2000-1 Handbook F-45, In-Office Cost System, Field Operating Instructions, Chapter 5.
- d) No. The In-Office Cost System uses a probability sample of employee activity to develop estimates of proportions of employee work time spent on various

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office functions, and for certain functions, the proportions of time spent handling and/or processing specific mail categories.

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VP/USPS-T2-2. Your testimony, at Section V, pages 4-5, discusses how IOCS sample data are used to produce estimates of costs by function for each craft group, with the cost-weighted IOCS data file then used to produce the mail processing cost estimates for the classes and subclasses of mail shown in your Table 1 and estimates of in-office city carrier costs in your Table 2 (along with coefficients of variation (“CVs”) for each estimate).

- a. Are the cost estimates in Tables 1 and 2 based solely on tallies taken when employees were handling mail? Alternatively, do those cost estimates somehow reflect and include other tallies where no mail was being handled, such as moving empty equipment? If the latter is the case, please explain how all tallies, where no single class or subclass of mail is identified, are incorporated into the final cost estimates for Segments 3.1 and 6.1, mail processing and inoffice carrier costs, respectively.
- b. Please explain how all tallies that indicate “handling mixed mail” are incorporated into the cost estimates shown in your Tables 1 and 2.
- c. Are each of the cost estimates shown in Tables 1 and 2 unbiased estimates?
- d. If your answer to preceding part c is affirmative, please explain all assumptions or conditions that must be satisfied in order to conclude that these cost estimates are unbiased. In your response, please address specifically what assumptions about the distribution of costs from tallies, where no specific class or subclass of mail was being handled, are necessary in order for the resulting cost estimates to be unbiased.
- e. Unless your answer to preceding part c is an unqualified affirmative, please explain the nature and source of any biases, either known or suspected, to exist in the cost estimates shown in Tables 1 and 2.

RESPONSE:

a) It is my understanding that the estimated costs depicted in Table 1, Cost Segment 3.1 Mail Processing – Clerks and Mail Handlers, are not based solely on tallies where the employees are handling mail. For an explanation of the methodology please see USPS-T-11/R2005-1.

b) The estimated costs depicted in Table 2, Cost Segment 6.1 Mail Processing – City Carriers, are not based solely on tallies where the employees are handling mail. Table 2 also includes tallies where the employee is not handling mail and the employee’s activity is recorded as one of the following:

- Preparing mail for sequencing;

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- Sequencing or casing deliverable mail;
- Withdrawing and strapping out mail from case;
- Sweeping mail from distribution case;
- Separating/handling non accountable mail to be picked up by customer;
- Handling undeliverable as addressed mail; or
- Handling mail collected on route.

These not handling tallies are distributed to direct mail tally activity codes as described in USPS-LR-K-1/R2005-1, Appendix E. Not handling – On Break and Moving Empty Equipment tallies are not included in Table 2.

For an explanation of how the cost estimates in Table 1, Cost Segment 3.1 Mail Processing – Clerks and Mail Handlers, incorporate mixed mail tallies, please see USPS-LR-K-55/R2005-1. USPS-LR-K-1/R2005-1, Appendix E, describes the methodology for incorporating mixed mail tallies in Table 2, Cost Segment 6.1 Mail Processing – City Carriers.

c-e) Redirected to the Postal Service.

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VP/USPS-T2-4. In certain library references in this docket, the cost estimates shown in your Tables 1 and 2 are broken down into finer levels, or “sub-units.” For example, the costs for ECR mail are broken down between letter shaped mail and non-letter shaped mail.

- a. When the Postal Service develops estimates of mail processing cost (Segment 3.1) and city carrier in-office cost (Segment 6.1) for letter and non-letter shaped mail within the ECR subclass, are those cost estimates based solely on IOCS data? Unless your answer is an unqualified affirmative, please indicate all other data and information used to develop cost estimates at this level of detail, and explain the source or sources of such other information and data.
- b. For ECR letters and non-letters, please provide estimated costs, standard deviation and CVs for Cost Segment 6.1 for Base Year 2004.
- c. With respect to your response to preceding part b, are each of the cost estimates for letter and non-letter shaped mail within the ECR subclass unbiased estimates?
- d. If your answer to preceding part c is affirmative, please explain all assumptions or conditions that must be satisfied in order to conclude that cost estimates at this level of disaggregation are unbiased.
- e. Unless your answer to preceding part c is an unqualified affirmative, please explain the nature and source of any biases either known or suspected to exist in these cost estimates.

RESPONSE:

- a) Redirected to witness Smith.
- b) A generalized variance function (GVF) was used to calculate the CVs of ECR letters and non-letters instead of a bootstrapping procedure. The GVF was used because even with modern computers, both the time required and costs of directly computing variances for a large number of estimates is excessive. When a simple relationship between survey estimates and their variances can be determined from a relatively small subset of possible estimates, that relationship can be used to approximate variances for other estimates. This is referred to as the generalized variance function approach. The GVF approach is particularly useful for surveys for which it is impractical to compute and tabulate CVs for every potential estimate, or when

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it is not possible in advance to anticipate all estimates for which sampling error estimates may be required.

The estimated costs and their associated bootstrap variances from Table 2 in USPS-T-2 were used as inputs to the model. The GVF is specified as follows:

$$\ln(V)=a + b \ln(C), \text{ where}$$

C = the cost estimate,

V = the relative variance of the cost estimate = (CV)²

The estimated coefficients were calculated to be:

$$a = 3.6346$$

$$b = -0.85329$$

Results:

Category	Table 1 Cost (\$000)	CV	STD
ECR Letters	59,383	5.657%	3,359
ECR Non-Letters	194,850	3.407%	6,639

Cost dollars from USPS-LR-K-67, LR-K-67.xls, tab-16.ecrsplit,
Direct Labor Casing Plus Non-C
casing Costs, FY2004

c-e) See the redirected response to VP/USPS-T2-2(c-e).

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VP/USPS-T2-5. Certain library references in this docket contain cost estimates for ECR letters and nonletters that are subdivided further, for example, into cost estimates for Saturation letters and Saturation non-letters.

- a. When the Postal Service develops cost estimates for ECR Saturation letters and Saturation non-letters, are the mail processing costs (Segment 3.1) and city carrier in-office costs (Segment 6.1) contained in those cost estimates based solely on IOCS data? Unless your answer is an unqualified affirmative, please indicate all other data and information used to estimate Segments 3.1 and 6.1 costs at this level of disaggregation, and explain the source or sources of such other information and data.
- b. For ECR Saturation letters and Saturation non-letters, please provide estimated costs, standard deviation and CVs for Cost Segment 6.1 for Base Year 2004.
- c. Are the cost estimates for ECR Saturation letters and Saturation non-letters unbiased estimates?
- d. If your answer to preceding part c is affirmative, please explain all assumptions or conditions that must be satisfied in order to conclude that cost estimates at this level of disaggregation are unbiased.
- e. Unless your answer to preceding part c is an unqualified affirmative, please explain the nature and source of any biases either known or suspected to exist in these disaggregated cost estimates.

RESPONSE:

a) Redirected to witness Cutting.

b) A generalized variance function (GVF) was used to calculate the CVs for ECR saturation letters and saturation non-letters. See also my response to VP/USPS-T2-4(b) for a discussion of GVF.

Results:

Category	Table 2 Cost (\$000)	CV	STD
Saturation ECR Letters	27,525	7.853%	2,162
Saturation ECR Non- Letters	31,792	7.385%	2,348

Cost dollars from USPS-LR-K-67, LR-K-67.xls, tab-16.ecrsplit,
Direct Labor Casing Plus Non-Casing Costs, FY2004

c-e) See the redirected response to VP/USPS-T2-2(c-e).

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VP/USPS-T2-6.

- a. When selecting the facilities to include in the IOCS sample frame, are Destination Delivery Units (“DDUs”) from which rural carriers operate identified or distinguished from DDUs staffed by city carriers? That is, are such “rural carrier” DDUs in a separate stratum for sampling purposes?
- b. Do DDUs from which rural carriers operate have the same probability of being included in the IOCS sample frame as DDUs from which city carriers operate (for a given CAG)?
- c. Are clerks and mailhandlers working at such “rural carrier” DDUs included in the IOCS sample?
- d. If your answer to preceding part c is negative, please explain how clerks and mailhandlers working at DDUs from which rural carriers operate are included (or represented) in the IOCS sample.
- e. Is it possible for rural carriers to be included (mistakenly, of course) in the IOCS sample? If not, please explain what safeguards prevent this from occurring.

RESPONSE:

a-b) No. The universe under study in IOCS consists of all the work time, during a Fiscal Year, of all employees in four employee crafts: 1) Clerks, 2) Mail Handlers, 3) City Carriers, and 4) Supervisors. The IOCS office frame consists of all finance numbers which have employees eligible for sampling in IOCS. If a DDU facility is included in the IOCS office frame it is only because the facility has employees which meet the crafts defined above. See USPS-LR-K-9/R2005-1, Page 7.

c) Yes. See my response to part (a).

d) See my response to part (a).

e) No. Employees eligible for IOCS sampling are identified from USPS payroll data files. Each listed employee has a roster designation that identifies her craft. Rural carrier craft employee roster designations are excluded from IOCS sampling. See USPS-LR-I-14/R2000-1 Handbook F-45, In-Office Cost System, Field Operating Instructions, Chapter 8.

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VP/USPS-T2-8.

a. For Base Year 2004, what is the total number of IOCS tallies recorded in Cost Segment 6.1 and used to develop the costs shown in your Table 2 for city carriers?

b. Please provide a breakdown of total Segment 6.1 tallies that indicates the number and associated cost of tallies for:

- (i) handling an individual class or subclass of mail;
- (ii) handling mixed mail;
- (iii) moving empty equipment;
- (iv) not handling mail, on break; and
- (v) not handling mail (please identify specific reasons to the extent practicable).

RESPONSE:

- a-b) 28,485 tallies, \$2,926 (million) –Table 2 total
- (i) 25,585 tallies, \$2,629 (million) – “Handling an individual class or subclass”
- (ii) 1,242 tallies, \$126 (million) – “Handling mixed mail”
- (iii) 0 – “Moving Empty Equipment”
- (iv) 0 – “Not handling mail, on break”
- (v) 1,658 tallies, \$171 (million) – “Not handling mail”. See my response to VP/USPS-T2-2(a) for specific reasons.

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VP/USPS-T2-9. For the costs associated with all tallies which do not indicate that an individual class or subclass of mail was being handled (e.g., handling mixed-mail, handling empty equipment, on break — not handling mail, etc.), please indicate:

- a. Which types of tallies have their associated costs distributed in proportion to the cost of direct “handling-mail” tallies (i.e., tallies where either an individual piece of mail or an identifiable subclass of mail is being handled); and
- b. Which types of tallies have their associated costs distributed on a basis that is not in proportion to the cost of direct “handling-mail” tallies. For any such tallies, please provide a brief description of how their associated costs are distributed.

RESPONSE:

Explanations of clerk and mail handler mail processing tallies that have their associated costs distributed in proportion to direct “handling-mail” tallies have been redirected to witness Van-Ty-Smith.

Explanations of city carrier tallies which have their associated costs distributed in proportion to direct “handling-mail” tallies are as follows.

a) Tallies that have activity codes between 5300 and 5750 (i.e., mixed mail tallies) are distributed to direct mail tally activity codes using the methodology described in USPS-LR-K-1/R2005-1, Appendix E. My understanding is that some of the other city carrier costs (i.e., activity codes that are not mixed mail or direct mail handling tallies) are distributed in proportion to direct mail using the methodology described in USPS-LR-K-1/R2005-1, Cost Segment 6, Section 6.2.

b) See USPS-LR-K-1/R2005-1, Cost Segment 6, Section 6.2.