

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

POSTAL RATE AND FEE CHANGES, 2005)

Docket No. R2005-1

VALPAK DIRECT MARKETING SYSTEMS, INC. AND
VALPAK DEALERS' ASSOCIATION, INC.
FIRST INTERROGATORIES AND REQUESTS FOR
PRODUCTION OF DOCUMENTS TO UNITED STATES POSTAL SERVICE
WITNESS ROBERT L. SHAW, JR. (VP/USPS-T2-1-15)
(April 15, 2005)

Pursuant to sections 25 and 26 of the Postal Rate Commission rules of practice, Valpak Direct Marketing Systems, Inc. and Valpak Dealers' Association, Inc. hereby submit interrogatories and document production requests. If necessary, please redirect any interrogatory and/or request to a more appropriate Postal Service witness.

Respectfully submitted,

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April 15, 2005

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, 1. 22 through p. 2, 1. 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?

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 in-office 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.

VP/USPS-T2-3.

Please refer to the Segment 3.1 mail processing costs and Segment 6.1 city carrier costs shown, respectively, in Tables 1 and 2 that accompany your testimony.

- a. Would dividing the estimated costs shown for each class of mail in the first column of each table by the respective volumes for each class result in the estimated unit cost for Cost Segments 3.1 and 6.1? If any adjustment would be necessary in order to develop the correct unit cost for these two segments, please indicate what those adjustments would be.
- b. If estimated unit costs were developed for each class and subclass of mail, as described in preceding part a (including any necessary adjustments which you may indicate in your response), would you consider those unit costs for each subclass to be the marginal cost of mail processing (Segment 3.1) and city carrier in-office work (Segment 6.1)? Please explain your answer.
- c. For unit cost estimates generated by the IOCS, what assumptions and conditions are necessary and sufficient in order for those estimates to be used as a proxy for marginal cost?

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.

VP/USPS-T2-5.

Certain library references in this docket contain cost estimates for ECR letters and non-letters 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.

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 you 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.

VP/USPS-T2-7.

- a. For Base Year 2004, what is the total number of IOCS tallies recorded in Cost Segment 3.1 for clerks and mailhandlers, and used to develop the costs shown in your Table 1 for mail processing?

- b. Please provide a breakdown of total Segment 3.1 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; (iii) not handling mail, on break; and (iv) not handling mail (please identify specific reasons to the extent practicable).

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; (iii) not handling mail, on break; and (iv) not handling mail (please identify specific reasons to the extent practicable).

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.

VP/USPS-T2-10.

- a. Please state whether you would characterize the kind of costing described in your testimony and shown in your Tables 1 and 2 as (i) short run costing, or (ii) longer run costing, and explain the basis for your answer.
- b. Please explain whether you view the Postal Rate Commission as supporting short run or longer run costing.

VP/USPS-T2-11.

- a. Do you believe costing of the kind described in your testimony is consistent with past testimony before the Postal Rate Commission by Postal Service witnesses such as Baumol, Panzar, Ordover, Bradley, and Vickery?
- b. If your answer to preceding part a is affirmative, please provide quotations from the testimony of these witnesses that supports the kind of costing you present in your testimony.

VP/USPS-T2-12.

The following is a hypothetical. **First**, assume that in Year T (i) the Postal Service has a moderately acute shortage of automated flat sorting capacity, so that it is unable to sort a significant portion of total flat-shaped pieces on automation equipment, and (ii) pieces not sorted on automation equipment are sorted manually. **Second**, assume that the Postal Service decides that on every occasion when the quantity of flats requiring sortation exceeds the available capacity of automation equipment, the flat-shaped pieces to be sorted manually will be periodicals. As a result of this decision, during Year T, (i) Standard catalogs are sorted most of the time (but not always) on automation equipment, and (ii) periodicals are sorted manually most of the time, with the result that only a small percentage of all periodicals are sorted on automation equipment. **Third**, assume that when Cost and Revenue Analysis (“CRA”) costs are developed from the IOCS, the unit mail processing cost of sorting catalogs (almost entirely on automation equipment) is 2.0 cents, and the unit cost of sorting periodicals (mostly manually) is 6.0 cents, and the CVs of these estimates are quite small (less than 5 percent). **Fourth**, assume that mail processing models for flats indicate that the cost of sorting flat-shaped pieces on automation equipment should be approximately 1.8 cents, and the cost of sorting flat-shaped pieces manually should be approximately 8.0 cents; *i.e.*, mail processing models for flats generally support the results for catalogs and periodicals, as developed by the IOCS.

- a. If the IOCS produces an estimated unit cost of 6.0 cents for periodicals, as is assumed in this hypothetical, would you infer that the Postal Service’s marginal

cost of processing periodicals is 6.0 cents? Please explain fully any answer that is not affirmative.

- b. If the IOCS produces an estimated unit cost of 2.0 cents for catalogs, as is assumed in this hypothetical, would you infer such datum that the Postal Service's marginal cost of processing catalogs is 2.0 cents? Please explain fully any answer that is not affirmative.
- c. Under the circumstances described here, would it be reasonable to deduce that if catalogs had not been given first priority on the available automation equipment, and periodicals instead had received first priority for automated sorting, the unit mail processing cost for periodicals might have been approximately 2.0 cents? If you do not agree, please explain fully why not.
- d. If periodicals had been given priority for automated sorting, and a significant portion of (but not all) catalogs consequently had been sorted manually, would you expect that the unit mail processing cost for catalogs likely would have exceeded the 2.0 cents recorded by the IOCS? If your answer is negative, please explain fully why not.
- e. Since the unit mail processing costs for catalogs and periodicals are derived from cost estimates with relatively small CVs, could you infer that the IOCS supports (or enables) the conclusion that the Postal Service's mail processing cost for periodicals is substantially greater, by about 4.0 cents, than the Postal Service's mail processing cost for catalogs? If you do not agree that such an inference or conclusion would be warranted, please explain fully why not.

- f. If mail processing unit costs estimates derived from the IOCS do not provide a valid comparison of the relative unit cost of processing periodicals (6.0 cents in this hypothetical) versus the unit cost of processing catalogs (2.0 cents in this hypothetical), then:
- (i) Please indicate how, under the circumstances of this hypothetical, the IOCS might be altered or improved so as to provide a more valid comparison of the relative mail processing costs of catalogs and periodicals (*e.g.*, bigger sample, different sampling procedure, or something else); and
 - (ii) Please state whether in your opinion any other cost estimation procedure or technique known to you would be likely to provide a more valid comparison of relative mail processing unit costs for catalogs and periodicals than those based on the IOCS sample.
- g. When a low-cost sorting option has limited capacity, as in this hypothetical, does development of direct cost estimates from IOCS tallies assume that all mail (*i.e.*, all flats, including both catalogs and periodicals) which could be processed using the automation option has an equal chance of appearing in the sample? Unless your answer is an unqualified affirmative, please explain fully what underlying assumptions are made with respect to (i) the probability of pieces appearing in the IOCS sample, and (ii) cost estimates derived from the IOCS sample.

- h. As mailers have no control as to whether their mail receives low-cost or high-cost processing, would you agree that under this hypothetical the unit costs for catalogs and periodicals developed by the IOCS depend critically on internal allocation to low-cost (automation) and high-cost (manual) operating modes made solely by the Postal Service?
- (i) That is, would you be willing to opine that the 6.0 cent unit cost for periodicals developed by the IOCS might have been as low as 2.0 cents if the Postal Service had allocated first priority on its automated flat sorting capacity to periodicals?
- (ii) Under the circumstances of this hypothetical, do you consider the 6.0 cent unit mail processing cost for periodicals as developed by the IOCS to be an unbiased estimate? Please explain any negative response.
- i. If your answer to part (ii) of preceding part h is affirmative, please explain all assumptions or conditions that must be satisfied in order to conclude that the cost estimate for periodicals is unbiased.
- j. Please explain what you think is fair about the kind of costs that IOCS provides under the circumstances of this hypothetical, including fairness from the point of view of periodical mailers and catalog mailers.

VP/USPS-T2-13.

Please refer to VP/USPS-T2-12, as this interrogatory is intended as a follow-on to that hypothetical. Assume that in the subsequent year, Year T + 1, (i) the Postal Service's

automation flat processing capacity is unchanged from Year T, (ii) the volume of periodicals is unchanged from Year T, and (iii) the volume of catalogs increases by 5 percent over the volume in Year T. Further assume that most of the increase in catalog volume is processed on automation flat processing equipment, which is made possible by assigning an even larger share of periodicals to manual processing. In Year T+1, the unit mail processing costs for catalogs and periodicals, as developed by the IOCS, are 2.0 cents and 7.0 cents, respectively. The CVs again are less than 5 percent.

- a. Since the unit cost of catalogs was not observed to increase from the previous year, while the volume did increase by 5 percent:
 - (i) Would the best estimate of the Postal Service's marginal processing cost for the additional catalogs be 2.0 cents each?
 - (ii) Would the Postal Service's incremental processing cost arising from the additional volume of catalogs, X, be equal to \$0.02 multiplied by X?

Unless your responses to (i) and (ii) are affirmative, in each instance, please explain fully why not, and indicate what inferences can be drawn from the IOCS cost estimates concerning the marginal and incremental processing cost for the additional catalog volume.

- b. Although the volume of periodicals did not increase in Year T+1, the unit mail processing cost, as estimated by the IOCS, did increase, from 6.0 to 7.0 cents. On the basis of these IOCS-generated data, should the estimated marginal processing cost of periodicals be adjusted upwards by 1.0 cents? Unless your response is an unqualified affirmative, please explain fully why not, and indicate

what inferences can be drawn from the IOCS cost estimates concerning the marginal cost of processing periodicals in year T + 1.

VP/USPS-T2-14.

Please refer to the hypothetical in VP/USPS-T2-12 and assume, as there, that (i) the clerk and mailhandler time required to process manually a given quantity of periodicals (*e.g.*, 1 billion) is approximately threefold the amount of time required to sort the same quantity (1 billion) of catalogs on automation equipment, and (ii) these time differentials are reflected in both the “direct” IOCS tallies, as well as mail processing costs generated from those IOCS tallies.

- a. Is the cost of moving empty equipment distributed in proportion to the number of direct tallies when processing the mail (and in proportion to the cost of those direct tallies)?
 - (i) If so, does the IOCS cost allocation procedure make an assumption (explicit, implicit or otherwise) that the cost of moving empty equipment associated with 1 billion periodicals is approximately three times the cost of moving empty equipment associated with 1 billion catalogs?
 - (ii) If not, please describe how the cost of moving empty equipment is distributed under the circumstances of the hypothetical and explain the assumptions and rationale that underlie and justify the procedure used.
- b. Is the cost associated with tallies other than direct handling tallies (*e.g.*, “indirect” tallies such as moving mixed mail, on break, etc.) distributed in

proportion to the number of direct tallies when processing the mail (and in proportion to the cost of those direct tallies)?

- (i) If so, does the IOCS cost allocation procedure make an assumption (explicit, implicit, or otherwise) that when processing 1 billion periodicals such indirect costs are approximately three times the costs associated with processing of catalogs?
 - (ii) If not, please describe how the cost associated with such indirect tallies is distributed under the circumstances of the hypothetical and explain the assumptions and rationale that underlie and justify the procedure used.
- c. When the final cost estimates for Segments 3.1 and 6.1 include the costs of all “not-handling” tallies that are distributed on the basis of “handling-mail” tallies, what assumptions and conditions are necessary in order to preclude bias in the resulting cost estimates such as those shown in your Tables 1 and 2?

VP/USPS-T2-15.

- a. For the circumstances described by the hypotheticals in VP/USPS-T2-10 and 11, please (i) identify and briefly describe any theory in the economics literature, as well as (ii) specific references to such literature that espouse or support the kind of IOCS costing described in your testimony.
- b. The economics literature contains and describes many different ways to classify costs; *e.g.*, fixed cost, sunk cost, variable cost, marginal cost, avoidable cost,

etc. Please indicate which classification best describes the costs generated by the IOCS.