

# DOCKET SECTION

BEFORE THE  
POSTAL RATE COMMISSION  
WASHINGTON, D.C. 20268-0004

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POSTAL RATE COMMISSION  
OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 1997

Docket No. R97-1

## RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS BRADLEY (USPS-T-13) TO INTERROGATORIES OF MAGAZINE PUBLISHERS OF AMERICA (MPA/USPS-T13-1(a)-(c) and (e)-(g) AND 2)

The United States Postal Service hereby provides responses of witness Bradley (USPS-T-13) to the following interrogatories of Magazine Publishers of America: MPA/USPS-T13-1(a)-(c) and (e)-(g) and 2, filed on September 17, 1997. Interrogatory MPA/USPS-T13-1(d) was redirected to witness Wade.

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

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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Chief Counsel, Ratemaking



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September 30, 1997

Response of United States Postal Service Witness Bradley  
to  
Interrogatories of MPA

MPA/USPS-T13-1. Please refer to your direct testimony at page 18, lines 15-16, and confirm that the annual cubic foot-miles variable for a route is calculated as the product of the average truck capacity (in cubic feet) on the route and the annual miles on that route. If you do not confirm, please explain.

- a. Please confirm that the purpose of my testimony is to estimate the volume variability of purchased highway transportation costs. If you do not confirm, please explain.
- b. Please confirm that your CFM variable reflects the cubic capacity of the *truck*, rather than the actual volume of *mail*, on a route. If you do not confirm, please explain.
- c. Your testimony at page 12, lines 14-24 and page 18, lines 10-16, seems to indicate that the HCSS data set does not contain mail volume variables. Is that a correct supposition? If not, please explain.
- d. Please confirm that in his study of volume-variability of vehicle service driver costs, witness Wade's analysis relies on the estimated actual volume of mail on a route (see his Workpaper C at page 2, lines 16-17). If you do not confirm, please explain.
- e. If HCSS contained volumes, would it have been preferable to have used actual volumes rather than truck capacities in calculating cubic foot-miles for your regression analysis. Please explain why or why not.
- f. Does your methodology, in effect, assume 100 percent capacity utilization of the trucks in the purchased highway transportation network? If your answer is anything other than an unqualified "yes," please explain fully.
- g. To the extent that the trucks in the purchased highway transportation network operate at less than 100 percent of their rate capacity, do your volume variability estimates overstate the true variabilities? Please explain fully.

MPA/USPS-T13-1 Response:

Confirmed.

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- a. *Confirmed. As I say on page 2 of my testimony:*

The purpose of my testimony is to update and refine the analysis of purchased highway transportation done by the Postal Rate Commission ("the Commission"). The Commission performed its analysis in Docket No. R87-1 and both the Commission and the Postal Service currently use it in calculating volume-variable purchased highway costs

- b. Confirmed.

- c. Yes.

- d. This part of the interrogatory has been redirected.

- e. Yes quite possibly, depending upon the quality and quantity of the available data. If cubic foot-miles of mail transported per year on each contract were available, then no assumption about unused capacity would be required. In the ideal, one would like a direct measure of volume, by class of mail. Then, in theory, the volume variable costs could be estimated without the need for a distribution key study like TRACS.

- f. No, I think not. Rather, the working assumption is the unused capacity is variable with volume to the extent used capacity is variable with volume. For example in

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Docket No. R84-1, the Commission stated:<sup>1</sup>

Having considered the issue again on this record, we find that capacity, which includes both utilized and unutilized portions, is directly related to volume if a reasonable time period is examined. In Docket No. R80-1, we found that unused capacity should not distort the relationship between volume and costs.

- g. No. If one accepts the Commission's reasoning on unused capacity (as I do), then the variability measured with respect to capacity reflects the true volume variability.

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<sup>1</sup> See, PRC OP. R84-1., at 244.

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MPA/USPS-T13-2. Please refer to your direct testimony at pages 46-50, where you discuss your decision to remove a number of "unusual" observations from you data set prior to performing your regression analysis, and the impact of this decision on your estimated variabilities.

- a. Please confirm that your analysis of "unusual" observations identified anomalies along the following dimensions: (i) extremely low annual cost, (ii) extremely low annual CFM, (iii) extremely long or short route length, (iv) extremely low annual miles, (v) extremely high or low cost per CFM, and (vi) extremely high or low cost per mile. If you do not confirm, please explain.
- b. Please describe the method you used to identify these unusual observations along each of these dimensions, including (but not limited to) the ranges of values you chose to include and exclude, the cutoff values you chose in defining zones of exclusion, and your justification for these cutoff values.
- c. At page 48, lines 1-3 of your direct testimony you state that "there should always be a presumption for using valid observations, *even if the values for the particular observation are not typical of the rest of the data*" (emphasis added). At lines 3-4 of the same page, you state that "if the data are from special cases . . . their use could, potentially, lead to misleading results." Please explain how the values for particular observations could be atypical of the rest of the data without being "special case."
- d. Could other knowledgeable, well-intentioned researchers, faced with the same data set and charged with the same task (namely, HCSS and calculating purchased transportation variabilities, respectively) come up with a different set of "unusual observations" to delete. Might such a researcher decide to leave said variables in the analysis?

MPA/USPS-T13-2. Response

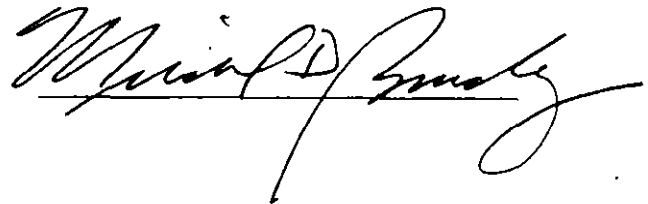
- a. Confirmed.
- b. For a complete discussion of the method used, please see my response to OCA/USPS-T4-1 in Docket No. MC97-2 and my response to OCA/USPS-T13-4.

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- c. As I said in my testimony at page 47, the existence of these unusual observations raises a difficult problem. The essential issue in determining whether or not to eliminate the data from the regression is to ascertain if the data are generated by the same data generating process or not. If an observation is not typical of the majority of the data, but the researcher has good reason to believe that it was generated by the same underlying process as the main data, then it should be included, because it helps illuminate the true process. On the other hand, if the researcher believes that the data are generated by an alternative data generating process, then the observation should be omitted because its inclusion would cloud estimation of the data generating process at issue. Because of the inherent subjectivity of this type of decision, I presented the econometric results both with the data included and the data excluded.
- d. Yes, although I think that there would be much commonality among the excluded data sets. Therefore, the effects on the estimated equations would likely be similar. In addition, a researcher may decide to keep the data in. That is one of the reasons that I presented the econometric results based upon the data including the unusual observations.

**DECLARATION**

I, Michael D. Bradley, declare under penalty of perjury that the foregoing answers are true and correct, to the best of my knowledge, information, and belief.

A handwritten signature in black ink, reading "Michael D. Bradley". The signature is written in a cursive style and is positioned above a horizontal line.

Dated: Sept. 30, 1997

## 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.

  
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