

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

RECEIVED

MAR 20 3 43 PM '00

POSTAL RATE COMMISSION
OFFICE OF THE SECRETARY

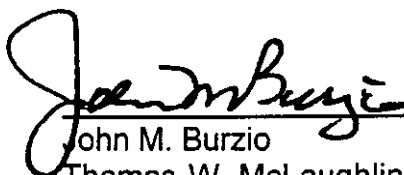
POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000-1

INTERROGATORIES OF ADVO, INC.
TO UNITED STATES POSTAL SERVICE WITNESS
DONALD BARON (ADVO/USPS-T12-6-10)

Pursuant to sections 25 and 26 of the Rules of Practice, Advo, Inc. (Advo) directs the following interrogatories to United States Postal Service witness Donald Baron. If the witness is unable to respond to any interrogatory, we request that a response be provided by appropriate USPS witness capable of providing an answer.

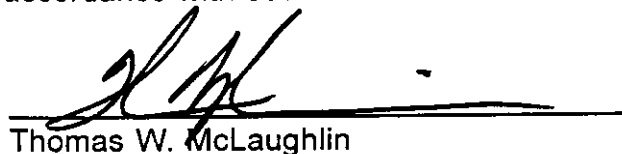
Respectfully submitted,



John M. Burzio
Thomas W. McLaughlin
Burzio & McLaughlin
1054 31st Street, N.W.
Washington, D. C. 20007
Counsel for ADVO, INC.

CERTIFICATE OF SERVICE

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


Thomas W. McLaughlin

March 20, 2000

ADVO, INC. INTERROGATORIES TO USPS WITNESS DONALD BARON

ADVO/USPS-T12-6. On page 26 of your testimony, you state that you calculated run-time elasticities for each FAT/CAT route using the Commission's interaction model. Did you run any similar analyses using your basic quadratic model for comparative purposes? If yes, please provide the analyses and all supporting documentation. If no, please explain why not and how the interaction model's results can be assessed relative to the quadratic model's performance, absent results for the latter.

ADVO/USPS-T12-7. When developing or assessing the quadratic CAT/FAT models you present,

- (a) Did you consider including a possible stops variable, a coverage variable, or any other variable which could be interpreted as a measure of average run time between covered stops? Please explain your response.
- (b) Did you estimate your quadratic model with a possible stops variable, a coverage variable, or any other variable which could be interpreted as a measure of average run time between covered stops? If so, please provide any analyses you conducted with a possible stops variable.

ADVO/USPS-T12-8. In your Appendix A, you quote Dr. Bradley's R90-1 rebuttal testimony: "... evaluation of a cost function at the mean volume level provides, necessarily, an *unbiased* estimator of the true volume variability." (USPS-RT-2 at 10)

- (a) Please confirm that Dr. Bradley also stated:

"What is important, however, is the set of properties determining the cost function estimated for a particular activity and the measurement of the associated marginal cost at an appropriate level of volume. With the goal of the research well defined, it is clear that the researcher must determine the appropriate level of volume for measuring marginal cost." (USPS-RT-2 at 9)

If you cannot confirm, please explain why not.

- (b) Please confirm that Dr. Bradley also stated:

"Evaluation at the mean level of volume thus guarantees calculation of marginal cost at the best estimate of the average level of volume. As the Commission has stated, this is the volume level relevant for the theory of

pricing at marginal cost of the average level of output." (USPS-RT-2 at 11)

If you cannot confirm, please explain why not.

- (c) Please confirm that Dr. Bradley's testimony (quoted by you) presented marginal cost as:

$$\partial C / \partial V = \varepsilon C / V$$

Where $\partial C / \partial V$ (marginal cost) is evaluated from the cost function that includes C as the dependent variable and V as the mean estimate of the independent volume variable (USPS-RT-2 at 9). If you cannot, please explain why not.

- (d) Please identify in Dr. Bradley's testimony the location where he states that an unbiased estimate of marginal cost can be derived by applying the variability from a cost function correctly estimated at mean volumes to an average cost that (1) was not developed from the cost function and (2) substantially diverges from the average cost estimated from the cost function (i.e., diverges by far more than can be explained by the Jensen's Inequality phenomenon).

ADVO/USPS-T12-9. Please refer to Dr. Bradley's quote that "... evaluation of a cost function at the mean volume level provides, necessarily, an unbiased estimator of the true volume variability". (R90-1, USPS-RT2, at 10)

- (a) Please confirm that the per stop load cost function evaluated at average stop volume is the $g(V/S)$ function you use in your testimony. If you cannot confirm, please explain why.
- (b) Using this notation, please confirm that the variability of per stop load time evaluated at the average per stop volume is $(dg(v)/dv) * v/g(v)$, where $v = V/S$. If you cannot confirm, please explain.
- (c) Please confirm that using Dr. Bradley's criteria, this variability must be an unbiased estimator of true variability. If you cannot confirm, please explain why.
- (d) Please confirm that using Dr. Bradley's criteria, $dg(v)/dv$ must be an unbiased estimator of true marginal cost. If you cannot confirm, please explain why.

ADVO/USPS-T12-10. Please examine equation (5) in page 10 of your testimony.

- (a) Please confirm that dividing by L yields witness Crowder's system wide load time variability: $(\partial L / \partial V) * (V/L) = E_e + (1-E_e) * E_s$. If you cannot confirm, please explain why.
- (b) Please confirm that E_e is elemental load variability, $(dg(v)/dv) * v/g(v)$, evaluated at average stop volume and, therefore, this component value of witness Crowder's total system variability is an unbiased estimator of true variability, using Dr. Bradley's criteria. If you cannot confirm, please explain why.