

DOCKET SECTION

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

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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 WADE TO INTERROGATORIES OF
THE NEWSPAPER ASSOCIATION OF AMERICA
(NAA/USPS-T20-1-4)

The United States Postal Service hereby provides responses of witness Wade to the following interrogatories of the Newspaper Association of America: NAA/USPS-T20-1-4, filed on September 12, 1997.

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

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr.
Chief Counsel, Ratemaking



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September 26, 1997

**RESPONSE OF USPS WITNESS WADE TO INTERROGATORY OF THE
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NAA/USPS-T20-1. Please refer to pages 6 and 7 of your direct testimony. You describe the survey of Plant and Distribution facilities.

- a. Please discuss all factors that might lead respondents to the survey to underestimate average annual load factors.
- b. If, in your opinion, estimates of load factors are likely to be underestimated, please provide an estimate of the likely magnitude of this downward bias.
- c. Please discuss all factors that might lead respondents to the survey to overestimate average annual load factors.
- d. If, in your opinion, estimates of load factors are likely to be overestimated, please provide an estimate of the likely magnitude of this upward bias.

Response:

- a. As I stated in response to MPA/USPS-T-20-1 (j), (k), (l) and (m), I know of no incentive for survey respondents to mis-report the survey information. The general purpose of the survey was stated in the cover letter as being "to improve our method of attributing driver costs." Concerning causes or sources of potential errors in estimating load factors, I am not aware of any particular reason why there might be a systematic underestimation.
- b. In my opinion, load factor estimates are not likely to be systematically underestimated.
- c. As I stated in response to MPA/USPS-T-20-1 (j), (k), (l) and (m), I know of no incentive for survey respondents to mis-report the survey information. The general purpose of the survey was stated in the cover letter as being "to improve our method of attributing driver costs." I am not aware of any factor or incentive that would cause survey respondents to mis-report the information. Concerning causes or sources of potential errors in estimating load factors, I am not aware of any particular reason why there might be an upward bias in developing the estimates. However, in rounding the data to the percentages reported on the forms, there is the possibility of some upward bias to the load factors. If load factors are uniformly

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distributed over the range of possible load factors, a load factor which rounds to 50% has an equal possibility of having either been rounded up or down. However, for load factors of 0% or 100%, these can only be rounded one way. Since the 100% response occurred more frequently than a 0% response, and since none of these can be rounded down, there will be some potential upward bias which depends on the actual distribution of load factors which would round up to 100%.

- d. *There is the potential for reported 100% load factors to be biased toward 100%. However, since I don't know the actual distribution of load factors in the range that would round to 100%, I cannot quantify the bias. If a uniform distribution of load factors exists in the range from 87.5% to 100%, then the average bias for this particular load factor estimate is 6.25%, however, I have no basis for making this assumption. The estimates for the other load factors (ignoring 0%) should not be biased because of rounding issues.*

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NAA/USPS-T20-2. Please discuss why your preferred estimate of volume variability for VSD hours is higher than those proposed in previous rate hearings, including R77-1, R80-1, R84-1, R87-1, R90-1 and R94-1.

Response:

In R77-1, the 7% variability estimate was developed assuming that only vehicle load time was volume variable, and was based on an analysis of a single facility. In R80-1, R84-1 and R87-1 a similar assumption was made, however the scope of the analysis was expanded. The variability estimate for all three of these cases was 16%. In R90-1, the USPS proposed an interim variability estimate of 47.3% was based on similarity of VSD operations to intra-SCF highway contract routes. In R94-1, the proposed variability was 31.65%. This latter estimate was the PRC's recommended adjusted variability from R90-1. It is the simple average of 47.3% and 16%.

My methodology of statistically analyzing factors that potentially affect workhour usage across facilities removes the previous assumption (R77-1, R80-1, R84-1 and R87-1) that only load time can be affected by volume. Variability in these cases was at most 16% and considerably lower than my estimates in this case. From page 9, lines 4-8, of my testimony, "CFM potentially affects loading time in a direct fashion at the route level. Furthermore, at the facility level, changes in CFM may cause adjustments in either the number of trips or the number of VSD routes. In such cases, other components of VSD hours, not viewed as volume variable at the route-level, will be affected." It is my view that removing the assumption that only load time can

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be affected by volume is the primary reason for the current higher estimates than in these 4 omnibus cases.

The point estimate of overall volume variability for Cost Segment 8 provided for the base year is 59.86%. Subsequent data corrections, have not materially altered this result in my opinion.

Based on the econometric model which supports the overall CS 8 estimate, the point estimate for plant and distribution facilities with VSD operations is 65.5%, with a 95-percent confidence interval of between 53.1% and 77.7%. At the lower end of the 95% confidence interval (and after making an adjustment for BMC spotter workhours using the methodology of Exhibit 2 Revised from Workpaper F) the overall variability estimate is approximately 49%, not materially higher than what was proposed in R90-1. However, since the source of the R90-1 estimate was not directly taken from VSD operations, the fact that the current 95% confidence interval is different from the earlier estimate is not surprising. Similar observations apply to the R94-1 estimate.

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NAA-USPS-T20-3. In your opinion, does your method for estimating volume variability of VSD hours improve on the methods employed in previous rate hearings? Please explain your response.

Response:

I believe that my method improves on the previous methods because it replaces some major assumptions made by the earlier methodologies with analysis of actual VSD data. For example, in comparison with R77-1, R80-1, R84-1, and R87-1, rather than assuming that only load time is affected by volume, my methodology analyzes total workhour usage across a large number of facilities. Compared to the USPS interim proposal for the R90-1 volume variability estimate and the averaged variability used in R94-1 (the PRC's average of 16% and the USPS proposed 47.3%), my methodology does not assume that the variability of VSD operations should be similar to or the same as intra-SCF highway contract routes, but instead analyses data specifically from VSD operations. While improvements in data and methodology are always possible, I believe that the method of analyzing specific VSD data and making as few assumptions as possible represents an improvement over previous methodologies.

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NAA/USPS-T20-4. In your opinion, does your method provide more accurate estimates of volume variability of VSD hours relative to estimates employed in previous rate hearings? Please explain your response.

Response:

Relative to R77-1, R80-1, R84-1, and R87-1, I believe that my method of analyzing specific VSD data provides an estimate of volume variability more accurate than the methods in these cases. The estimates for these cases were based on the operational assumption that only load time was volume variable, an assumption which I did not make in developing my estimate. Relative to R90-1, my point estimate of volume variability is somewhat higher, but the lower end of the 95-percent confidence interval behind my higher point estimate is not substantially different. Even though I don't find a major difference between the two estimates, but I believe my methodology will provide more accurate estimates, primarily because I do not base it on the assumption that VSD volume variability should be the same as intra-SCF highway contract routes. Relative to R94-1, I also believe my method will provide more accurate estimates, since for this case, the R90-1 intra-SCF highway contract variability was averaged with earlier results which had assumed only load time was volume variable.

DECLARATION

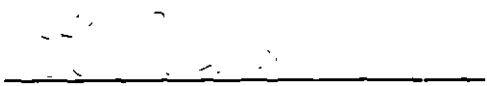
I declare under penalty of perjury that the foregoing answers are true and correct to the best of my knowledge, information, and belief.

Date: 9-26-47

Stu M. Wade

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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