

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

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OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 1997

Docket No. R97-1

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS BRADLEY
TO INTERROGATORIES OF DIRECT MARKETING ASSOCIATION, INC.
(DMA/USPS-T14-2-6, part of 7, and 8-14)

The United States Postal Service hereby provides responses of witness Bradley to the following interrogatories of Direct Marketing Association, Inc.: DMA/USPS-T14-2-6, part of 7, and 8-14, filed on July 29, 1997. Interrogatories T14-1 and 7(a)-(c) were redirected to witness Moden.

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

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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August 12, 1997

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

DMA/USPS-T14-1. Please describe the flexibility that a manager at a mail processing facility has in adjusting his labor force to the amount of mail which must be processed.

- a. If during a shift it is clear that there is extra labor, are there limits to the manager's ability to size the work force to the amount of work?
- b. If, over the course of an Accounting Period (AP), it is clear that there is extra labor, are there limits to the manager's ability to size the work force to the amount of work?
- c. If, over the course of a year, it is clear that there is extra labor, are there limits to the manager's ability to size the work force to the amount of work?
- d. To the extent that there is extra labor during a shift, how does a manager decide which operation to assign the labor to?

The interrogatory was redirected.

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

DMA/USPS-T14-2. Please refer to page 13, lines 12-16 of your testimony. Please explain why current staffing in an operation may depend upon the volume in a previous period.

DMA/USPS-T14-2 Response:

If the adjustment in the work force to changes in piece handlings takes time, the hours in one accounting period may be influenced by the piece handlings in the previous period. Because I am trying to estimate the response in hours to a sustained increase in piece handlings, I wish to allow for the possibility that the adjustment in hours to an increase in piece handlings may take longer than one accounting period.

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

DMA/USPS-T14-3. Please refer to pages 16 and 17 of your testimony where you describe the "manual ratio" and page 9 where you list the elasticities you calculated for 25 mail processing operations.

- a. In estimating each of these elasticities, did you use a manual ratio?
- b. If the answer to a. above is no, for which activities did you not use a manual ratio?
- c. Pages 16 and 17 describe the manual ratio for flats and letters? If you used a manual ratio for activities that are not flat or letter based, please describe the manual ratio.

DMA/USPS-T14-3 Response:

- a. No. The manual ratio was used only for letter and flat operations.
- b. On page 17 of my testimony, I state:

As automation rises, the percentage of mail sorted on automated equipment rises and the manual ratio declines. I therefore include it in the equations for all of the letter and flat activities, regardless of sorting technology.

As I indicated, the manual ratio was used only for the letter and flat activities (the first six listed on page 9) and was not used for any of the other activities listed on page 9.

- c. I did not use the manual ratio for activities that are not flat or letter based.

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

DMA/USPS-T14-4 Please refer to footnote 8 on pages 18-19 of your testimony which mentions a preliminary study underway to collect data on direct cost drivers for platform activities.

- a. Who is performing the study?
- b. When is it scheduled to be completed?
- c. Are there plans to perform comparable studies for other allied activities?

DMA/USPS-T14-4 Response:

- a. The study is being performed by Christensen Associates.
 - b. I am informed that the schedule of completion of the platform study is contingent on data acquisition that requires programming changes to some of the Postal Service's data systems. I have also been informed that the requests for these changes are in the queue but that no completion date has been set. Analysis of the data would be completed six to eight weeks after the data acquisition.
 - c. I am informed that analysis of other allied operations is being explored. I understand that these analyses would also require programming changes for data acquisitions. These changes are in the queue but no completion data is available.
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Response of United States Postal Service Witness Bradley
to
Interrogatories of DMA

DMA/USPS-T14-5 Please refer to pages 18 and 19 of your testimony. For allied activities, does the current staffing in an AP depend upon the volume in the previous period?

DMA/USPS-T14-5 Response:

Yes. Please see Table 8 on page 63 of my testimony for the estimated coefficients on the lagged terms.

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

DMA/USPS-T14-6. Please refer to page 18 of your testimony where you state that the BMCs report to the PIRS system. Please provide any Handbooks or other documentation which describes the PIRS system.

DMA/USPS-T14-6 Response:

In response to my repeated inquiries, the Postal Service informs me that it is unable to locate any such handbook or other documentation.

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

DMA/USPS-T14-7. On page 21 of your testimony, you state that you use Total Equivalent Pieces (TEP) as the measure of workload at BMCs. Please describe the derivation of TEP.

- a. For which operations does TEP use actual counts and on which operations are counts derived from conversion factors?
- b. If any TEP are derived by conversion factors, please provide them.
- c. If any TEP are derived by conversion factors, when were the conversion factors developed?

DMA/USPS-T14-7 Response:

The calculation of TEP for my analysis is provided on page H148-14 of Library Reference H148, under the heading of "The Output Data Set." TEP is the sum of T045, T075, TPPSM, TSSM, TNMO, TIPP AND T115. In English, this says that TEP is the sum of piece handlings in the Bulk Business Mail Letter Tray activity, the Bulk Business Mail Flat Trays activity, the Primary Parcel Sorting Machine activity, the Sack Sorting Machine activity, the Non-Machinable Outside activity, the Irregular Parcel Post activity and the Bulk Business Mail Sack Opening activity.

- a. This part of the interrogatory has been redirected.
- b. This part of the interrogatory has been redirected.
- c. This part of the interrogatory has been redirected.

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

DMA/USPS-T14-8. Do you use a lag in estimating the elasticity for the remote encoding activity?

DMA/USPS-T14-8 Response:

As shown in Table 11, page 68 of my testimony, the elasticity for the remote encoding activity does not use a lag. Please note that because of the very short and irregular time span of the data, it would not be practical to estimate a lag term.

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

DMA/USPS-T14-9. Do you use a lag for estimating the elasticity of the registry activity?

DMA/USPS-T14-9 Response:

As shown on in Table 12 on page 69, the registry activity does not include a lag. Please note that the registry data used in this analysis is at the quarterly frequency not at the accounting period frequency.

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

DMA/USPS-T14-10. On page 31 you state that if a site has more than one set of continuous data, you use the most recent set in estimating elasticities. Why did you not use all continuous sets? In how many instances is there more than one set of continuous data?

DMA/USPS-T14-10 Response:

I did use as many continuous sets of data as I thought was possible. It seems to me that it would not be possible to use more than one continuous set of data for any site. If two otherwise continuous series from one site were simply joined, then the resulting single series would appear to be discontinuous, as was the original series. For example, suppose that a site reports 104 valid data points over a total of 105 periods. Further suppose that the break in the data occurred after the tenth observation because the eleventh observation was missing. This would be a discontinuous series. However, this site could be viewed as having two continuous sub-series, one of 10 observations and one of 94. Combining and using the two sub-series would be tantamount to using the original series, which was discontinuous. As I state in my testimony on page 31:

Continuous data facilitate the estimation of accurate seasonal effects, secular non-volume trends, and serial correlation corrections. Because of the large amount of data available for this analysis, the loss in efficiency from dropping a small amount of data is outweighed by the gains in data quality associated with continuity.

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

+On page 31 of my testimony, however, I raise the possibility that there may be instances in which there are two continuous series, each with more than the required 39 observations. In that instance a choice must be made as to which of the two continuous series would be used. As I state in my testimony on page 31, "When this occurs, the more recent continuous series with at least thirty-nine observations is selected."

I interpret your question, therefore, as asking how often a site had two series that were continuous and longer than 39 observations. I did not calculate this number in my analysis but I believe it to be relatively small. Consider, the manual letter operation which includes the most sites at 309. For a site to possibly have two continuous series with more than 39 observations it must satisfy two conditions:

1. It must report data for a period covering at least 79 periods in the pre-scrub data set. It must have two continuous series of 39 or more it must report data in at least 78 periods and a one period break.
2. It must have less than 77 observations in the final data set. If it had more, the "other" not used series would be less than 39 observations as $77+1+39=117$ where 117 is the maximum number of observations for one site over the period from 8801-9613.

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

These two conditions eliminate all but 23 sites as possibly having two continuous series with more than 39 observations. A manual review of these 23 individual sites reveals that only 5 of them had a second continuous series of that length.

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

DMA/USPS-T14-11. Please refer to your discussion of backstop activities on page 58. If service standards were less stringent, would backstop activities be staffed at a lower level?

DMA/USPS-T14-11 Response:

Less stringent service standards should expand the window in which mail processing activities could be accomplished. This should allow for reduced staffing in backstop activities.

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

DMA/USPS-T14-12 Please refer to your discussion of gateway activities on page 57 and 58. If service standards were less stringent, would gateway activities be staffed at a lower level?

DMA/USPS-T14-12 Response:

It is difficult to say. Even with reduced service standards, gateway activities, like the facing and canceling of mail would have to be accomplished. This mitigates against the possibility of reducing staffing in these operations. On the other hand, if service standards are reduced enough, the Postal Service may be able to reduce staffing in gateway operations because the consequence of being short staffed at a particular point in time would be diminished.

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

DMA/USPS-T14-13. Please refer to Page H148-5 of Library Reference H148.

- a. Please confirm that the ratio of TMANF to HMANF from data set VDA1.DATA for the facility with the IDNUM of 19 for FYAP 9308 is .8553. Please confirm that this refers to a productivity of 855.3 handlings per hour.
- b. Please confirm that TMANF ("Manual Flat TPH") is in thousands of TPH and that HMANF ("Manual Flat Workhours") is in hours.
- c. Please confirm that, for all fields in VVDA1.DATA, workhours are in hours and TPH are in thousands.
- d. Please confirm that, for all data described in Library Reference H-148, workhours are in hours and TPH are in thousands.

DMA/USPS-T14-13 Response:

- a. Confirmed.
- b. Confirmed.
- c. Confirmed.
- d. Confirmed.

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

DMA/USPS-T14-14. Please refer to Page H148-10 and H148-11 of Library Reference H148. Please confirm that the TOCB field refers to total piece handlings on OCRs and the HOCB field refers to total workhours on OCRs.

DMA/USPS-T14-14 Response:

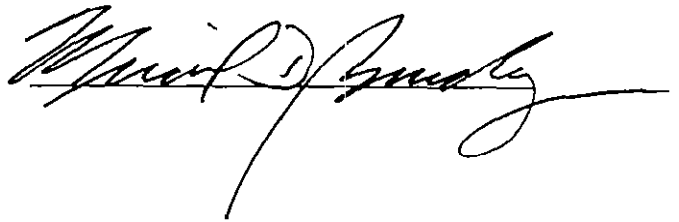
Not confirmed. Please see page H148-9 of Library Reference H148 where it states:

To calculate the number of piece handlings in automated letter sorting operations, the data creation program combines the piece handlings from the OCR activity with the piece handlings from the BCS activity. The combined piece handlings are titled TOCB

In similar fashion HOCB refers to combined hours for the OCR and BCS activities.

DECLARATION

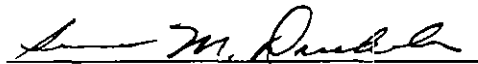
I, Michael D. Bradley, declare under penalty of perjury that the foregoing answers are true and correct, to the best of my knowledge, information, and belief.

A handwritten signature in cursive script, appearing to read "Michael D. Bradley", written over a horizontal line.

Dated: August 12, 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.

A handwritten signature in cursive script, appearing to read "Susan M. Duchek", is written over a horizontal line.

Susan M. Duchek

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August 12, 1997