UNITED STATES OF AMERICA
Before The
POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268-0001

Postal Rate and Fee Changes) Docket No. R2000-1

ANSWERS OF THE OFFICE OF THE CONSUMER ADVOCATE
TO INTERROGATORIES OF THE UNITED STATES POSTAL SERVICE
WITNESS: MARK EWEN (USPS/OCA-T5-1-9)
(June 20, 2000)

The Office of the Consumer Advocate hereby submits the answers of Mark Ewen to interrogatories USPS/OCA-T5-1-9, dated June 6, 2000. Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

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ANSWERS OF OCA WITNESS MARK EWEN
TO INTERROGATORIES USPS/OCA-T5-1-9

USPS/OCA-T5-1. Please refer to your testimony at pages 8-9.

(a) Please confirm that if a variable X is independent of another variable Y, then X is fixed with respect to changes in Y.

(b) If your answer to (a) is anything other than an unqualified "confirmed," please explain how X can be independent of Y and yet vary in response to Y. Please give examples of this phenomenon.

(c) Please refer to page 8 line 6 of your testimony, where, quoting the Commission, you state that "coverage-related load time 'is independent of volume delivered at a stop.'"

(1) One interpretation of this quotation is the following, derived from witness Baron's testimony: Coverage-related load time is fixed with respect to volume delivered at a stop. (See for example, USPS-T-12, page 8, 2-4 and page 9 lines 3-l 3). Do you believe that this interpretation of the quotation at page 8 line 6 of your testimony reads far too much into the language of that quotation? If so, please state specifically what about this interpretation constitutes reading "far too much" into the quotation. Please also explain fully how and why the interpretation reads "far too much" into the quotation, and what about the quotation stands in conflict with Mr. Baron's interpretation.

(2) Do you believe Mr. Baron's interpretation just given to the quotation "coverage-related load time is independent of volume delivered at a stop" violates the Webster's Dictionary (any edition) definition of any of the individual words in this quotation? If so, please provide the dictionary definition of each word Mr. Baron's interpretation is violating, and explain fully how each violates the definition.

RESPONSE TO USPS/OCA-T5-1:

(a) Confirmed.

(b) N/A

(c) (1) and (2). Yes, I do believe that witness Baron reads too much into the language of the quotation. I base this conclusion on the fact that the Commission has clearly stated in its interpretation of this quotation that it did not

mean to suggest that "coverage-related load time is completely insulated from all influences of volume, direct or indirect." PRC Op. R97-1, 3278. As such, I do not quibble with witness Baron's reading of the quotation, in a dictionary sense, but rather point out that this interpretation appears to be at odds with the spirit and intent of the Commission's words, as it explained in Docket No. R97-1.

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USPS/OCA-T5-2. Please refer again to your statement at page 8 line 6 that "coverage-related load time 'is independent of volume delivered at a stop.'" You state at page 8 lines 10-11 that in its R97-1 Decision, "the Commission sought to clarify the meaning of this statement."

(a) Please explain the ambiguity in this statement that requires clarification.

(b) Please explain which specific words or phrases from this statement are ambiguous, and explain why the dictionary definitions of the words are insufficient to convey their true meanings.

(c) Do you confirm that the additional load time that results when, due to volume growth, a carrier delivers mail at a previously uncovered delivery point is coverage-related load time? If you do not confirm, please explain why this additional load time is not coverage-related load time.

RESPONSE TO USPS/OCA-T5-2:

(a) I have not testified that the statement was ambiguous. However, witness Baron interpreted that statement to mean that coverage-related load time must equal a fixed, and equal, amount of time at each stop (i.e., the stops effect). While it is unclear to me how witness Baron interpreted the Commission's statement to imply a fixed amount of time at every stop, the Commission clarified its position by rejecting witness Baron's interpretation. It concluded that coverage-related load time is not necessarily completely insulted from volume influences and may vary from stop to stop.

(b) See response to (a).

(c) Not confirmed. In covering the previously uncovered stop, I presume the carrier engages in typical mail loading activities. As such, a certain increment of the total load time required to complete these activities will be dependent upon the volume delivered at that stop. The elemental load time variability analysis

captures this proportion. The remaining increment of time, commonly referred to as coverage-related load time, may be in part influenced by system-level volume effects or other non-volume-related factors (e.g., receptacle type).

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USPS/OCA-T5-3. Please refer to your testimony at page 8 lines 10-13. You refer in these lines to the "critical quotation" that "coverage-related load time is independent of volume delivered at a stop" (from page 8 line 6 of your testimony). You cite to the Commission as stating that this quotation must be placed "in the broader context of related statements made by the Commission in other proceedings."

(a) Please state the exact conclusion, implication, finding, or other result of this "broader context" that invalidates Mr. Baron's interpretation (presented at the second sentence in USPS/OCA-1(c)(1)) of the above "critical quotation." Please be specific.

(b) Again referring to Mr. Baron's interpretation given to the "critical quotation," please explain what specific error made in that interpretation is revealed by the "broader context" enunciated by you in your testimony. Please explain how and why the "broader context" reveals this error.

(c) Please identify the specific parts of the "broader context" which dictate that coverage-related load time is both independent of mail volume and yet not fixed with respect to mail volume. Please explain why these parts of the "broader context" invalidate the view that the words "independent of" mean "fixed with respect to."

(d) At page 8 lines 16-19 of your testimony, you quote the Commission as stating that "[t]he coverage-related load time analysis was intended to find the additional volume variability resulting from the fact that additional deliveries are caused by additional volumes." Please explain how this fact invalidates Mr. Baron's interpretation of the "critical quotation."

(e) Please refer to your testimony at page 8 line 24 through page 9 lines 1-2. Please explain how a block of time can be independent of mail volume and not be "completely insulated from all influence" of mail volume. Please give examples of postal and non-postal operations that are independent of mail volume and yet are not completely insulated from all influence of mail volume.

RESPONSE TO USPS/OCA-T5-3:

(a) The "broader context" reveals that the elemental load time analysis effectively captures stop level volume effects, and that the remaining increment of load time may be influenced by a variety of mail loading activities and may vary across stops.

(b) The specific error revealed by the broader context involves the analytic leap made by witness Baron from his interpretation of the critical quotation to the conclusion that coverage-related load time represents a fixed component of time that carriers repeat at every stop.

(c) The question is not clear. The relevant volume effects on load time are captured using the elasticities generated by the LTV regressions. Since load time is not 100 percent volume variable, some portion of total load time remains. This portion, or coverage-related load-time, may be influenced by a variety of activities that may vary from stop to stop. Understanding exactly how coverage-related load-time manifests itself in the act of loading mail is not necessary, since the Commission has adopted the technique of attributing coverage-related load-time using single-subclass stop ratios. Witness Baron, on the other hand, interprets the critical quotation to mean that coverage-related load-time represents a fixed activity that cannot vary in duration from stop to stop. It is this disconnect that invalidates Witness Baron's leap from coverage-related load time being "independent of" volume delivered at a stop to it being "fixed with respect to" this volume.

(d) See response to (c).

(e) I am not arguing that coverage-related load-time is independent of mail volume. See response to (c).

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USPS/OCA-T5-4. Please refer to page 3 lines 20-22 of your testimony where you state that the Commission's approach defines coverage-related load time as the residual time that remains after elemental load time is subtracted from total load time.

(a) Please explain fully the engineering concept, if any, to which this definition of coverage-related load time corresponds.

(b) Please explain fully the operational reality, if any, to which this definition of coverage-related load time corresponds.

RESPONSE TO USPS/OCA-T5-4:

(a) I presume that the term, engineering concept, in this context correlates with the "activity-based functional approach" witness Baron refers to in allocating total accrued street-time costs across major street-time activities. USPS-T-12, pp. 7-8. As I argue in my testimony (pp. 9-10), the functional approach used to dissect these activities is necessary to complete this allocation; however, the subsequent estimation of volume influences results from a statistical procedure that is not dependent upon these same engineering concepts.

(b) The operational reality of the Commission's definition of coverage-related load time is that it conforms to the generally accepted view that a portion of load time varies, either directly or indirectly, with respect to volume, and another portion does not.

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USPS/OCA-T5-5. Please refer to the Commission's definition of coverage-related load time as the residual time that remains after elemental load time is subtracted from total load time.

(a) Please confirm that as elemental load time increases, coverage-related load time decreases, according to this definition. If you do not confirm, please explain how coverage-related load time is affected by increases in elemental load time.

(b) If your answer to part (a) is confirmed, please explain why, from an operational or engineering perspective, coverage-related load time falls as elemental load time rises.

RESPONSE TO USPS/OCA-T5-5:

(a) Not confirmed. The relationship of elemental and coverage-related load-time depends upon their interaction with volume increases. For example, elemental load time would increase as a result of increased volume at a stop, as would total load time. In this case, coverage-related load time would not change.

(b) N/A

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USPS/OCA-T5-6. Please refer to USPS-LR-I-89, Cs06&7.xls, sheet 7.0.4.2, cells D22 through F26, which list the elasticities of SDR, MDR, and BAM load times with respect to letter volume, flat volume, parcel volume, accountables volume, and collection volume. The sum of these five elasticities is 62.09% for SDR, 72.00% for MDR, and 50.15% for BAM.

(a) Please confirm that the Commission's load time analysis regards 62.09%, 72.00%, and 50.15% as the Base Year aggregate elasticities of SDR, MDR, and BAM load time, respectively, with respect to an equal-percentage increase in total stop-level volumes across all volume categories (letters, flats, parcels, accountables, and collections). If you do not confirm, please list what you believe are the Base Year 1998 aggregate elasticities of SDR, MDR, and BAM load times with respect to an equal percentage increase in stop-level volumes across all volume categories, according to the Commission analysis.

(b) Assuming your answer to 6(b) [sic] is confirmed, please explain why you believe the estimated aggregate elasticities of SDR, MDR, and BAM load time with respect to total mail volumes at a stop are only 62.09%, 72.00%, and 50.15%. respectively, instead of 100%. Please fully explain, in other words, why these three elasticities fall below 100%.

(c) Do you believe that the operation of loading mail at one delivery point can be expected to exhibit increasing returns to scale? Please fully explain the rationale for your answer.

RESPONSE TO USPS/OCA-T5-6:

(a) Confirmed.

(b) The fact that these elasticities fall below 100 percent suggests that other factors, in addition to mail volume, influence the amount of time a carrier spends loading mail. These factors might include, for example, the characteristics of the stop, receptacle type, and opening or closing a mail satchel.

(c) It is possible that the operation of loading mail at a single delivery point can exhibit increasing returns to scale. For example, at a stop receiving two identical pieces of mail, the time required to load both pieces would likely be less than

double the time required to load one of the pieces. This phenomenon could be explained, for example, by the fact that the pieces may be loaded simultaneously, or, if loaded separately, by greater ease with which the carrier handles the receptacle when loading the second piece.

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USPS/OCA-T5-7. Please refer to your Testimony at page 11 lines 4-7. Did the new ES study collect any data measuring coverage-related load time as defined by the Commission (i.e., as equal to the residual of total load time over elemental load time)? If your answer is yes, please specify the ES data that measure this residual, and how it does so.

RESPONSE TO USPS/OCA-T5-7:

To my knowledge, no. According to the USPS, however, the study did collect sufficient data to accurately identify the portion of route time carriers spend completing mail loading activities. In addition, the LTV study collected detailed data at the stop level on load time, stop type, receptacle/container type, shape/volume components, and possible deliveries. This information is sufficient to estimate how load time varies with respect to these variables. Used in concert, the ES and LTV studies capture the direct and indirect effects of volume changes, which is the prerequisite for their use for ratemaking purposes. Through this approach, there is no need to directly measure coverage-related load-time, as it is derived through a statistical procedure. In contrast, witness Baron does attempt to impute a direct measure, *a priori*, of a coverage, or "stops" effect, using a data source, the LTV study, that did not directly measure this effect.

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USPS/OCA-T5-8. Please fully identify the activities that a carrier engages in that are coverage-related load activities, based on the definition of coverage-related load time as the residual of total load time over elemental load time. Please also explain fully how these coverage-related activities are distinguished from the elemental load time activities.

RESPONSE TO USPS/OCA-T5-8:

I do not know exactly what mix of load-related activities a carrier might engage in that would represent coverage-related load time. However, this knowledge is not necessary to effectively implement the Commission's approach. The mix of activities and their effect on load-time is implicitly captured in the statistical procedure used to estimate volume influences. It is witness Baron who establishes the standard that the separately-measured components within load time must represent functionally distinct and identifiable activities, and then fails to meet this standard in his explanation of the stops effect.

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USPS/OCA-T5-9. Please refer to your testimony at page 12, lines 6-10. Please fully identify the "physical hypothesis that is grounded in operational data" that applies to the concept of coverage-related load time as the residual of total load time over elemental load time. Please "proffer a clear hypothesis about the physical rationale" for this concept of coverage-related load time.

RESPONSE TO USPS/OCA-T5-9:

I have not testified that a physical hypothesis grounded in operational data is necessary to implement the Commission's methodology. In using these phrases to critique witness Baron's approach, I am referring to his stipulated requirement that the elemental and coverage-related components within load time must be regarded as "distinct, separately identified" actions. USPS-T-12, p. 8. I then point out how he fails to meet this mandate by not explicitly identifying the carrier activities that might occur during fixed time at stop, and further he is unable to infer its presence from the load time regressions, nor accurately impute this increment of time directly from available data. In contrast, the established Commission approach does not need to incorporate this requirement into the estimation of load-time variability, since the statistical procedure employed implicitly captures the mix of activities occurring during a load and accurately estimates how they are influenced by volume.

CERTIFICATE OF SERVICE

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

Emmett Rand Costich for
JENNIE D. WALLACE

Washington, DC 20268-0001
June 20, 2000