

Before The
POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268-0001

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OFFICE OF THE CHIEF COUNSEL

Postal Rate and Fee Changes, 2000

Docket No. R2000-1

RESPONSE OF THE UNITED STATES POSTAL SERVICE
WITNESS BARON TO OCA INTERROGATORIES
(OCA/USPS-T12-1-7)

The United States Postal Service hereby provides the response of witness Baron to the following interrogatories of the Office of the Consumer Advocate: OCA/USPS-T12-1-7, filed on February 17, 2000.

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

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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March 2, 2000

RESPONSE OF WITNESS BARON TO OCA INTERROGATORIES

OCA/USPS-T12-1. Please refer to page 7, lines 7 through 12 of your testimony, wherein you define the measurement of the stops effect, which you indicate is the minimum of the load times recorded during the 1985 load-time field test at stops receiving only one letter piece.

- (a) Please explain what possible actions or inaction in which a carrier might be engaged during the time period between accessing the mailbox and loading the mailbox.
- (b) How would a trained data collector be able to verify that the letter carrier was engaged in whatever action or inaction occurs during the stops effect as delineated in (a)?
- (c) Please confirm that the amount of time called the "stops effect" and fixed with respect to volumes is measured in terms of the amount of time spent to load a single piece of letter mail. If you do not confirm, please explain.
- (d) In determining the duration of the stops effect, did you find that the value of the stops effect was different between BAM, SDR, and MDR routes? Please explain.

RESPONSE:

- (a) As I stated in response to Docket No. R97-1 NAA/USPS-T17-8(b), this work is the activity of preparing to handle mail pieces, mail bundles, or mail-related equipment. This work occurs immediately after the carrier reaches the stop, and just prior to the initiation of the piece, bundle, or equipment handling.
- (b) One way to do this would be to conduct a test to record the activity a carrier undertakes immediately after having accessed a stop. The trained data collector would measure the time taken by the carrier to prepare for the handling of mail pieces, mail bundles, or mail-related equipment and the placement of mail into or collection of mail from receptacles. The data collector would estimate this time as the interval occurring immediately after the stop access has been completed through the point in time just prior to when handling of mail pieces, bundles, or mail-

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related equipment has started. This measure would constitute a direct estimate of fixed-time at a stop.

- (c) Partially confirmed. I measure fixed-time at a stop for a given stop type as the average of the lowest 20th percentile of 1985 carrier times recorded at one-letter stops. I use this lowest 20th percentile solely to infer a value for fixed-time at a stop, given the absence of any direct measurements of this fixed time. See also my responses to Docket No. R97-1, UPS/USPS-T17-11 (a) and (b).
- (d) Confirmed. The averages of the lowest 20th percentile of carrier times differ across the three stop types.

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OCA/USPS-T12-2. Please refer to USPS-LR-I-159, page 20. Please provide (or indicate where provided) a definition for each column heading.

RESPONSE:

ILTT = The sum over all sampled routes of the given route type of each route's average daily load time tally count multiplied by the route's inflation factor. Each route's inflation factor equals the ratio of the gross total number of routes for the given route type in the route's ZIP Code divided by the corresponding total sampled routes in the ZIP Code.

ISST = The sum over all sampled routes of the given route type of each route's average daily street support tally count multiplied by the route's inflation factor.

IDTT = The sum over all sampled routes of the given route type of each route's average daily driving time tally count multiplied by the route's inflation factor.

IRAF = The sum over all sampled routes of the given route type, of each route's average daily route/access foot-park & loop tally count multiplied by the route's inflation factor.

IRACT = The sum over all sampled routes of the given route type of each route's average daily route/access curblines tally count multiplied by the route's inflation factor.

ICBT = The sum over all sampled routes of the given route type of each route's average daily collection box tally count multiplied by the route's inflation factor.

ITT = The sum over all sampled routes of the given route type of each route's average daily total street activity tally count multiplied by the route's inflation factor.

ITRVT = The sum over all sampled routes of the given route type of each route's average daily travel time tally count multiplied by the route's inflation factor.

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LTPERC = ILTT/ITT = The percentage of inflated street activity tallies for the given route type that are load time tallies.

SSPERC = SST/ITT = The percentage of inflated street activity tallies for the given route type that are street support tallies.

DTPERC = IDTT/ITT = The percentage of inflated street activity tallies for the given route type that are driving time tallies.

RAFPERC = IRAFT/ITT = The percentage of inflated street activity tallies for the given route type that are route/access foot – park & loop tallies.

RACPERC = IRACT/ITT = The percentage of inflated street activity tallies for the given route type that are route/access curblines tallies.

CBPERC = ICBT/ITT = The percentage of inflated street activity tallies for the given route type that are collection box tallies.

TRVPERC = ITRVT/ITT = The percentage of inflated street activity tallies for the given route type that are travel time tallies.

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OCA/USPS-T12-3. Both the access time and load time can be clearly delineated as carrier activities. For example, a carrier would be able to identify the activity in which he or she was engaged during access or load.

- (a) How would a carrier delineate the activity in which she or he was engaged during the stops effect?
- (b) Why would the stops effect not more logically be a part of the load time?

RESPONSE

- (a) A carrier would delineate the activity of preparing to handle mail pieces, bundles, or mail-related equipment. The carrier would do so by describing what he or she does immediately after reaching a stop, but prior to handling mail pieces, bundles, or equipment.
- (b) Load time at a stop is time that varies in response to changes in mail volume and volume mix at that stop. The stops effect is time that is independent of the amount and mix of mail delivered or collected at the stop. It depends solely on coverage.

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OCA/USPS-T12-4. Please refer to lines 15 through 17 on page 32 of your testimony, wherein you discuss witness Raymond's data collection efforts. You indicate that witness Raymond collected data for loading, driving, route-access (FAT), route-access (CAT), collection, and street support functions.

- (a) Did witness Raymond collect data for the stops effect? Why or why not; please explain.**
- (b) Was the stops effect observable to the data collectors? Were barcodes or activity codes or descriptions given to the data collectors for the stops effect? Please explain.**

RESPONSE:

- (a) I am unaware of any stops effect data collected by Mr. Raymond. I was not involved in decisions made by the Engineered Standards / Delivery Redesign project team relating to the data to be collected in its surveys.**
- (b) Please see my response to part (a).**

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OCA/USPS-T12-5. Please refer to line 19, page 32, through line 4, page 33, wherein you indicate that the Engineering Standards data set accounts for recent operational practices much more accurately than does the 1986 data set.

- (a) Please define the measure of accuracy, and whether it is a statistical measure.
- (b) Please explain the major changes between the two data sets in their reflection of current operational practices.
- (c) Please identify all changes in operational practices to which you refer.
- (d) Was the 1986 data set created for the purpose of a rate case or rate analysis? Please list all purposes for creation of the 1986 data set.

RESPONSE:

- (a/b) I have not produced quantitative measures of accuracy. The reasons I believe the Engineered Standards data set accounts for recent operational practices more accurately than does the 1986 data set are presented in my direct testimony on page 33 at lines 1 through 18, and page 37 at lines 9 through 23.
- (c) Please see my testimony at page 33, lines 11 through 18, and pages 36-37.
- (d) A discussion of the objectives of the 1986 data set is beyond the scope of my testimony. Please see Docket No. R87-1, USPS-T-7 and Exhibit B to USPS-T-7 for a presentation of these objectives.

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OCA/USPS-T12-6. Please refer to lines 2 through 10 on page 34 of your testimony.

- (a) What was the date of coverage for the Carrier Route Master File that you used?**
- (b) You indicate that four of the ES routes could not be located on the CRMF; please explain this discrepancy.**
- (c) Does this discrepancy call into doubt the accuracy of the files?**

RESPONSE:

- (a) The date of coverage is Postal Fiscal Year 1997 – Quarter 4.**
- (b) The SAS program ES.CNTL (documented in USPS LR-l-159) assigns 5-digit zip codes to the routes located on the Engineered Standards data base through a merger of the ALDRAN.THREEZIP.CSV and ALDRAN.FOS.STS.SAS.DATA files by city. The 5-digit zip code assigned to each route equals the 3-digit zip code from ALLDRAN.THREEZIP.CSV plus the first two digits of the route number obtained from ALLDRAN.FOS.STS.SAS.DATA. However, the 5-digit zip codes assigned in this manner to the four routes in question do not contain the route numbers for such routes according to the CRMF. Therefore, no information was available from the CRMF to determine which route-type categories the four routes should be assigned to.**
- (c) To determine whether the absence of these four routes from the analysis materially affects the estimates of street-time percentages, I conducted a simple test. Rather than attempt to locate these four routes on the CRMF, and to then determine their route type categories based on CRMF information, I assumed that their correct route type categories are the ones reported on the ES data base. This determination of route type categories enabled me to include all tally data obtained for the four routes in a new calculation of street-time percentages.**

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These new percentages, which are now based on tallies from 340 routes (the initial 336 plus the four new routes), are shown in the table below. The table also shows the official street-time percentages calculated based on tallies from the initial 336 routes. Note, also, that three of the four new routes are categorized as residential park & loop, and one is categorized as mixed park & loop.

BY 1998 STREET-TIME PERCENTAGES BASED ON DATA FROM 340 ROUTES IN THE ES DATA BASE						
ROUTE TYPE	Load Time %	Street Support %	Driving Time %	Route Access Foot %	Route Access Curb %	Collection Box %
FOOT	49.35%	15.23%	2.16%	32.51%	0.44%	0.31%
RES LOOP	35.36%	17.76%	11.25%	33.09%	2.25%	0.29%
RES CURB	47.64%	18.53%	8.85%	9.29%	15.59%	0.08%
MIX LOOP	34.60%	13.04%	18.48%	30.18%	3.49%	0.21%
MIX CURB	35.61%	17.82%	20.09%	20.35%	5.43%	0.71%
BUS. MOTORIZED	30.59%	16.76%	27.94%	20.00%	4.71%	0.00%

OIFFICIAL BY 1998 STREET-TIME PERCENTAGES BASED ON DATA FROM 336 ROUTES IN THE ES DATA BASE						
ROUTE TYPE	Load Time %	Street Support %	Driving Time %	Route Access Foot %	Route Access Curb %	Collection Box %
FOOT	49.35%	15.23%	2.16%	32.51%	0.44%	0.31%
RES LOOP	35.27%	17.79%	11.23%	33.20%	2.22%	0.29%
RES CURB	47.64%	18.54%	8.85%	9.30%	15.59%	0.08%
MIX LOOP	33.22%	12.81%	18.59%	32.88%	2.27%	0.23%
MIX CURB	35.61%	17.82%	20.09%	20.34%	5.43%	0.71%
BUS. MOTORIZED	30.59%	16.77%	27.94%	20.00%	4.70%	0.00%

A comparison of the top and bottom parts of this table show that the addition of the four routes to the calculations changes the street-time percentages by extremely small amounts within the residential loop category, and by moderate amounts within the mixed loop route category. For residential loop, the biggest

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changes are a 0.09 percentage point increase in the load-time percentage and 0.11 percentage point decrease in the route/access FAT percentage. For mixed loop, the load-time percentage increases by 1.38 percentage points, and the route/access FAT percentage decreases by 2.70 percentage points.

- (d) The changes just summarized in part (c) do not, in my view, seriously impair the accuracy of the cost analysis. As the table below shows, the main effect of applying the street-time percentages based on tallies from the 340-route data set is to increase volume-variable load-time costs by a few million dollars above the costs produced by the official percentages, which are based on tallies from the initial 336 routes.

BY 1998 VOLUME-VARIABLE LOAD-TIME COSTS (\$1,000)

CLASS, SUBCLASS, OR SPECIAL SERVICE	Official Costs Based on Tallies from the Initial 336 ES Routes	Costs Based on Tallies from all 340 ES Routes
FIRST-CLASS MAIL:		
SINGLE-PIECE LETTERS	314,079	315,462
PRESORT LETTERS	307,014	308,418
TOTAL LETTERS	621,093	623,880
SINGLE-PIECE CARDS	22,510	22,610
PRESORT CARDS	16,732	16,809
TOTAL CARDS	39,242	39,419
TOTAL FIRST-CLASS	660,335	663,299
PRIORITY MAIL	49,856	50,079
EXPRESS MAIL	22,406	22,497
MAILGRAMS	103	104
PERIODICALS:		
IN-COUNTY	8,891	8,932
OUTSIDE COUNTY:		
REGULAR	69,247	69,564
NON-PROFIT	20,566	20,660
CLASSROOM	585	588
TOTAL PERIODICALS	99,289	99,744

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BY 1998 VOLUME-VARIABLE LOAD-TIME COSTS (\$1,000)

CLASS, SUBCLASS, OR SPECIAL SERVICE	Official Costs Based on Tallies from the Initial 336 ES Routes	Costs Based on Tallies from all 340 ES Routes
(Continued)	(Continued)	(Continued)
STANDARD A:		
SINGLE PIECE RATE	1,496	1,501
COMMERCIAL STANDARD:		
ENHANCED CARR RTE	352,282	353,893
REGULAR	297,595	298,955
TOTAL COMMERCIAL	649,877	652,848
AGGREGATE NONPROFIT:		
NONPROF ENH CARR RTE	16,495	16,570
NONPROFIT	72,771	73,104
TOTAL AGGREG NONPROFIT	89,266	89,674
TOTAL STANDARD A	740,639	744,023
STANDARD MAIL (B):		
PARCELS ZONE RATE	25,240	25,353
BOUND PRINTED MATTER	22,082	22,180
SPECIAL STANDARD	10,313	10,360
LIBRARY MAIL	1,492	1,499
TOTAL STANDARD (B)	59,127	59,392
US POSTAL SERVICE	1,619	1,626
FREE MAIL	1,835	1,843
INTERNATIONAL MAIL	6,134	6,160
TOTAL MAIL	1,641,343	1,648,767
SPECIAL SERVICES:		
REGISTRY	5,163	5,185
CERTIFIED	93,882	94,311
INSURANCE	4,516	4,536
COD	1,960	1,969
SPECIAL DELIVERY	-	-
MONEY ORDERS	-	-
STAMPED ENVELOPES	-	-
SPECIAL HANDLING	-	-
POST OFFICE BOX	-	-
OTHER	522	522
TOTAL SPECIAL SERVICES	106,043	106,523
TOTAL VOLUME	1,747,386	1,755,290
FIXED	880,255	884,057
GRAND TOTAL	2,627,641	2,639,347

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OCA/USPS-T12-7. Please refer to lines 2 through 8 on page 36 of your testimony. You indicate that the new street-time proportions are substantially different from those previously presented. Have you examined these differences to whether they are statistically significant? If so, what were the results? If not, why not?

RESPONSE:

I have not examined the differences to determine statistical significance. However, the important point to consider here is that the Postal Service has chosen to substitute the new street-time proportions for the 1986 proportions in its allocation of actual accrued street-time costs across activities. The accrued cost allocations based on the new proportions are substantially different than those based on the 1986 proportions. Thus, the implication of any finding that the differences between the proportions are not statistically significant is unclear. Whether they are or not, the competing cost allocations they produce would be the same as they are currently, as would the large differences between these two allocations.

DECLARATION


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

Donald M. Baron

Date: 3-2-00

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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March 2, 2000