# BEFORE THE POSTAL RATE COMMISSION WASHINGTON DC 20268-0001

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POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000-1

SECOND SET OF INTERROGATORIES OF MAGAZINE PUBLISHERS OF AMERICA, INC.
TO USPS WITNESS BARON
(MPA/USPS-T12-37-69)

(MARCH 10, 2000)

Pursuant to the Commission's Rules of Practice, Magazine Publishers of America hereby submits the attached interrogatories to USPS Witness Baron (MPA/USPS-T12-37-68).

Respectfully submitted,

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# SECOND SET OF INTERROGATORIES OF MAGAZINE PUBLISHERS OF AMERICA TO UNITED STATES POSTAL SERVICE WITNESS BARON

#### MPA/USPS-T12-37. Please refer to LR-157. Please provide:

- (a) The data set LTV.FLAT.DATA in PC-readable form (i.e., either on Compact Disk or 3 II inch floppies), a listing of its properties, and descriptor/identification for each of its fields; and
- (b) If not on the data set LTV.FLAT.DATA, the sample weights for each observation in LTV.FLAT.DATA and used to perform the analyses described in your testimony.

<u>MPA/USPS-T12-38.</u> Please refer to LR-157. Please provide, from the FY 1998 City Carrier Cost System, for each stop type (SDR, MDR, and BAM):

- (a) the estimated total annual number of actual and possible stops in the USPS system;
- (b) the estimated total annual number of actual and possible deliveries in the USPS system;
- (c) the average possible stops coverage figure, and
- (d) the average possible deliveries coverage figure.

<u>MPA/USPS-T12-39.</u> Please refer to LR-157. For the years FY 1987 through FY1997, from the City Carrier Cost System, please provide for each stop type:

- (a) the estimated total annual number of actual and possible stops in the USPS system,
- (b) the estimated total annual number of actual and possible deliveries in the USPS system,
- (c) the average possible stops coverage figure, and
- (d) the average possible deliveries coverage figure.

MPA/USPS-T12-40. Please refer to LR-158. Please provide the data sets CURB.SAS, FOOT.SAS, and LOOP.SAS in PC-readable form (i.e., either on Compact Disk or 3 II inch floppies), a listing of their properties, and descriptor/identification for each of their fields; and if not on each of the data sets, the sample weights for each observation in those data sets and used to perform the analyses described in your testimony.

MPA/USPS-T12-41. Please refer to LR-159. Please refer to the National System of City Routes. Please list all the other data variables, by route, contained in ALDRAN.HQ059T01.CITY.PQ4FY97.

<u>MPA/USPS-T12-42.</u> Please refer to LR-159. Please provide the following for the USPS total system of routes, separately for each of the ten regions:

- (a) in PQ4 FY97, number of 3-D zips and, separately, 5-D zips with city carrier routes;
- (b) Per ALDRAN.HQ059T01.CITY.PQ4FY97, number of city carrier routes where the primary mode of delivery is:
  - Foot
  - Park & Loop
  - Curbline
  - Dismount
  - Other
  - Cannot be determined.
- (c) Number of city carrier routes in ALDRAN.HQ059T01.CITY.PQ4FY97 classified by ES.CNTL as:
  - Foot
  - Park & Loop
  - Curbline
  - Dismount
  - Other
     Cannot be determined.
- (d) For each route delivery mode category in (b), above, the average number of:
  - Residential curb deliveries
  - Residential NDCBU deliveries
  - Residential centralized deliveries
  - Residential other deliveries
  - Business curb deliveries
  - Business NDCBU deliveries
  - Business centralized deliveries, and
  - Business other deliveries.
  - (e) For each route type in (c) above, the average number of possible:
    - Residential curb deliveries
    - Residential NDCBU deliveries
    - Residential centralized deliveries
    - Residential other deliveries

- Business curb deliveries
- Business NDCBU deliveries
- Business centralized
- Business other deliveries.

MPA/USPS-T12-43. Please confirm that ALDRAN.HQ059T01.CITY.PQ4FY97 contains a listing of all city carrier routes in the USPS system as of the end of PQ 4 1997. If this is incorrect, please explain what the file does contain.

MPA/USPS-T12-44. Please confirm that ALDRAN.FOS.STS.SAS.DATA contains observations taken during PQs 1, 2, and 3 of PFY 1996 and PQs 1 and 2 of PFY 1998. If this is incorrect, please identify the period over which the data set was collected.

<u>MPA/USPS-T12-45.</u> Please refer to the Commission's Response. On page 13 you reject the Crowder analysis "...precisely because g(V/S) is a very poor approximation of  $L^-$ , due to substantial non-linearity in the load-time regressions." Which load-time regressions are being referred to here and who performed these regressions, on which data and when.

<u>MPA/USPS-T12-46.</u> Please refer to the Commission's Response. Please state what the precise scientific meanings of the terms used:

- g(V/S) is a "very poor approximation", and
- "substantial non-linearity",

in terms of statistical methods and measurement.

<u>MPA/USPS-T12-47.</u> Please refer to the Deciding Issue. In this section, you state that: "The more  $L^-$  deviates from  $g^-(V/S)$ , the greater the non-linearity." This statement appears to ignore the usual data validity and probability measurement concerns of regression analysis, or are these immaterial in this context?

<u>MPA/USPS-T12-48.</u> Please refer to the Deciding Issue. Please state what your usual statistical acceptance "rules of thumb" are for test statistics in your econometric/regression work for the USPS, for:

- F-test
- t-test
- adjusted coefficient of determination, and
- other relevant test statistics (please list).

<u>MPA/USPS-T12-49.</u> Please refer to the Deciding Issue. You view a 2.61% discrepancy between  $L^{\circ}$  and  $g^{\circ}(V/S)$  as being a liberal interpretation of the

linearity assumption. What would you have considered a "good fit" e.g. 1.00%, and why?

MPA/USPS-T12-50. Please refer to your remarks on page 26 and footnote 35. If you were to eliminate the RUNUM variable from the quadratic equation (12), how would you expect the elasticities, t-statistics and other test results to change, if at all?

MPA/USPS-T12-51. Has a test run such as that mentioned in question 1 been performed by you or others on either quadratic (12) or interaction model (13)? If so, what were the results and how do they effect the elasticity elements?

MPA/USPS-T12-52. Is it your view that the use of the variable RUNUM<sub>t</sub>\*RTYPE<sub>j</sub> is wholly responsible for the "negative, unrealistically low, or unrealistically high" route specific elasticities noted by you on page 27, or are there other factors besides equation design and variable choice that might be relevant here?

<u>MPA/USPS-T12-53.</u> Could the curious range of elasticity estimates from the interactive equation (13) results arise from errors in the data collected from (say) one-third of the MDR stops surveyed, or some other data collection/cleaning problems at the micro level?

MPA/USPS-T12-54. Please refer to footnote 43 on page 33, at which you state that, "... the A.T. Kearney study recommended that the Postal Service consider using these data to update its segment 7 cost analysis." Are you referring to recommendation 12 on page 56 of the Data Quality Study, Technical Report #4, April 16, 1999? If so, please state with specifity your interpretation of this recommendation.

<u>MPA/USPS-T12-55.</u> Please state whether you have reviewed the process by which the Engineered Standards/Delivery Redesign project chose which city routes from which to collect data.

<u>MPA/USPS-T12-56.</u> Please refer to your Testimony at page 35, lines 5-6, at which you state that your weighting of the observations for each ES route "ensures that each ES route properly represents the ZIP code from which it was selected."

- (a) Please provide all information available to demonstrate that the ZIP codes observed are representative of the entire system of routes.
- (b) Please state whether you have attempted to develop sample weights for each of the observed ZIP codes. If so, please explain all such attempts.

MPA/USPS-T12-57. For each of the 76 5-D zips that were sampled to develop the new Engineered Standards (ES) database, please provide the following:

- a The zip code number.
- b The USPS region within which it is located.
- c For each of the ten regions, number of city carrier routes where the primary mode of delivery, per ES.CNTL, is:
  - Foot
  - Park & Loop
  - Curbline
  - Dismount
  - Other
  - · Cannot be determined.
- d For each of the ten regions, number of city carrier routes, per ES.CNTL, classified as:
  - Foot
  - Park & Loop
  - Curbline
  - Dismount
  - Other
  - Cannot be determined.
- e For each route delivery mode category in (a) above, the average number of :
  - Residential curb deliveries
  - Residential NDCBU deliveries
  - Residential centralized deliveries
  - Residential other deliveries
  - Business curb deliveries
  - Business NDCBU deliveries
  - Business centralized deliveries
  - Business other deliveries.
- f For each route type in (b) above, the average number of possible:
  - Residential curb deliveries
  - Residential NDCBU deliveries
  - Residential centralized deliveries
  - Residential other deliveries
  - Business curb deliveries
  - Business NDCBU deliveries
  - Business centralized deliveries

\* Business other deliveries.

## MPA/USPS-T12-58. Please provide for each of the 340 ES routes sampled:

- a Appropriate "unit code," as used on the LR I-163 ES database.
- b The USPS region in which it resides.
- c Per ES.CNTL, the number of possible:
  - Residential curb deliveries
  - Residential NDCBU deliveries
  - Residential centralized deliveries
  - Residential other deliveries
  - Business curb deliveries
  - Business NDCBU deliveries
  - Business centralized deliveries
  - Business other deliveries.
- d Per ES.CNTL, its primary mode of delivery.
- e Type classification by ES.CNTL (as foot, business motorized, residential P&L, etc.).
- F Sample weight.

MPA/USPS-T12-59. Please provide the ES unit code and route number for the four sampled routes which were eliminated from your analysis because they could not be located on the City Carrier Route master File.

MPA/USPS-T12-60. Please refer to LR I-159, in which the description of the ALDRAN.FOS.STS.SAS.DATA set indicates that there were 24 variables, one of which is route type. In LR I-163, there are 20 variables and no route type is indicated.

- a Was there a route-type variable in the original Engineering Standards (ES) database?
- b If so, why was it deleted in LR I-163?
- Please explain, for purposes of designating route type for each sampled ES route and processing the ES tallies, whether the ES database designation was retained throughout the ES.CNTL. SAS run or whether the route type was designated by ES.CNTL.SAS, using the route type assigned to the routes in ALDRAN.HQ059T01.CITY.PQFY97.
- d Please provide the original ES database route-type variable for each observed route.
- e Please identify the other variables in ALDRAN.FOS.STS.SAS.DATA set that were not included in LR I-163.

MPA/USPS-T12-61. Within ADLRAN.HQ059T01.CITY.PQ4FY97, please provide the full definitions for the following terms ("variables"), how they are determined by the Postal Service, and how the Postal Service distinguishes among them:

- a Foot Delivery Mode
- b Curbline Delivery Mode
- c Park & Loop Delivery Mode
- d Dismount Delivery Mode
- e Other Delivery Mode

MPA/USPS-T12-62. Please identify the types of deliveries that are included within the "Other Delivery Mode."

MPA/USPS-T12-63. Within ADLRAN.HQ059T01.CITY.PQ4FY97, please provide the full definitions for the following terms ("variables") so that they can be distinguished from each other:

- a Curb Deliveries
- b NDCBU Deliveries
- c Centralized Deliveries
- d Other Deliveries (Please also identify the types of deliveries than may be considered "Other Deliveries.")

MPA/USPS-T12-64. For purposes of ALDRAN.HQ059T01.CITY.PQ4FY97, please define "phantom route."

<u>MPA/USPS-T12-65.</u> Please explain why you did not re-estimate the CAT/FAT (Curbline Access/Foot Access Test) split factors to reflect the 1998 possible stops coverage levels.

MPA/USPS-T12-66. With respect to the CAT split factors, please confirm the following. If you do not confirm, please explain why:

- (a) Residential and Curbline SDR, MDR, and B&M stops coverages, estimated from the City Carrier Cost System (CCS), are used with the estimating models.
- (b) For purposes of estimating the split factor, that all stops on the routes described in (a) are used.
- (c) Drive Time, as measured from Mr. Raymond's Engineered Standards database, is not reflected in the CAT models.

<u>MPA/USPS-T12-67.</u> With respect to the FAT Foot split factors, please confirm the following. If you do not confirm, please explain why:

- (a) Business, Residential, and Mixed SDR, MDR, and B&M stops coverages, as estimated from the City Carrier Cost System (CCS), are used with the estimating models.
- (b) That you assume that all stops on the routes described in (a) are FAT foot stops.

<u>MPA/USPS-T12-68.</u> With respect to the Park & Loop FAT split factor, please confirm the following. If you don confirm, please explain why:

- (a) Business Motorized, Residential Park & Loop, and Mixed Park & Loop SDR, MDR, and B&M stops coverages, estimated from the CCS, are used with the estimating models.
- (b) For purposes of estimating the split factor, all stops on the routes described in (a) are used.
- (c) Drive Time, as measured from Mr. Raymond's Engineered Standards database, is not reflected in the Park & Loop FAT models.

<u>MPA/USPS-T12-69.</u> With respect to the Drive Time category, as measured from Mr. Raymond's Engineered Standards:

- (a) Please confirm that it represents both Drive Time associated with Park & Loop stops as well as the Drive Time associated with Dismount Stops. If this is incorrect, please explain.
- (b) Does it also represent the Drive Time associated with motorized Central, NDCBU, and VIM stops? Please explain.
- (c) Please confirm that the Drive Time described in (a) and (b) above is not reflected in any of the CAT/FAT models.
- (d) Please confirm that the Drive Time described in (a) and (b) above, and as measured from Mr. Raymond's Engineered Standards database, is attributed by the USPS on the basis of the R97-1 analyses of Drive/Stop, Stop/Activity, Deviation Delivery/Piece, and Routine Loops and Dismounts/Volume Variabilities.

## **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 the Commission's Rules of Practice.

Anne R. Noble

Washington, D.C. March 10, 2000