

BEFORE THE
POSTAL RATE COMMISSION

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OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 1997

DOCKET NO. R97-1

**FIRST SET OF INTERROGATORIES AND REQUESTS FOR
PRODUCTION OF DOCUMENTS FROM UNITED PARCEL SERVICE
TO UNITED STATES POSTAL SERVICE WITNESS BRADLEY
(UPS/USPS-T14-1 through 20)**

(August 1, 1997)

Pursuant to the Commission's Rules of Practice, United Parcel Service hereby serves the following interrogatories and requests for production of documents directed to United States Postal Service witness Bradley (UPS/USPS-T14-1 through 20).

Respectfully submitted,



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**INTERROGATORIES OF UNITED PARCEL SERVICE
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UPS/USPS-T14-1. Please confirm that your workpapers and associated Library References include all data collected (prior to scrubs), whether it was ultimately used by you in your analyses or not, during the course of the analyses performed in your direct testimony. If not confirmed, please provide this data.

UPS/USPS-T14-2. Please confirm that your workpapers and associated Library References provide, in electronic and in hard copy form, all computer programs, spreadsheets, etc., used to scrub the data as well as the programs that generated the analyses and results in your direct testimony. If not confirmed, please provide this information.

UPS/USPS-T14-3. Please refer to page 7 of your direct testimony where you state that “non-MODS offices do not submit piece-handling data to the corporate data base.”

(a) Please explain in detail the differing characteristics, if any, between MODS offices and non-MODS offices and how those differences affect or bias the results of your costing analyses.

(b) What specific criteria are used to determine whether a particular facility is designated as a MODS office or as a non-MODS office?

UPS/USPS-T14-4. (a) Please provide a descriptive list of all data available through MODS and PIRS.

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- (b) What are the qualitative differences between MODS and PIRS?
- (c) How are the data that are available through both MODS and PIRS collected?
- (d) What are the potential sources of collection or reporting error for (1) MODS and (2) PIRS?
- (e) How is the data scrubbed or audited for (1) MODS and (2) PIRS?
- (f) How are MODS and PIRS data processors trained?
- (g) Please discuss the data quality of (1) MODS and (2) PIRS.

UPS/USPS-T14-5. Please refer to page 16 of your direct testimony, where 9213 is chosen as the “kink” in the technology time trend. Please explain how this time period was chosen.

UPS/USPS-T14-6. Please confirm that the manual ratio and the technology variable contain much of the same information. If so confirmed, please list that information; if not so confirmed, explain.

UPS/USPS-T14-7. Please refer to page 16, lines 4-5, of your direct testimony, where you state that “it is the advent of automation that embodies the technological change.”

- (a) In your opinion, does advancing technology lead to increased automation? Please explain your answer.

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(b) Are technology and automation correlated? Please explain how and by what degree the results of your costing analyses are affected by the existence or lack of a correlation.

UPS/USPS-T14-8. On page 12 of your direct testimony, you state that in estimating elasticity equations for direct activities, mail processing hours is the preferred dependent variable. Please confirm that hours worked is not the preferred dependent variable in estimating elasticity equations for indirect activities. Please explain your answer.

UPS/USPS-T14-9. You state on page 22, lines 17-18, of your direct testimony that “[h]ours are available from the MOD system for the registry activity but no piece handling counts are recorded.”

(a) Why are piece handling counts for registry activities not available on MODS?

(b) How does the RPW Registry mail volume differ from MODS in terms of accuracy and method of reporting?

(c) Please explain how the difference between RPW data and MODS data affects the results of your costing analyses.

(d) Please explain if equations estimated with MODS data are more or less accurate than equations estimated with RPW data. To what extent does your analysis account for the variation in accuracy?

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UPS/USPS-T14-10. Please explain the process by which a site is designated as a MODS facility or a PIRS facility. Please discuss any selection bias with respect to the sites chosen.

UPS/USPS-T14-11. (a) Please provide descriptive statistics for all observations dropped from the data: for example, the number of observations (by activity) that are dropped; the number of sites dropped; the number of sites dropped for missing one or two data points versus the number of sites dropped for missing many data points; the number of sites (and observations) dropped due to the presence of outliers.

(b) Please explain if the eliminated sites were in a specific geographic area or whether they were of similar size (in either hours worked or volume).

(c) Please explain if a larger percentage of the data dropped was for direct activities, allied activities, or other activities.

UPS/USPS-T14-12. On page 31, lines 2-3, of your direct testimony you state that “[t]he first scrub requires that a site have at least thirty-nine continuous observations in any activity.” Please explain how the criterion of 39 consecutive data points was chosen.

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UPS/USPS-T14-13. (a) Please confirm that for a site with 78 consecutive data points, only the most recent 39 were chosen. If not confirmed, please explain how the 39 data points were chosen.

(b) If confirmed, please confirm that the older data was eliminated for no other reason than that it was older. If reasons other than the age of the data are cited, please explain in full why the older data was eliminated.

UPS/USPS-T14-14. Was any consideration given to interpolating missing data for a site that was missing only a few observations? If such consideration was given, why was the interpolation of missing data not used?

UPS/USPS-T14-15. For how many periods were start-up sites eliminated from the data? Please explain how this number was chosen and what evidence there is to support the choice.

UPS/USPS-T14-16. On page 34, lines 9-11, of your direct testimony, you state that "there were sufficient data remaining after the scrubs for the estimation of eight BMC activity equations."

(a) Please explain how many BMC equations and what BMC equations could not be estimated because "some observations were lost when the data [was] scrubbed."

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(b) To what activities did the data apply?

(c) Describe the data that were lost in the scrubs (please refer to the examples set forth in question 13, above).

UPS/USPS-T14-17. (a) Please explain why a second order translog equation was chosen for estimation as compared to other available flexible forms, such as the AIM, Box-Cox, and Minflex-Laurent.

(b) Please discuss the inherent bias in the translog equation in its restrictions of elasticities of substitution. Include in your discussion the basis for the choice of a second order expansion.

(c) Please explain to what degree the second order expansion leads to correlation repressors. Discuss the significance of this result.

(d) Please explain any other functional forms estimated. If there are any, please provide and explain the results.

UPS/USPS-T14-18. Refer to pages 49 through 51 in your direct testimony, where the correction for serial correlation is discussed and the Baltagi and Li method is chosen.

(a) Was the Bhargava, Franzini and Narendranathan method attempted? Why or why not?

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(b) What are the advantages of the Bhargava, Franzini and Narendranathan method?

(c) Does the use of the Baltagi and Li method as opposed to the use of the Bhargava, Franzini and Narendranathan method result in different conclusions? If so, what are the differences and how would they affect the conclusions of your analyses?

UPS/USPS-T14-19. Please refer to page 61, lines 10-12, of your direct testimony, where you state that “[a]n autonomous decline in hours, in each of these activities, for the 1988-1992 period is replaced with an autonomous increase in hours for the 1993-1996 [period].”

(a) Please describe the basis for this result.

(b) Was there a structural change that leads to this result? In your opinion, what was the cause of this result?

(c) In your opinion, how can this be better modeled in the estimated equations?

UPS/USPS-T14-20. To what extent have MODS facilities experienced a trend toward automation compared to BMCs? Please include in your answer percentages of automated volume over time.

CERTIFICATE OF SERVICE

I hereby certify that I have this date served the foregoing document in accordance with section 12 of the Commission's Rules of Practice.


Stephanie Richman

Dated: August 1, 1997
Philadelphia, Pa.