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

POSTAL RATE AND FEE CHANGES, 2006

Docket No. R2006-1

### UNITED STATES POSTAL SERVICE INTERROGATORIES AND REQUESTS FOR PRODUCTION OF DOCUMENTS TO UNITED PARCEL SERVICE WITNESS NEELS: USPS/UPS-T1-21 THROUGH 34 October 3, 2006

Pursuant to rules 25 and 26 of the Rules of Practice and Procedure, the United

States Postal Service directs the following interrogatories and requests for production of

documents to the United Parcel Service witness Kevin Neels: USPS/UPS-T1-21

through 34.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr. Chief Counsel, Ratemaking

Frank R. Heselton Attorney

475 L'Enfant Plaza West, S.W. Washington, D.C. 20260-1137 (202) 268-5204; Fax: -6187 October 3, 2006

#### USPS/UPS-T1-21.

Please refer to your testimony, UPS-T-1, Table 20 (page 52). Please also refer to your testimony from Docket No. R97-1, UPS-T-1 at page 46, lines 17-19 (Docket No. R97-1, Tr. 28/15632), where you stated:

I therefore recommend dropping the threshold "scrub." For similar reasons, I would recommend against adoption of Bradley's 'productivity" scrub.

- a. Does the above passage from your Docket No. R97-1 testimony still reflect your views? If not, please explain why not.
- b. Please confirm that the samples you employed in your alternative variability models, as described in Table 20 of your current testimony, impose both "threshold" and "productivity" screens. If you do not confirm, please explain.
- c. Please confirm that your "strict" sample imposes more stringent "threshold" and/or "productivity" screens than those employed in the Postal Service's BY 2005 models. If you do not confirm, please explain.

#### USPS/UPS-T1-22.

Please refer to your testimony from Docket No. R97-1, UPS-T-1, at page 40 (line 15) to page 44 (line 3) (Docket No. R97-1, Tr. 28/15626-15630). At the conclusion of a discussion of purported advantages of cross-section models over the fixed-effects model, you stated:

[T]he cross-sectional results provide a more appropriate basis for the attribution of mail processing labor costs.

- a. Does the above passage from your Docket No. R97-1 testimony still reflect your views? If not, please explain why not.
- b. Please confirm that your alternative model in this proceeding employs a panel data, fixed-effects, instrumental variables estimation approach. If you do not confirm, please explain fully.

#### USPS/UPS-T1-23.

Please refer to your testimony from Docket No. R2000-1, UPS-T-1 at page 63 (line 1) to page 71, line 10 (Docket No. R2000-1, Tr. 27/12835-12843). In a section entitled "Time Series Analysis of System-wide Mail Processing Costs," you describe an aggregate time series model as "a conceptually superior alternative to the MODS-level analysis presented by Dr. Bozzo." Is the above passage from your Docket No. R2000-1 testimony still your view? If not, please explain why not.

#### USPS/UPS-T1-24.

Please refer to your testimony at page 52, lines 4-5, and to Table 20. You state: To deal with the problem of measurement error in the volume variables, I have used an IV fixed effects estimation method. Given your use of an estimator that is in principle robust to the presence of measurement errors, please explain why you find it necessary to eliminate large numbers of potentially usable observations due to measurement errors?

#### USPS/UPS-T1-25.

Please refer to your testimony, UPS-T-1, at page 56, lines 22-23, where you state that "the Postal Service's study does not address in any way the two-thirds of mail processing costs that fall outside of direct sorting operations." Given the scope of the workhours incorporated in your alternative model presented in Section 6, please confirm that your statement from page 56, lines 22-23, is also true of your model. If you do not confirm, please explain how your results address mail processing costs that fall outside the operations you modeled without actually modeling them.

#### USPS/UPS-T1-26.

Please refer to your response to USPS/UPS-T1-3.

- a. Please describe and provide any analysis, including econometric code and output log(s), you performed to demonstrate that clocking errors in workhours are correlated with the explanatory variables of mail processing labor demand models you have studied.
- b. Please confirm that the "intercept" terms you mention in response to USPS/UPS-T1-3(c) appear in the calculation of volume-variability factors from the various mail processing labor demand models (the Postal Service's, your Section 6 models, Prof. Roberts's models). If you do not confirm, please explain fully.

USPS/UPS-T1-27.

Please refer to your response to USPS/UPS-T1-4(d).

- a. Please confirm that IOCS tally processing assigns an "administrative" operation code (field F260=10) for clocking in or out (activity code 6522), regardless of the employee's clocked-in operation. If you do not confirm, please explain.
- b. Is it anomalous to observe the clocking in or out activity in a mail processing operation? Please explain any affirmative answer fully.
- c. Please confirm that, for the sorting and cancellation operations covered by the Postal Service's models, as well as your model presented in Section 6 of UPS-T-1, the "administrative" tallies (weighted to cost pool dollars) are as follows:

	Total Cost		
	(\$000),		Other
	USPS-LR-L-		administrative
	55, Table I-2-		op. code
	Plants-	Clocking in or	(F260=10 or
Cost Pool	Poolcost	out (a/c 6522)	17)
D/BCSINC	1,090,377	30,838	5,385
D/BCSOUT	391,639	12,150	1,960
OCR/	201,547	6,706	1,086
AFSM100	538,794	13,246	1,890
FSM/1000	218,122	7,003	582
SPBS OTH	410,170	15,141	1,576
SPBSPRIO	145,691	5,188	1,100
MANF	239,251	8,157	2,146
MANL	917,249	28,629	9,359
MANP	83,115	2,133	865
PRIORITY	317,740	11,300	3,598
1CANCEL	307,118	7,940	3,259
Total	4,860,813	148,433	32,806

Costs in thousands of dollars, tally weights (field F9250) adjusted to cost pool dollars using the factors in USPS-LR-L-55, file DOLWGT.rtf.

If you do not confirm, please provide the results you believe to be correct and provide any computer programs and associated output logs you use to develop the figures.

d. Do you regard the 0.7 percent of costs (32,808/4,860,813) in the "Other administrative op. code" column as quantitatively significant? If so, please explain.

#### USPS/UPS-T1-28.

Please refer to your response to USPS/UPS-T1-4(d). You state:

What is surprising is that for such a large portion of the time, workers found to be performing those administrative tasks were clocked into mail processing MODS codes, rather than administrative MODS codes. Please explain whether you consider it "surprising" for "administrative" tasks such as those described in USPS/UPS-T1-4(c) to be recorded under the following MODS operation codes:

MODS

- operation Description
  - 340 STANDBY MAIL PROCESSING
  - 341 QWL COORDINATOR NONSUPER EMPS
  - 547 SCHEME EXAMINERS
  - 554 OFFICE WORK & RECORDS-MAIL PROC
  - 555 OFFICE WORK & RECORDS-MAIL PROC
  - 560 MISC ACTIVITY-MAIL PROC
  - 561 MISC ACTIVITY-MAIL PROC
  - 562 MISC ACTIVITY-MAIL PROC
  - 563 MISC ACTIVITY-MAIL PROC
  - 564 MISC ACTIVITY-MAIL PROC
  - 577 PREP & VERIFY DELV BILLS-INTERNAT
  - 607 STEWARDS CLERKS MAIL PROC
  - 612 STEWARDS-MAIL HANDLER-MAIL PROC
  - 630 MEETING TIME-MAIL PROC
  - 677 ADMIN & CLER PROCESSING & DISTRIB
  - 681 ADMIN & CLER PROC & DIST INTERNTL
  - 697 ADM & CLER-MAIL.REQ & BUS.MAIL ENT

If so, please explain.

#### USPS/UPS-T1-29.

Please refer to your testimony, UPS-T-1, Table 16 (page 37). Please also refer to UPS-WP-1, files Table of Fixed Effects.xls, and WP\_Fixed effects.do, and to USPS-LR-L-56, file varmp\_tpf\_OTHAUTO\_by2005.out.

- a. The output log for WP\_Fixed effects.do does not appear to have been provided in UPS-WP-1. Please provide it.
- b. The regression output in the 'nonmanual\_results' tab of "Table of Fixed Effects.xls" does not appear to match the results of the Postal Service models in USPS-LR-L-56. For example, you report a coefficient on "Intph04" of 1.788, whereas the coefficient from the Postal Service model (on "CLNTPH04") is 2.06859 (according to varmp\_tpf\_OTHAUTO\_by2005.out). Similarly, you report 1.201 for the coefficient on "Intph06," versus 1.28372. Please explain the discrepancies fully. Please also provide an update of Table of Fixed Effects.xls that is consistent with the Postal Service regression results, or explain why you are unable to do so.
- c. For any updated results you provide in reponse to part (b), and for each cost pool reported in Table 16, please provide the mean, standard deviation, median, first quartile, and third quartile of the fixed effects terms you analyzed, in addition to the minimum and maximum.
- d. Using the method you employed for Table 16, please provide the mean, standard deviation, median, first quartile, third quartile, minimum and maximum for the fixed effects terms from:

- (i) Your model from Section 6 of UPS-T-1, for both the "strict" and "loose" samples.
- (ii) Each of the shape-level models you estimated, as you mentioned in response to USPS/UPS-T1-5(b).

Please provide a spreadsheet with the fixed effects terms and the calculations of the requested statistics.

## USPS/UPS-T1-30.

Please refer to your testimony, UPS-T-1, at page 47, line 13, to page 48, line 2 (Section 5b). Please also refer to USPS-T-12 at page 24 (line 19) to page 25 (line 17).

- a. Do you agree that more highly presorted mail enters the Postal Service's sorting operations, relative to otherwise similar but less-presorted mail, at "downstream" processing nodes and thereby avoids some sort handlings? If not, why not.
- b. Do you agree that the marginal cost difference between more- and less-presorted mail is the marginal cost of the avoided handlings? If not, why not?
- c. Do you agree that the avoided sorts would, in principle, be reflected in avoided total piece handlings (TPH)? That is, TPH in principle measures all sort handlings in distribution operations? If not, please explain fully, and indicate how your response is consistent with the definition of TPH.
- d. Do you agree that FHP does not, in general, capture all avoided handlings for presorted mail? That is, since FHP handlings are a subset of total handlings, some avoided handlings do not result in FHP avoidance? If not, please explain fully, and indicate how your response is consistent with the definition of FHP.
- e. Do you agree that required depth of sort, automation compatibility, or other characteristics may affect the marginal cost of an FHP? If not, please explain fully.
- f. Please confirm that your model, presented in section 6, does not distinguish FHP by depth of sort, entry point (e.g., incoming operations, outgoing operations), automation compatibility, or any other characteristic. If you do not confirm, please explain how information on the characteristic(s) survived your FHP aggregation process.

USPS/UPS-T1-31.

Please refer to your testimony, UPS-T-1, at pages 38-42 (Section 4), at 45-47 (Section 5b), and at 50.

- a. Do you agree that the technology mix employed in mail sorting operations will, in general, affect the costs of sorting mail, including (but not necessarily limited to) the marginal costs of sorting mailpieces with various physical characteristics? If not, please explain fully.
- b. Please confirm that your alternative model presented in Section 6 includes no controls pertaining to capital or the mix of technologies employed at a plant. If you do not confirm, please identify the control variable(s) and provide citation(s) to your workpapers where you employ them.

- c. Please confirm that failing to include controls if they are relevant, using suitable econometric techniques to identify the effects, will generally lead to bias in regression models. If you do not confirm, please explain fully.
- d. Do you agree that the process of developing, testing, and deploying new postal sorting equipment involves decisions made some time (in most cases, more than a quarter) before new equipment actually is deployed? If not, what is the basis for disagreement?
- e. Is it your testimony that excluding a control variable from a regression model is conceptually identical to treating it as "endogenous"? If so, please explain fully and provide citation(s) to authoritative source(s) that support your position.
- f. Do you agree that, in systems of regression equations, the relevant distinction for the treatment of "endogenous" variables is between simultaneously determined variables and "predetermined" variables, where "predetermined" variables include exogenous variables and lagged endogenous variables (see, e.g., George G. Judge et al., *The Theory and Practice of Econometrics,* New York: Wiley, 1986, at 564-565)? If not, please explain fully and provide citation(s) to authoritative source(s) that support your position.

## USPS/UPS-T1-32.

Please refer to your responses to USPS/UPS-T1-2 and USPS/UPS-T1-5(b).

- a. Please list the Postal Service mail processing facilities you have visited, when you visited them, and approximately how much time you spent in each.
- b. With respect to your discussion of runtime, please explain whether you believe that, for instance, the addition of a unit of flat-shape volume has a material effect on the mail mix within the letter-shape mailstream. If so, please explain.
- c. Is it fair to characterize the cross-operation effect you describe for the "runtime" activity as primarily a cross-operation effect within a shape-based mailstream? If not, why not?
- d. Please confirm that you did not investigate any models that explicitly depict crossoperation effects within a shape-based mailstream (e.g., some variation on the model presented in USPS-T-12, Section VII.D). If you do not confirm, please explain why you did not mention such models in your response to USPS/UPS-T1-5(b).
- e. With respect to your discussion of container movement costs, please explain what you believe to be the relative importance of (i) the number of pieces to be transported, (ii) the physical layout of the plant (i.e., the locations of mail processing equipment and staging areas), and (iii) variations in "congestion" within the plant.

# USPS/UPS-T1-33.

Please refer to your testimony at page 44, lines 14-16.

- a. Do you agree that the average of the "actual" handling paths for pieces of mail within an analytically distinct group would tend to converge to the "expected" path given a sufficient number of pieces?
- b. Is it your testimony that changes in the "operational plan" do not affect the relationship between mail volumes and FHP, and/or between FHP and the costs of

mail processing operations? If so, please explain how those relationships are invariant to the path a piece of mail takes through the system.

### USPS/UPS-T1-34.

Please refer to your testimony, UPS-T-1, Table 19 (page 43).

- a. Please describe fully the model of technology deployment underlying the logit analysis you present in Table 19. In particular, please explain how the underlying model generates the specified relationship between current-period TPH and the equipment deployment dummy variable.
- b. Please describe fully any alternative specifications you explored to the logit models whose results you report in Table 19, summarize their results, and explain why you prefer the Table 19 specifications.
- c. For each of the three models you provide in Table 19, please show how a 10 percent increase in the specified TPH for a median facility affects the probability that the site has the specified equipment. Show all of your calculations.

# **CERTIFICATE OF SERVICE**

I hereby certify that I have this date served the foregoing document in accordance with Section 12 of the Rules of Practice and Procedure.

Frank R. Heselton

475 L'Enfant Plaza West, S.W. Washington, D.C. 20260-1137 (202) 268-5204, FAX: -6187 October 3, 2006