

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

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POSTAL RATE COMMISSION
OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000-1

UNITED STATES POSTAL SERVICE
INTERROGATORIES AND REQUESTS FOR PRODUCTION OF DOCUMENTS TO
THE OFFICE OF THE CONSUMER ADVOCATE WITNESS SMITH
(USPS/OCA-T4-20-25)

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 Office of the Consumer Advocate witness Smith:

USPS/OCA-T4-20-25.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr.
Chief Counsel, Ratemaking



Susan M. Duchek

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June 2, 2000

USPS/OCA-T4-20. Please refer to your testimony, OCA-T-4, at page 18, lines 14-16. You state that “[t]he expansion path is the hyperplane that should be measured, not the short-run hours/TPF relationship.” Consider an economic (variable) cost function $c = f(y, w, x^*, z)$ and the associated derived labor demand function $l = h(y, w, x^*, z)$. In this notation, c denotes real cost, l real labor input, y real output (“volume”), w the price(s) of variable factor(s) over the desired length of run, x^* the quantities of factors that are quasi-fixed (if any), and z denotes other variables determining cost and hence labor demand, and f and h are functions with appropriate mathematical properties. Please indicate how you believe the “expansion path” to which you refer relates to the cost and/or labor demand functions as defined above. Please relate your answer to the standard treatment of economic cost theory as presented in, e.g., Robert G. Chambers’ *Applied Production Analysis*. If you cannot specify the relationship between the “expansion path” and the cost and/or labor demand functions defined above, please so indicate.

USPS/OCA-T4-21. Please refer to your testimony, OCA-T-4, at page 19, lines 3-4, where you state that “it is not clear whether capital is an exogenous or an endogenous variable and whether some type of reduced form simultaneous equations system is needed.” On the same page, at lines 7-8, you state that “capital is treated as exogenous when it may in fact be endogenous.”

- a. Please confirm that, in response to oral examination by counsel for OCA, Dr. Bozzo stated he considered capital to be "predetermined" for the purposes of his analysis (see Tr. 15/6414, line 23; Tr. 15/6415, lines 3-7).
- b. Please confirm that in econometrics, "predetermined" variables are variables that are "not exogenous, but, as regards the current values of the endogenous variables, may be regarded as having already been determined" (see William H. Greene, *Econometric Analysis*, Second Edition, page 581). If you do not confirm, please state your understanding of the econometric content of the term "predetermined" and provide references to appropriate sources in the econometrics literature to support your position.
- c. Please confirm that the "relevant distinction" that determines whether a simultaneous equations statistical model is needed is "between jointly dependent [endogenous] variables and predetermined variables," including exogenous variables (see George G. Judge, et. al., *The Theory and Practice of Econometrics*, Second Edition, Wiley, 1985, at page 565). If you do not confirm, please state fully your understanding, and provide references to appropriate sources in the econometrics literature to support your position.
- d. Is it your understanding that there is a time lag between the Postal Service's investment decisions and the availability of the related equipment for Postal Service operations? Please explain fully any answer other than an unqualified yes, and provide all document(s) and studies that support your position.

USPS/OCA-T4-22. Please refer to your testimony, OCA-T-4, at page 19, lines 6-7. You reference the inclusion of “variables assumed non-volume variable that are actually volume-variable” in Dr. Bozzo’s analysis, specifically the manual ratio and capital, as an indication that his analysis is “fatally flawed.”

- a. Is it your testimony that, if the manual ratio and/or capital are volume-variable (to any degree), the effects of those variables on mail processing labor costs cannot in principle be incorporated into calculations of the corresponding volume-variability factors, and instead the entire econometric analysis must be discarded as “fatally flawed”?
- b. Please confirm that Dr. Bozzo presents estimates of the elasticities of workhours with respect to capital and the manual ratio for the cost pools covered by his study in USPS-T-15 at pages 119-120. If you do not confirm, please explain.
- c. Please confirm that Dr. Bozzo presents a derivation of the “manual ratio effect,” i.e., the appropriate calculations for treating the manual ratio as volume-variable, in Appendix C of USPS-T-15. If you do not confirm, please explain.

USPS/OCA-T4-23. Please refer to your testimony, OCA-T-4, at page 20, lines 9–12.

- a. In the section of your testimony cited above, you state, “The current estimators appear to be tentative.” What do you mean by the term “tentative”

in reference to econometric estimators? Please provide appropriate references to the econometric literature to support your answer.

- b. Please explain your use of the term “appear” in the statement quoted in part (a)—i.e., does your usage of the term “appear” signify that you have not conducted an analysis that would determine whether the current estimators actually *are* “tentative”?
- c. In the section of your testimony cited above, you state that “the proposed variabilities have actually changed over the short course of several years, apparently due to changes in data scrubbing and methodological changes.” If the original data “scrubs” and methodology were flawed, and those flaws were remedied, would you expect the variabilities to change as a result of the remedy? Please explain why or why not.

USPS/OCA-T4-24. Please refer to your testimony, OCA-T-4, at page 20, lines 2-

3. You state, “Possibly another five person years of effort would be required to complete the work.” Please indicate the scope of “the work” as you use the term in the quoted statement.

USPS/OCA-T4-25. Please refer to your testimony, OCA-T-4, at page 64, lines 10-11. You state that “based on Mr. Degen’s testimony, [the cross sectional approach] appears to be superior to either the fixed effects or pooled models.”

- a. Please confirm that Mr. Degen does not claim that the cross sectional approach is superior to the fixed effects or pooled models. If you do not

confirm, please provide citations to statements in USPS-T-16 that support your response.

- b. If you confirm in response to part (a), please confirm that the conclusion that the cross sectional approach is superior is *your* testimony, not Mr. Degen's. If you do not confirm, please explain.

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.

A handwritten signature in black ink, appearing to read "Susan M. Duchek", is written over a solid horizontal line.

Susan M. Duchek

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