

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

RESPONSE OF UNITED STATES POSTAL SERVICE
WITNESS DEGEN TO INTERROGATORIES OF
THE OFFICE OF THE CONSUMER ADVOCATE
(OCA/USPS-T16-1-3)

The United States Postal Service hereby provides the responses of witness Degen to the following interrogatories of the Office of the Consumer Advocate: OCA/USPS-T16-1-3, filed on February 9, 2000.

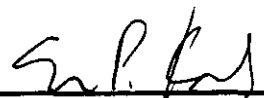
Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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February 23, 2000

**Response of United States Postal Service Witness Degen
to Interrogatories of the Office of the Consumer Advocate**

OCA/USPS-T16-1. On page 5, lines 1-6, you indicate that OCA witness Smith and UPS witness Neels, in Docket No. R97-1, ignored features of the Postal Service network and operations that are vital to distinguishing the cost effects of volume changes from the effects of non-volume factors.

- (a) Please specifically delineate which variables are vital to the analysis.
- (b) For each variable identified, please indicate whether such a variable was used by Dr. Bradley in his analysis in Docket No. R97-1 on the subject of mail processing variability.

OCA/USPS-T-16-1 Response.

My exact statement referenced in the question is that "My analysis of the structure of mail processing operations also reveals that the pooled regression approach advocated by OCA witness Smith and the cross-sectional analysis favored by UPS witness Neels, in Docket R97-1, potentially ignores [sic] features of the Postal Service network and operations that are vital to distinguishing the cost effects of volume changes from the effects of non-volume factors."

- (a) My testimony is that a regression analysis that does not control for site-specific, non-volume, cost-causing factors does not accurately reflect the facts that mail processing plants are located to serve delivery points; that mail processing plants have unique facility, work force, and that management characteristics tend not to change over the "rate cycle" and, to the extent they do, are primarily driven by non-volume factors; and that additional volumes will be handled, to some extent, in all or nearly all mail processing plants. The referenced statement indicates that variables that control for site-specific, non-volume, cost factors are "vital." My testimony does not address the details of the selection of variables; however, I believe they can be

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modeled with site-specific dummies (as in the fixed-effects model) and/or specific measures of factors such as facility, network, work force, and management characteristics. It would be nearly impossible to specify and measure all such characteristics, so site specific dummy variables should always be included to avoid bias in the estimated variables.

(b) As I indicated in my answer to (a) above, I believe that site-specific dummy variables are vital. My understanding is that Dr. Bradley's intent in including the site-specific dummy variables was to capture the effects of non-volume cost causing factors. Additionally, the "manual ratio" variables Dr. Bradley specified can be interpreted as indicators of the sites' sorting technology as well as measures of the "quality" of the mailstreams. While Dr. Bozzo's models are to be preferred because they include additional measures of important non-volume characteristics, the general similarity of the results indicates that Dr. Bradley's models, by and large, successfully controlled for the site-specific, non-volume, cost-causing factors.

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OCA/USPS-T16-2. Please refer to your testimony at page 10, lines 11-13. You indicate that, "Econometric models are well-suited to measuring expected changes in cost as volume changes, but are ill-suited for predicting changes in the underlying technology." Please define what type(s) of changes in the underlying technology are being referenced, in terms of specific capital equipment, personnel, operating personnel, or other resources. Also address these two examples,

- (a) Would a decision to purchase a new type of OCR be considered technological change if the new OCR were more efficient and/or had improved capabilities? Please explain.**

- (b) Would a decision to purchase a new OCR of an existing type of OCR be considered a change in technology? Please explain.**

OCA/USPS-T-16-2 Response.

The quoted statement was made in the context of a discussion of the respective roles of the Base Year and rollforward models in capturing the effects of cost reducing programs implemented between the base year and test year. See USPS-T-16 at page 9, line 18, to page 10, line 13. The statement does not refer to specific programs, but rather the general issue of "evaluat[ing] the forecast assumptions and expected changes in the operating plan [in the test year cost model]" (USPS-T-16 at page 10, lines 10-11). Each of the changes listed (capital equipment, personnel, operating personnel, or other resources) would have to be evaluated in terms of whether it would be expected to cause a change in the fundamental volume-variability of a cost pool, or alter the mix of cost pools. With respect to the quoted statement, it would be a gross misinterpretation to read my statement as a suggestion that econometric models are inessential to measuring test year costs. I believe that econometric models are well-suited to predicting cost changes when the underlying technology is stable, or when they are

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subject to changes that can be extrapolated from historical data. Econometric models also play a critical role in accurately estimating cost savings from new technology, since they are needed to estimate the level of costs under the existing technology as the "base" for the cost savings. Additionally, some fundamental changes in the Postal Service's operating plan should probably be reflected in the CRA by developing new cost pools, rather than modifying the definition of existing cost pools. This depends on whether introduction of a new technology would affect the degree of volume-variability for a cost pool.

- (a) Introduction of a new type of equipment with fundamentally different capabilities would, I believe, widely be viewed as a type of technological change. Whether the effect of the technological change can (or should) be captured in an existing cost pool's econometric model is an empirical issue.
- (b) The change that is described amounts to adding OCR capacity and, I believe, would not be considered to constitute a technological change with respect to the OCR cost pool. Adding capacity in a given operation can change the technology (cost pool) mix in the plant, to the extent the added equipment were intended to relieve binding capacity constraints. In terms of cost modeling, given a forecast of the additional (or percentage change in) volumes to be processed in the OCR cost pool, there would be no conceptual problems in predicting the additional (or percentage change in) OCR costs from the econometric models. Correspondingly, this type of adjustment is usually made as program savings in the roll forward process, not as alterations of the volume-variability of the OCR pool.

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OCA/USPS-T16-3. Please refer to pages 18 through 24 of your testimony, wherein you provide a discussion of network and location-related factors that affect costs, but do not change with volume. Is it correct that the bulk of this material was not presented in Docket No. R97-1? Please identify any of the referenced material that was previously presented in the same level of detail in Docket No. R97-1.

OCA/USPS-T-16-3 Response.

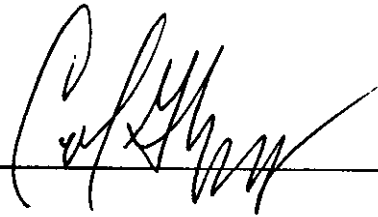
It is correct that the material provided in pages 18-24 of testimony did not appear in the R97-1 testimony at the same level of detail. However, the importance of location-related non-volume factors was discussed briefly in Dr. Bradley's mail processing testimony:

"The fixed effects model allows for site-specific effects that would cause two facilities to have different levels of hours for the same amount of piece handlings. Reasons for these differences include things like the age of the facility, the quality of the local work force, and the quality of the mail that the facility must process. (Docket No. R97-1, USPS-T-14, pp. 39-40; footnote omitted.)

The need to discuss the fixity of the Postal Service's delivery network relative to volume changes did not become evident until UPS witness Neels testified that the Postal Service would be expected to handle additional volumes by "replicating" its most efficient facility. (Docket No. R97-1, Tr. 28/15791). Dr. Neels's erroneous testimony on the Postal Service's response to volume changes was addressed in my rebuttal testimony (Docket No. R97-1, USPS-RT-6, pp. 47-48 Tr. 36/19365-6).

DECLARATION

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



Dated: 2/23/00

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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