

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

POSTAL RATE AND FEE CHANGES, 1997

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Docket No. R97-1  
POSTAL RATE COMMISSION  
OFFICE OF THE SECRETARY

RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS PANZAR TO INTERROGATORIES OF  
UNITED PARCEL SERVICE  
(UPS/USPS-T11-1-2)

The United States Postal Service hereby provides responses of witness Panzar to the following interrogatories of United Parcel Service: UPS/USPS-T11-1-2, filed on August 4, 1997.

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

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr.  
Chief Counsel, Ratemaking

  
Richard T. Cooper

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August 18, 1997

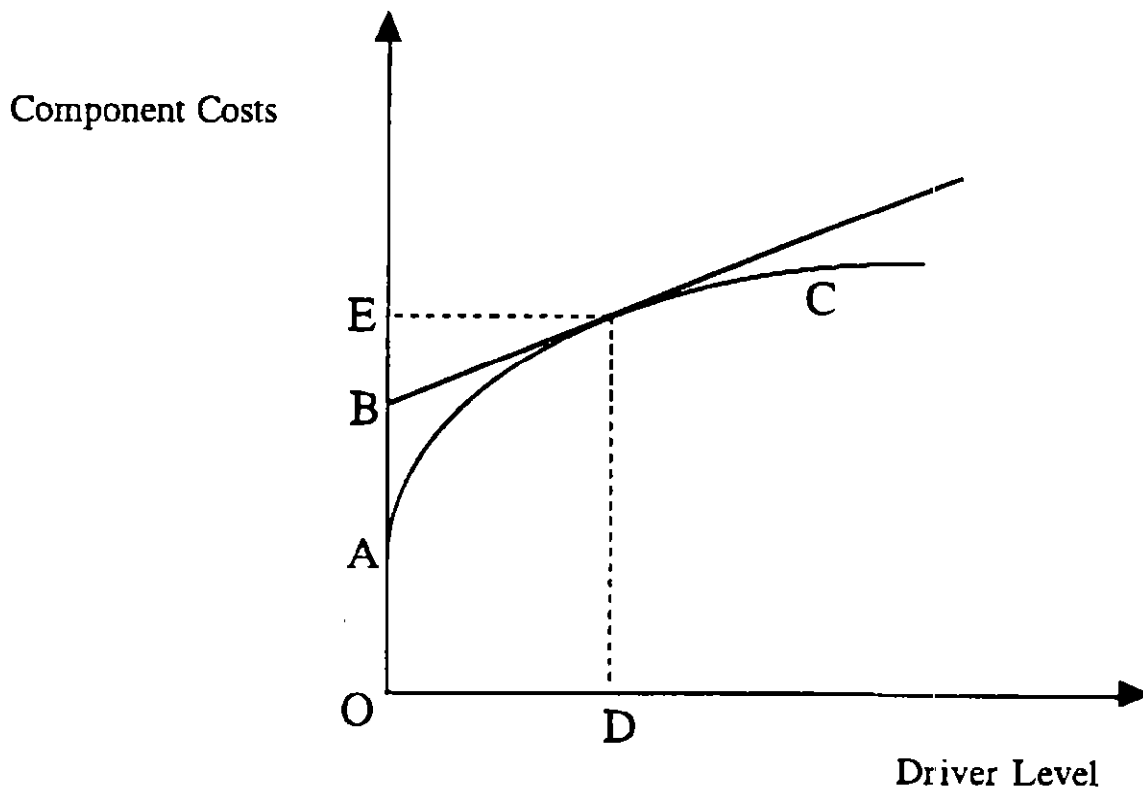
RESPONSE OF POSTAL SERVICE WITNESS PANZAR

TO INTERROGATORIES OF UPS

UPS/USPS-T11-1. Please confirm that the cost curve "C" is missing from Figure 1, on page 22 of your direct testimony. Please provide a Figure 1 that includes the cost curve "C."

ANSWER: Not confirmed. The component cost curve referred to in the text is not missing from the diagram. It is the curved line beginning at point A on the vertical axis. The label of the curve was inadvertently omitted or failed to print.

The figure in the testimony already includes the requested component cost curve. The figure below adds the missing label.



RESPONSE OF POSTAL SERVICE WITNESS PANZAR  
TO INTERROGATORIES OF UPS

UPS/USPS-T11-2. Please provide a reference for or explain the derivation of the equation on line 16 of page 26 of your direct testimony.

ANSWER: Since the formula is merely illustrative, I will derive it in the context of the simplified example used in Figure 2 in my direct testimony. That is, the level of the component cost driver  $D_j$  required for each mail subclass  $j$  is directly proportional to the volume of that subclass. Let  $D$  denote the total level driver activity required to serve the volumes of all mail subclasses. Then, by assumption, we also have  $D_j = \sigma_j D$ . Under the constant elasticity assumption stated in my direct testimony, component costs are given by

$$C = D^\alpha,$$

and volume variable costs for subclass  $j$  by

$$V_j = D_j \left( \frac{\partial C}{\partial D_j} \right) = D_j \alpha D^{\alpha-1} = \alpha \sigma_j D^\alpha.$$

Component incremental costs for subclass  $j$  are defined as the added cost of providing the additional driver activity required to serve its mail volume, given the mail volumes of the other subclasses (and the resulting level of driver activity). That is,

$$IC_j = D^\alpha - (D - D_j)^\alpha = D^\alpha \left[ 1 - (1 - \sigma_j)^\alpha \right]$$

Dividing component incremental cost for subclass  $j$  by component volume variable cost for that subclass yields the formula in my direct testimony:

$$r_j = \frac{IC_j}{V_j} = \frac{\left[ 1 - (1 - \sigma_j)^\alpha \right]}{\alpha \sigma_j}.$$

DECLARATION

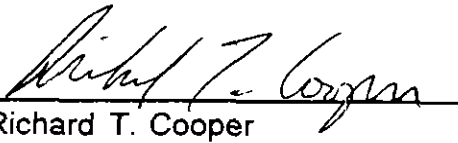
I, John C. Panzar, declare under penalty of perjury that the foregoing answers are true and correct, to the best of my knowledge, information, and belief.

  
\_\_\_\_\_  
John C. Panzar

Dated: August 18, 1997

## 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.

  
Richard T. Cooper

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