### DOCKET SECTION

BEFORE THE RECEIVED POSTAL RATE COMMISSION WASHINGTON, D.C. 20268-0001 OCT 4 58 PH '97

> POSTAL RATE COMMISSION OFFICE OF THE SECRETARY

Docket No. R97-1

POSTAL RATE AND FEE CHANGES, 1997

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### RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS PANZAR TO INTERROGATORIES OF ADVO, INC. (ADVO/USPS-T11-9-14)

The United States Postal Service hereby provides responses of witness Panzar to the following interrogatories of Advo, Inc.: ADVO/USPS-T11-9-14, filed on September 17, 1997.

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

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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By its attorneys:

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ADVO/USPS-T11-9. To the extent that the non-volume-variability of a cost component is due to the peaking characteristics of a particular mail class (e.g., requiring reserve labor capacity or causing imperfect matches between capacity and volume), could some or all of the non-volume-variable costs be considered incremental to that class? Please explain your answer, and describe any additional information or factors that would affect your answer.

ANSWER: Yes, they could. Any costs that would be avoided if a particular mail

subclass were eliminated, holding the volumes and service qualities of other subclasses

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fixed, are incremental to that subclass.

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ADVO/USPS-T11-10. For purposes of this question, the term "gateway" activity refers to an early-entry activity such as the facer/canceler operation that must be staffed and ready to receive and process mail as it comes into the stream in order to prepare it for subsequent processing, as described by witness Bradley at pages 57-58 of USPS-T-14. To the extent that the non-volume-variability of a cost component is due to its function as a "gateway" activity primarily for the subsequent processing and dispatch of a particular mail class, could some or all of the non-volume-variable costs be considered incremental to that class? Please explain your answer, and describe any additional information or factors that would affect your answer.

ANSWER: Yes, they could. Any costs that would be avoided if a particular mail

subclass were eliminated, holding the volumes and service qualities of other subclasses

fixed, are incremental to that subclass.

ADVO/USPS-T11-11. To the extent that the non-volume-variability of a cost component is due to personnel staffing designed to meet delivery standards or achieve high delivery performance for a particular mail class, could some or all of the non-volume-variable costs be considered incremental to that class? Please explain your answer, and describe any additional information or factors that would affect your answer.

ANSWER: Yes, they could. Any costs that would be avoided if a particular mail

subclass were eliminated, holding the volumes and service qualities of other subclasses

fixed, are incremental to that subclass.

ADVO/USPS-T11-12. On page 9 of your testimony you state:

"The incremental costs which the Postal Service incurs in providing a mail service measures the cost to society of having that particular service provided as part of the larger Postal Service enterprise. In many cases, alternative supply arrangements may be possible.... From a social point of view, stand-alone provision would be desirable whenever the stand alone costs of independent provision of mail service (or group of mail services) are less than the Postal Service's incremental costs of that service (or group of services)."

Please consider a simplified example of a mail subclass used by one mailer only. There is one level of sortation required before delivery of this mail by the USPS and sort operations are subject to worksharing. Assume that USPS sorting costs for this mailer (subclass) are captured by the cost function C(V), where C(V) defines total avoidable USPS sorting costs at any volume level (V) if sorting is performed by the mailer. Also assume that Vs is the mailer (subclass) volume level processed by the USPS if sorting is conducted by the USPS. (For simplicity, please assume there are no other subclasses that use this particular sortation operation and there are no scope economies associated with the costs of this operation.)

(a) Please confirm that C(Vs) is the total avoidable cost by the USPS if the mailer were to perform sort operations. If you cannot, please explain why.

(b) Please confirm that if the mailer's total worksharing sortation costs are less than C(Vs) at this volume level, then efficiency requires that the mailer undertake sorting operations as the least cost provider. If you cannot, please explain why.

### ANSWERS:

(a) Confirmed, given the assumptions of this hypothetical.

(b) Not confirmed. The example does not preclude the possibility that some division of the mail may be even more cost efficient.

ADVO/USPS-T11-13. Continuing with the example in Interrogatory 12 above, please assume that the mailer's total sort costs are explained by the function  $C(V)\lambda$ , where  $0<\lambda<1$ . In other words, at any given volume level mailer sort costs will be  $(1-\lambda)$ \*100 percent less than the USPS cost.

(a) Please confirm that at USPS worksharing discount level, D1, the mailer will evaluate Vs\*D1-C(Vs) $\lambda$  in determining whether to workshare or not. Furthermore, please verify that a positive value for this difference is the mailer's savings from worksharing. If you cannot, please explain why.

(b) Please confirm that if D1 = C(Vs)/Vs, then the mailer will always make the correct choice as required by efficiency, for then  $Vs^*D1 - C(Vs)\lambda = C(Vs)^*(1-\lambda) > 0$ . Mailer savings from worksharing and the actual cost difference from mailer and USPS sorting operations will be equal and positive. If you cannot, please explain why.

(c) Please confirm that D1 in this case is set at the average total cost for sorting operations, or D1 = AC(Vs) = C(Vs)/Vs. If you cannot, please explain why.

#### ANSWERS:

(a) Not confirmed. This is the relevant expression to evaluate if the mailer is faced with an "all or nothing decision." However, nothing in the statement of the problem rules out the possibility that the mailer may do best by sorting some of the mail himself, and leaving the remainder to be sorted by the Postal Service.

(b) Not confirmed. Again, it is true that, if faced with an "all or nothing decision," the mailer will make the decision which minimizes total industry costs, assuming that the volume Vs is held constant. However, nothing in the statement of the example precludes the possibility that industry cost minimization may require a *division* of the volume Vs between the mailer and the Postal Service. The stated formula for D1 will not induce the mailer to make the cost efficient division unless average and marginal costs are equal.

(c) Confirmed, as long as the volume level Vs is assumed not to change.

ADVO/USPS-T11-14. Continuing with the example in Interrogatories 12 and 13, above:

(a) Please confirm that the total volume variability of USPS sorting costs at the mailer's volume level can be calculated as:

VAR = MC(Vs)/AC(Vs)

where MC(Vs) is USPS marginal sortation costs at (Vs) and VAR is volume variability of USPS sortation cost (C) at Vs. If you cannot confirm, please explain why.

(b) Please confirm that the efficient USPS discount value, D1, can be calculated as:

$$D1 = AC(Vs) = MC(Vs)/VAR$$

If you cannot confirm, please explain fully.

(c) Please confirm that if the volume variability VAR is less than one, then the efficient discount value, D1, would be higher than the sortation marginal cost MC(Vs). If you cannot confirm, please explain.

(d) Please confirm that if D1 is set at the USPS marginal cost, then the mailer will violate the least cost principle and continue to choose USPS sorting operations when it could workshare at a lower total cost. If you cannot confirm, please explain.

ANSWERS:

(a) VAR is the cost elasticity of the sortation cost function, C(). I understand that this magnitude is sometimes referred to as "volume variability" in postal proceedings.

(b) Not confirmed. The stated formula will not, in general, lead to an efficient division of volume between the sortation operations of the mailer and the Postal Service.

(c) Confirmed. Now the hypothetical is positing conditions of increasing returns to scale which, if they hold globally, require an "all or nothing" division to achieve cost efficiency. For fixed volume, the discount rate which assures that the mailer will make the "all or nothing decision" that is required for cost efficiency is D1 = C(Vs)/Vs.

(d) Confirmed for the assumptions of the hypothetical. However, the single mailer framework of the hypothetical example puts undue emphasis on the "all or nothing" outcome.

### 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. Gange

Dated: 10-1-97

### 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

475 L'Enfant Plaza West, S.W. Washington, D.C. 20260–1137 October 1, 1997