VP/GW-T-1

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

POSTAL RATES AND FEE CHANGES, 2000) Docket No. R2000-1

Direct Testimony of

DR. JOHN HALDI

Concerning

STANDARD A ENHANCED CARRIER ROUTE MAIL

On Behalf of

VAL-PAK DIRECT MARKETING SYSTEMS, INC.,
VAL-PAK DEALERS' ASSOCIATION, INC., AND
CAROL WRIGHT PROMOTIONS, INC.

William J. Olson
John S. Miles
WILLIAM J. OLSON, P.C.
8180 Greensboro Dr., Suite 1070
McLean, Virginia 22102-3860
(703) 356-5070

Counsel for Val-Pak Direct
Marketing Systems, Inc.,
Val-Pak Dealers Association, Inc.
and Carol Wright Promotions, Inc.

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AUTOBIOGRAPHICAL SKETCH

My name is John Haldi. I am President of Haldi Associates, Inc., an economic and management consulting firm with offices at 1370 Avenue of the Americas, New York, New York 10019. My consulting experience has covered a wide variety of areas for government, business and private organizations, including testimony before Congress and state legislatures.

In 1952, I received a Bachelor of Arts degree from Emory University, with a major in mathematics and a minor in economics. In 1957 and 1959, respectively, I received an M.A. and a Ph.D. in economics from Stanford University.

From 1958 to 1965, I was an assistant professor at the Stanford University Graduate School of Business. In 1966 and 1967, I was Chief of the Program Evaluation Staff, U.S. Bureau of the Budget. While there, I was responsible for overseeing implementation of the Planning-Programming-Budgeting ("PPB") system in all non-defense agencies of the federal government. During 1966 I also served as Acting Director, Office of Planning, United States Post Office Department. I was responsible for establishing the Office of Planning under Postmaster General Lawrence O'Brien. I established an initial research program, and screened and hired the initial staff.

I have written numerous articles, published consulting studies, and co-authored one book. Items included among those publications that deal with postal and delivery economics are an article, "The Value of Output of the Post Office Department," which appeared in *The Analysis of Public Output* (1970); a book, *Postal Monopoly: An Assessment of the Private Express Statutes*, published by the American Enterprise Institute for Public Policy Research (1974); an article, "Measuring Performance in Mail Delivery," in *Regulation and the Nature of Postal Delivery Services* (1992); an article (with Leonard Merewitz), "Costs and Returns from Delivery to Sparsely Settled Rural Areas," in *Managing Change in the Postal and Delivery Industries* (1997); an article (with John Schmidt), "Transaction Costs of Alternative Postage Payment and Evidencing Systems," in *Emerging Competition in Postal and Delivery Services* (1999); and an article (with John Schmidt), "Controlling Postal Retail Transaction Costs and Improving Customer Access to Postal Products," in *Current Directions in Postal Reform* (2000).

I have testified as a witness before the Postal Rate Commission in Docket Nos. R97-1, MC96-3, MC95-1, R94-1, SS91-1, R90-1, R87-1, SS86-1, R84-1, R80-1, MC78-2 and R77-1. I also have submitted comments in Docket No. RM91-1.

I. PURPOSE OF TESTIMONY

This testimony has two purposes. The first is to propose several changes in the design of rates for the Standard A ECR Mail Subclass, based on analysis of the data and information presented by the Postal Service in this case. The effect of these changes is illustrated by developing a different set of ECR rates that yield the total revenue proposed by witness Mayes for the ECR Subclass. The second is to propose ECR rates that incorporate the above-cited rate design changes while setting a lower target revenue for the ECR Subclass than that proposed by witness Mayes.

II. INTRODUCTION

This testimony is presented on behalf of Val-Pak Direct Marketing Systems, Inc. ("VPDMS") and Val-Pak Dealers' Association, Inc., hereinafter collectively referred to as "Val-Pak," and Carol Wright Promotions, Inc., hereinafter referred to as "Carol Wright." As described more fully below, Val-Pak's mail primarily consists of letter mail sent at the Standard A Mail ECR Saturation rate, while Carol Wright's and Cox Sampling's mail consists of both letter and non-letter mail primarily sent at the Standard A Mail ECR High-Density rate.

VPDMS is the nation's largest firm in a subset of the hard-copy, direct mail cooperative advertising industry which is sometimes referred to as "coupons in an envelope." Carol Wright is one of the largest firms in this same market segment. Headquarter offices of all three companies are located in Largo, Florida. VPDMS and Carol Wright are wholly-owned subsidiaries of Cox Enterprises, Inc. of Atlanta, Georgia. Val-Pak and Carol Wright jointly mail over 700 million pieces annually.

VPDMS Mailing Practices

VPDMS entered 416 million pieces of its own mail in the United States in 1999, and is estimated to mail 450 million pieces during the year 2000. In

addition, it entered 27 million pieces under contract for various clients in 1999.

About 95 percent of VPDMS' mailings use letter-shaped number 10 envelopes, while about 5 percent use letter-shaped 6" x 9" envelopes. The average weight of a VPDMS piece is about 2.5 ounces. All are trayed by VPDMS for individual carrier routes and entered at the Standard A Mail ECR Saturation Rate.

In business for over 30 years, VPDMS operates throughout the United States through approximately 210 U.S. franchisees which are members of the Val-Pak Dealer's Association, Inc. The work of these franchisees is supplemented by efforts of approximately 1,200 sales representatives.

VPDMS' mailings reach 47.7 million households and over 1 million businesses in the United States each year. Its mailings can be highly targeted to meet the marketing needs of even the smallest retail businesses. This is accomplished by Val-Pak's geographic advertising plan, which divides the country into thousands of "Neighborhood Trading Areas" ("NTAs"), most consisting of approximately 10,000 residences. These NTAs are built around neighborhood purchasing patterns, taking into account factors such as traffic zones and natural barriers, such as rivers. Through this NTA construct, businesses can precisely target for advertising purposes those geographic market segments that are most economically attractive. Advertisers may

purchase coverage for the entire nation, or any number of NTAs, from several thousand down to only one.

Most franchisees mail at least eight times per year, with many offices mailing on a monthly schedule.

Each year, over 130,000 individual advertisers purchase saturation advertising with VPDMS. Some of these advertisers are national or regional businesses, but the vast majority are small, local businesses.

Once an advertiser places an order with a VPDMS franchisee for distribution of a particular coupon to a particular geographic area with a particular frequency, the order is directed to Val-Pak's corporate headquarters in Largo, Florida. There, the graphics for the coupon are created. VPDMS fashions as many as one quarter million advertising layouts each year.

After review and approval by the advertiser, the coupons are printed in either Largo, Florida or Las Vegas, Nevada (for 11 western states). Printing may be simple, involving only one color, or may involve sophisticated four-color printing.

VPDMS has been encouraged by the Postal Service to put delivery point barcodes on all of its mail. At present, 100 percent of VPDMS' mail is Delivery Point Barcoded. VPDMS incurs additional computer charges as a result of adding the delivery point barcode to mailing lists that have only ZIP

+ 4 information. VPDMS works closely with firms supplying mailing lists to ensure that it buys the cleanest and most up-to-date lists available anywhere. For example, when the Postal Service changes boundary lines, these lists are updated by list companies supplying VPDMS within the next bimonthly update from the Postal Service.

Also, for 10 years, VPDMS has participated voluntarily in Postal Service tests, such as those involving traying letter-shaped carrier route mail and palletizing trays, despite the fact that these procedures have caused VPDMS to incur additional costs. VPDMS has been a national test site for such tests. Since such traying became mandatory, VPDMS has been in full compliance.

Virtually all of VPDMS' mail is transported by truck at VPDMS' expense, of which 97 percent is entered at the destinating SCF. Of the remainder, 2 percent is entered at BMCs, with about 1 percent of the mail being entered locally, in either St. Petersburg, Florida or Las Vegas, Nevada.

VPDMS advertisers require that the Val-Pak mail be delivered in a timely fashion. For example, if a pizza carry-out firm issues $1-off coupons to be delivered during a particular week, it must anticipate the additional business generated by purchasing additional ingredients and hiring additional staff. If the mail is delivered too early, the client may not be

prepared, or if late, the extra ingredients can be wasted and the staff can stand idle.

Several other national and regional firms around the country are known to operate in a manner similar to that of Val-Pak. Money Mailer of Manhattan Beach, California, is believed to be the second largest such firm, followed by many others, such as Super-Coups in Boston, Massachusetts, United Coupon in Springfield, Virginia, and Tri-Mark in Wilmington, Delaware. Many other competitors operate only in limited geographic markets.

Carol Wright Mailing Practices

Carol Wright is located in Elm City, North Carolina. Its mail consists of approximately 20 million envelopes containing cooperative advertisements sent 11 times per year to households throughout the United States. Carol Wright mailed 200 million pieces in 1999, and is estimated to mail 200 million pieces again in 2000. These mailings consist of shared mail advertisements and coupons for national and regional account customers of Carol Wright.

The Carol Wright cooperative mailings generally use 6" x 9" envelopes. The weight of a piece typically ranges between 2 and 4.5 ounces, with an average weight of 2.8 ounces.

Carol Wright's primary customer base differs from Val-Pak's in that it serves the major packaged goods manufacturers and direct response companies, whereas Val-Pak's primary customer base is comprised of local retailers reached through a network of franchisees.

The Carol Wright Cooperative Mailing Program offers customers highly targeted geographic and demographic distribution of their marketing message by means of distribution segments based on a market structure which is also divided into retail trade zones.

Timeliness of delivery is also a major concern for Carol Wright and its customers. All Carol Wright cooperative mailings have a four-day delivery target window, usually Monday through Thursday. Carol Wright customers depend on and demand that this standard be met. In many cases, customers have other promotional efforts such as radio, television, and in-store promotions scheduled to occur in conjunction with the distribution of Carol Wright cooperative mailings. Retailers also depend on timely delivery, so that they will be prepared with sufficient shelf stock and store staffing.

Carol Wright, in conjunction with the Postal Service, participates in the voluntary "Advance Notification and Tracking System" program. That program enhances Carol Wright's worksharing efforts by alerting postmasters of the impact which Carol Wright cooperative mailings may have on that week's work load for the Postal Service.

III. DESIGN OF STANDARD A ECR RATES TO MEET THE POSTAL SERVICE'S PROPOSED ECR REVENUE TARGET

This part of my testimony develops alternative rates for Standard A ECR Mail which are designed to achieve several important objectives. For reasons explained below, they depart from the rate design of witness Moeller (USPS-T-35) in these important ways:

- Letter-flat differentials are increased to correct for a misstatement of costs that arises from inconsistencies between the way data are recorded by the Inter-Office Cost System ("IOCS") and the Revenue, Pieces and Weight ("RPW") system.

- The pound rate is not dramatically reduced due to the unreliability of the weight-cost studies used by the Postal Service to support its proposed reduction.

- The passthrough for destination entry discounts is maintained at the Commission's previously approved rate of 85 percent.

In order to illustrate clearly the effect of these changes, rates have been designed using (i) the same formula employed by witness Moeller and the Commission, and (ii) the Test Year After Rates revenue target of $5,162 million proposed by witness Mayes (USPS-T-32), which represents an

average rate increase for the ECR subclass of 4.9 percent.[1] The departures from witness Moeller's rate design, as well as the reasons for those differences, are explained herein.

A. The Postal Service's Calculated Cost of Letters is Overstated and the Cost of Flats is Correspondingly Understated

Within Standard A Mail, Postal Service data systems systematically overstate the cost of letters while the cost of flats is correspondingly understated. This situation is caused by a mismatch between (i) the way the RPW system records revenue, volume and weight on the one hand, and (ii) the way that the IOCS develops mail processing and city carrier in-office costs on the other. This mismatch biases the letter/nonletter cost differentials used for ratemaking within all four Standard A subclasses. As explained below, the mismatches between revenues and costs arise from two separate practices:

- **Overweight letters**: the IOCS misclassifies as letters pieces that have letter-shaped dimensions but weigh in excess of 3.3 ounces, pay the pound rate, and are therefore entered for revenue purposes as nonletters.

- **Detached address label ("DAL") letter-shaped mailings**: the IOCS misclassifies as letters mailings of letter-shaped pieces accompanied by a DAL.

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[1] USPS-T-32, Exhibit USPS-32B, p. 1.

1. Overweight letters. Letter-shaped pieces that weigh in excess of the weight breakpoint (approximately 3.3 ounces) are required to pay nonletter-shaped mail rates.[2] In other words, all such pieces are entered in Part D of Form 3602, which consists generally of flats. The RPW system may therefore record the revenues, pieces and weight as **nonletters,** even though all such pieces meet the Domestic Mail Manual's ("DMM's") height, length, and width dimensions for letters. From a rate category perspective, data in the RPW are recorded correctly, because these overweight pieces pay the nonletter rate. The IOCS, on the other hand, conforms with DMM definitions. Consequently, whenever such mail is tallied, it is recorded as **letter-shaped** (unless the thickness happens to exceed 0.25 inches), and the costs are subsequently assigned to letter-shaped mail. From a rate category perspective, the IOCS data are not correct.[3] The fact that definitions in the DMM are not in sync with definitions used for ratemaking purposes or the RPW represents a fundamental problem with the Postal Service's data systems, at least with respect to the ratemaking process.

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[2] *See* Response to VP-CW/USPS-T5-3 (Tr. 2/846).

[3] The way Standard A Mail is entered on Form 3602 and recorded in the RPW system needs to be conformed with the IOCS instructions in Handbook F-45, In-Office Cost System, Field Operating Instructions (USPS-LR-I-14). USPS witness Ramage recognizes the inconsistency between the two systems, but opines that it might be easier to change the RPW System than the IOCS (*see* Response of witness Ramage to Question Raised by OCA During Hearings, filed April 18, 2000).

Recording the revenues, pieces and weight of an identifiable subset of mail as nonletters while systematically charging the costs of that mail to letters obviously results in a mismatch of the data. The effect is to misstate the unit costs of both letters and nonletters. Computation of unit cost for letters and flats is straightforward; *i.e.*,

$$\text{Unit Cost} = \frac{\text{Total Cost}}{\text{Total Volume}}$$

Within the **letters** category, IOCS tallies of overweight pieces misclassified as letters increase the numerator (total cost) of the fraction used to compute unit costs while the RPW system fails to record any corresponding increase to the denominator (total volume), thereby incorrectly increasing and overstating the unit cost of letters.

The reverse is true for **nonletters**. Within the nonletters category, the RPW system includes such heavy-weight nonletters in the denominator (total volume), while the IOCS fails to record such pieces (when tallied) in the numerator (total cost) of the fraction, thus incorrectly reducing and understating the unit cost of nonletters. The following schema is designed to help visualize what happens when the IOCS fails to classify pieces in conformity with the RPW System. The costs for letters increases while the nonletter costs are concurrently understated.

Unit Cost for Letters *(▲ increases)*	Unit Cost for Nonletters *(▼ decreases)*
Total Cost (▲)	Total Cost (▼)
----------	----------
Total Volume	Total Volume

2. Detached address labels. When a detached address card is being cased, the IOCS tally clerk is instructed to "always use the accompanying mailpiece to determine shape."[4] Following these instructions, when the accompanying mailpiece is letter-shaped, the IOCS will record the piece as such, and costs will accrue to letter-shaped mail. At the same time, however, under Postal Service regulations, **letter rates cannot be paid for letters with detached address labels ("DALs"),** so all Standard A Mail entered with DALs must pay the nonletter rate.[5] Thus, on Form 3602, all DAL mailings are entered as nonletters, regardless of the DMM definition of shape; hence the RPW system appropriately records the revenues, pieces and weight as nonletters. This clearly results in another serious mismatch, since costs of DAL-accompanied letter-shaped mail are systematically charged to letters, while revenues, pieces and weights are systematically charged to

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[4] USPS-LR-I-14 (Handbook F-45), pp. 12-11; *see* response to VP-CW/USPS-T5-1(c) (Tr. 2/843-44).

[5] Response to VP-CW/USPS-T10-7 (Tr. 5/1932).

flats. Again, the RPW data reflect the correct rate category information, while the IOCS data do not.[6] The net result is exactly the same as with overweight letters; *i.e.*, it systematically increases the unit cost of letters, while reducing the unit cost of flats.

3. Adjustments to unit costs and letter/nonletter differentials.

The two mismatch problems discussed here are fundamental to the different ways that the RPW System and IOCS record data. Consequently, the data for Standard A Mail in Docket No. R97-1 also reflect the same biases. The unit cost data in Docket No. MC95-1, however, were not similarly biased because their unit cost development was not based on IOCS, relying instead on modeled cost. These systematic biases in the underlying cost data identified above probably explain much or all of the apparent decline, heretofore unexplained, in the shape-based cost differentials since Docket No. MC95-1.

Because of the two mismatch problems, the unit cost of letters is clearly overstated and the unit cost of flats is correspondingly understated, and an appropriate adjustment therefore needs to be made to the unit cost differential for shape. As explained below, data exist for making an

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[6] The way Standard A Mail is entered on Form 3602 and recorded in the RPW system needs to be conformed with Handbook F-45 (USPS-LR-I-45) so that IOCS clerks, when tallying an employee handling a detached address card, will record the shape in a consistent manner.

adjustment on account of overweight letters, but data on the volume of DAL mail in Standard A do not exist.[7]

4. IOCS Tallies of Overweight letters. The number of IOCS tallies for all Standard A ECR letters, by pertinent weight range, is shown in Appendix A, Table A-1. The number of tallies for letters in the 3.0 to 3.5 ounce weight range is shown (183 tallies), but the number of tallies for letters above and below the 3.3 ounce breakpoint is not known precisely. Allocating 60 percent of these tallies to the 3.0 to 3.3 ounce range and 40 percent to the 3.3 to 3.5 ounce range, this mismatch cost is conservatively estimated at about 2.6 percent of the total cost attributed to letters.[8]

As no information is available concerning the presort condition of overweight letters, the adjustment to the letter-flat cost difference is distributed uniformly over Standard A ECR Basic, High-Density and Saturation presort categories. The computed adjustment to the letter flat unit cost differential is shown in Appendix A, Table A-2.

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[7] *See* response to VP-CW/USPS-T5-1(c) and 2 (Tr. 2/843-45).

[8] An alternative estimate, based on volume data used by witnesses Daniel (USPS-T-28) and Moeller (USPS-T-35), indicates that ECR pieces with letter-shaped dimensions (per the DMM) and weighing over the 3.3 ounce breakpoint may constitute as much as 17 percent of total ECR "letters." The total cost assigned to "letters" on account of these heavy-weight pieces would be even higher, assuming that their extra weight causes some costs to be incurred. *See* Appendix A for further discussion.

5. Letter-shaped pieces with DALs. Unlike the situation with overweight letters, no information is available on the volume or presort category of DAL mailings within Standard A ECR where the mailpiece itself has all letter-shape dimensions.[9] Yet such mailings clearly exist within ECR.[10] Moreover, the volume of individual DAL mailings could be substantial, inasmuch as some of the largest ECR mailers in the country are well known for use of DALs on a regular basis. Under the circumstances, and until the Postal Service can achieve consistency in its data systems which underlie the computation of unit cost for individual rate categories, some adjustment not only is appropriate, but required. Accordingly, I have conservatively assumed that only 1.0 percent of the total ECR flats volume in FY 1998 consisted of mismatched DAL mailings. The relatively minimal adjustment to the unit cost of letters and flats is shown in Appendix A, Table A-2. For the reason stated above, the resulting adjustment is also applied uniformly over all presort categories.[11]

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[9] *See* response to VP-CW/USPS-T5-2 (Tr. 2/843).

[10] *See* Moeller cross-examination exhibit VP-Moeller-XE-1 (Tr. 10/4137-38).

[11] The Postal Service calculates the letter/nonletter differential for High-Density at 0.280 cents, and for Saturation at 0.478. No explanation is offered as to why the calculated Saturation differential is 70 percent greater than the High-Density differential. If the Postal Service implements the necessary changes to the IOCS to eliminate the mismatch problem, the rather large difference in these shape differentials may be reduced or

(continued...)

The combined result of the two adjustments is to increase the letter/nonletter differentials by 0.466 cents, as follows (cents):

Presort Category	USPS Letter-Flat Differential	Adjusted Letter-Flat Differential
Basic	1.790	2.256
High-Density	0.280	0.746
Saturation	0.478	0.944

B. Studies of the Weight-Cost Relationship Are Not Adequate to Support a Reduction in the Pound Rate

For reasons explained more fully in Appendix B, studies of the weight-cost relationship offered by the Postal Service in this docket must again be rejected as inadequate to demonstrate that the effect of weight on costs is overstated.[12] They provide no basis for the Commission to recommend a drastic reduction in the pound rate as requested by the Postal Service. Accordingly, I propose that the ECR pound rate be set at $0.661, which is slightly less than the existing rate and is equal to the same rate proposed by

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[11](...continued)
eliminated. Until better data become available, a uniform adjustment over the different presort categories would appear to be the most appropriate alternative.

[12] *See* USPS-T-28 (witness Daniel) and the library references cited therein.

witness Moeller for the Standard A Regular Subclass.[13] Retaining the pound rate at close to its present level, while increasing all piece rates by an amount sufficient to provide a 4.9 percent increase in revenues from the ECR Subclass, produces a decrease in the pound rate relative to the piece rate. Moreover, for reasons explained in the next subsection, I propose an increase in the passthrough for destination entry worksharing discounts, which further reduces the actual rates paid by ECR nonletter mailers who enter their mail at destination facilities.

C. The Passthrough for Destination Entry Discounts Should Be Increased

In Docket No. R97-1, the Commission established the passthrough for destination entry discounts at 85 percent of avoided costs. For reasons explained here, I propose that in this docket the passthrough either be maintained at a level of 85 percent or raised higher. My testimony is limited to design of rates for Standard A ECR Mail. Nevertheless, I would suggest that this 85 percent passthrough and the resulting destination entry discounts be applicable to all Standard A Mail, as has been the custom in

[13] Should the Commission adopt witness Moeller's proposed pound rate of $0.661 for the Regular Subclass, rather than the current $0.663, the rate proposed here will avoid having the anomalous situation of an ECR pound rate which exceeds that of the Regular Subclass.

prior dockets, and as the Postal Service proposes to continue in this docket.[14] Applying an 85 percent passthrough to the avoided costs developed by witness Crum[15] results in the destination entry discounts shown in Table 1.

Table 1

Standard A Mail
Proposed Destination Entry Discounts

Entry Point	(1) Costs Avoided ($ per lb.)	(2) Pound Rate	(3) Piece Rate[1]
DBMC	$0.114	$0.097	$0.020
DSCF	0.140	0.119	0.025
DDU	0.173	0.147	0.030

[1] Computed at 3.3 ounces.

Witness Moeller proposes a passthrough for destination entry at DBMCs that is 4 percentage points less than the passthrough for destination

[14] For reasons discussed here and in Appendix B, a passthrough of more than 85 percent would be warranted for Standard A ECR Mail. Since this testimony makes no attempt to design rates for any of the other three Standard A subclasses, the impact on those subclasses of a passthrough greater than 85 percent has not been investigated here.

[15] USPS-T-27, Attachments B and C.

entry at DSCFs and DDUs.[16] My proposal would maintain a uniform passthrough for all destination entry points because I can find no rationale that supports a reduced passthrough for those mailers who lack sufficient volume to ship deeper into the Postal Service network. In my view, fairness and equity dictate that the basis used to determine the incentives offered to mailers who enter mail at DBMCs should be on par with the basis that underlies the incentives offered to mailers who enter mail at DSCFs and DDUs, and who have the larger volumes typically required to justify entering mail deeper into the postal network.

Since the rates in the previous case (and the underlying rationale for those rates) are presumed to be fair and equitable, justification is needed for a departure from the established precedent. In Docket No. R97-1, the Commission used an 85 percent passthrough to establish destination entry discounts for Standard A Mail. Witness Moeller provides no justification for his systematic reduction in the 85 percent passthrough. In fact, his testimony focuses solely on the absolute amount of the discount (and changes in the absolute amount), and does not even discuss the 85 percent standard adopted by the Commission.

Several good reasons support maintaining the passthrough for destination entry discounts at 85 percent. One is that weight-related costs

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[16] USPS-T-35, pp. 14-16.

are almost surely avoided by presortation.[17] However, the per-piece presort discounts do not recognize or reward any such cost avoidance, and it is not possible even to contemplate adding a weight-related component to the presort discounts because the Postal Service's weight-cost studies are incapable of estimating cost avoidance due to presort. The deeper that mail is entered into the Postal Service network, the more highly presorted it is, almost by definition. Although it is not possible in this docket to recognize any weight-related cost avoidance from presortation, maintaining the destination entry passthrough at least equal to 85 percent of avoided cost gives recognition to cost avoidance that is documented to be weight-related.

Another reason is that Standard A mailers respond to such discounts. In FY 1998, the amount of all Standard A Mail that received destination entry discounts was 62 percent by volume, and 71 percent by weight.[18] This level of destination entry indicates that a private sector freight consolidation network now exists to complement the Postal Service's own transportation network. It also indicates that a substantial percentage of all Standard A mailers find competitive private sector transportation more advantageous, since only 38 percent of Standard A volume (and 29 percent by weight) uses the Postal Service for transportation from originating entry points.

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[17] *See* Appendix B for an explanation of the underlying rationale.

[18] USPS-LR-I-125, FY 98 Billing Determinants, Section G-6, p. 5 (data are for Commercial and Nonprofit combined).

Maintaining the passthrough at a level at least equal to 85 percent will retain the incentive for Standard A mailers to continue taking advantage of destination entry discounts, and also will retain the incentive for transportation companies, including those that specialize in consolidating shipments. Growth of this competitive private sector transportation network has benefitted mailers and the Postal Service by helping to hold down the total cost of mailing, and nurturing this network can be viewed as an important step to help keep mail competitive with other media.

A further reason which supports maintaining the passthrough at 85 percent or higher is that the Postal Service's projected Test Year increase in highway costs over FY 1998, 27.6 percent,[19] may be understated in light of recent increases in the cost of oil. The Postal Service is asserted to be facing a $300 million increase in transportation cost over Base Year because of increasing fuel costs.[20] Higher transportation costs increase the cost avoidance from destination entry. Worksharing discounts that reflect such increased cost avoidance have higher value.

Yet another reason for maintaining the passthrough at 85 percent is the Postal Service's continuing inability to increase its efficiency and total factor productivity ("TFP"), to keep cost increases well below the level of

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[19] USPS-T-27, Attachment B, Table 5.

[20] USPS, April 4, 2000, Release No. 25, citing then-Chief Financial Officer and Executive Vice President Richard Porras.

inflation, and to provide mailers with the efficient and economical management which they deserve. A higher passthrough is fully consistent with the principle of efficient component pricing. Increasing passthroughs and worksharing discounts will encourage more private sector participation. Admittedly, it may also add slightly to the rate increases for those mailers who do little or no worksharing. But artificially holding down the level of worksharing discounts sends the wrong signals to high-cost mailers, does nothing to promote social efficiency, and helps perpetuate the Postal Service in its inefficient ways.

Maintaining the passthrough at least equal to 85 percent and offering discounts for destination entry which are deeper than those proposed by witness Moeller will provide benefits to every category of Standard A ECR Mail, most especially to nonletter-shaped mail entered at the pound rate.[21] If the pound rate is set at $0.661 as I propose, my proposed discount of $0.147 per pound for DDU entry (up from the current discount of $0.126 per pound) reduces the net pound rate from $0.537 to $0.514, a decrease of 4.3 percent. In light of the fact that the entirety of the 4.9 percent increase in revenues must be derived from the piece rate in this case, and under witness Moeller's proposal some piece rates for Standard A Mail could increase by as much as 9

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[21] Of pound-rated Standard A ECR Mail, 96.3 percent (by weight) receives a destination entry discount. USPS-LR-I-125, FY 98 Billing Determinants, Section G-3, pp. 1-2.

or 10 percent, such a reduction would appear to be adequate, if not more than adequate, at this time.[22]

D. Other Passthrough Adjustments

If an average rate increase of 4.9 percent is to be imposed on the ECR subclass, a fair and equitable starting point for rate design would be an across-the-board increase by the required amount. However, maintaining the pound rate essentially unchanged negates even the possibility of such an across-the-board increase. In order to help spread the effect of the rate increase proposed by witness Mayes more evenly, two further changes have been made to witness Moeller's rate design. First, the letter/nonletter passthrough for High-Density mail is increased from 65 to 95 percent (the same passthrough as witness Moeller recommends for Saturation ECR Mail). Second, the presort passthrough for High-Density mail is increased from 125 to 140 percent. This helps to offset the fact that the Basic letter rate is set equal to the rate for Basic nonletters.

[22] The corresponding reductions for DSCF and DBMC entry are 3.4 and 3.7 percent, respectively.

E. Initial Standard A ECR Rates

The effect of the rate design changes described above is shown in the rate schedule in the top portion of Table 2. The rate for Basic letters remains unchanged from the rate proposed by witness Moeller, at 17.5 cents. The percentage changes of each rate cell from current rates are shown in the bottom portion of Table 2. The maximum increase is 8.0 percent (and not 10.0 percent, as with witness Moeller's proposed rates).

Table 2

Standard A ECR Rates Resulting from Proposed Changes in Rate Design
(dollars)

		Destination-entry		
		BMC	SCF	DDU
Letters:				
Basic	0.175	0.155	0.150	0.145
Automation	0.163	0.143	0.138	0.133
High Density	0.149	0.129	0.124	0.119
Saturation	0.140	0.120	0.115	0.110
Non-Letters (pc-rated):				
Basic	0.175	0.155	0.150	0.145
High Density	0.156	0.136	0.131	0.126
Saturation	0.149	0.129	0.124	0.119
Non-Letters (lb-rated):				
per piece:				
Basic	0.039	0.039	0.039	0.039
High Density	0.020	0.020	0.020	0.020
Saturation	0.013	0.013	0.013	0.013
per pound:				
Basic	0.661	0.564	0.542	0.514
High Density	0.661	0.564	0.542	0.514
Saturation	0.661	0.564	0.542	0.514

Table 3

Percentage Changes from Current Rates Resulting from ECR Rates with Proposed Changes in Rate Design

		Destination-entry		
		BMC	SCF	DDU
Letters:				
Basic	8.0%	6.2%	6.4%	6.6%
Automation	4.5%	2.1%	2.2%	2.3%
High Density	7.2%	4.9%	5.1%	5.3%
Saturation	7.7%	5.3%	5.5%	5.8%
Non-Letters (pc-rated):				
Basic	8.0%	6.2%	6.4%	6.6%
High Density	3.3%	0.7%	0.8%	0.8%
Saturation	6.4%	4.0%	4.2%	4.4%
Non-Letters (lb-rated):				
per piece:				
Basic	56.0%	56.0%	56.0%	56.0%
High Density	42.9%	42.9%	42.9%	42.9%
Saturation	333.3%	333.3%	333.3%	333.3%
per pound:				
Basic	-0.3%	-3.4%	-3.7%	-4.3%
High Density	-0.3%	-3.4%	-3.7%	-4.3%
Saturation	-0.3%	-3.4%	-3.7%	-4.3%
Example: 8-oz piece				
Basic	3.6%	1.3%	1.1%	0.9%
High Density	1.4%	-1.3%	1.5%	-1.9%
Saturation	2.7%	0.0%	-0.2%	-0.6%

IV. DESIGN OF STANDARD A ECR RATES TO MEET A REDUCED REVENUE TARGET

This Section explains the development of my proposed rates for Standard A ECR Mail. The Postal Service's revenue target for ECR, provisionally used to isolate and illustrate the modifications discussed in Section III of my testimony, is herein reduced by $177 million, or 3.4 percent, below the $5,283 million TYAR target proposed by witness Moeller following Mayes.[23] The key changes are:

	Revenue ($, million)	Coverage (Percent)
USPS (Mayes/Moeller)	5,283	209
Alternative proposed	5,106	202
Difference	177	7

The proposal here reduces minimally the existing, very high coverage of ECR recommended by the Commission in its *Opinion and Recommended Decision* in Docket No. R97-1, by 1.0 percent, whereas witness Mayes proposes to raise it even higher.

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[23] There is a slight discrepancy between the cost figures of witness Mayes and witness Moeller: 2471.864 vs. 2466.132. These costs are expanded by a contingency allowance of 2.5 percent. Mayes uses a coverage of 208.8, Moeller a coverage of 209.0. Mayes' final revenue requirement is 5290.283; that of Moeller, 5283.071. The figure adopted here is that of Moeller, which he has used in his detailed rate design for ECR.

The proposed rates generating the above revenue target retain the same basic rate design features discussed in the prior section; that is: (i) adjustment of the letter/nonletter differential for mismatches between the RPW system and the IOCS; (ii) passthroughs at 85 percent for destination entry discounts; and (iii) a pound rate of $ 0.661.

It is not necessary to consider raising any other rates to offset ECR revenue reductions, because I consider the Postal Service's revenue requirement to be excessive. In particular, the requested contingency allowance of 2.5 percent is too high. It represents an astonishing 46 percent of the proposed increase to the revenue requirement. Reducing the revenue requirement to a reasonable level provides a substantial margin of relief, especially for those products that do not deserve the proposed rate increases. The following discussion explains why, within Standard A, ECR is most deserving of such relief.

A. The Proposed Contingency is Too High

Historically, the contingency provision has served two purposes: (1) to provide insurance against a test year deficit resulting from possible forecasting errors whose cumulative effect would be to underestimate the Postal Service's operating profit, and (2) to help offset truly unforeseeable

events that, by definition, are not capable of being forecasted and which could not be prevented through honest, efficient, and economical management.[24]

The Postal Service, by its own admission, has added significantly to its forecasting capabilities. According to witness Tayman, in Fiscal Year 1999 the Postal Service created a new forecasting organization within its Finance function, which added new people and focused existing personnel on the forecasting process.[25] Moreover, the Postal Service's forecast for FY 1999 results is, on net balance, sufficiently close to the mark that a contingency fund of $1.7 billion would appear to be far more than adequate. Given the Postal Service's improved forecasting capability, it should not need such a large contingency to insure against forecast error.

If the Postal Service's forecasts turn out to be accurate, and if the cumulative effect of unforeseeable events turns out to have no effect on Postal Service finances (*i.e.*, if the pluses from unforeseeable events balance out the minuses), the Postal Service should have a Test Year surplus equal to the amount of the contingency plus the amount budgeted for recovery of prior years' losses. This amounts to quite a substantial sum.

1. The Postal Service has ample authority to borrow for capital improvements. Whatever surplus is generated by the amount of

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[24] *See Op. & Rec. Dec.*, Docket No. R84-1, at ¶ 1017.

[25] *See* response to ANM/USPS-T9-9 (Tr. 2/146).

the contingency approved by the Commission will be available to finance in part the Postal Service's capital improvements program. Moreover, according to the Postal Service's Annual Reports, during the last six years it has reduced outstanding debt by $3.8 billion, from $9.2 billion at the end of FY 1992 to $5.9 billion at the end of FY 1998, while continuing to record net capital investment on its books.

The Postal Service is not required to fund its capital improvements in advance, through retained earnings, or on a pay-as-you-go basis. It has ample borrowing authority, at highly favorable government rates, to fund its capital improvements program over the same period that the new equipment is deployed and put into service. Despite all of the publicity that has accompanied its automation program, according to witness Tayman the Postal Service has never exceeded its annual statutory borrowing limit. (Tr. 2/177). And its outstanding debt at the end of FY 1998 was less than 40 percent of the aggregate statutory limit of $15 billion.

If the Postal Service's capital improvement program were approaching the statutory cap with respect to its borrowing limit, and any shortfall in cash flow would operate to curtail that program, there could indeed be a reason for a significant contingency allowance. But this simply is not now, and actually has never been, the case. Until the Postal Service accelerates its capital improvement program, net capital investment (*i.e.*, investment in

excess of depreciation and amortization) should be funded over time through conventionally employed borrowing, not through surpluses intentionally created by a deliberately excessive allowance for contingency.

2. The RPYL mechanism operates as a retrospective contingency allowance. The Postal Reorganization Act expressly envisions a contingency allowance, but it does not provide any mechanism for recovery of prior years' losses ("RPYL"). Without the RPYL mechanism, it would be imperative that the Postal Service achieve financial break-even during the Test Year, otherwise it would be seriously disadvantaged by any shortfall. The RPYL mechanism acts, however, as a retrospective contingency mechanism, backstopping and taking over much of the function of the contingency fund. With the RPYL mechanism firmly established, it is not necessary to be overly conservative about protecting against any shortfall during the Test Year via a large prospective contingency. In essence, the retrospective contingency protection of the RPYL mechanism largely fulfils the requirements of the Act. Moreover, as discussed below, too large a contingency factor may, over the long run, be self-defeating.

3. The contingency itself should never be a major factor driving rates higher and volumes lower. Under the universal service obligation as it presently exists, the Postal Service provides delivery six days a week to most addresses in the country. The fixed costs of this delivery

network are large. To help spread these fixed costs and keep rates affordable to all, the Postal Service requires large volumes of mail. Recently, the Postal Service, the Commission, the GAO, and others have rightly expressed concern about the prospect of major future declines in volume. Particular concern exists about electronic information transfer applied to bill presentment and bill payment, which threatens to cut seriously into First-Class Mail volume. This development threatens serious erosion of the monopoly protection provided by the Private Express statutes. Also of concern, though involving smaller total volumes, are the very high coverages and rates assigned to mail products of relatively high elasticity, such as ECR and Priority Mail, which bear a disproportionate burden of institutional costs.

Every rate increase, however small, contributes to driving volume out of the system. It may be objected that mail products, even the relatively elastic ones, have elasticities below unity in absolute value; therefore, rate increases will raise, rather than depress, postal revenues.[26] This is true in the short run, but fails to account for technological change that occurs in the longer run. The higher the rates, the more likely they are to stimulate innovations in competing activities that the Postal Service has difficulty

[26] Technical issues connected with the definition of elasticity and its magnitude are discussed further below.

following or offsetting. Past experience indicates that markets, once lost, are seldom, if ever, recaptured by the Postal Service.

In order to preserve necessary volume, the Postal Service needs to keep rate increases to an absolute minimum. It is a truism, of course, that a prospective contingency allowance contributes to current rate increases, leading to volume declines.

What needs to be recognized explicitly in this case is the extent to which the proposed prospective contingency is driving not only the proposed rate increases, but also the volume declines projected to occur because of the rate increases. Table 4 illustrates the point. As can be seen from the last three rows of Table 4, almost half the rate increase, an astonishing 46 percent, is driven by the prospective contingency factor. The 2.5 percent prospective contingency is also the factor that drives the proposed rate increase above the rate of inflation.

For these reasons, the proposed prospective contingency is not only high, but also counter-productive to sound management of the Postal Service. It superficially appears to provide the Governors with additional cash, as a cushion against inflation, enabling them to defer the next rate case. Yet, in reality, it does just the opposite. By driving up postal rates across the board faster than the rate of inflation, it stimulates the kind of competition that is based on innovations both in information technology and in more traditional

arts. With the current extremely rapid pace of technological and institutional changes in the private sector, the initial revenue increases provided by higher postal rates can easily turn into painful market losses even before the next rate case. Thus, a higher contingency allowance leads to a counter-intuitive result. Instead of providing a cushion that would delay the need for the next rate case, it can actually hasten the day when yet another rate increase, also above the rate of inflation, will be needed.

I suggest that the Commission limit the prospective contingency to no more than 20 to 25 percent of the projected shortfall without any contingency; *i.e.*, to between $400 and $500 million in this case, with the proviso, in conformity with established practice, that any shortfalls which actually materialize beyond that amount be made up through the retrospective contingency RPYL mechanism.

I also suggest that at least $177 million of any such reduction (*i.e.*, $1,200 million to $1,300 million) in the revenue requirement be directed to reducing the unit contribution demanded of ECR mail, for reasons discussed below.

Table 4

Role of the Contingency in Driving Rate Increases
and Volume Declines

	Amount ($, 000)	Dist.
Test Year Costs:		
Cost Segments	68,046,556	
RPYL	268.257	
	68,314,813	
Less: Test Year Revenue Before Rates	-66,328,401	
Shortfall Without Contingency	1,986,412	53.9%
Contingency Before Rates	1,701,164	46.1%
Increase in Revenue Requirement	3,687576	100.0%

Sources: Test Year Costs and Contingency, USPS-T-9, p. 22, Table 15.
Test Year Revenue Before Rates, USPS-T-32, Exh. USPS-32A, p. 1.

B. The Unit Contribution and Coverage of Standard A ECR Mail is Too High

Under witness Mayes' proposal, the coverage of Standard A ECR Mail is exceedingly high, 208.8 percent, and among the highest of all subclasses. A substantially greater burden of institutional contribution is placed upon ECR Mail than the other commercial subclass within Standard A.

Test Year 2001 After Rates[27]

	Unit Contribution (cents)	Coverage (percent)
ECR	8.194	208.8
Regular	5.478	132.9
Difference	2.716	75.9

Unit contributions and coverages describe the same underlying situation. Given one, the other can always be readily calculated. It is recognized that the Commission has traditionally explained its recommendations in terms of coverages. Nevertheless, the non-cost criteria of 3622(b) can and should be applied to the unit contributions, as well as percentage markups and coverages. A focus on unit contributions helps demonstrate why the burden on ECR is excessive.

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[27] The derivation of the Postal Service's unit coverages and unit contributions for Test Year 2001 is shown in Appendix C, Table C-1.

1. Percentages vs. absolute magnitudes. Much discussion in postal rate cases revolves around coverages, markups, and percent increases. At times, however, attention needs to focus simply on dollars and cents – absolute, not relative, values. Working with absolute figures can bring much needed clarity to the ambiguities that arise when the relationships between rates and costs are viewed solely in percentage terms. For example, witness Mayes testifies:[28]

> The more highly prepared the mail, the lower the postal cost attributed to that mail. The lower the costs attributed to that category of mail, the lower the cost base to which the rate level is applied. If the same cost coverage is assigned to two categories of mail differing only in the degree to which the mailer has prepared the mail, the more highly-prepared mail would have a reduced unit contribution. Thus, as the degree of preparation increases over time, all else equal, the coverage required to obtain the **same contribution** also increases. [Emphasis added.]

Within certain limits, this statement is a mathematical truism, as witness Mayes herself acknowledges.[29] Beyond that, however, it requires analysis. First, according to witness Mayes, the **"same contribution"** represents the "difference between revenue and volume-variable cost." When only percentages are discussed, it is easy to lose sight of how such percentages operate when applied to mail products that have different unit

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[28] USPS-T-32, p. 10, ll. 1-8.

[29] Response to VP-CW/USPS-T32-1(a) (Tr. 11/4388).

costs. When the coverage assigned to any mail product is raised, that mail product will yield progressively a higher unit contribution. Therefore, when a sufficiently high coverage is assigned to a lower-cost product, its unit contribution, in absolute terms, will necessarily exceed that of a higher-cost product. Such is exactly the situation regarding Standard A ECR and Regular Mail. That is, the exceedingly high coverage of lower-cost ECR Mail imposes a unit contribution which substantially exceeds that of higher-cost Regular Mail.

2. Past pattern of unit contributions. Figure 1 and Table 5 show the unit contributions of Standard A ECR and Regular Mail for seven data points, beginning with the Commission's *Opinion and Recommended Decision* in Docket No. R97-1, and ending with the Postal Service's proposals in the current docket.[30]

The origin of the unusually high burden of institutional contributions placed on Standard A ECR goes back to Docket No. MC95-1, when the ECR Subclass was created from Third-Class Bulk Rate Regular ("BRR"). In adopting its recommended contribution, the Commission relied on the **non-cost** criteria of Sec 3622(b), summarized as:

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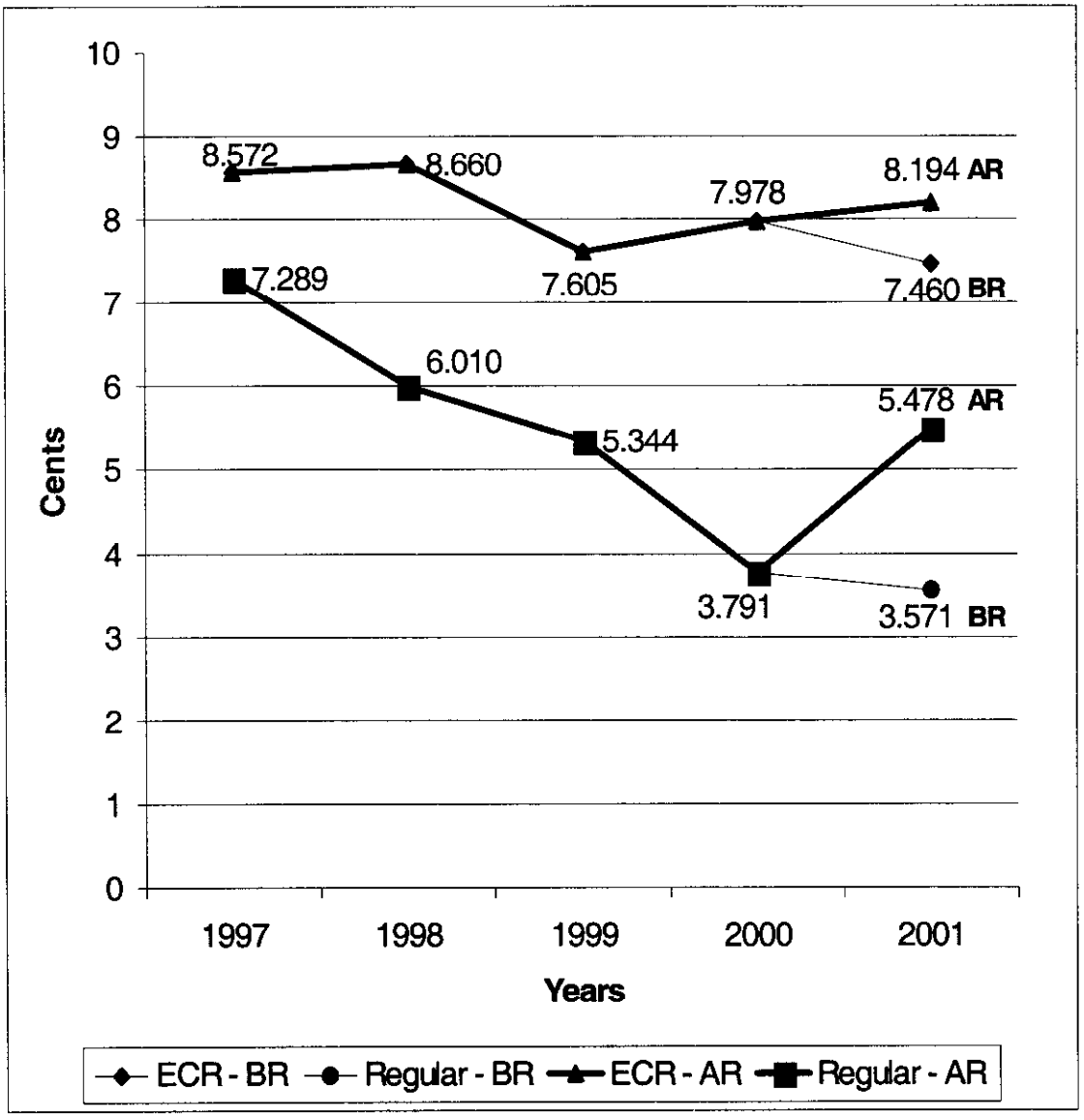
[30] Backup data, including the coverages that correspond to the unit contributions discussed, are presented in Appendix C, Table C-1.

1	1	Fairness and Equity	6	Degree of Preparation
2	2	Value of Service	7	Simplicity
3	4	Effect of Rate Increases	8	ECSI
4	5	Available Alternatives	9	Other Factors

Figure 1

Unit Contribution from Standard A ECR and Standard A Regular 1997 – 2001 (cents)



Source: Table 5

Table 5

Unit Contributions of Standard A
ECR and Regular Mail (cents per piece)

		ECR	Regular	ECR - Reg Difference
1997	PRC R97-1	7.552	5.444	2.108
1997	Actual (CRA)	8.572	7.289	1.183
1998	Actual (CRA)	8.660	6.010	2.650
1999	Actual (CRA)	7.605	5.344	2.261
2000	Projected	7.978	3.791	4.186
2001	R2000-1 BR	7.460	3.571	3.889
2001	R2000-1 AR	8.194	5.478	2.716

Source: Appendix C, Table C-1.

In Docket No. R97-1, witness O'Hara testified that no less than three of these criteria, Nos. 2, 5, and 6, would have strongly supported lower contributions for ECR. That counsel remains valid to the present day. Nevertheless, the Postal Service at that time justified its requested high cost coverage for ECR, 228 percent, by focusing solely on criterion 4 and its desire to avoid major, disruptive readjustments in rate relationships between existing groupings of mail.

The Commission offered support to efforts to reduce ECR's cost coverage by stating that "the largest volume subclasses in First-Class and Standard Mail should have roughly equivalent markup indices."[31] The Commission, nevertheless, expressed its concern that reductions in contributions to institutional costs from the former Third-Class Bulk Rate Regular (out of which the ECR subclass was created) should not directly increase the institutional cost burden placed on First-Class Mail. Tension between the opposing concerns of (i) reducing the excessive institutional contributions by ECR Mail by giving more weight to criteria 2, 5, and 6 of Section 3622(b), as against (ii) dampening the resulting impacts on other classes and subclasses (criterion 4), has carried over from Docket No. MC95-1, through Docket No. R97-1, to the current docket.

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[31] Docket No. MC95-1, *Op. & Rec. Dec.*, ¶ 1019.

In addition to the data taken from Docket Nos. R97-1 and R2000-1, Figure 1 and Table 5 show actual unit contributions for 1997-1999, as well as projected contributions for the year 2000 and Test Year 2001. As can be observed from Figure 1, the unit contributions of ECR and Regular Mail have tended to diverge rather than narrow. The unit contribution from Regular Mail, which was lower to begin with, has subsequently declined rather sharply, whereas the unit contribution from ECR has remained relatively constant. The rates recommended by the Commission in Docket No. R97-1 resulted in a unit contribution difference between ECR and Regular of 2.1 cents (Table 5). After the rate increase proposed by witness Mayes in this docket, the difference in unit contribution would increase to 2.7 cents.

The overall trend of widening differences in effective unit contributions, wholly ignored by the Postal Service in its case-in-chief, is reason for concern. It indicates that (i) rate increases for Regular Mail have failed to keep up with increases in unit costs, and (ii) the burden of institutional costs is being shifted from the subclasses most affected by cost problems to other subclasses whose costs have remained under control by virtue of the high degree of preparation by mailers (criterion 6). A higher unit contribution relative to other subclasses is no way to "reward" mailer worksharing. Nor is a long-term increase in unit contribution relative to other subclasses reconcilable with criterion 6 (degree of mailer preparation).

3. *Ex ante* vs. actual unit contributions. The last column of Table 5 shows the Commission's *ex ante* figure for the difference between the unit contributions of ECR and Regular Mail at the conclusion of Docket No. R97-1, 2.1 cents per piece. The Postal Service projects that in the year 2000 the difference in unit contributions will rise to 4.2 cents, double the *ex ante* figure. Given this discrepancy, it is relevant to consider what could likely happen in future years should witness Mayes' proposal in the current docket prevail. The actual difference in the years 2001-2003 could easily turn out to be substantially larger than she anticipates. Should the past be prelude, by the year 2003 the differential could as much as double, from the anticipated 2.7 cents to as high as 5.4 cents per piece.

4. Contribution differences from comparable mail products. ECR and Regular Mail have comparable content, insofar as the vast majority of volume in each subclass consists of advertising mail. Both subclasses have the same service standards and the same priorities. The principal demand feature that is different between the subclasses is that Regular Mail is more suited to demographic targeting, whereas ECR is more suited to geographic targeting. Regular Mail simply requires more Postal Service processing and transportation than ECR, because ECR is more highly prepared.

When the efficient component pricing principle for monopoly bottleneck pricing is applied, comparable products should have unit

contributions that are roughly equal. Thus, the widely divergent unit contributions of the Standard A ECR and Regular subclasses border on an anomaly in the rate structure. For that reason, it would seem essential to move toward a condition of at least rough equality between the unit contributions of these two subclasses, albeit moving in a deliberate manner. On the other hand, given the genuine need for that movement, deliberation can hardly be regarded as an excuse for standing still, let alone for regressing as the Postal Service proposes.

Rates based on witness Mayes' intentional widening of the ECR versus Regular difference, from 2.1 cents at the conclusion of the Docket No. R97-1 rate case to the 2.7 cents now proposed, cannot reasonably be regarded as giving proper weight to criterion 1, Fairness and Equity.

The unit contribution from ECR Mail is simply too high. Besides being unfair to ECR mailers, this failure to bring the difference under control by lowering the unit contribution of ECR runs counter to the Commission's principle of rough comparability among rates of comparable classes or subclasses.[32] Moreover, it is also contrary to what a rational, businesslike approach to the management of the Postal Service would suggest.

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[32] *See* Docket No. MC95-1, *Op. and Rec. Dec.*, ¶4212.

C. Widening the Gap in Unit Contributions and Coverages Makes Poor Management Sense

1. Cost incurrences vs. institutional contributions. I shall now return to an issue discussed earlier. Cost coverage of different subclasses may obscure the underlying unit cost differences and their significance. When a sufficiently high coverage is assigned to the lower-cost product, such as Standard A ECR mail, its unit contribution, in absolute terms, can and does exceed that of a higher-cost product, such as Standard A Regular Mail.

Figure 1 shows that unit contributions of ECR Mail have consistently exceeded those of Regular Mail, and the difference widens considerably from Docket No. R97-1 to the proposals in the current docket. Yet at the same time Table 6, below, clearly indicates that unit costs of Standard A ECR Mail over the same years are well below those of Regular Mail, consistently less than half.

Whenever the unit contribution of a mail product with a low unit cost exceeds that of a product with a higher unit cost, the Postal Service is in the position of incurring higher costs to obtain a lower contribution. Or, in business terms, it is spending more to earn less. This situation is only one step removed from that of the legendary firm (reportedly now defunct) that lost a little on each unit but tried to make up for it on volume.

In FY 1999, total revenues, costs, and contributions were as follows ($, millions):

	ECR	Regular
Total revenues	4,827	7,935
Total volume-variable costs	2,336	5,851
Total contribution	2,491	2,084

As the above data show[33], the Postal Service spent only $2.3 billion on Standard A ECR Mail to obtain a contribution of almost $2.5 billion. An outlay of almost $6.0 billion was required to obtain a contribution of slightly over $2.0 billion from Regular Mail.

[33] *See* Appendix C, Table C-1.

Table 6

Unit Costs of Standard A
ECR and Regular Mail (cents per piece)

			ECR	Regular	ECR - Reg Difference
1997	PRC R97-1		7.330	15.732	-8.403
1997	CRA		5.977	13.545	-7.568
1998	CRA		5.860	14.477	-8.616
1999	CRA		7.132	15.004	-7.873
2000	Projected		6.999	16.521	-9.522
2001	R2000-1 BR		7.517	16.653	-9.137
2001	R2000-1 AR		7.530	16.644	-9.114

Source: Appendix C, Table C-1.

2. Rates influence demand for mail products. Prices send signals to mailers; specifically, higher prices of a given product of mail will reduce the volume of that product, and *vice versa*. As between different mail products, the effect varies and can be quantified by the economists' elasticity measure, computed and presented by witness Tolley.

The elasticity of ECR Mail as reported by witness Tolley is -0.808; that is, the volume of ECR falls by 0.808 percent whenever the ECR rate is increased by 1 percent.[34] The elasticity of Regular Mail is -0.162.[35] Thus, a 1 percent rise in the rate of Regular Mail reduces the volume by only 0.162 percent, much less than in the case of ECR. The demand for ECR is over five times more price-sensitive than that for Regular Mail. This means that the same percentage rate increase will reduce ECR volume over five times more than it would reduce Regular Mail volume. Conversely, the same percentage rate reduction would expand ECR volume by over five times more than it would expand Regular Mail volume.

The high elasticity of demand for Standard A ECR probably reflects a number of factors, but above all, the ready availability of alternatives (criterion 5). Such alternatives include advertising in local newspapers, shopping guides (which may be given out in stores or delivered by alternate

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[34] USPS-T-6, p. 129.

[35] *Id.*, p. 138.

delivery companies), radio, and local television spots. A high elasticity also indicates a relatively low value of service (criterion 2).

The above discussion shows why it makes poor management sense to keep the unit contribution and thus the coverage of ECR at the very high current level, let alone raise it further. This, in effect, disproportionately discourages the use of ECR – intentionally restricting growth in the subclass that has a particularly favorable ratio of contributions to cost – a very unbusinesslike decision.

To be sure, section 3622(b)(4) of the Act imposes a duty on the Commission to consider the impact of rate increases on mailers (criterion 4). That is, however, only one of eight non-cost criteria. The Commission and the Postal Service must also give proper weight to the other criteria and consider cost increases from the point of view of the efficiency of postal operations. In this docket, the increase for Regular Mail barely covers the cost increase. At the same time, ECR rates increased from levels that the Service and the Commission have acknowledged were already too high, discouraging the use of ECR.

The Postal Service is charged to provide mailers with "honest, efficient, and economical management." The Act also requires that the Postal Service be financially self-supporting, by achieving an operational outcome that breaks even financially. The eight criteria of the Act surely were not

intended to use the ratemaking process as a mechanism to turn the Postal Service into a sort of welfare agency, attempting to use a few subclasses to nurture and support every high-cost category of mail. To those few subclasses asked to carry so heavy a burden, such an outcome is not fair and equitable (criterion 1). The Commission should also consider rates from the point of view of postal efficiency. This should certainly include consideration of whether the application of rate criteria, and the rates that result, are helping to sustain long-term financial viability of postal operations.

In conformity with the above discussion, it should be decided that the ratemaking target for ECR, over time, is to reduce the unit contribution of ECR relative to Regular Mail. This reduction should progressively move to a lower level, even if such reductions are undertaken slowly to avoid highly disruptive effects on users of other mail products.

Many irrationalities of the rate structure ultimately derive from the Postal Service's loss of control over its costs, especially the costs of handling nonletters. The consequent cost imbalances lead the Service to manipulate the rate structure, in an effort to soften the impact of its more critical inefficiencies on certain segments of the mailing public. One hopes that the Postal Service would feel pressured to control its own costs so that the ECR-Regular gap could be moderated. Such a result would make the ECR-Regular adjustment process far less painful.

D. Proposed Rates

The rates which I propose for Standard A ECR Mail are shown in Table 7. They incorporate all the rate design changes discussed previously in Section III, as well as the reduced revenue requirement discussed in the present Section IV, designed to moderate the unit contribution demanded of Standard A ECR Mail.

The rates proposed here are fair and equitable (criterion 1), because they reflect cost incurrence better, by virtue of the rate design changes which they incorporate, and reduce the very high unit contribution, albeit by a small amount.

The slight reduction in coverage from 203 to 202 percent also accords with the relatively high elasticity, low processing priority, and relatively low value of ECR service (criterion 2).

The proposed coverage of 202 percent ECR Mail, of course, is amply sufficient to meet ECR's attributable costs (criterion 3), together with a generous, indeed still disproportionately high, contribution to the Service's institutional expenses.

No deeper reduction in coverage has been proposed at the present time, in order to avoid possibly adverse effects of rate increases on other classes and subclasses (criterion 4). Although past coverages, ever since the creation of the ECR subclass, are held to have been significantly, inequitably,

and inefficiently excessive, the Commission's concern for avoiding rate shock is recognized. Therefore, the reduction in coverage proposed here is minimal, indeed symbolic, subject to the urgency that the Commission adopt a long-term target of gradually reducing ECR coverage over the years to roughly the same range as now applies to Standard A Regular Mail.

Ample available commercial alternatives (criterion 5) and the high degree of preparation (criterion 6) of ECR Mail would have counseled a substantially deeper reduction in coverage, but had to be balanced for now against the considerations of criterion 4.

Table 7

Proposed Standard A ECR Rates
(dollars)

			Destination-entry		
			BMC	SCF	DDU
Letters					
Basic		0.170	0.150	0.145	0.140
Automation		0.158	0.138	0.133	0.128
High Density		0.144	0.124	0.119	0.114
Saturation		0.135	0.115	0.110	0.105
Non-Letters (pc-rated)					
Basic		0.170	0.150	0.145	0.140
High Density		0.151	0.131	0.126	0.121
Saturation		0.144	0.124	0.119	0.114
Non-Letters (lb-rated)					
per piece:					
Basic		0.034	0.034	0.034	0.034
High Density		0.015	0.015	0.015	0.015
Saturation		0.008	0.008	0.008	0.008
per pound:					
Basic		0.661	0.564	0.542	0.514
High Density		0.661	0.564	0.542	0.514
Saturation		0.661	0.564	0.542	0.514

Table 8

Percentage Changes from Current Rates Resulting from Proposed Standard A ECR Rates

			Destination-entry		
			BMC	SCF	DDU
Letters					
	Basic	4.9%	2.7%	2.8%	2.9%
	Automation	1.3%	-1.4%	-1.5%	-1.5%
	High Density	3.6%	0.8%	0.8%	0.9%
	Saturation	3.8%	0.9%	0.9%	1.0%
Non-Letters (pc-rated)					
	Basic	4.9%	2.7%	2.8%	2.9%
	High Density	0.0%	-3.0%	-3.1%	-3.2%
	Saturation	2.9%	0.0%	0.0%	0.0%
Non-Letters (lb-rated)					
	per piece:				
	Basic	36.0%	36.0%	36.0%	36.0%
	High Density	7.1%	7.1%	7.1%	7.1%
	Saturation	166.7%	166.7%	166.7%	166.7%
	per pound:				
	Basic	-0.3%	-3.4%	-3.7%	-4.3%
	High Density	-0.3%	-3.4%	-3.7%	-4.3%
	Saturation	-0.3%	-3.4%	-3.7%	-4.3%
Example: 8-oz piece					
	Basic	2.2%	-0.3%	-0.5%	-0.9%
	High Density	0.0%	-2.9%	-3.2%	-3.7%
	Saturation	1.2%	-1.7%	-1.9%	-2.4%

Appendix A

ADJUSTMENT TO THE UNIT COST DIFFERENTIAL BETWEEN LETTERS AND FLATS

This Appendix provides detailed information on adjustments for two separate mismatches between the IOCS and RPW data collection systems which have the effect of misstating the cost differentials. As explained in the text, the first mismatch arises from pieces whose height and length are letter-shaped, are under 1/4 inch in thickness but over 3.3 ounces in weight; *i.e.*, **"heavy-weight letters."** These pieces are recorded by RPW as nonletters (because they pay the nonletter rate), while under IOCS instructions they are recorded as letters, thereby attributing their cost to letters. To remedy this error, the costs of such heavy-weight letters are shifted from letters to flats.

The second mismatch arises from **letter-shaped** pieces entered with a detached address label. These pay the nonletter rate and are entered and recorded by the RPW system as nonletters, for the reason that letters are not eligible to be entered with DALs. At the same time, under IOCS instructions such pieces would be recorded as letters, thereby attributing their cost to letters. To remedy this error, again, the estimated costs of letter-shaped pieces with a DAL are shifted from letters to flats.

Adjustment for Heavy-Weight Letters

Cost estimate. The adjustment procedure here requires that the cost of heavy-weight letters be estimated. IOCS raw tallies for Standard A Mail **by weight increment** are provided by witness Ramage.[36] For the purpose at hand, the tally data are less than ideal in two respects: (1) they are for all Standard A Mail, not ECR mail alone; and (2) only the raw tallies are available, not dollar-weighted tallies. Nevertheless, the information that is available can be used to develop a reasonable yet conservative cost estimate, as described here.

The tally data available from witness Ramage are shown in Table A-1. The first step is to estimate the percentage of heavy-weight tallies; *i.e.*, tallies for letter-shaped mail over the 3.3 ounce breakpoint. As shown in column 1, the total tallies for letters numbered 14,839. Of these, 14,345 were for pieces that weighed no more than 3.0 ounces, and 311 tallies were for pieces that weighed more than 3.5 ounces.

Some 183 tallies reported pieces that weighed between 3.0 and 3.5 ounces, but no further breakdown within the 3.0 to 3.5 ounce increment is available. Row 5 of Table A-1 uses a linear interpolation, based on 40

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[36] Response of witness Ramage to question of the OCA during oral cross-examination (filed 4/18/2000).

percent of the tallies between 3.0 to 3.5 ounces in weight, to estimate 73 tallies in the 3.3 to 3.5 ounce range.

The total tallies of letter-shaped pieces that are overweight (3.3 to 16 ounce) are obtained by adding the tallies in Row 5 to the tallies in the 3.5-16 ounce range, shown in Row 6, yielding a sum of 384 tallies (row 6). This represents 2.589 percent of the total tallies of Standard A letter-shaped pieces. This percentage can be applied to the total cost of Standard A ECR letters by assuming that (i) the ECR subclass has the same proportion of heavy-weight letters as all Standard A Mail, and (ii) the dollar weighted costs of heavy-weight letters are in proportion to the raw tallies.

The above 2.589 percent adjustment appears rather conservative when judged by other available data which are drawn from the ECR Subclass alone. Witness Daniel (USPS-T-28) estimates that Standard A ECR Mail will contain 13,127.962 million letters of all weights in Test Year Before Rates, while witness Moeller estimates the volume of letters below the 3.3 ounce breakpoint to be 10,799.400 million.[37] The difference between witnesses Daniel and Moeller, 2,328.562 million letters, ostensibly corresponds to the volume of heavy-weight ECR letters in the Test Year Before Rates, and represents 17.7 percent of all ECR letters, which is almost

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[37] *See* response to VP-CW/USPS-1 (Response filed May 4, 2000) and witness Daniel response to ADVO/USPS-T28-1 (Tr. 4/1202).

7 times greater than the estimate developed here, based on IOCS tallies for all Standard A Mail. If heavy-weight letters do indeed constitute such a large share of all ECR mail that meets the DMM definition of letters, then (i) volume data developed by the RPW System and costs developed by the IOCS (which uses DMM definitions) are substantially out of sync, and (ii) the mismatch problem discussed in this testimony should be a matter of serious concern. The Commission has repeatedly stressed its desire to establish cost-based rates. Sound cost data are a fundamental prerequisite to implement cost-based rates successfully. Its concerns about the quality of Postal Service cost data are well founded.

Cost adjustment. The procedure used here to adjust costs is shown in Table A-2, rows 1-10. The volumes of Standard A ECR letters and flats, respectively, are shown in row 1, columns 1 and 3. The volume of letters and flats, 13,127,961,721 and 20,455,078,077, respectively, correspond to the total volumes used by witness Daniel.[38] Unit costs (total costs/volume) for letters and flats, before any mismatch adjustments, are shown in Table A-2, row 2. The unit cost of letters is 6.855 cents, and the unit cost of flats is 7.396 cents. The unadjusted letter-flat difference amounts to 0.542 cents, as shown in row 3.

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[38] USPS-T-28 and USPS-LR-I-92.

Table A-1

Overweight Standard A Pieces
With Letter-Shaped Dimensions

		Weight (oz.)	(1) Tallies Standard A ECR "Letters"	(2) Tallies as % of Standard A ECR "Letters"
1		0 to 3.0	14,345	96.671%
2		3.0 to 3.5	183	1.233%
3		3.5 to 16	311	2.096%
4		Total 0 to16	14,839	100.000%
5		Est. 3.3 to 3.5 40% of row 2	73	0.493%
6		Subtotal 3.3 to 16 = Overweight Pieces	384	2.589%

Notes:

Col. 1, rows 1-4	Response of USPS witness Ramage to question of the OCA during oral cross-examination (filed 4/18/00).
Col. 1, row 5	By linear interpolation.
Col. 1, row 6	Sum of rows 3 and 5.
Col. 2	Percentages based on column 1, row 4.

Since the percentage of letters in excess of the 3.3 ounce breakpoint is 2.589 percent of all ECR letters, I estimate that 2.589 percent of all attributable ECR letter costs should be shifted to nonletters. This percentage applied to the total cost of Standard A ECR letters, $899,867,000, amounts to $23,298,666, which is the estimated cost mistakenly attributed to letters. This is the amount that needs to be shifted from letters to flats. The adjustment is shown in Table A-2, row 5, columns 2 and 4.

Total volumes and costs after adjustment for the first mismatch are shown in Table A-2, row 6. Volumes recorded by RPW do not change. Adjusted costs result from adding the cost adjustment in row 5 to the total costs in row 1. Adjusted **unit costs** are shown in row 7, columns 2 and 4. The difference between the respective unadjusted unit costs in row 2 and the adjusted unit costs in row 7 are shown in row 8, columns 2 and 4. The adjusted unit letter-flat difference, calculated from the unit costs in row 7, amounts to 0.833 cents, and is shown in row 9. Finally, the change in the letter-flat difference produced by the first mismatch adjustment, obtained as the difference between row 3 and row 9, is shown in row 10 (this can also be computed as the difference between row 9 and row 3).

Table A-2

Adjustment in Unit Cost Differential Between Letters and Flats For Overstatement of Letter Costs, and Corresponding Understatement of Flats Costs On Account of Mismatch Involving Overweight and DAL-Entered Letter-Shaped Pieces

Row	Item	Volume Standard A ECR Letters (1)	Cost Standard A ECR Letters (2)	Volume Standard A ECR Flats (3)	Cost Standard A ECR Flats (4)
1	Total volume or cost	13,127,961,721	899,867,000	20,455,078,077	1,512,906,000
2	Unadjusted unit cost, cents		6.855		7.396
3	Letter-flat unit cost difference, cents				0.542
	1st Mismatch Adjustment: Overweight Pieces with Letter-shaped Dimensions				
4	Estimated percent of letters cost		2.589%		
5	Est. cost shifted from letter to flats		(23,298,666)		23,298,666
6	Totals after 1st adjustment only	13,127,961,721	876,568,334	20,455,078,077	1,536,204,666
7	Unit costs adj. for 1st mismatch, cents		6.677		7.510
8	Unit cost changes, cents		-0.177		0.114
9	Letter-flat unit cost difference, cents				0.833
10	change in letter-flat difference, cents				0.291
	2nd Mismatch Adjustment: DAL Items Misclassified as Letters				
11	Est. basis of flat volume mismatched			1.000%	
12	Est. volume of flats mismatched			204,550,781	
13	Est. number of mismatched flats as % of total letter volume	1.558%			
14	Shift the percent of letter costs in row to flats		(14,021,103)		14,021,103
15	Totals after 2nd adjustment only	13,127,961,721	885,845,897	20,455,078,077	1,526,927,103
16	Unit costs adj. for 2nd mismatch, cents		6.748		7.465
17	Unit cost changes, cents		-0.107		0.069
18	Letter-flat unit cost difference, cents				0.717
19	Change in letter-flat difference, cents				0.175
	Both Mismatch adjustments Combined				
20	Sum of both shifts of letter costs to flats		(37,319,768)		37,319,768
21	Totals after both adjustments	13,127,961,721	862,547,232	20, 455,078,077	1,550,225,768
22	Unit costs adj. for both mismatches, cents		6.570		7.579
23	Unit cost: combined change, cents		-0.284		0.182
24	Letter-flat unit cost difference, cents				1.009
25	Change in letter-flat difference, cents				0.466

Table A-2
(continued)

NOTES:

Row 1: Letters at USPS-LR-I-92, Section 2, p. 16; flats *ibid.*, page 19.
Row 2: Letters: 100 * (2) / (1) at row 1; flats 100 * (4) / (3) at row l.
Row 3: (4) – (1).

Row 4: Table A-1, row 6.
Row 5: Cost shift = total letter costs on row 1 multiplied by percentage on row 4.
Row 6: Volumes are unchanged; costs are row 1 costs plus row 5 cost shifts.
Row 7: Letters 100 * (2) / (1) at row 6; flats 100 * (4) / (3) at row 6.
Row 8: Row 7 - row 2.
Row 9: (4) - (2) at row 7.
Row 10: Row 9 - row 3.

Row 11:
Row 12: 1% of flats volume in row 1.
Row 13: Volume on row 12 expressed as percent of total volume of letters on row 1.
Row 14: Cost shift = total letter costs on row 1 multiplied by percentage on row 13.
Row 15: Volumes are unchanged; costs are row 1 costs plus row 14 cost shifts.
Row 16: Letters 100 * (2) / (1) at row 15; flats 100 (4) / (3) at row 15.
Row 17: Row 16 - row 2.
Row 18: (4) - (2) at row 16.
Row 19: Row 18 - row 3.

Row 20: Row 5 + row 14.
Row 21: Volumes are unchanged; costs are row 1 costs plus row 20 cost shifts.
Row 22: Letters 100 * (2) / (1) at row 21; flats 100 * (4) / (3) at row 21.
Row 23: Row 8 + row 17.
Row 24: (4) - (2) at row 22.
Row 25: Row 24 – row 3.

Adjustment for Letter-Shaped Pieces With a DAL

The adjustment for **letter-shaped** pieces entered with DALs is presented in Table A-2, rows 11-19. In the absence of any volume data on DAL mailings, I estimate that 1.0 percent of the total volume of Standard A ECR flats consists of letter-shaped pieces with DALs that are classified by the IOCS as letters. The number of these pieces, 204,440,781, is shown in row 12. The same number of pieces, when expressed as a percentage of total letter volume, is 1.588 percent, as shown in row 13.

Letter-shaped pieces with a DAL are not enveloped **(if they were enveloped, they could not be mailed with a DAL)**. That is, they are necessarily "loose," and may consist of an outside multipage, untabbed folded piece with an envelope and/or other loose pieces inserted into the centerfold, as in Moeller cross-exam exhibit VP/CW-CXE-1. The Postal Service does not have any cost data or cost study to ascertain whether such pieces cost more than ordinary enveloped letters.[39] In the absence of any such study or data, to be conservative I treat these pieces as if they had the same cost as all other letter-shaped mail, and adjust the cost proportionately. Accordingly, I estimate the cost of these misclassified pieces as 1.588 percent of the total cost of letters, or $14,021,103, which is the cost that has to be shifted from letters to flats. This adjustment is shown in row 14, columns 2 and 4.

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[39] Response to AAPS/USPS-T28-1 (Tr. 4/1157).

The results of the second mismatch adjustment are presented in rows 15-19, which are obtained in a manner analogous to that applied to rows 6-10. Row 15 shows the total volumes and costs that result only from the second adjustment. Volumes, again, do not change. Adjusted costs result from adding the cost adjustment in row 14 to the unadjusted total costs in row 1. Adjusted **unit costs** are shown in row 16, columns 2 and 4. The difference between the unadjusted unit costs (row 2) and the adjusted unit costs (row 16) are shown in row 17. The unit letter-flat difference, calculated from the unit costs in row 16, amounts to 0.892 cents, and is shown in row 18. Finally, the change in the letter-flat difference produced by the second mismatch adjustment alone, that is, without previously undertaking the first mismatch adjustment, is shown in row 19 and amounts to 0.175 cents. The change in the letter-flat difference shown on row 19 is thus obtained as the difference between row 18 and row 3 (**not** between row 18 and row 9).

Heavy Letter and DAL Mismatch Adjustments Combined

The effect of both mismatch adjustments combined is shown in rows 20-25 of Table A-2. Row 20 shows the sum of cost shifts in row 5 and in row 14. Row 21, columns 2 and 4, shows total costs after both adjustments, which is the sum of row 1 and row 20. Row 22 shows adjusted **unit costs**; these are derived by dividing adjusted total costs on row 21 by the corresponding

volumes. Row 23 records the difference between the unit costs in row 22, reflecting both adjustments, and the unadjusted unit costs in the corresponding columns in row 2. Row 24 presents the calculated unit letter-flat difference, 1.009 cents, which is computed from the unit costs in row 22. Row 25 shows the change in the letter-flat difference produced by both adjustments as the difference between row 24 and row 3.

Appendix B

THE RELATIONSHIP BETWEEN COST AND WEIGHT WITHIN STANDARD A MAIL

In Docket No. R97-1, my testimony on Standard A ECR Mail contained the following statement concerning the Postal Service's attempt to study the weight-cost relationship.[40]

> The relationship between weight and cost of mail is an issue that has bedeviled the Postal Service and the Commission for many years. Despite a number of studies by the Postal Service, including one in this docket, the results remain inconclusive, unconvincing and inadequate for ratemaking purposes.

As Yogi Berra reportedly said, "It's déjà vu all over again." This appendix will again examine the weight-cost relationship, this time in more detail, in a further effort to establish a framework and rationale for more definitive studies on how weight affects costs, especially within Standard A ECR Mail. I will also endeavor to explain not only why the present studies are woefully deficient, but also why any study based largely on IOCS tallies is likely to be equally deficient.

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[40] Docket No. R97-1, VP/CW-T-1, Appendix D (footnotes omitted).

What Weight-Cost Relationship Does the Study Seek to Estimate?

Witness Daniel is admirably frank about the difficulties of trying to estimate the effect of weight on costs, especially when relying heavily on IOCS data, which were "not specifically designed for the purpose of measuring the impact of weight on costs."[41] As she points out, "The shape, origin/destination combination, cube, and level of presorting and dropshipping of mail can affect the cost of mail."[42]

The likely possibility that mail in different presort conditions, entered at different points in the postal network, can give rise to different weight-cost relationships raises a fundamental threshold question: Which particular weight-cost relationship does the study seek to estimate? In this instance, the answer would appear to be: estimate the weight-cost relationship that is most appropriate for the purpose of establishing pound rates for the two subclasses of Standard A Mail.

The rate structure for Standard A Mail already recognizes destination entry discounts, computed on a per-pound basis (and converted to per-piece discounts at the breakpoint). As a starting point, it seems reasonable to assume that the study seeks to determine the weight-cost relationship for mail that does not receive any destination entry discount; *i.e.*, mail that is

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41 USPS-T-28, p. 4, ll. 24-25.

42 *Id*, p. 3, ll. 26-27.

entered at an "originating" facility some place in the postal network that is prior to, or short of, a destinating BMC. The subsequent cost to move the mail to destination facilities, including all costs of loading, unloading and cross-docking, are reflected in the destination entry discount for mail entered at the DDU.[43]

The Destination Entry Discount Model Sheds Light On and Is an Additive Component of the Total Weight-Cost Relationship

The model for Standard A Mail destination entry discounts computes a weight-cost relationship for mail of all shapes, at all levels of presortation, and which varies with the extent of dropshipment. Curiously, witness Daniel's efforts to estimate the weight-cost relationship for Standard A Mail neither utilizes nor scarcely references this aspect of the weight-cost relationship estimated by witness Crum.[44] The assumption that all dock handling costs are accurately captured by the destination entry model leads to some immediate observations.

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[43] Technically, these destination entry discounts are applied in a "top-down" approach to ratemaking. This discussion assumes (i) that the model used to develop the discounts is appropriate, and (ii) that costs avoided when mail is entered at a destination entry point are, on average, equal to costs incurred by the Postal Service when mail is not so entered and instead must be transported by the Postal Service.

[44] USPS-T-27, pp. 1-6 and Attachments A-C. She does, however, use witness Crum's data to adjust for worksharing; *see* response to ADVO/USPS-T28-10 (Tr. 4/1209-20).

- First, weight-related costs developed by the destination entry model can be added to the weight-related costs for those mail processing and delivery functions not captured by the destination entry model.

- Second, if the destination entry model is considered reliable, the object of the study should be to estimate the weight-cost relationship for the "excluded" functions ; *i.e.*, the per-pound costs that are embedded (implicitly) within CRA costs for mail processing and delivery, without attempting to duplicate or replicate the results captured by the destination entry model.

- Third, if dock handling costs are reasonably captured in the model used to develop destination entry discounts, then it would seem inappropriate to include dock handling tallies in the study because such inclusion would result in double-counting.

- Fourth, the non-transportation (cross-docking) portion of the weight-cost relationship that is developed in the destination entry model, and that has withstood the test of scrutiny and time, is developed without any reliance on or study of IOCS tallies by weight increment.

- Fifth, for the destination entry component (*i.e.*, for transportation and dock handling costs) of the total weight-cost relationship, costs predictably increase smoothly and continuously with weight; other weight-related costs should build on and be in addition to the weight-related costs documented in the destination entry model.

The Weight-Cost Relationship for Mail Processing

In this section, I will again explain why (and how) weight of mail has a direct impact on mail processing costs. Further, for a given presort condition, the weight-cost relationship would, in general, appear to be continuous and monotonic.

I argue that the more extensive the amount of processing required by mail within postal facilities, the greater the effect of weight on cost. The "flip side" of this proposition is that the greater the depth to which mail is presorted, and the more processing steps that are avoided, the greater will be the costs avoided by heavier weight mailpieces. In effect, that presortation of a given number of pieces when they are heavier avoids more costs than presortation of the same number of pieces when they weigh less. As a result, the presort discounts, which are based solely on per-piece costs avoided, are likely missing a weight component. If the preceding argument is correct, it has a number of immediate implications.

First, each major level of presortation will have a different weight-cost relationship; *e.g.*, the weight-cost relationship for saturation ECR mail likely differs from that for Basic ECR mail, which in turn, may be quite different from Basic Presort or Basic Automation. Facing up to the possibility of multiple cost-weight relationships that reflect the differing levels of presortation again raises the fundamental threshold issue: Which weight-

cost relationship should the study seek to estimate if only one weight-cost relationship is to be estimated for each subclass of Standard A Mail? In order to be conservative (from a ratemaking perspective), I would suggest that the study should endeavor to focus on mail with the highest weight-related cost, which is the least presorted mail within the subclass; *i.e.*, the Basic category for ECR and Regular Presort. The pound rate for the subclass should reflect all weight-related costs, and the discount structure should reflect both weight-related and piece-related cost avoidance wherever appropriate (the destination entry discounts do this; the presort discounts do not).

A second implication is that any study which randomly mixes tallies from the least presorted mail to the most presorted mail is likely to yield a result that, at best, is useless and, at worst, is hopelessly confused and even misleading. This is one reason why any attempt to use IOCS tallies to document how weight affects mail processing costs would appear to be fatally flawed from the outset, at least until IOCS tallies can distinguish presort condition.

Witness Moeller has previously observed that a properly-designed study must control for variations "in the amount of drop shipping, presortation, average haul of non-dropshipped mail, and other factors, all of

which could cause variations in the unit by weight increment."[45] Witness Daniel has similarly noted the problems that arise from inability to control for such factors. The data in USPS-LR-I-92 do not control for any of these factors.[46]

A Hypothetical Example to Illustrate the Effect of Weight on Mail Processing Cost

The following example seeks to explore and illustrate more concretely how weight can affect the cost of Standard A Mail. Like a formal simulation model, this hypothetical allows conditions to be controlled so as to focus solely on what happens when the weight of pieces in a mailing increases and, hopefully, to illustrate some worthwhile points.

As noted previously, it is generally recognized and understood that for any given class or type of mail (*e.g.*, letters or flats) with homogeneous density, weight is a good proxy for cube because the two vary in tandem. For a simple illustration, consider a nationwide bulk mailing of 1,600,000 identical letters or flats (this number is deliberately selected because it is readily divisible by 16, the number of ounces in a pound, which facilitates following the simple math that is involved). If each mailpiece has a uniform

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[45] Docket No. R97-1, response to NAA/USPS-T36-22 (Tr. 15/7714).

[46] An effort is made to adjust for destination entry which increases weight-related cost over the initial effort. *See* response to ADVO/USPS-T28-10 (Tr.4/1209-20) and responses cited therein.

weight of 0.5 ounces, total weight will be 50,000 pounds. One 40-foot to 44-foot trailer can carry approximately 40,000 pounds, hence 50,000 pounds is slightly more than the capacity of one trailer.[47] And if each mailpiece has a uniform weight of 1.0 ounce, total weight will equal 100,000 pounds (more than two trailer loads). Table B-1 illustrates how cube of this hypothetical mailing increases uniformly with an increase in average weight of the 1,600,000 pieces in the mailing.

Table B-1
Weight Cube Relationship of Mail
(1,600,000 pieces)

Weight Per Piece (ounces)	Total Weight (pounds)	Trailer Loads (approximately)
0.5	50,000	1.25
1.0	100,000	2.50
1.5	150,000	3.75
2.0	200,000	5.00
2.5	250,000	6.25
3.0	300,000	7.50
3.5	350,000	8.75
4.0	400,000	10.00

The density (pounds per cubic foot) of letters and flats may differ slightly, but for a given type of mail, this example illustrates how weight and cube of a mailing vary directly with the weight of individual pieces in a bulk

[47] Since weight limits vary by state, the weight capacity of a trailer is necessarily approximate.

mailing. The range of data in Table B-1 is sufficient for the points that will be illustrated here, but the range could be extended readily up to 16 ounces, the weight limit for Standard A Mail.

Dock handling costs. How do weight and cube affect mail handling costs? More trailer loads of mail will, of course, mean more containers of every type used to ship the particular type of mail; *e.g.*, letter trays, pallets, sacks, OTRs, etc. Using the lowest weight (0.5 ounces) and the heaviest weight (4.0 ounces) contained in Table B-1 for illustration, it probably costs about 10 times as much to load or unload 10 trailers as it costs to load or unload one trailer. Precisely this relationship is captured by the destination entry cost model.[48]

Mail opening and moving empty equipment costs. Assuming that the mail in this hypothetical example is in Basic presort condition, each "container" (including pallets) will have to enter a P&DC, and the mail will have to be opened and moved through the appropriate processing centers for piece sortation; *e.g.*, letter sorting machines, flat sorting machines, etc. At the point(s) where the containers are opened, empty containers and associated materials (*i.e.*, empty "equipment") will accumulate.

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[48] The cost to unload a trailer full of mail can and will vary depending on whether the mail in the trailer is bedloaded (*e.g.*, in sacks), palletized, or in rolling stock such as OTR containers. This consideration is of no consequence to a weight-cost study, where the concern is about the effect of weight on cost for any specified method of loading trailers.

For example, suppose the mail is shrink-wrapped on pallets. As average weight of each piece in the mailing increases, shrink-wrapping material from between 1 and 10 trailer loads of mail (depending upon the weight of the pieces) will accumulate and need to be removed from the premises and, ultimately, disposed of. Similarly, the empty pallets from between 1 and 10 trailer loads of mail will accumulate and need to be moved to wherever empty pallets are sent. And if the mailing consists of letters in cardboard trays, the empty non-reusable trays from between 1 and 10 trailer loads of mail will also accumulate and need to be moved and disposed of.

One does not need to be a rocket scientist to comprehend that more weight causes more empty equipment, more refuse, and more tallies of "not handling mail; moving empty equipment" (or other tallies for removing refuse, such as shrink wrapping material or empty cardboard letter trays). Obviously, not handling mail tallies that are taken during such operations contain no information that could be used to distribute them to mail on the basis of weight increment, even though the costs of these operations are clearly weight-related.

Direct tallies tend to reflect that when pieces are being handled individually, a heavy-weight piece can be handled at approximately the same

rate (and cost) as a lighter- weight piece.[49] Consequently, when functions whose cost is obviously driven by weight (*e.g.*, moving empty equipment, or removing refuse as it accumulates) are derived largely from use of direct tallies of individual piece-handling operations (which are used as a proxy to distribute the cost of not handling tallies), the end result is virtually guaranteed to miss completely the causal relationship between weight and cost. It seems completely inappropriate to use direct tallies from individual piece-handling operations to distribute to weight increment the costs associated with some, if not all, of the not handling tallies. The effect of weight will be systematically understated. This is another important reason why using the IOCS approach to study the weight-cost relationship is fundamentally flawed.

When direct tallies are used to distribute not handling tallies (such as those discussed above) to the classes and subclasses of mail, the procedure may reasonably trace cost causation to the subclasses. The same procedure, however, most likely does not trace cost causation to different weight increments, for reasons explained here. Witness Daniel states that she

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[49] The response to ABA&NAPM/USPS-T28-28 (Tr. 4/1188) indicates that heavier-weight pieces are more prone to cause machine jams, which increase cost. This observation is unassailable. However, the response to ABA&NAPM/USPS-T21-19 (Tr. 7/2938) states that "IOCS does not separately identify machine downtime due to jams," hence IOCS would be unable to pick up any such weight-related costs associated with single-piece handling.

allocates costs "to weight increment in a manner consistent with how the CRA allocates costs to subclass **and are not assumptions**."[50] It should be noted, however, that she **assumes** that the CRA methodology for allocating costs **to subclass** is equally appropriate for allocating costs to **weight increment**. This assumption is critical to the methodology which she employs, and for reasons stated herein I would respectfully disagree as to its appropriateness.

Moving mail within facilities. After containers are opened, the mail will undergo piece sortation (*e.g.*, letters on letter sorting machines, flats on FSMs or manual). As the pieces are sorted, they will need to be swept (either from machines or manual cases) and then moved to the next operation. As mail is swept, it is put into relatively small containers (*e.g.*, letters in trays, or flats in tubs), and as these containers fill up they in turn are put into larger, intermediate-sized wheeled containers suitable for movement within the facility, such as hampers.

For the sake of this discussion, it is convenient to establish a dichotomy between (i) individual piece-handling operations, and (ii) bulk-handling operations. A "bulk operation" is defined here as one where more than one piece of mail is being handled, whether it be a handful of mail, a bundle, a tray, a tub, a sack, a pallet, a hamper, an OTR, etc. Thus, when

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[50] Response to AAPS/USPS-T28-2 (Tr. 4/1158) (emphasis added).

pieces of mail are not being sorted, they are handled in bulk. Weight tends to have a systematic effect on all bulk-handling operations, and on occasion it can also affect piece-handling operations.[51]

As intermediate-size containers fill up, they must be moved manually to the next operation, because virtually all Postal Service facilities currently lack any mechanical handling method, such as tray management systems, to move mail within the facility. Again, it does not require a rocket scientist to comprehend that 10 trailer loads of mail will require the manual filling of more small containers (*e.g.*, trays and tubs) and intermediate-size containers (*e.g.*, hampers) than 1 trailer load, and more labor will be required to load and move those extra intermediate-size containers through the facility.

IOCS mixed mail tallies. After pieces of mail have received at least an initial sortation inside the facility, and the mail is being moved about in intermediate-size containers, such as hampers, a reasonable likelihood exists that various pieces of mail, probably of the same shape but of varying weight, have been commingled. If an employee is tallied when moving such a container, the tally will be recorded as handling mixed mail. Since the container likely holds pieces of differing weights, no real basis exists for distributing such mixed mail tallies on the basis of weight increment.

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[51] Response to ABA&NAPM/USPS-T28-28 (Tr. 4/1188).

Again, if direct piece handling tallies are used to distribute mixed mail tallies to weight increment, and if those direct piece-handling tallies show little relationship between weight and cost, their use will mask the underlying causal relationship between weight, the number of containers that must be moved manually through the facility, and the additional cost of such movement that is caused by more weight and cube. To repeat, the systematic bias is to understate the effect of weight on cost. For Standard A ECR Mail, 71.5 percent of all mail processing tallies were for mixed mail, and only 28.5 percent were single piece tallies.[52] Inappropriate distribution of mixed mail tallies to weight increment is yet another reason why the IOCS approach to a study of the weight-cost relationship is fundamentally flawed.[53]

The discussion of this hypothetical example is intended to demonstrate that weight affects costs in large measure via bulk operations, which include all operations that entail moving mail around and through the facility, and probably less so through individual piece handling operations.[54] The

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[52] Response to VP-CW/USPS-T28-24 (Tr. 4/1342-44). Mixed mail tallies represented 22.3 percent of city carrier in-office tallies.

[53] *See* USPS-T17, pp. 12-17, for more detail and discussion on how the Postal Service CRA methodology uses direct tallies to distribute mixed mail tallies and not handling tallies to the classes and subclasses of mail.

[54] If direct tallies of individual piece-handling are not an appropriate basis for distributing the costs of other functions to weight increment, then the number of direct tallies is of little immediate consequence to accuracy of the results. In others words, doubling or even

(continued...)

operations whose costs are most affected by weight would seem to be almost precisely those operations that the Postal Service has done the least to document and model.

Modeled cost for commercial and nonprofit mail. In the first reclassification case, Docket No. MC95-1, the newly proposed categories did not conform to the categories for CRA costs, hence average CRA costs for the new categories were not available. Consequently, the Postal Service used a "bottom up" approach and developed detailed cost models for the proposed categories of Standard A commercial mail. The documented modeled costs consisted largely of piece-handling costs, and the costs so modeled accounted for roughly two-thirds of all CRA costs of Standard A commercial mail.

Subsequently, in Docket No. MC96-2, the Postal Service used essentially the same models to estimate the cost of Standard A Nonprofit Mail. In this instance the modeled costs accounted for over 80 percent of all Standard A Nonprofit CRA costs. Since the handling of commercial and nonprofit mail is rather similar, the difference in the share of CRA costs captured by the models was striking. The average weight of Standard A Nonprofit Mail is somewhat less than its commercial counterpart, which

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[54](...continued)
tripling the number of individual piece-handling tallies would not throw any light on how weight affects the cost of other "bulk-related" operations. *See* ABA&NAPM/USPS-T28-9 (Tr. 4/1174).

could account for most or all of the difference. Had the Postal Service continued to pursue and refine the "bottom-up" modeling efforts which it undertook in the two reclassification dockets, it might have come up with a credible study on how weight affects costs.

Weight-related presort cost avoidance. Another important point that can be demonstrated by the hypothetical example discussed above is the cost avoidance potential of presortation. Consider two pairs of mailings of 1,600,000 pieces. Each mailing in the first pair is to an identical list of addresses, each is in Basic presort condition, and the only difference is that in one, each piece weighs 0.5 ounces, and in the other, each piece weighs 4.0 ounces. Both mailings must receive piece sortation prior to being sent to the DDU, hence each will incur weight-related mail processing costs as they are moved about and through postal facilities, but the heavier mailing will incur more such costs.

The second pair of mailings also contain identical pieces that weigh 0.5 and 4.0 ounces, respectively. In this case, however, each mailing is concentrated and presorted to Saturation level. Assuming that this latter pair of mailings is entered at the same originating upstream facility as the first pair, each of these two mailings needs only be cross-docked until it reaches the appropriate DDUs. Both will avoid whatever weight-related mail processing costs were incurred by the first pair of mailings. When the two

mailings from the first pair had to be taken into a P&DC for piece sortation, the heavier-weight mailing incurred more cost than the lighter-weight mailing. Therefore, the heavier-weight mailing in the second pair will avoid more costs when presortation enables it to avoid such intermediate processing.

As the preceding example illustrates, presortation, in addition to avoiding piece-related costs, also avoids weight-related costs. However, this cost avoidance is not recognized in the per- piece discounts given for presortation. Unfortunately, the Postal Service's weight-cost studies in this docket were not designed to study the weight-cost relationship for different levels of presortation, and they thus do not provide reliable information to enable any refinement or modification of existing presort discounts to give better recognition of weight-related cost savings.

The Effect of Weight on Destination Entry and Mail Makeup

Destination entry. By definition, destination entry requires dispatching a truck to the destinating facility. Economic efficiency in truck transportation is achieved by utilizing a truck to its maximum capacity. For any given size of bulk mailing, increasing the weight of each piece will expand the total weight and cube of the mailing (as shown in Table B-1),

thereby increasing the number of postal facilities to which direct shipment by a mailer is economical.

When an individual mailing is not of sufficient size to make destination entry economical, consolidation with other mailings is a possibility. Small, lightweight mailings may sometimes piggyback with large mailings and be entered deep into the postal network, but in general, as weight and cube of a mailing increase, deeper destination entry becomes increasingly feasible.

The conclusion from the preceding general discussion is that heavier weight pieces are more likely to be destination entered. This conclusion is supported by data from the billing determinants. Table B-2 shows the average weight and percent of mail that received destination entry for four presort categories of Standard A Mail. The percentage of mail that receives destination entry increases uniformly with average weight in 3 of the 4 presort categories.[55]

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[55] The only slight aberration occurs in the 3/5-digit non-automation category. There the percentage of pound-rated pieces that receives destination entry is lower than the percentage of piece-rated flats.

Table B-2
Standard A Mail
Average Weight and Destination Entry
FY 1998

A. Standard A Regular

	3/5-digit Automation Category		3/5-digit Non-Automation Category	
	(1) Average Weight (ounces)	(2) Percent Destination Entry	(3) Average Weight (ounces)	(4) Percent Destination Entry
Letters	0.843	55.5%	0.701	43.6%
Non-Letters:				
Piece-rated	2.218	59.7	1.848	54.1
Pound-rated	5.320	71.9	7.634	47.4

B. Standard A ECR

	Basic Category		Saturation Category	
Letters	0.734	73.5%	0.955	89.3%
Non-Letters:				
Piece-rated	2.032	90.6	2.934	96.5
Pound-rated	5.094	95.3	4.869	98.0

Sources: Part A, USPS-LR-I-125, G-2, pp. 1-2.
Part B, USPS-LR-I-125, G-2, pp. 1-2.

Mail makeup. It is sometimes asserted that mail makeup varies with weight.[56] Exactly what this means, however, is not always specified. It is well known, of course, that within the 0 to 16 ounce range of Standard A the percentage of flats increases as the average weight increases. As between letters and flats, the makeup differs; Standard A letters are now entered in trays that are usually stacked on pallets, while Standard A flats are generally entered in bundles on pallets. Beyond the effect of weight on shape and packaging, another issue is whether weight of individual pieces can affect the level of presort.

Prior to mail reclassification in Docket No. MC95-1, it seems entirely possible that weight of the pieces (holding shape constant) in a Standard A (formerly third-class) mailing may also have affected the degree of presortation. Under the previous regulations, fewer but heavier pieces could qualify as bundles and skin sacks: thus, increasing the average weight of pieces could change the makeup. The role of bundles and sacks was greatly reduced following reclassification and the revised regulations for mail makeup. It is not known whether increasing the weight of pieces within a given mailing continues to affect the level of presortation under the revised regulations. If it is believed that increasing the weight of the pieces in a

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[56] *See* response of USPS witness McGrane to VP-CW/USPS-ST44-3, Docket No. R97-1 (Tr. 15/7225-28).

given mailing can still change the level of presortation, and hence the makeup, the possibility seemingly could be investigated readily via one of the simulation models used by commercial mailers to estimate the extent to which a mailing will qualify for presort discounts.

Data Quality Study

In response to a request from the House Subcommittee on the Postal Service to conduct an independent review of the quality of data used in ratemaking, in 1997 the GAO, the Commission and the Postal Service jointly prepared specifications for a Data Quality Study.[57] That study has singled out prior studies of the relationship between weight and to cost as a singular failure. In describing the issue, it states that

> The Postal Service has used essentially the same methodology for estimating the relationship between costs and weight since 1984... Intervenors and the Postal Rate Commission have criticized this methodology. These criticisms have focused on both the quality of the underlying data and anomalous results that indicate lightweight postal items across classes cost more to handle than heavier weight items.

Importantly, the Data Quality Study notes that "[w]eight information can only be obtained from mail that is identified individually, which is now less then half of all IOCS tallies." This is the crux of the problem. When

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[57] USPS Data Quality Study, Contract No. 102590-97-B-1972, Summary Report, pp. 92-94 (dated April 6, 1999).

IOCS tallies are the primary data source, piece-handling tallies are the chief source of weight increment data, while weight (and cube) is an important cost driver in all the non-piece-handling operations within a postal facility.

The Data Quality Study states that small sample size often appears to be a problem.[58] In my estimation, the issue of small sample size is something of a red herring. Tripling or quadrupling the sample size is not likely to improve matters one whit. The methodology – using the weight-cost relationship of piece-handling operations as a proxy to estimate the weight-cost relationship of bulk handling operations – is fundamentally wrong. Under these circumstances, any precision engendered by a larger sample will only make the result more precisely wrong, and it is wilful self-deception to pretend otherwise.

The Data Quality Study concludes its critique with the appropriate recommendation that the Postal Service "Develop engineering studies that track weight in conjunction with other mail cost-causing characteristics through the entire production process." (Recommendation No. 45.)[59] All parts of the production process are important, but should the Postal Service undertake any such study, it should pay particular attention to those parts of the process that the Postal Service has not modeled and where IOCS tallies

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[58] *See* response to NAA/USPS-T9.

[59] The Postal Service has not conducted any such study; *see* response to NAA/USPS-10.

do not record weight or provide any meaningful information concerning the effect of weight.

Problems With Weight-Cost Studies Proffered in this Docket

Data from the weight-cost studies of Standard A ECR letters by half-ounce increment up to four ounces are shown in Table B-3, Part A. Data by one-ounce increments up to 16 ounces are shown in Part B.[60] Each respective part contains volumes (column 1), total cost (column 2), and unit cost (column 3). These data are used to compute a statistic known as link relatives, shown in column 4.

Link relatives are statistical indicators particularly suited to illustrating variations in a data series. They are defined as differences between successive data within the series that are put on a percentage basis by division into the starting value of each difference. Algebraically, the link relative associated with any data point a(i) of a series a(1), a(2), ... , a(n) is defined as the difference a(i)-a(i-1) divided into a(i-1), that is, (a(i)-a(i-1))/a(i-1).

Part A shows link relatives by half-ounce increments up to four ounces. Part B shows link relatives by one-ounce increments up 16 ounces. Regardless of whether the data in Part A or Part B are used, it can be

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[60] USPS-LR-I-92, Section 2, pp. 14-16.

observed readily that both link relative series are highly unstable. Whereas it would be reasonable to expect that with increasing weight the cost of a piece increases monotonically and, perhaps, in a smooth progression, the percentage changes represented by the link relatives show substantial jumps and drops; they even turn negative, not only at higher weights where sample sizes are smaller, but also at lower weights. Thus, in the series of half-ounce increments (Part A) the 2.5 to 3 ounce weight range dips below zero, signifying that costs actually decrease as weight of a piece increases, a wholly unacceptable anomaly. Likewise, the supposedly more stable series of one-ounce increments gives anomalous results for six of the sixteen data ranges. The unit cost data are so unstable that they should be rejected for ratemaking purposes even if my fundamental objections to the underlying methodology were to be entirely bypassed.

Anomalous results such as those displayed in Table B-3 are to be expected from raw data which do not control for entry point, presort condition, shape, or any other variable that may affect cost but is not systematically related in any meaningful way to weight. IOCS data are not specifically designed to measure the impact of weight on cost, and neither the data nor the methodology are appropriate for distributing costs to weight increments. Tallies from non-weight driven functions should not be used to distribute the costs of weight-driven functions.

Table B-3

Standard A ECR Letters Test Year Before Rates Mail Processing and Delivery Unit Costs and Link Relatives by Detailed Weight Increments

	Weight (oz.)	Volume Standard A ECR "Letters" (1)	Total Cost in weight range ($, 000) (2)	Unit Cost ($) (3)	Unit Cost Link Relatives (4)
A. Half-Ounce Increments					
1	0 to 0.5	6,002,737,918	321,077	0.053	
2	0.5 to 1.0	4,028,968,606	287,252	0.071	33.3%
3	1.0 to 1.5	1,208,061,022	96,270	0.080	11.8%
4	1.5 to 2.0	637,085,612	68,973	0.108	35.9%
5	2.0 to 2.5	592,087,281	66,806	0.113	4.2%
6	2.5 to 3.0	442,638,331	48,576	0.110	-2.7%
7	3.0 to3.5	149,904,296	22,493	0.150	36.7%
8	3.5 to 4.0	43,560,381	8,800	0.202	34.6%
B. One-Ounce Increments					
9	0 to 1	10,031,706,524	608,329	0.061	
10	1 to 2	1,845,146,634	165,243	0.090	47.7%
11	2 to 3	1,034,725,612	115,382	0.112	24.5%
12	3 to 4	193,464,677	31,293	0.162	45.1%
13	4 to 5	15,309,250	2,434	0.159	-1.7%
14	5 to 6	3,941,074	1,304	0.331	108.2%
15	6 to 7	2,231,720	674	0.302	-8.8%
16	7 to 8	695,295	188	0.271	-10.3%
17	8 to 9	178,765	83	0.463	70.8%
18	9 to 10	202,361	115	0.569	22.9%
19	10 to 11	119,745	103	0.858	50.8%
20	11 to 12	57,499	25	0.436	-49.2%
21	12 to 13	92,788	35	0.381	-12.6%
22	13 to 14	63,344	21	0.326	-14.4%
23	14 to 15	15,182	17	1.137	248.8%
24	15 to 16	11,253	116	10.295	805.5%

Col 1-3: USPS-LR-I-92, Section 2, pp. 14-16
Col 4: Defined as successive percent changes over starting base of each change, *i.e.*, 100*(a(i)-a(i-1))/a(i-1)

Research Recommendations

The focus of the discussion here has been on mail processing costs, because they constitute a major share of total costs. Accordingly, the specific research recommendations offered here relate to mail processing. As indicated below, however, both in-office city carrier costs and street costs could merit further investigation as well.

With respect to mail processing costs, it is strongly recommended that the Postal Service focus study on the cost of those non-piece handling functions that it has not yet modeled. This could be done through further modeling efforts. Alternatively, some other methodology, such as the engineering study recommended by the Data Quality Study, or simulation or time-and-motion type studies might be appropriate. As part of any study effort which the Postal Service undertakes, it should focus attention on those miscellaneous handling and allied labor operations that are avoided by presortation, with a view towards ascertaining whether the avoided costs are sufficient to warrant an extra weight-based component in presort discounts.

Witness Daniel admits that "no other studies have been undertaken since Docket No. R97-1 to study the effect of weight on carrier street time costs."[61] Consequently, witness Daniel has no data whatsoever to offer on the issue. She has simply reexamined previous assumptions, **assumed** in this

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[61] *See* response to AAPS/USPS-T28-3 (Tr. 4/1159).

docket that elemental level costs are weight-related, and hoped that by using this different assumption her results will be "blessed by the God of compensating errors."[62] Such an approach is hardly satisfactory for ratemaking purposes. The Postal Service should conduct an empirical study.

In response to the question "Is it more costly to handle an eight-ounce bound catalog or an eight-ounce shared mail set with numerous coupons and single sheets of glossy paper inside a supermarket brochure," witness Daniel states that to her knowledge the Postal Service has not conducted any study of the degree to which mail is loose or bound affects costs.[63] Since the average weight of a typical flat is less than the average weight of shared mail sets with coupons and single sheets inside a supermarket brochure, this is a related issue which also deserves empirical study.

Recommendations for the Commission

The Commission should not rely on any of the weight-cost studies of Standard A Mail that the Postal Service has submitted in this Docket. By the Postal Service's own admission, the studies do not control for any of the important variables, such as presort, that drive weight-related costs. The

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[62] The Postal Service apparently does not consider witness Daniel's assumption to have any validity, and does not use it for the CRA. *See* response to OCA/USPS-T12-11.

[63] Response to AAPS/USPS-T28-1 (Tr. 4/1157).

results are too fraught with inconsistencies and other problems to constitute a reliable basis for ratemaking purposes.

The evidence strongly suggests that there are weight-related mail processing costs. Further, in the Postal Service's current cost-identifying methodology, a bias exists to understate these weight-related costs because the cost of bulk-handling functions most likely to be driven by weight are distributed using direct piece-handling tallies that are far less affected by weight.

Finally, greater presortation helps avoid some or even all weight-related mail processing costs, yet none of this cost avoidance is recognized in presort discounts. Presortation is of course a prerequisite for destination entry. When presorted mail is entered at a destinating facility, the Commission can have confidence that upstream operations have been bypassed and any weight-related mail processing costs have been avoided. Although the data in this docket do not suffice to incorporate a weight-related element in any presort discount, the Commission can help rectify the situation by increasing the passthrough used to compute the destination entry discounts. I strongly recommend this course of action to the Commission.

Appendix C

UNIT CONTRIBUTIONS AND COVERAGES, 1997-2001

Table C-1 presents the detailed data underlying the discussion of unit contributions and coverages in Section IV of the text.

The data have been compiled from a number of sources, beginning with the Commission's *Opinion and Recommended Decision* in Docket No. R97-1. Actual data from the Services' *Cost and Revenue Analysis* are used for 1997, 1998, and 1999. Projections for the year 2000 have been taken from Docket No. R2000-1, as noted in the source listing appended to the table. Data for the year 2001 are the Postal Service's figures for Test Year Before Rates and at the Service's proposed rates, for Test Year After Rates, respectively.

Coverage is defined as total revenue over total volume-variable cost, both given in $ million. The ratio is expressed in percentage terms. The total contribution is the algebraic difference between total revenue and total volume variable cost, in $ million. Unit costs and unit contributions are derived by dividing the respective totals by the total volume, in millions of pieces. The resulting quotients, obtained in dollars per piece, are converted to cents per piece by multiplying them by 100.

All data are shown for both ECR and Regular Mail, in two separate 7-row blocks. The differences between the respective figures, defined in each case as ECR minus Regular, are presented in a third 7-line block. The negative numbers in rows 15-21 of columns (1), (2), and (5) have no special analytic significance. They simply show that total volumes and therefore, total revenues and total volume-variable costs, are larger for Regular Mail than for ECR, which indicates broader usage by the mailing public.

What is noteworthy and analyzed in the text is that the ECR - Regular differences in unit costs (rows 7-21 in column 6) are negative, while the differences in unit contributions (rows 7-21 in col 7) are positive. This shows that ECR has lower unit costs than Regular Mail, but its unit contributions are greater. In terms of orders of magnitude, the unit costs of ECR are roughly **less by half** than those of Regular Mail. The unit contributions of ECR are roughly **more by half** than those of Regular Mail.

The contrast points to a **near-anomaly** in the rate structure.

Table C-1

Effective Unit Contributions and Coverages of Standard A ECR and Regular Mail

	Year	Total Revenue ($, million) (1)	Total Vol.-Vbl. Cost ($, million) (2)	Total Coverage (percent) (3)	Volume Contribution ($, million) (4)	Unit Pieces (million) (5)	Cost (cents/pc) (6)	Unit Contribution (cents/pc) (7)
Standard A ECR								
1	1997 PRC	4,280	2,108	203.0	2172	28,759	7.330	7.552
2	1997 Actual	4,552	1,883	241.7	2,669	31,505	5.977	8.472
3	1998 Actual	4,943	1,999	247.8	2,952	34,111	5.860	8.660
4	1999 Actual	4,827	2,336	206.6	2,491	32,756	7.132	7.605
5	2000 Proj'd	4,896	2,288	214.0	2,608	32,691	6.999	7.978
6	2001 BR	5,037	2,528	199.2	2,509	33,631	7.517	7.460
7	2001 AR	5,162	2,472	208.8	2,690	32,828	7.530	8.194
Standard A Regular								
8	1997 PRC	8,017	5,956	134.6	2,061	37,858	15.732	5.444
9	1997 Actual	6,777	4,406	153.8	2,371	32,528	13.545	7.289
10	1998 Actual	7,223	5,104	141.5	2,119	35,257	14.477	6.010
11	1999 Actual	7,935	5,851	135.6	2,084	38,996	15,004	5.344
12	2000 Proj'd	8,465	6,885	122.9	1,580	41,674	16,521	3.791
13	2001 BR	8,653	7,125	121.4	1,528	42,784	16,653	3.571
14	2001 AR	9,070	6,824	132.9	2,246	40,999	16.644	5.478
Difference Between Standard A ECR and Regular								
15	1997 PRC	-3,737	-3,848	68.4	111	-9,099	-8.403	2.108
16	1997 Actual	-2,225	-2,523	87.9	298	-1,023	-7.568	1.183
17	1998 Actual	-2,270	-3,105	106.3	835	-1,146	-8.616	2.650
18	1999 Actual	-3,108	-3,515	71.0	407	-6,240	-7.873	2.261
19	2000 Proj'd	-3,569	-4,597	91.0	1,028	-8,983	-9.522	4.186
20	2001 BR	-3,616	-4,597	77.8	981	-9,153	-9.137	3.889
21	2001 AR	-3,908	-4,352	75.9	444	-8,171	-9.114	2.716

Sources:

1997 PRC — *Test Year Volume, Cost, Revenue, and Cost Recovery by Class, at Commission Recommended Rates,* Docket No. R97-1, *Op. & Rec. Dec.*, Appendix G, p.1.

1997 Actual — Cost and Revenue Analysis.

1998 Actual — Cost and Revenue Analysis.

1999 Actual — Cost and Revenue Analysis.

2000 Proj'd — Revenues and Volume, USPS-T-32, Exhibit USPS-32C, p.1; Volume Variable Cost, USPS-T-14, Exhibit USPS-14E, Cost Segment Summary, ECR, total.

2001 BR — Docket No. R2000-1, Revenues and Cost, USPS-T-32, Exhibit USPS-32A, p.1; Volumes USPS-T-6, p. 5.

2001 AR — Docket No. R2000-1, Revenues and Cost, USPS-T-32, Exhibit USPS-32B, p.1; Volumes USPS-T-6, p. 5.

ORIGINAL

CERTIFICATE OF SERVICE

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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.

William J. Olson

May 22, 2000