ADVO-RT-5

BEFORE THE
POSTAL RATE COMMISSION
WASHINGTON, D. C.

POSTAL RATE AND FEE CHANGES, 2000	:	Docket No. R2000-1

REBUTTAL TESTIMONY OF

ANTOINETTE CROWDER

ON BEHALF OF

ADVO, INC.

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PURPOSE OF TESTIMONY

My name is Antoinette Crowder and I am a senior consultant with TRANSCOMM, Inc., in Falls Church, Virginia. I have testified before the Postal Rate Commission in this and prior proceedings. My autobiographical sketch is included as Appendix A to my earlier direct testimony in this proceeding on behalf of Magazine Publishers of America, et al., MPA-T-5.

The purpose of my testimony is to address the Standard A Enhanced Carrier Route (ECR) subclass rate issues, particularly the "pound rate" issue, raised in the direct testimony of VP/CW witness Haldi, AAPS witness White, and NAA witness Tye. All three witnesses criticize the Postal Service's proposal to moderately increase the piece rate and reduce the pound rate for ECR pound-rated mail, and urge that it be rejected. I demonstrate that their criticisms are unfounded. In addition, I address other ECR rate structure proposals presented by Dr. Haldi.

I. SUMMARY AND RECOMMENDATIONS

A. Background and Summary of Results on the "Pound Rate" Problem.

This is the third proceeding where the Postal Service has proposed to moderate the high ECR pound rate. Its proposal in this case is much more modest than in Dockets MC95-1 and R97-1, with a pound rate reduction only about half of that proposed in R97-1. Despite this extensive litigation, there are still a number of compelling reasons for reducing the pound rate that continue to be overlooked (or perhaps intentionally ignored) by those opposing a lower pound rate.

The Problem With The High Pound Rate. To understand the "pound rate" issue, it is important to understand that it is actually a broader issue concerning (and interrelated with) the entire ECR rate structure. Within the ECR rate structure, separate piece-rates are developed for letters and nonletters at the saturation and

high-density levels.[1] This letter-nonletter rate differential is conceptually intended to reflect only the higher "shape-related" costs of nonletters, but in fact it also charges nonletters with weight-related cost differences that are already more-than-recovered through the excessively high pound rate. Below the 3.3-ounce rate "breakpoint," letters and nonletters pay a "minimum per piece" rate.[2]

Above the 3.3-ounce breakpoint, ECR nonletters pay a very small per-piece charge (ranging from 0.3¢ for Saturation mail up to 2.5¢ for Basic Rate mail), plus a very large 66.3¢ pound charge that applies to the entire weight of the piece -- producing rates that increase sharply with increasing weight. For this rate structure to be reflective of true costs, (1) the piece-related cost for such pieces would have to be extremely low and (2) the weight-related cost would have to increase steeply on an almost one-for-one basis with increasing weight. This simply does not comport with operational reality and cannot be explained in any reasonable manner. There are unquestionably significant piece-related costs for ECR mail throughout all weight ranges, and conversely, there is no evidence or operational explanation supporting the notion that the costs of mail pieces above the breakpoint are almost entirely weight-related.

Further, because the current rates for ECR pound-rated pieces are excessive (i.e., contribute more than the subclass average to institutional costs), the rates for piece-rated pieces are correspondingly too low. An incorrect pound rate means that the piece rates are also incorrect.

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[1] For rate purposes, letters are defined as letter-shaped pieces at or below the 3.3-ounce per piece breakpoint, while nonletters include the sum of (1) flat- and parcel-shaped pieces up to 16 ounces plus (2) letter-shaped pieces weighing above the 3.3-ounce breakpoint.

[2] This flat rate structure below 3.3 ounces is consistent with cost data over many years that show that costs do not vary significantly with weight over this range.

In short, there is no justification supporting the current high pound rate and resulting steep rate curve above the breakpoint.[3] Correcting this problem requires an increase in the per-piece charge and a reduction in the pound rate to levels that approximate the actual piece-related and weight-related costs for additional piece weight over the breakpoint. Thus, the real question is: How much does additional or marginal weight above the 3.3-ounce breakpoint actually cost on a per pound basis? To answer this question, the Postal Service presented a weight-cost study demonstrating the general ECR weight-related cost structure. The study clearly shows that additional weight causes a substantially less than one-for-one increase in cost.

Analyses Demonstrating Low ECR Weight-Related Costs. In this testimony, I show that the USPS proposal is fully supported both by common sense and by all available cost evidence. Indeed, the proposal is only a moderate improvement which does not fully correct for the overcharging of pound-rated mail. I present several alternative analyses, employing extremely conservative assumptions that clearly overstate the effect of weight, in order to demonstrate that even in the worst case, the effect of weight on costs is relatively small -- and well below the pound rate proposed by the Postal Service. I also present weight-cost curves for ECR flats by density level which further corroborate the general weight-cost structure shown in the USPS weight-cost curves. Even with the USPS proposed rates, the weight-related increase in postage is still substantially greater than the increase in cost. As a result, ECR nonletters make a greater per piece contribution to institutional costs than do ECR letters.

In addition, I address the criticisms of the USPS weight-cost study by Dr. Haldi, Mr. White, and Dr. Tye, and show they are simplistic, exaggerated, misleading, and

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[3] Even Dr. Haldi declined to defend the current rate structure as cost-based, stating that it "lacks credibility" but should nevertheless remain unchanged pending a further "credible weight-cost study." Tr. 32/15912.

cannot be used to invalidate the results of the USPS weight-cost study. I explain why one would expect, operationally, that the increase in cost due to an increase in weight should be relatively moderate. I also explain why the arguments of competitive harm raised by Tye and White are unfounded, and why a more cost-based ECR rate structure will enhance rather than harm competition.

Haldi's Flawed Letter-Nonletter Cost and Rate Proposals. Finally, I demonstrate that Dr. Haldi's proposed ECR letter-nonletter rate differentials are based on flawed analyses. First, he has overstated the effect of heavy-weight letters. Second, he has incorrectly assumed that the letter-nonletter cost difference is entirely piece-related, when in fact it also includes weight-related cost differences. His near 100% passthrough is therefore excessive. His proposed increase in the letter-nonletter cost difference (after my correction) should be more than offset by the need to reduce the passthrough to avoid double-counting of weight-related costs.

B. Recommendations.

Based on my analyses of ECR costs and cost structure, I recommend that the Commission accept the Postal Service's proposed ECR rates. Dr. Haldi's rate proposals, with respect to the pound rate and letter-nonletter rate differential, should be rejected. Dr. Tye's rate proposals should be rejected in their entirety.

C. Organization of the Testimony.

The remainder of this testimony is divided into four sections. The next section explains why it is not even necessary to have a "cost study" to demonstrate that the current pound rate is, on its face, excessive. Section III describes my analyses of ECR rates, costs, and contributions to institutional costs. Section IV presents my comments on the weight-cost study criticisms of Dr. Haldi, Mr. White, and Dr. Tye. Section V explains why Dr. Haldi's letter-nonletter rate differential is excessive and unwarranted.

II. IT DOESN'T TAKE A STUDY TO KNOW THAT THE ECR POUND RATE IS TOO HIGH.

Reading the testimonies of witnesses Haldi (VP/CW-T-1), White (AAPS-T-1), and Tye (NAA-T-1) criticizing the proposed lower ECR pound rate, one is reminded of the adage about "not seeing the forest for the trees." They all carefully confine their arguments to technical criticisms of the USPS weight-cost study presented by witness Daniel (USPS-T-28). They variously claim that the "IOCS tallies are too thin," that Daniel's unit costs by ounce-increment do not produce a perfectly smooth "cost curve," that her data show a large jump in cost for the minuscule volume in the last 15-16 ounce weight increment, or that the IOCS data do not perfectly capture all weight-related costs.

What is more revealing is what these witnesses do *not* say.

A. <u>What The Opponents Of The Moderately Lower Pound Rate Don't Say</u>.

These witnesses do *not* contend that the current ECR pound rate and rate structure accurately reflect the true effect of weight. Quite to the contrary, Dr. Haldi forcefully (and in important respects, correctly) argues that it does not. For example, Haldi points out that, because Standard A ECR mail bypasses many weight-related handlings that are incurred by Standard A Regular mail (which requires "substantially more" processing), "I would expect ECR to have a relatively smaller amount of weight-related costs than Standard A Regular." Tr. 32/15883-4. Yet he proposes only a token 0.3¢ lower ECR pound rate.

Instead, Haldi and the others say that the pound rate should remain unchanged until the Postal Service produces a "definitive study" on the weight-cost relationship. However, as I show below, the excessiveness of the current pound rate can be proved without a "study."

B. The Cost Of Two 4-Ounce Pieces v. One 8-Ounce Piece: Where Is The Rebuttal?

On its face, the ECR pound rate is too high. The clearest demonstration of this comes from simply looking at the current rates for pound-rated saturation nonletters drop shipped to the destination delivery unit. This mail currently pays a tiny piece charge of 0.3¢ per piece, plus a large pound rate of 53.7¢ per pound. The rate for a 4-ounce piece is 13.725¢, while an 8-ounce piece is charged 27.15¢. A doubling of weight thus results in a near doubling (98% increase) of the rate. Viewed another way, the postage for *two* 4-ounce pieces (27.45¢) is only 0.3¢ greater than the postage for a *single* 8-ounce piece (27.15¢).

For this rate structure to accurately reflect costs, one would have to believe that the piece-related handling costs of these mail pieces is only 0.3¢ per piece, and that *all* of the remaining cost is due solely to weight. Yet no one could possibly contend that the true piece-handling cost is so minuscule, and that all of the rest of the cost of these mail pieces is purely weight-related. The notion that it costs the Postal Service only 0.3¢ more to handle two 4-ounce pieces than one 8-ounce piece is simply inconceivable. It is likewise inconceivable that this mail -- which is dropshipped to the destination delivery unit and thus bypasses substantial weight-related transportation costs -- could possibly have such huge weight-related costs.

The above comparison demonstrating the absurdity of the current pound rate is not something new. Similar or identical comparisons were presented in Dockets MC95-1 and R97-1 by myself and other parties (see, e.g., ADVO-RT-1 at 13, Tr. 34/18316, R97-1). In this R2000-1 rate case, USPS witness Moeller has again made the same point about the minuscule 0.3¢ piece charge: it is "illogical that the Postal Service would be that indifferent between processing and delivering two 4-ounce pieces, and one 8-ounce piece." USPS-T-35 at 21-22.

Yet still, nearing the end of the third proceeding where this compelling demonstration of the illogic of the high pound rate has been presented, no witness opposing a lower pound rate has addressed it, much less tried to offer a real-world explanation to support the rationality of such a tiny per-piece charge and large per-pound charge.[4] The reason we have not seen an offered explanation is because there *is* no plausible operational or cost-related explanation.

It is a point, however, that cannot continue to be ignored -- because it demonstrates, even without the necessity of technical cost studies, that the ECR pound rate is too high and way out of line with any rational expectation of true piece- versus weight-related cost behavior.

C. As Haldi Acknowledges, Dropshipped Saturation Nonletters Are The Category Of ECR Mail Most Prejudiced By The High Pound Rate.

Dr. Haldi's own arguments, and his various concessions, demonstrate conclusively not only (1) that the ECR pound rate is too high, but also (2) that because of other shortcomings in the rate structure, this overcharging for weight is most excessive in the case of ECR Saturation flats, especially those entered at destination delivery units. This is due to a number of causes:

- The ECR pound rate itself is too high, as Haldi implicitly acknowledged in his comparison to Standard A Regular mail (and as I demonstrate later through a variety of cost analyses).
- Because weight-related costs avoided due to presorting are not reflected in the ECR saturation discount, heavier weight saturation pieces pay too much in weight-related charges (or in Haldi's words are "disadvantaged") compared to lighter weight pieces. Haldi at Tr. 32/15917-18; 15923-24.
- For the same reason, saturation pieces pay too much in weight-related charges compared to non-saturation pieces.

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[4] This point was likewise not addressed in the Commission's MC95-1 or R97-1 decisions.

- Because the letter-flat cost differential includes not just shape-related but also weight-related cost differences, "passing through" the entire letter-flat cost differential over-charges flats with weight-related cost differences that are already charged to flats through the (itself excessive) pound rate. Conversely, letters are under-charged.[5]

In short, ECR saturation flats get the worst of all worlds in every respect -- they pay a too-high pound rate to begin with, but then get double-charged for weight with an excessive letter-nonletter rate surcharge, and yet do not get full credit for the weight-related costs avoided due to their finer level of presortation.

Conversely, the parties opposing a reduced pound rate all receive unjustified windfalls from these skewed rate relationships. The non-postal competitors, represented by NAA and AAPS, benefit by having their mail competitors pay excessively high rates that shelter them from competition. And Val-Pak/Carol Wright, whose mailings are predominantly letters under the 3.3-ounce breakpoint, benefit through a lower-than-warranted letter rate.

III. HALDI, TYE, AND WHITE AVOID THE BROADER PERSPECTIVE: THE POUND RATE IS SUBSTANTIALLY GREATER THAN WEIGHT-RELATED COSTS.

VP/CW witness Haldi (VP/CW-T-1), NAA witness Tye (NAA-T-1), and AAPS witness White (AAPS-T-1) oppose the Postal Service's proposal to moderately increase the piece rate and reduce the pound rate for ECR pound-rate mail. All criticize the weight-cost study supporting the Postal Service proposal but, in addition, Mr. White and Dr. Tye also express concerns that lowering the pound rate will harm competitors in the print advertising distribution market.

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[5] In cross-examination, Haldi claimed to be "unsure" whether the letter-nonletter cost differential included weight-related cost differences (Tr. 15972-73), but he conceded that, if so, a full passthrough would overcharge nonletters (Tr. 15980-82). In fact, the letter-nonletter cost differential does include weight-related cost differences (Daniel, Tr. 4/1370), and both the Postal Service and Haldi proposed near 100% or higher passthroughs.

My discussion in Section II demonstrates the clear reasonableness of the proposed ECR pound rate as a matter of logic and common sense. In addition, there are a number of analytical ways to test and demonstrate that reasonableness.

In this section, I first demonstrate quantitatively that the cost of additional weight above the 3.3-ounce breakpoint is considerably less than the USPS proposed pound rate. Even under the improved proposed rates, postage will still increase substantially as weight increases, and ECR nonletters will make a greater contribution to institutional cost than ECR letters. This large contribution from ECR nonletters alleviates any concerns about how the proposed rates will affect competition.

A. The Proposed Pound Rate Is Substantially Greater Than The Maximum Costs Possibly Related to Weight.

USPS witness Daniel's ECR weigh-cost study produces a weight-cost curve demonstrating that cost changes only moderately with weight.[6] The reasonableness of the USPS proposal can also be demonstrated by various analyses of ECR costs and volumes by shape. These analyses, described below, confirm conclusively that weight has a small impact on ECR costs for pieces above the breakpoint.

In my analyses, I use ECR test year letter and flat costs, volumes, and weights to develop average piece costs for ECR Basic Rate and Saturation Rate letters and flats (or nonletters) at various dropship-entry levels. From those, I derive per pound costs by density- and entry-level. These estimates are reasonable proxies for "bottom

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6 To do this, she identified the total ECR costs, volumes, and weights by shape and then, separately, distributed those costs, volumes, and weights to 20 separate piece weight cells (8 half-ounce cells up to 4 ounces and 12 one-ounce cells up to 16 ounces) to calculate the average cost per piece by ECR shape for volume in each piece weight cell. (USPS-T-28)

up" ECR costs.[7] As such, they address Dr. Haldi's concern that weight-cost relationships be identified by density level and dropship-entry level.

From these data, I then perform two sets of analyses to demonstrate, with conservative assumptions, the reasonableness of the proposed pound rate. The first analysis is based on ECR flat costs and volumes alone, while the second analysis is based on the cost and weight differences between ECR letters and nonletters. Although the estimates vary, depending upon the assumptions used, they all indicate that the USPS proposed rates for pieces above the 3.3-ounce breakpoint recover considerably more than their costs.

1. **Estimates Based on ECR Flat Volumes and Costs Alone.**

For the first analysis, looking at the weight-cost relationship for flats alone, I used data from (1) witness Daniel's response to ADVO/USPS-T28-13 which provided distributions of costs, volumes, and weights (by weight cell) for letters and flats in the Basic-Rate and Hi-Density/Saturation Rate categories; and (2) witness Crum's USPS-T-27 which provided modeled cost avoidances for various ECR dropship-entry levels.[8] Using that data, I then made two alternative assumptions

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[7] In R97-1, Dr. Haldi recommended a "bottom up" ratemaking approach, which he explained as follows:

> "When estimating costs from the bottom up, the Postal Service computes the amount of volume-variable costs incurred, and adds costs incurred for different functions and activities, such as sorting and transportation, to arrive at the estimated cost for individual rate categories or rate cells. The volume-variable unit cost for any rate category is the total volume-variable cost of the category divided by the volume. . . . Bottom up estimates of product costs are common throughout the printing industry . . . and in manufacturing generally. Bottom up costs are typically the starting point for determining product prices in these businesses." (VP/CW-T-1at 10-11, Tr. 27/15049-50, R97-1)

[8] To derive these costs, I made the following modifications to Ms. Daniel's figures:

- Shifted costs and volumes of letters over the 3.3-ounce breakpoint to flats. This was done using Dr. Haldi's assumption that 40% of the volumes and costs in

(footnote continued on next page)

about the weight-cost relationship to derive, under each assumption (Cases 1 and 2), the resulting implied weight-related cost per pound.

For Case 1, I made the extreme assumption that the *entire* costs for *all* flats, both above and below the breakpoint, are purely weight-related -- with *zero* piece-related handling costs. To calculate the resulting per-pound cost under this assumption, I simply divided total ECR flat costs (adjusted to reflect destination delivery unit DDU entry) by the total weight of that mail.

For Case 2, I looked only at flats weighing more than the 3.3-ounce breakpoint, and I made a similar extreme assumption that the total costs for those flats were entirely weight-related (i.e., again assuming zero piece-related handling costs). The resulting estimated cost per pound for those heavy-weight flats was derived by dividing total costs (adjusted to reflect DDU entry) by total weight.

The resulting implied per-pound costs under these two extreme assumptions are shown below:[9]

(footnote continued)
the 3.0 to 3.5 ounce weight cell are over the breakpoint. (VP/CW-T-1, Appendix A, page A-5);

- Equalized the city carrier in-office costs between Hi-Density/Saturation letters and flats, just as witness Daniel did in developing her estimates;
- Corrected rural carrier costs to reflect the figures in USPS LR I-95.

I also eliminated transportation and dropship-related mail-processing costs. To be conservative, I also retained Daniel's treatment of elemental load costs, distributing those costs among piece weight cells based on the total weight in each cell, even though these costs are shape-related, and certainly not purely weight-related.

[9] The estimates in this table are for flats entered at the DDU. To get corresponding estimates for non-dropship entry volume, an ECR average per pound cost of 17.3¢ (i.e., the avoidable dropship-related cost for mail entered at the DDU) may be added in each case. This figure is USPS witness Crum's estimate (USPS-T-27) of postal cost avoidance for mail entered at the DDU (i.e., the cost difference between non-dropship-eligible mail and DDU mail). This is the estimate that Dr. Haldi recommends for use in developing weight-cost estimates. (VP/CW-T-1, Appendix A)

Table III-1
PER POUND COST ESTIMATES BASED ON ECR FLAT COSTS AND VOLUMES

Case	Assumption	Basic Flats	Hi-D/Sat Flats	All Flats
1	All cost is purely weight-related	38.8¢	25.9¢	33.4¢
2	All cost for pieces over the break-point is purely weight-related	26.8¢	19.9¢	24.3¢

The above results for Case 1 represent a "beyond worst case" estimate under the absurd assumption that *all* ECR flat costs are purely weight-related (i.e., assuming zero piece-related costs). This extreme assumption would result in a per-pound cost of 33.4¢ for DDU dropshipped mail and 50.7¢ for non-dropshipped mail -- still lower than the USPS proposed pound rates of 45.0¢ and 58.4¢, respectively. However, no one can doubt that all flats incur some strictly piece-related costs (i.e., costs related to the number or shape of pieces). Thus, the Case 1 estimates are excessive and unrealistic in the extreme.

In Case 2, looking only at flats above the breakpoint, the resulting per pound costs -- 24.3¢ for DDU dropshipped mail and 41.6¢ for non-dropshipped mail -- are substantially less than in Case 1, and also well below the USPS proposed pound rate. However, the Case 2 assumption that the total costs of flats above the breakpoint are purely weight-related is as unrealistic as Case 1, since there are unquestionably significant piece-related costs associated with all mail. Although unreasonably high, these Case 2 costs are still "useful" in that they can serve as an absolute upper limit on the amount of weight-related cost that should be used to develop rates for ECR pieces above the 3.3 ounce breakpoint.

As another check, an estimate of weight-related costs may be obtained from the relatively smooth cost curves developed from the data I used, as shown in Figures

III-1 and III-2.[10] A simple, unweighted regression of those piece cost vs. piece weight observations shows a per pound cost of 22.2¢ for Basic-Rate flats and 16.5¢ for High-Density/Saturation flats.

Figure III-1

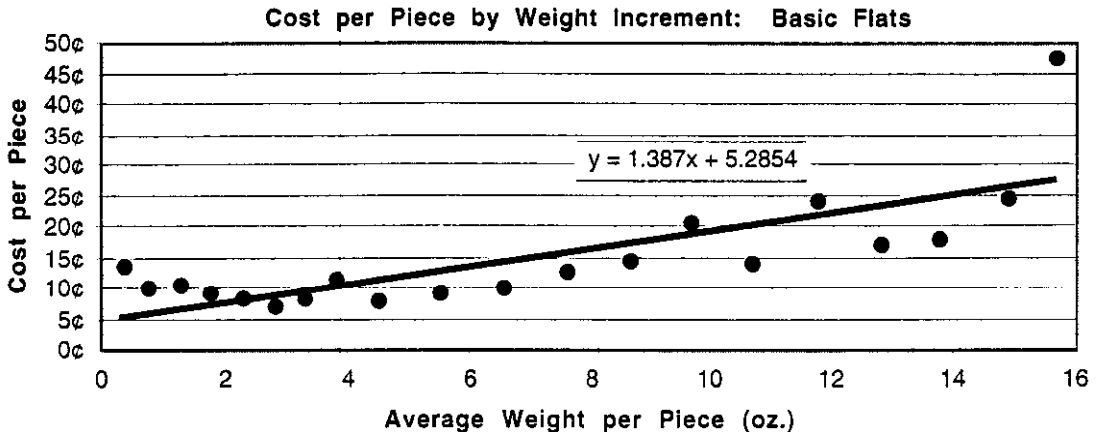
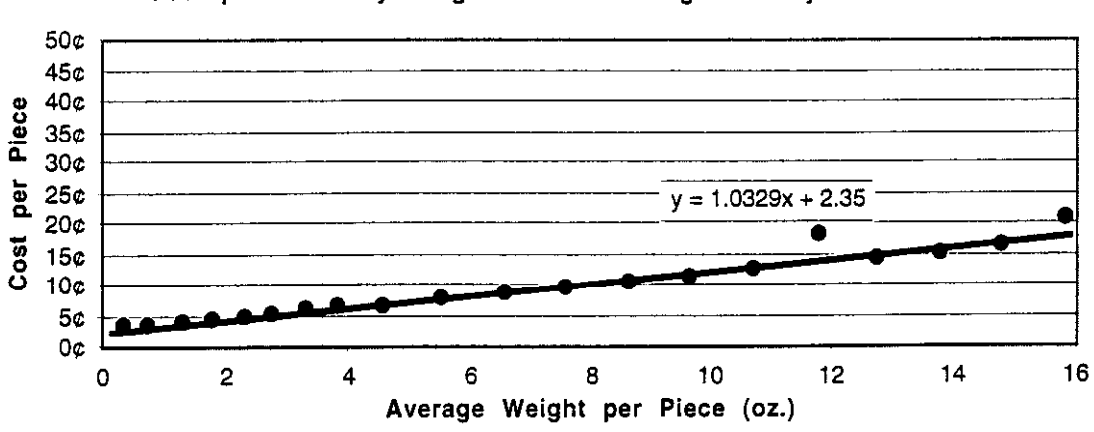


Figure III-2



These graphs, even with the excessive distribution of costs on the basis of weight, show that the costs of ECR flats do not increase nearly as substantially as the USPS proposed rates. One can also see that, if those observations were volume-weighted

10 These costs were adjusted as explained previously, with the exception that there is no dropship adjustment. The costs and the pound cost estimate reflect the actual mix of dropship characteristics in the underlying data.

to reflect the fact that over 98% of ECR flat volume is below 8 ounces, the resulting regression estimates of pound costs would be substantially lower.

The excessiveness of the pound rate as compared to the flat cost estimates is demonstrated in the following table. It shows that costs from the Hi-Density/ Saturation flat curve (unadjusted for dropship level) do not increase nearly as steeply as the USPS proposed rates.

Table III-2
ECR HI-DENSITY/SATURATION FLAT COSTS AND POSTAL CHARGES

Average Piece Weight	Average Piece Cost	Weight Increase	Cost Increase	Postage Increase (Non-Drop Shipped)	Postage Increase (DDU)
3.29 Oz.	6.17¢				
6.60 Oz.	8.55¢	100.6%	38.6%	81.6%	77.2%
9.65 Oz.	11.46¢	193.3%	85.7%	156.8%	148.4%
13.78 Oz.	15.40¢	318.8%	149.6%	258.6%	244.8%

The same general comparison may also be made for Basic Rate flats. For both High-Density/Saturation and Basic Rate flats, it is clear that there is a substantial and increasing margin between their weight-related costs and the USPS proposed pound rate.

2. Estimates Based on Cost and Weight Differences Between ECR Letters and Nonletters.

One of the most critical factors bearing on the weight-cost relationship is the inter-relationship between shape-related and weight-related costs. Ideally, an estimate of shape-related cost differences between letters and nonletters should reflect only those costs that vary solely with shape, and should exclude any weight-related cost differences. As a practical matter, it is likely impossible to truly isolate and segregate these two related cost factors. The USPS estimated letter-nonletter cost differential, in fact, reflects both shape- and weight-related cost differences. As witness Daniel confirmed:

- The letter-nonletter cost differential includes the costs for all flats, both above and below the 3.3-ounce breakpoint;
- Nonletters have an average piece weight three-times greater than letters (2.9 ounces or more for nonletters, compared to less than 1 ounce for letters); and
- The unit cost differences between letters and nonletters "include not only the effects of shape-related cost differences, *but also* the effects of weight-related cost differences." Tr. 4/1221 (emphasis added).

In previous proceedings, I have explained that the average cost difference between ECR letters and flats is due to a combination of shape-related and weight-related cost differences. (See, e.g., ADVO-RT-1, Tr. 32/14924-30, Docket MC95-1). For this reason, when developing the ECR rate structure, it is *inappropriate* to (1) pass through the entire letter vs. nonletter cost difference (at the various density levels) in a piece rate that applies to all nonletters and (2) further require nonletters over the breakpoint to also pay a large weight-related pound rate.

In this proceeding, Dr. Haldi equivocates on whether this interrelationship and mismatch between the letter-nonletter cost differential and the weight-related pound costs exists.[11] However, in Docket R97-1, Dr. Haldi agreed with this point, and he developed an ECR rate proposal which attempted to avoid this double-counting. He developed two "bottom up" cost scenarios: Case I assumed a high pound cost while Case II assumed a low pound cost.[12] In both cases, the letter-flat per piece cost

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[11] At the hearing, Haldi said he did not know whether the USPS letter-nonletter cost differences included the effects of weight-related costs; that he was unsure whether the flats costs included all flats up to 16 ounces; and that he had assumed the cost differences reflected only shape-related differences (Tr. 15980-82). However, in response to an earlier interrogatory, he confirmed that the flat costs used in his estimates of letter-flat cost differentials included all flats weighing from 0-16 ounces (Tr. 15922), which necessarily means that his cost differentials include the effects of weight as well as shape.

[12] The "bottom up" costs he developed in R97-1, and his proposed ECR pound rate of 53.0¢ (well below the 58.4¢ USPS proposal here) were actually based on that analysis. VP/CW-T-1, pages 10-20, Appendix A, and response to AAPS/VP-CW- T1-2.

difference was adjusted to reflect the assumed pound cost. (VP/CW-T-1) Based on his analysis of the weight- and piece-related costs reflected in the average letter-flat unit cost differential, Haldi explained why he believed the USPS proposed pound rate of 53¢ was conservative:

> ". . . the 'moderately high' assumption for weight-related cost in Case I reduces the unit cost of saturation nonletters below the unit cost of letters, regardless of entry point. Since letters everywhere cost less to handle than nonletters, this result is already hard to swallow. *Using even higher pound rates, such as those last approved by the Commission, would cause a further reduction in the unit cost of nonletters below the correspond cost of letters. In light of these considerations, I consider witness Moeller's recommended pound rate to be conservative.*" (Response to AAPS/VP-CW-T1-2, Tr. 27/15172, Docket R97-1, emphasis added) .

Despite his current rate proposal and testimony, Dr. Haldi's R97-1 analyses and statements in that regard remain just as true today -- particularly considering that the pound rate reduction proposed in this proceeding is much smaller than the one he found to be "conservative" in R97-1.

As a further demonstration of the reasonableness of the proposed pound rate, I developed an analysis similar to Haldi's in R97-1, based on the letter-nonletter average cost differential. To derive that cost difference, I started with the USPS ECR letter and nonletter mail-processing and delivery costs by density level in witness Daniel's testimony (USPS-T-28). Those costs, used to develop the USPS proposed rates, were already adjusted to reflect the non-dropship-eligible mail-processing costs. To those costs, I added the non-dropship-eligible transportation costs. This produces the average total costs for non-dropship-eligible Basic-Rate and Saturation letters and, separately, nonletters. (Only Window Service costs, which are relatively minor for ECR, are excluded from those average total costs.)

I then assumed, for each rate category, that the *entire* letter-nonletter cost difference was due *solely* to the average weight difference between letters and nonletters. Or in other words, that the letter-flat cost difference was *purely* weight-

related, with *zero* shape-related costs. I then divided the letter-nonletter cost differences by the weight differences to derive, for each rate category, an estimate of the total weight-related cost for nonletters exceeding the breakpoint weight, under this extreme assumption that the cost differences were 100% weight-related. The resulting implied per-pound costs are set forth below:

Table III-3
PER POUND COST ESTIMATES BASED ON LETTER-NONLETTER DIFFERENCES

Letter-Nonletter Differences:	Average Piece Cost Difference	Average Piece Weight Difference	Per Pound Cost Estimate
Basic Rate - Non-Dropship-Eligible	3.57¢	2.67 oz.	21.42¢
Basic Rate - DDU	0.69¢	2.67 oz.	4.14¢
Saturation - Non-Dropship-Eligible	2.15¢	1.98 oz.	17.41¢
Saturation - DDU	0.02¢	1.98 oz.	0.13¢

Note: Mail processing costs from USPS LR I-96, dropship costs from USPS LR I-175, delivery costs from USPS-T-28 (Table 7), average weight from ADVO/USPS-T28-11.

These costs indicate that if, at particular volume density and entry level, letters are always the same or lower cost than nonletters, then the average cost difference between those letters and nonletters must be due strictly to either shape or weight. If the cost difference is due strictly to weight, then letters and nonletters with the same piece weight cost the same and the entire average cost difference between letters and nonletters (at the same density and entry level) must be weight-related. The estimates presented above assume that the entire average cost difference between letters and nonletters is weight-related. Even under this conservative assumption, the resulting pound costs are only a fraction of the USPS proposed pound rates.

B. <u>At the USPS Proposed Rates, ECR Nonletters Will Make A Greater Contribution to Institutional Cost Than Letters</u>.

Because the letter-nonletter cost difference is due to both shape *and* weight, passing through anything close to 100% of the difference in the piece rate

differentials, while also maintaining the high pound rate, results in a double-counting of weight-related costs: first, as a partially weight-related surcharge in the form of a supposedly shape-related piece rate differential; and second, in the pound-rate that applies only to non-letters. For saturation mail, the Postal Service here proposes a very substantial passthrough of the letter-nonletter cost difference, as well as a still substantial (albeit slightly reduced) pound rate.[13] Accordingly, even under the proposed rates, postage for pieces above the breakpoint will still increase substantially with piece weight:

Table III-4

COMPARISON OF ECR PIECE WEIGHT AND POSTAGE

	6.6 Ounce Piece	**9.9 Ounce Piece**	**13.2 Ounce Piece**
Piece Weight Increase From 3.3 Ounces	100.0%	200.0%	300.0%
Postage Increase - Current Basic Rates	84.5%	169.1%	253.6%
Postage Increase - Proposed Basic Rates	68.7%	137.3%	206.0%
Postage Increase - Current Saturation Rates	97.9%	195.7%	293.6%
Postage Increase - Proposed Saturation Rates	81.1%	162.3%	243.4%

The result is that, even under the USPS proposed rates, nonletters will pay a greater per piece contribution to institutional cost than will letters. Moreover, High Density/Saturation nonletters will pay the highest unit contribution of any ECR rate category:

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13 For saturation mail, the USPS estimated unit costs of 4.781¢ for letters and 5.259¢ for flats. The resulting 0.478¢ cost differential was, during the rate development process, rounded *up* to a 0.500¢ rate differential, thus passing through 104.6% of the cost difference.

Table III-5
ECR LETTER AND NON-LETTER INSTITUTIONAL CONTRIBUTIONS

	Average Piece Cost	Average Piece Revenue	Average Piece Contribution	Institutional Cost Coverage
Basic-Rate Letters	7.94¢	15.99¢	8.05¢	201%
Hi-Density/Saturation Rate Letters	5.32¢	12.39¢	7.07¢	233%
All Letters	7.16¢	14.73¢	7.57¢	206%
Basic-Rate Nonletters	9.45¢	18.02¢	8.56¢	191%
Hi-Density/Saturation Rate Nonletters	5.31¢	13.97¢	8.66¢	263%
All Nonletters	7.49¢	16.10¢	8.61¢	215%

Notes: TYAR rates, costs, volumes at USPS proposed rates. Average flats cost is proxy for Nonletters cost. Average costs based on letter and flat costs developed as described above and do not include contingency. Average revenue reflects all discounts.

On average, even with the rate improvement, nonletters will pay a per-piece contribution that is more than a penny greater than letters. For High-Density/ Saturation mail, the contribution disparity is even greater. Nonletters will pay almost 1.6¢ per piece more in contribution than do High-Density/Saturation Letters. This is the direct result of the combination of passing through a large portion of the letter-nonletter cost differential *and* still retaining a high pound rate.[14]

In sum, the above demonstrates that (1) the USPS rate proposal represents only a moderate improvement toward efficient rates, and (2) the cost data support an even greater reduction in the pound rate.

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14 This circumstance would only be exacerbated by Haldi's recommendations to further expand the Letter-Nonletter piece rate differential and also retain the current high pound rate for Nonletters over the 3.3-ounce breakpoint. (This is discussed in Section V.) It would also be directly contradictory to his rate design principle of equal unit contribution within a subclass. (USPS/VP-CW-T1-23, Tr. 32/15936)

C. The USPS Proposed ECR Rate Structure Will Enhance, Not Impair, The Competitive Process.

Witnesses White and Tye criticize the Postal Service's proposed improvements to the ECR rate structure by claiming that there will be a detrimental effect on competition. To them, the "detrimental rate effect" is the possibility that some of their volume may be diverted, if they do not respond competitively to the improved postal rate structure. Mr. White even implies that private delivery may be facing below-cost competition. However, Dr. Tye makes no such suggestion because he cannot. Given Dr. Tye's many other criticisms, this is a particularly notable exclusion from his long and varied list.

The response to their criticisms is two-fold. First, because it is an improvement that more closely aligns rate structure with cost structure, the USPS rate proposal will benefit all advertisers and consumers.[15] It will make the print advertising distribution market more competitive by forcing its private distribution competitors to become more efficient and innovative. It will encourage delivery innovation and efficiency, enhance investment and entry into the retail and service markets, increase useful information to consumers, and reduce consumer prices for retail products and services. It will encourage allocative, productive, and dynamic efficiencies in the national economy.

Second, the proposed ECR rates are substantially greater than their marginal costs and, in fact, cover substantially more than ECR incremental costs and make a

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15 See, for example, the discussions by witnesses Buckel (SMC-T-1), Merriman (SMC-T-2), Smith (AISOP-T-1), and Baro (AISOP-T-2). These witnesses describe the value of saturation print advertising to large and small business and to the consumers who receive the material. That value does not depend upon whether the advertising is delivered by the Postal Service, the newspapers, or private delivery firms. However, it is important that the prices for distributing that advertising are based on cost and do not inefficiently exclude advertisers or consumers who value the delivery/receipt of such material. That is the competitive process.

large contribution to institutional costs. Simply stated, there is no harm to the competitive process if rates are in excess of their incremental costs. However, it is important to recognize that a policy of maintaining ECR rates at such a high level results in a form of "umbrella pricing" which protects distribution competitors, inefficiently excludes certain advertisers and consumers, and causes ripples throughout the national economy.

Mr. White tries to cast doubt on the above by implying (without substantiation) that private delivery companies may be facing below-cost competition. However, an examination of the "rate-card" rates that Mr. White's organization (Distribution Systems of Oklahoma, DSO) charges for saturation advertising distribution should reassure the Commission that (1) the USPS proposed rates are substantially greater than those of its competitors and (2) the USPS cost structure to serve ECR mail is less weight-related than is its proposed rate structure. In addition, it should be noted that DSO, unlike the USPS, has the flexibility to revise its rates to accommodate various advertiser conditions (e.g., price sensitivity, number of addresses covered, frequency of program).

The DSO Rates and Rate Structure. For high-density/saturation flat pieces 6 ounces and below, DSO's prices are lower, in every case, than those proposed by the USPS for ECR Saturation DDU Non- Letter rates.[16]

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16 These rates apply to independent shopper and buyers guide publications (i.e., publications not affiliated with the Oklahoman newspaper) and cover the inserts included within the publication. (ADVO/AAPS-T1-6 and 12, Tr. 22/9974, 9980-02) Although DSO's rates beyond 6 ounces are not on the record, it is obvious that they must be even lower than those of the Postal Service. This is because Mr. White states that the typical flat size piece carried by private delivery weighs roughly 7 to 9 ounces and the relevant market is saturation material weighing five ounces and above. (USPS/AAPS-T1-4, 7, 9. Tr. 10003, 10006, 10008))

Table III-6
COMPARISON OF DSO AND USPS (PROPOSED) SATURATION RATES

	DSO Rates		USPS Rates		USPS vs. DSO Difference in Cents (Percent USPS Rates Greater than DSO Rates)			
Piece Weight	10,000 Pieces	282,000 Pieces	DSCF	DDU	USPS DSCF to DSO 10,000	USPS DSCF to DSO 282,000	USPS DDU to DSO 10,000	USPS DDU to DSO 282,000
2 Oz.	10.80¢	7.30¢	12.60¢	12.00¢	1.80¢ (16.67%)	5.30¢ (72.60%)	1.20¢ (11.11%)	4.70¢ (64.38%)
3 Oz.	10.80	7.30	12.60	12.00	1.80 (16.67%)	5.30 (72.60%)	1.20 (11.11%)	4.70 (64.38%)
4 Oz.	10.80	7.30	14.70	14.05	3.90 (36.11%)	7.40 (101.37%)	3.25 (30.09%)	6.75 (92.47%)
5 Oz.	12.00	8.50	17.68	16.86	5.68 (47.29%)	9.18 (107.94%)	4.86 (40.52%)	8.36 (98.38%)
6 Oz.	13.50	9.00	20.65	19.68	7.15 (52.96%)	11.65 (129.44%)	6.18 (45.74%)	10.68 (118.61%)

Source: USPS/AAPS-T1-15 and ADVO/AAPS-T1-12 for DSO rates, Tr. 22/10015, 9980-82; USPS-T-35 for USPS proposed rates.

When viewing this comparison, it is important to note that over 94% of USPS saturation flat volume falls within the 0 to 6 ounce weight increment. Thus, this rate comparison covers the vast majority of USPS saturation flat volume that could be affected by the USPS reduction in the pound rate. It also demonstrates that USPS proposed rates are substantially greater than DSO's rates for apparently comparable pieces; and, as pieces become heavier, the disparity between the USPS and DSO rates becomes greater.

Since DSO's rates may be considered one measure of standalone high-density/saturation print advertising distribution costs, it appears that the USPS saturation rates may be in excess of their competitive standalone costs.[17] This is borne out by the fact that high-density/saturation mailers, such as ADVO, have recently established private delivery operations in selected areas.

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17 From a stand-alone viewpoint, it is also especially interesting to note that DSO pays its independent contractor-carriers anywhere from 10¢ to 30¢ a piece for phone books which it indicates weigh more than 16 ounces per piece, on average. (USPS/AAPS-T1-17 and MOAA/AAPS-T1-1, Tr. 22/10017, 9990-91)

Separately, DSO's rates provide some insight into its cost structure. For example, like the USPS, DSO also has a breakpoint rate structure -- but with 5 ounces as the breakpoint.[18] Further, the implicit DSO charges for additional weight for saturation pieces above its breakpoint, at least for the 5 to 6 ounce increase, are not nearly as great as those proposed by the USPS (i.e., 1.5¢ per additional ounce vs, a proposed 2.8¢ to 3.0¢ per ounce for USPS DDU or DSCF mail). Because of that low marginal rate for additional weight, DSO's rates increase only moderately with piece weight and not nearly as much as those proposed by the USPS.

IV. CRITICISMS OF THE USPS ECR WEIGHT-COST STUDY DO NOT INVALIDATE THE USPS RATE STRUCTURE PROPOSAL.

Although the AAPS, NAA, and VP/CW witnesses offer a number of criticisms of the USPS ECR weight-cost study, those criticisms are not only exaggerated but relatively simplistic and misleading. When assessed clearly in terms of operational realities and ratemaking requirements, those criticisms are insupportable and cannot invalidate the weight-cost study's key conclusion: piece costs increase only moderately with piece weight, and there is clearly not a one-to-one relationship between piece weight and piece cost.

Because the effect of weight on costs is intertwined with other mail characteristics and cost factors such as shape, it would be extremely difficult if not impossible to perfectly isolate and precisely identify all the cost interrelations. For that reason, any study is going to have, at some level, some technical imperfections for opponents to take pot shots at. The same is true of the USPS weight-cost study. However, although it is not "perfect," it is a "good" study, based on the total ECR attributable costs and billing determinants, that can be related to the average shape

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[18] When one reviews the USPS weight-cost curves, one can easily see why 5 ounces, rather than 3.3 ounces, is a better breakpoint.

and density level unit costs used to develop ECR piece rates. As a result, together with the analyses provided in Section III above, it provides a strong and reliable indication of the direction in which the ECR nonletter piece- and weight-based rates should go: downward.

Since Dr. Haldi's qualitative analysis of the weight-cost study is the most elaborate, I begin with an assessment of it, followed by comments on Mr. White's criticism of the USPS city carrier out-of-office costing and, finally, Mr. Tye's general critique of the USPS weight-cost study.

A. Haldi's Qualitative Analysis of the Weight-Cost Relationship Overstates The Effect of Weight.

Dr. Haldi offers a spectrum of criticisms of the USPS weight-cost study. However, they revolve around two general points. The first involves his apparent belief that bulk mail handling operations vary on a one-for-one basis with mail weight and therefore weight-related costs should be greater than the USPS study shows. The second is that the weight-cost relationship for each general category of ECR mail should be separately identified so that a precise matching of weight-related and piece-related costs can be made for each rate category. With respect to the first general point, I explain below that bulk mail handling operations are generally less than 100% variable with weight because of the substantial scale economies associated with bulk container handlings.

With respect to the second general point, Section III above demonstrates that the ECR weight cost study can be disaggregated by shape and density level, and can be related to the entry-level modeled costs. For ECR flats, which are the bulk of the nonletter rate category, the weight-cost relationships for both Basic-Rate and High-Density/Saturation-Rate volume show the same result: piece costs increase only moderately with piece weight. (See Figures III-1 and III-2.)

1. Analysis of the Marginal Effect of Volume and Piece Weight on Bulk Handling Costs.

Dr. Haldi's qualitative discussion of the weight-cost effect suggests that there is a one-for-one relationship between changes in mail weight and changes in the number of bulk mail handlings. By implying that all bulk containers are filled to capacity and that additional weight always causes additional bulk containers of the same type,[19] he gives the impression that there is a one-for-one relationship between changes in mail weight and changes in work related to the bulk mail container (i.e., that the variability of such container handlings is 100 percent) and, thus, that there are substantial weight-related costs associated with such bulk mail handlings. His analysis of these bulk costs is not only overly simplified but misleading.

For ratemaking purposes, it is important to identify how average piece cost changes when either (a) piece volume changes or (b) piece weight changes. When mail is handled in bulk (i.e., in bundles, containers, transportation vehicles, carrier satchels), the related costs are a function of total weight. A change in either piece volume or piece weight will affect total weight and since bulk handling and transportation costs are sensitive to total weight, Dr. Haldi focuses on bulk handling costs.

However, he glosses over the fact that bulk handling costs are characterized by large scale economies, as follows:

- Since the cost to handle a bulk container is principally fixed with respect to the number of pieces or amount of weight inside the container (especially when the handling is mechanized and there are fixed or semi-fixed set-up costs), increasing the number of pieces or average piece weight simply reduces the per piece or per pound cost. In other words, as long as there is excess capacity in bulk containers, the

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19 VP/CW-T-1, Appendix B, pages B-7 through B-15.

variability of bulk handling costs with either piece volume or piece weight is less than 100 percent.

- Bulk containers have maximum weight constraints but most Standard A mailings are handled in containers that do not reach those weight constraints. There are several reasons for this: the individual needs of mailers, mailer preparation requirements imposed by the Postal Service, USPS service and dispatch requirements, and the variety of destinations to which mail ultimately is delivered (i.e., zips, routes, stops, deliveries). Accordingly, the average bulk mail container contains excess capacity, and additional piece volume or weight in such containers actually decreases per piece or per pound cost.

- Bulk containers generally also have a minimum weight constraint; and larger, more efficient-to-handle containers are generally used when mail to a particular destination reaches sufficient total weight. Accordingly, additional volume or weight may actually cause the mailing to be placed in larger capacity, more efficient containers, which also decreases per piece or per pound cost. The fact that increased weight (either in the form of pieces or piece weight) permits the use of more efficient (lower per-piece cost) containerization also contributes to the scale economies associated with handling bulk containers. It also means that variability of bulk handling cost is even less than if one assumes that there can be no change in the type of bulk container (as above).

In sum, these large scale economies explain why, even at a specific ECR density level, costs increase at a much slower rate than do piece weights. Thus, costs increase much less than weight, as the USPS weight study indicates. The scale economies also explain why, at the High-Density/Saturation level, per piece and per pound costs (and piece and pound rates) are lower than at the Basic-Rate level.

Finally, scale economies in bulk handling operations may not be entirely reflected in the USPS estimate of variable cost for in-office bulk operations. This is because the Postal Service has really not conducted a true variability analysis for allied and dock handling operations where the majority of bulk handlings related to ECR would occur. A true variability analysis would involve a measure of the extent to which the number and type of containers vary with volume and weight and this has not

been done. Accordingly, the bulk handling costs that are included in the USPS weight-cost study are likely far greater than their true variable costs.[20]

This last point is an important observation. Despite the facts that ECR bulk mail processing costs are likely overstated and that the Postal Service used conservative assumptions in distributing costs among the piece weight cells (e.g., distributing an overstated elemental load cost on the basis of weight), the weight-cost study still shows that cost increases only moderately with increasing piece weight.

2. Diversity and Averaging Within the Subclass.

Some of Dr. Haldi's recommendations to the Commission appear inconsistent with his analyses with respect to diversity within the subclass. He explains in detail why, because of diversity in mailing characteristics within the subclass, there are likely to be multiple weight-cost relationships within the ECR subclass. And, in part because the USPS weight-cost study does not separately recognize those diverse weight-cost relationships, he recommends that the Commission reject the Postal Service's proposed reduction in the pound rate for nonletters over the 3.3-ounce breakpoint. Given his comments in this regard, he appears very concerned that rate structure be carefully aligned with cost structure. However, those concerns are inconsistent with the following:

- **The Application of Averaging**
  Dr. Haldi rejects a reduction in the pound rate because its underlying cost analysis was not disaggregated by mail type; but, at the same time, he proposes ECR rates that include a single set of pound rates which apply to all ECR density- and entry-related rate categories.

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[20] See, e.g., USPS-T-16, page 69 where witness Degen states: "My analysis of the allied operations indicates that the allied operations have lower volume-variabilities than the distribution operations. . . To compensate for the use of 100 percent volume-variability for the allied cost pools, the not handling tallies in those pools are distributed to subclasses using a key developed from all cost pools in Cost segment 3.1." Allied operations include platform, opening, and pouching, which are all container-related bulk.

- **Relationship of the Standard Regular and ECR Pound Rates**
  Dr. Haldi emphasizes that increasing levels of presortation/density are accompanied by lesser amounts of weight-related cost. However, he then recommends for ECR -- the most presorted and destination-dense mail in the system -- a pound rate that is only negligibly less than that for the far less presorted Standard A Regular mail.

His concern with cost and rate alignment seems at odds with his rejection of the moderate improvement the Postal Service is proposing to the ECR rate structure and with his direct testimony on "bottom up" costs in R97-1. There is clear and undeniable evidence that (1) the pound rate increases much more rapidly than piece costs with piece weight and (2) the effect of weight on costs declines substantially with worksharing. With such clear information and the moderate rate improvement being proposed by the Postal Service, it is not necessary to have perfect data, but only to know the general direction in which to proceed. Moreover, the pound rate, since it applies to all ECR density- and entry-related rate categories, should represent the weight-cost relationship for the mix of volumes to which it applies.

Separately, Dr. Haldi's comments concerning the diversity of weight-cost relationships within the subclass provide a very good demonstration of why it may be extremely difficult, if not impossible, to precisely identify weight-cost relationships (and quantify with precision all weight-related costs) that will fully satisfy all parties. Within ECR, there is a diversity of mail characteristics and, within the USPS system, there is a diversity in the way in which mail flows through and is handled. That is the strength in an IOCS-type analysis that Dr. Haldi and Dr. Tye criticize: it captures the effect of all the diversity. (By their very nature, IOCS tallies record precisely the operations and types of pieces, items, and containers involved and the tallies are themselves time-weighted.) But, such diversity is also the reason why it would be exceptionally difficult (If not impossible) to identify system-wide, rate-category-specific, weight-related costs through an industrial engineering, modeling or some other non-IOCS-type approach. Insistence on such full-scale and precise analysis before permitting even a moderate

reduction in the pound rate is essentially a guarantee that the obviously excessive pound rate will never be reduced.

3. Treatment of Not Handling and Mixed Mail IOCS Tallies.

Dr. Haldi's criticism of the weight-cost study's distribution of not-handling and mixed mail IOCS tallies on the basis of direct tallies is relatively simplistic. He suggests that those tallies should be distributed among the piece weight cells on the basis of weight rather than on the basis of direct tallies. His criticism appears to be based on the assumptions that (1) the number (and cost) of bulk handlings varies 100% with weight (number of pieces times average piece weight); and (2) all direct tallies are purely piece-related.[21] He also assumes that not-handling tallies are all associated with bulk handling operations.

I have already explained that the first assumption is incorrect: bulk handling scale economies mean that bulk costs do not increase on a one-to-one fashion with either piece weight or total weight. In some cases, average piece cost declines with increasing mail weight. For example, volume-density level varies inversely with bulk handling requirements (i.e., weight-related operations). This is not only due to scale economies in bulk handling but because, when total weight to a particular destination increases, more efficient containerization is used and postal bulk handlings and transportation are bypassed.

This can, in turn, be related to the IOCS direct handling tallies for mail processing. Some direct handling tallies are associated with bulk handlings or identical items and containers. Given ECR's mail preparation requirements and the fact that ECR does not usually need to be sorted at the mail processing facility, the

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[21] If all else were equal, and there were only variation in total weight, and if the number of container handlings increased proportionately with total weight, then bulk handlings would increase more rapidly than single piece handlings. Under that scenario, piece cost would increase with piece weight.

majority of bulk handlings should be for identical items or containers. For those direct handling tallies, piece weight is identified and is appropriately used in the weight-cost study distribution key for mixed mail/not handling tallies.[22] However, If there is ECR volume in a mixed mail container, then it is likely to be volume entered further upstream in the USPS system. And, because lighter mailings typically are entered much further upstream than their heavier-weight counterparts, their pieces are generally the ones that are handled individually by clerk/mailhandlers or found in mixed mail containers. So, to some extent, mixed mail tallies involving lighter-weight ECR mailings are distributed on the basis of (1) heavier piece weight direct handling item/container tallies and/or (2) lighter piece weight direct handling individual piece tallies.

In fact, it is possible that, for ECR, the use of direct handling item/container tallies as a distribution key overstates the effect that heavier-weight mailings have on mixed mail costs (and understate the effect of lighter-weight mailings). Given these realities, the use of IOCS direct tallies as distribution keys for the mixed mail (including empty container handling) and not-handling tallies (already allocated to ECR shapes and density levels) appears reasonable.

With respect to not handling tallies, Dr. Haldi apparently assumes that they are all associated directly with bulk handling operations. (And, to the extent that some of them are directly associated with bulk handling operations, my comments above apply.) However, it appears that not handling tallies are just that -- measures of time

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22 Direct tallies reflect the proportion of labor time by subclass and shape incurred for the handling of individual pieces, items and containers with identical or counted pieces of mail, and items where the top piece rule applies. (USPS-T-17, page 13) Because these tallies indicate the volume by subclasses, shapes, and piece weights that is (was or will be) in mail containers, they are simply used as proxies to identify the subclasses, shapes, and piece weights that are (were or will be) in containers for which the subclass/shape information was not identified or in empty containers.

when neither mail nor mail equipment are being handled in any operation (and not just bulk handling operations). Given that perhaps much of that time may be related to maintaining labor capacity to handle service commitments, it is extremely arguable as to how much of that total system time should even be allocated to ECR non-letters, given their deferability, much less considered weight-related as opposed to piece-related.[23]

B. White's Carrier Out-of-Office Cost Arguments Are Unsupported By His Own Example And Refuted By USPS Data.

AAPS witness White alleges that weight has a large impact on city carrier out-of-office costs for walking time. As his only support for this contention, he offers an "example" of the effect of weight on his own company's private delivery operations. He also rejects the conservative weight-cost assumption that 84% of attributable out-of-office carrier costs are weight-related[24] could compensate for any possible weight impact on walking time.

To begin with, his own example -- purportedly showing the effect that added weight has on his carriers' walking time -- does not demonstrate the effect that he claims even for his own private delivery operations. Second, in the case of Postal Service delivery operations, there is convincing data that conclusively refutes the notion that weight has any significant impact on walking time.

In his example, White claimed that a 1/2-ounce increase in the weight of his TMC product caused his carriers to have to walk an additional 100-200 miles per year to restock their satchels. Tr. 9960, 9988. In cross-examination, however, White conceded that his carriers, on average, carry about 15 pounds of materials per loop,

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23 See, e.g., TW-T-1, pages 26 ff, Tr. 24/11373 ff..

24 The percentage is calculated as the ratio of elemental load time to the sum of elemental load plus route plus access time. Since street support is a burden on those three components plus in-office time, Ms. Daniel's analysis also implicitly assumes that approximately 84% of that time also varies with weight.

filling only about 50% of the available satchel capacity, and that the added "extra weight" amounted to only about 1 (one) extra pound per walking loop. Tr. 10050-56. Thus, in the end, his example undermines his cost assertion, showing instead that incremental weight can normally be accommodated by excess satchel capacity with little or no impact on cost.

In postal delivery, weight has little effect on carrier loop- and dismount-related walking time. This is principally for the same reasons explained for in-office bulk processing. When mail is handled in bulk, there are scale economies and, unless capacity limits are reached, the variability of bulk handling with piece volume or weight is extremely low. Further, there are substantial out-of-office costs which vary strictly with piece volume (e.g., city delivery access and coverage-related load time, and the entirety of rural delivery costs).

This is also demonstrated from available USPS data. In Docket R97-1, I presented data showing that the average city carrier walking loop covers only 25.1 actual stops.[25] Based on an over-stated estimate of approximately 12.5 ounces of mail per stop in 1986 and 12.8 ounces in 1996,[26] a carrier would have an average of 20 pounds of mail per loop, far below the 35-pound limit and leaving ample capacity to accommodate a marginal increase in piece weight. This considerable excess satchel volume/weight capacity means that a marginal increase in piece weight

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25 ADVO-RT-1 at 17-23, Tr. 34/18325-31, Docket R97-1. These data were from a 1986 Foot Access Test, taken from a representative sample of park and loop routes.

26 This estimate was based on CCS data for all stop types, including multiple delivery residential and business and mixed stops which typically have substantially more volume/weight per stop than do single delivery stops. Thus, the volume/weight per stop estimates were over-stated.

should have no effect on the number of loops or any other carrier activities which depend upon the number of loops.

I also explained that the relatively low average number of stops and weight per loop are the result of route and loop structuring caused by two piece-related workload drivers: (1) in-office time to case volume and (b) the number of stops and deliveries which must be covered. Route and loop structuring is also affected by non-volume-related conditions of the geographic coverage area. Such non-volume-related conditions include the manner in which addresses are grouped, special service requirements for particular addresses, traffic patterns, parking availability, safety, terrain, and maintenance of contiguous addresses within a route. Further, the structuring must account for interspersed dismount and curbline deliveries. Accordingly, excess weight capacity is not deliberately designed into loops but is an incidental byproduct of other more important route restructuring considerations.

Separately, carriers and their supervisors have to deal with daily variations in volumes. If there is a large amount of volume/weight to deliver on a particular day, ECR saturation mailings, because of their deferability, actually give the carriers more flexibility to deal with unexpected volumes than do mailings of other classes. The combination of the excess delivery-weight capacity in the system and the flexibility to deal with unexpected or unusually large mail volumes/weights through deferral of all or portions of a saturation mailing, demonstrates that weight has a small effect on postal carrier out-of-office costs.

Given the above explanation, it is not surprising that the Postal Service does not routinely collect weight data for city delivery carrier operations.[27] However, there is now additional support for the loop stop/volume data and the explanations that I presented in R97-1. The Engineered Standards Database provided by USPS witness

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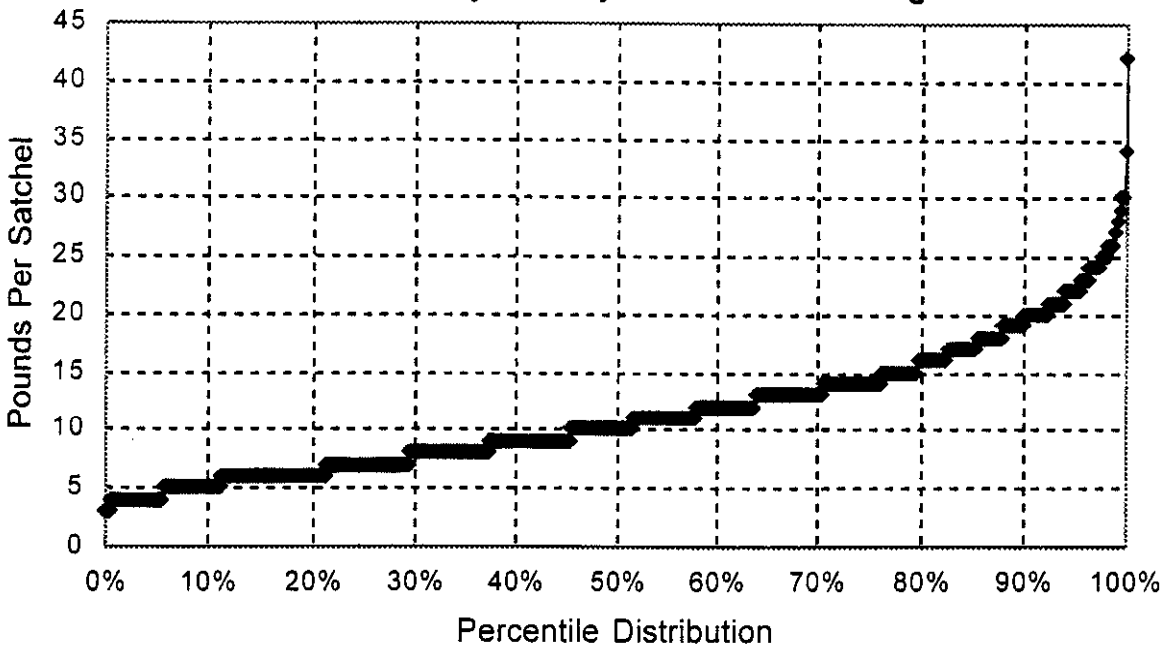
[27] Response to ADVO/USPS-6.

Raymond gathered data on satchel weights for loops on city carrier park and loop routes.[28] A total of 1,270 satchels were weighed, with an average satchel weight of 11.3 pounds. This is far less than the average of 20 pounds I estimated in R97-1, and only about one-third of the 35-pound satchel limit.

The distribution of those satchel weights, shown below, provides further quantitative evidence refuting White's claim about the effect of weight on USPS carrier walking time:

Graph IV-1
Distribution of City Delivery Carrier Satchel Weights



As this graph shows, about 90% of the satchels weighed 20 pounds or less. This clearly indicates substantial excess weight capacity in carrier satchels, and provides additional quantitative support to my operational explanation of why carrier walking time does not vary with weight.

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[28] These data were provided in USPS-LR-I-329 in response to ADVO/USPS-4. The satchels were weighed at the start of the loops.

C. Tye's Nitpicks of the ECR Weight-Cost Study Overlook the Big Picture.

Even more so than Dr. Haldi, Dr. Tye generates a number of "scatter-shot" criticisms of the USPS weight-cost study, but his are even more superficial. Also, like Haldi, he recommends that even moderate ECR rate structure improvements be postponed until the Commission receives a weight-cost study that offers a level of precision that satisfies his unspecified (and probably impossible) requirements. As explained before, the level of precision demanded by Drs. Haldi and Tye is not required to support the extremely moderate USPS proposed improvements.

However, Dr. Tye presents a few criticisms that warrant comment because they actually demonstrate an important costing/ratemaking point that he (and Dr. Haldi) ignore.

- **Thin IOCS Tallies at Higher Piece Weight Levels**
  One of his more prominent points is that there are relatively few IOCS tallies for ECR in some of the higher-piece-weight cells. He implies that the "thinness" of the tallies in those weight cells means the weight-cost study is unreliable.

- **Parcel Cost Anomalies**
  He appears to be very concerned over the unit cost differences between ECR Regular and Non-Profit parcels and claims that the disparity is likely caused by IOCS tally thinness.

- **The Discontinuity Between Standard A and B and its Effect on the 15-16 Ounce Weight Cells**
  Tye (and Haldi also) note that the unit costs in the higher weight cells do not increase in a perfectly smooth, monotonic manner. Tye also notes that in the last 15-16 ounce weight cell, costs jump up to a surprisingly high level, and he criticizes the weight-cost study for "obscuring" this individual data point by combining some of them to develop regressions. He suggests that the surprising costs in the heaviest weight cell are due to volume cross-over of light-weight Standard B into heavy-weight Standard A ECR.

- **Weighting the Weight-Cost Study Piece Cost Observations**
  Tye appears to criticize the weight-cost study regression results because the per piece costs by weight cell were not weighted by the associated piece volume.

Each of these criticisms demonstrates the fallacy of constructing an opinion and recommendation based on looking at the results for the least important volume in the outer weight-fringe of the subclass. Dr. Tye focuses on the data and results for the heaviest piece-weight volume and for parcels. Nonletter volume above 8 ounces represents only 1.4% of total ECR volume, while parcel volume represents only 0.14% of the subclass. Volume in the last 15-16 ounce weight cell constitutes less than 0.04% (four ten-thousandths) of ECR volume. Moreover, ECR volume, by its very nature does not cause much in-office processing. Accordingly, it is not surprising that there are relatively few IOCS tallies for that type of mail and that there is greater variation in the cost estimates for that type of mail than for the more typical and numerous ECR volume. It also explains why additional, more precise weight-cost studies will be unlikely to capture much improved data for heavier-weight ECR.

On the other hand, the estimates for those heaviest-weight cells represent "best estimates" for a very minor portion of the subclass and, despite the fact that the confidence intervals around those estimates are large, there is no reason to believe that they are statistically biased in one way or another. Moreover, despite the unexpectedly large cost in the heaviest 15-16 ounce weight cell resulting from the BY98 IOCS data, all analyses of those costs still demonstrate that the USPS proposed improvements in the ECR rate structure are not only completely supported but also moderate.[29]

Further, Dr. Tye fails to comment on the cost estimates and general weight-cost curves for the vast majority of ECR volume with piece weights below the 8-ounce

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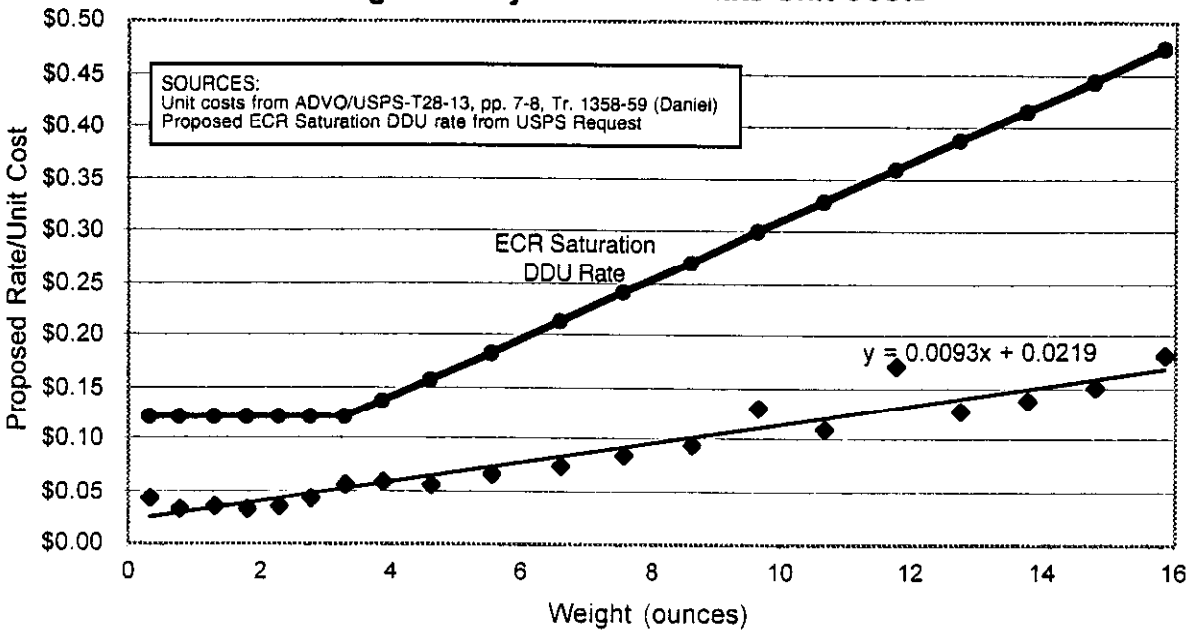
[29] With respect to Dr. Tye's explanation of the Standard A ECR and Standard B volume cross-overs, not only does that volume represent an extremely small proportion of ECR volume, but any "problem" which the cross-overs cause should be corrected not by maintaining the ECR pound rate at an unreasonably high level but by revisiting the parcel shape and rate issue for ECR and also by offering mailer-useful presort and dropship discounts for Standard B volumes.

level. In those cases, the weight-cost curves are easy to identify, and the weight-cost behavior is far more important because those pieces represent the bulk of the volume that will respond to the proposed ECR rates. As I explained in my R87-1 testimony (ADVO-RT-1 at 11ff), all of the weight-cost studies conducted over a number of years have shown the same general pattern of cost behavior, particularly for nonletters in the 0 to 8 ounce range. The results of those previous studies are comparable to that seen in Figures III-1 and II-2: a very moderate increase in cost as piece weight increases.

Thus, I agree completely with Dr. Tye that Ms. Daniel's regression would have been improved by volume-weighting the weight-cell cost observations. Since the majority of ECR volume that will respond to a change in ECR rates is concentrated in the 3 to 8-9 ounce weight cells, the weight-cost behavior for those volumes are particularly relevant. Performing the volume-weighting would identify more precisely how the impact of a change in weight would affect system-level average ECR piece cost. It also would likely have increased the per piece and reduced the per pound costs derived from Daniel's regression equations.

What Dr. Tye failed to do is to look at the *overall pattern* of costs throughout the ECR weight spectrum, especially over the entire 3-16 ounce range where the pound rate applies. The unmistakable trend, as clearly shown in ADVO-XE-T35-2 (Tr. 3987 and 14885, reproduced below), is a gradual increase in costs as weight increases:

Comparison of Proposed ECR Saturation Flats DDU Rate with High Density/Saturation Flats Unit Costs



Moreover, as this graph also shows, these costs are substantially below the USPS proposed rates, with a much more gradual slope. By focusing his attention on selected individual weight cells, Tye blinded himself to this obvious pattern of low weight-related costs.

V. HALDI'S PROPOSED ECR LETTER-NONLETTER RATE DIFFERENTIALS ARE FLAWED.

Dr. Haldi proposes to increase the piece-rate differentials between ECR letters and nonletters in the High-Density and Saturation categories.[30] His proposal is based on a flawed analysis of ECR letter and nonletter volumes and costs derived from the ECR weight-cost study presented by USPS witness Daniel in USPS LR I-92. In his analysis, to correct for what he believes is a misallocation of the costs of heavy-

30 He accepts that ECR Basic-Rate letters and nonletters should have the same rate to encourage letter mailers to enter their mailings as either the ECR Automation or Regular 5-Digit Automation.

weight ECR letters to the letter category rather than the nonletter category, he re-shifts costs from letters to nonletters. These costs are associated with letter-shaped volume having piece weights beyond the 3.3-ounce breakpoint. He notes that such "heavy-weight" letters are considered nonletters for rating purposes. Accordingly, using the total letter and flat unit cost estimates from the ECR weight-cost study, Dr. Haldi shifts the "heavy-weight" letter costs away from ECR letters and to ECR flats.[31] He then uses the resulting increase in the letter-flat average cost difference to expand the difference between letter and nonletter rates for pieces below the 3.3-ounce breakpoint. In his rate proposal, he also increases the pound rate for nonletters above the breakpoint.

There are two key flaws in Dr. Haldi's analysis.

First, he has overstated the effect of heavy-weight letters on the costs for letters and flats (as a proxy for nonletters). But, that is a minor technical matter, easily corrected.

Second, and far more importantly, he inappropriately uses his overstated letter-flat adjustment to propose and expanded letter-nonletter rate differential. He does this by inappropriately assuming that the entire letter-flat cost difference is purely shape- (or piece-) related, ignoring the fact that a portion of that cost difference is due to weight. Accordingly, when he sets the letter-flat piece rate differential at 100% (or more) of the letter-flat cost differential, he recovers both the letter-flat shape-related and the weight-related cost differences. Thus, the combination of a 100% (or even slightly less than 100%) passthrough of the average letter-flat cost difference to the flat piece rate, plus a separate pound rate, constitutes double-recovery of the average cost difference between letters and flats.

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[31] Nonletters includes both flat and parcel volume. However, the vast majority of nonletters are actually flats. Thus, Dr. Haldi's analysis focuses on the flats portion of nonletters.

A. Correction to Haldi's Letter-Flat Cost Differential.

As a technical matter, I agree that "heavy-weight" letters are treated as nonletters for rating purposes. However, Dr. Haldi's analysis in this matter requires correction. He only shifts heavy-weight letter costs over and ignores the presence of heavy-weight letter volumes. Further, the USPS LR I-92 costs he uses include (1) a considerable amount of cost allocated on the basis of weight in order to be conservative in estimating the ECR letter and nonletter weight-cost relationships and (2) more than the traditional mail-processing and delivery costs used by witnesses Daniel/Moeller to develop the ECR letter/nonletter rate differentials.

Effectively, Dr. Haldi's analysis requires both volume and cost corrections. With respect to the cost correction, I adjusted witness Daniel's ECR costs for letter- and flat-shape volume by eliminating all costs but mail processing and delivery (i.e., those in Cost Segments 3, 6, 7, and 10) and re-allocated shape-related elemental load costs using pieces as the distribution key. Then both the volume and cost of heavy-weight letters were shifted to flats. To identify the portion of volume over the 3.3-ounce breakpoint in the 3.0 to 3.5 weight cell, I adopted Dr. Haldi's estimate of 40%.

My results, shown in Table V-1 below, are significantly less than Dr. Haldi's. He estimates an overall increase in the letter/flat difference of 0.291¢ (over that estimated by the USPS) due to the shift in heavy-weight letters, while my analysis indicates that the average letter-flat difference increases by only 0.077¢:

Table V-1

VP/CW-T-1 APPENDIX A - ADJUSTED

	ECR Letters Volume (000)	ECR Letters Cost ($000)	ECR Flats Volume (000)	ECR Flats Cost ($000)
Total Volume or Cost (LR I-92)	13,127,962	875,596.0	20,455,078	1,358,631.3
Unadjusted Unit Cost, Cents		6.670¢		6.642¢
Unit Cost Difference, Cents				-0.028¢
Mismatch Adjustment: Overweight Pieces with Letter-Shaped Dimensions				
Estimated Percent of Letters Cost				
Estimated Cost Shifted from Letters to Flats		-14,515.5		14,515.5
Estimated Volume Shifted from Letters to Flats	-126,440		126,440	
Totals After Adjustment	13,001,521	861,080.5	20,581,518	1,373,146.7
Unit Cost Adj. For Mismatch, Cents		6.623¢		6.672¢
Unit Cost Changes, Cents		-0.047¢		0.030¢
Letter-Flat Unit Cost Difference, Cents				0.049¢
Change in Letter-Flat Difference, Cents				0.077¢

B. The Use of an Average Letter vs. Nonletter Cost Differential in Rates.

Dr. Haldi presents an ECR rate proposal. In that proposal, at the ECR High-Density and Saturation rates, he passes through virtually all of the letter-flat cost differential to piece rates. Although he revised his original estimate of the amount to be added to the USPS average ECR letter-flat cost differential (from 0.466¢ to 0.291¢), even at his original estimate, he proposed a 94% passthrough for the High-Density and a 95% passthrough for the Saturation levels. With his revised cost estimate, his passthroughs increase immensely, as shown below:

Table V-2
COST AND RATE DIFFERENTIALS AND
PASSTHROUGHS IN HALDI'S VP/CW-PROPOSED RATES

	Based on VP/CW Estimated Letter-Flat Cost Differential:	**Based on ADVO Estimated Letter-Flat Cost Differential:**
Letter-Flat Cost Differential at High-Density Level	0.571¢	0.357¢
Letter-Flat Cost Differential at Saturation Level	0.769¢	0.555¢
VP/CW Letter-Nonletter Rate Differential At High-Density Piece Rates	0.700¢	0.700¢
VP/CW Letter-Nonletter Rate Differential At Saturation Piece Rate	0.900¢	0.900¢
Cost Passthrough to VP/CW Rates at High-Density Level	122.59%	196.35%
Cost Passthrough to VP/CW Rates at Saturation Level	117.04%	162.31%

Note: Based on Dr. Haldi's revised letter-flat cost difference increase of 0.291¢ and the ADVO letter-flat cost difference increase of 0.077¢

Combined with his increase in the pound rate (from the USPS proposed level), these large passthroughs gave Dr. Haldi sufficient room to reduce the High-Density/Saturation letter rates from the USPS proposed levels and increase the dropship discounts. However, because the letter-flat unit cost differential includes both shape-related *and* weight-related costs -- and because it would charge flat mail, in the guise of a shape-related surcharge, with weight-related costs that are already over-recovered by the pound rate -- even a 94% to 95% passthrough is excessive.

Setting the letter-flat piece-rate differential at virtually 100% of the letter-flat average cost differential effectively assumes that there are no weight-related costs within those average costs. This appears extremely contradictory to Dr. Haldi's belief in the presence of weight-related costs.[32] Moreover, coupling this with a high weight-

[32] Moreover, it does not comport with the USPS letter-nonletter cost differential, which Haldi expands and passes through to his piece rates. The USPS letter and nonletter costs are developed to reflect the mail processing costs for non-dropshipped mail. Thus, they include weight-related dropship-avoidable mail processing costs. The difference between the letter-nonletter dropship-avoidable costs, in turn, reflects the difference between the letter-nonletter weights.

related (pound) rate compounds the problem by recovering the same letter-flat cost difference in two ways: once from the piece rate and once again from the pound rate. This inequitable and counter-intuitive situation only demonstrates why it is important to start moving the pound rate in the right direction – downward.

This truth can be seen in the analysis presented in Section III above. Under the Postal Service's proposal and using costs which reflect the shift of heavy-weight letter costs and volumes to flats, nonletter rates will make a larger per piece contribution to institutional costs than letter rates. Under Dr. Haldi's proposal, even more of the ECR contribution would be shouldered by nonletter rates. This result is not only inconsistent with Dr. Haldi's R97-1 convictions but also with his stated ratemaking philosophy of equal unit contributions within a subclass.

His proposed rates and accompanying letter-flat piece-rate differentials should be rejected in their entirety.

CERTIFICATE OF SERVICE

I hereby certify that I have on this date served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

Thomas W. McLaughlin

August 14, 2000