

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

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POSTAL RATE COMMISSION
OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 1997

Docket No. R97-1

RESPONSE OF UNITED STATES POSTAL SERVICE
WITNESS TAKIS TO INTERROGATORIES OF
UNITED PARCEL SERVICE
(UPS/USPS-T41-4-14)

The United States Postal Service hereby provides responses of witness Takis to the following interrogatories of United Parcel Service: UPS/USPS-T41-4-14, filed on August 13, 1997. A partial objection to 8(b) was filed on August 25, 1997.

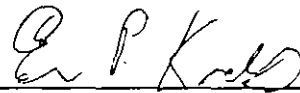
Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr.
Chief Counsel, Ratemaking



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August 27, 1997

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UPS/USPS-T41-4. Please refer to the Specific Fixed Costs section on pages II-17 and II-18 of your workpapers, and explain the procedure used to determine what costs are specific fixed costs. Please include in your answer a discussion of the following:

- (a) How is it determined that a cost is incurred solely in the service of one subclass (or group of subclasses)?
- (b) Who determines if a cost is a specific fixed cost?
- (c) How does the procedure used in your analysis differ from the procedure the Postal Service uses or used prior to Docket No. R97-1?
- (d) Are specific fixed costs always entire cost pools, or are there more detailed breakdowns? If more detailed breakdowns are not used, please explain why they are not used.

UPS/USPS-T41-4 Response:

Parts (a), (b): There is no single "procedure" or "algorithm" that is used to determine if a cost is incurred solely in the service of one subclass. Generally, Postal Service cost analysts examine the nature and purpose of the costs within each segment, component, and pool in order to determine whether these costs are volume variable or not, associated with one product or many, etc. Of course, the processes employed to identify volume variable and other costs varies in accordance with the nature of the cost segment, component, or pool in question. A general description of these processes can be found in LR-H-1.

Part (c): While I have not been responsible for the development of specific fixed costs in previous dockets, it is my understanding that the procedures used by the Postal Service to identify them in this docket are not generally different from those employed previously. However, over time, advancements in our knowledge and understanding of cost relationships within the Postal Service do occur, and, where applicable, I have incorporated the analysis from new studies. For example, it is my understanding that prior to this docket, mail processing labor costs were generally assumed to be 100 percent volume variable. In this docket, however, Witness Bradley (USPS-T-14) has developed new estimates of volume variable costs for mail processing labor. In developing my incremental cost estimates, I have used Dr. Bradley's analysis to generate both the volume variable and non-volume variable portions of incremental mail

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processing labor costs. Several specific examples of this process are contained in my response to UPS/USPS-T41-5.

Part (d): Specific fixed costs are not always entire cost pools or components. For example, the Advertising cost component in Cost Segment 16 has total accrued costs of \$235,734,000 in BY1996. However, only \$66,176,000 of these total costs are specific fixed, while the rest are common to all classes. As pointed out in LR-H-1, the reason for the differential between specific fixed and accrued costs is that only "media costs for the promotion of particular products" are specific to those products, while the rest of these costs are incurred to promote the Postal Service in general.

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UPS/USPS-T41-5. On pages II-17 and II-18 of your workpapers you state, “[t]here are thirteen cost components with specific fixed costs.” However, only nine items are listed. Furthermore, the referenced spreadsheet, IV.A 202, lists fourteen components with specific fixed costs. Please explain these discrepancies; include in your answer an explanation of which is the correct number of cost components, and identify all such components and their respective amounts of (i) total accrued costs and (ii) specific fixed costs.

UPS/USPS-T41-5 Response:

The difference you describe arises from three sources. The first is the terminological distinction between cost segments, cost components, and cost pools. Pages II-17 and II-18 of my workpapers provide a list of cost components, not cost pools. For example, page II-17 of my workpapers lists Manual Express and Priority as one cost component (3.1 Mail Processing) while, in fact, there are four cost pools that fall under this category, Manual Express, LDC 48 Express, Manual Priority, and SPBS Priority. The incremental costs associated with these four pools are shown on page IV.A.203.

The second source of the difference is the placing of seven cost pools for which there are both volume variable and non-volume variable portions of incremental costs (e.g. C/S 3.2 Money Orders) on a separate page from cost pools which are completely specific fixed (e.g. C/S 18.1 Money Order Regional Administration). The incremental costs associated with these cost pools are shown on page IV.A.203 and include those costs described on II-18 as “Variable Costs Associated With a Particular Product.”

The final source of this difference lies in the fundamental imprecision of the term “specific fixed cost”. Within the context of my testimony concerning incremental costs, one can imagine a spectrum of the extent to which a cost can be considered “specific fixed”. At one end of the spectrum are costs that do not vary with volume at the margin and exist for the sole purpose of providing one subclass. An excellent example of this type of “specific fixed” cost is the Special Money Order Division located in St. Louis, as described on Page 32, lines 1 through 5 of my testimony. At the other end of this spectrum are cost pools that contain both volume variable costs (i.e., total accrued costs

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multiplied by the variability percentage) and non-volume variable costs (i.e., the residuum remaining after volume variable costs are subtracted from accrued costs), but are associated with only one particular subclass of mail. I have referred to these types of cost pools as "Variable Costs Associated with a Particular Product" (see my workpapers, page II-18) and "Specific Non-Fixed Costs" (see my workpapers, page IV.A.203) even though these pools contain both volume variable and non-volume variable costs. Examples of these types of cost pools are the window service pools "Cards", "Express", and "Money Orders", as described in my workpapers, page II-18. Because they are associated with a particular subclass, all of the costs of these pools are incremental to that subclass, even though (1) the cost pools are not one hundred percent volume variable (in the traditional sense of the term as used in postal ratemaking), and (2) none of the non-volume variable costs are identifiable as truly "fixed" (in the economist's definition of the term, as I describe below).

In the middle of this spectrum, however, the relevance of the term "specific fixed cost" may be unclear. For example, to estimate the incremental costs associated with Manual Priority Mail Processing Labor Operations, I (conceptually) first took the volume variable costs for Priority Mail associated with these operations, drawing from the variability analysis performed by Dr. Bradley (USPS-T-14). I then added to this figure all of the non-volume variable accrued costs associated with this pool/operation to estimate total incremental costs for Priority Mail within this operation. My reason for using this approach is that it is my understanding that the operation exists to serve Priority Mail, and therefore, it is logical that if Priority Mail were not offered then this operation would not exist, as I describe generally on page 27, lines 9 through 13 of my testimony. Stated another way, the costs associated with Manual Priority Mail Processing Labor Operations (minus the volume variable costs of processing other subclasses) are incurred to serve Priority Mail only and are therefore incremental to this product.

It is critical to note, however, that some of these non-volume variable costs that make up incremental costs for the Manual Priority Mail Processing Labor Operation are "fixed" (and therefore "specific fixed" to Priority Mail because the operation exists to serve this

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product) under a relatively loose definition of the term. The use of the word "fixed," in this case, is somewhat more expansive than the technical definition of the word (as normally used by economists) would allow. Whereas economists generally require that a cost exist at zero volume in order for it to be fixed, this looser definition of "specific fixed" allows that a cost may be considered "fixed" even if it does not exist at zero volume, so long as it does not vary at the margin (i.e. reducing or increasing volume at the margin would not cause the cost to be changed).¹ For example, consider a hypothetical labor cost for daily set-up of a mail processing operation. This cost is not technically fixed insofar as it would not be incurred if volume dropped to zero (unlike, say, the rental cost of a building used to house the operation which is unavoidable for the term of the lease); however, any other change in volume would not affect these costs since they are necessary for any operation whatsoever to take place.

On the other hand, some of the non-volume variable costs for the Manual Priority Mail Processing Labor Operation may not be fixed (by any definition). Rather, they may be costs which are not volume variable (as this term is used in postal costing) but are still a function of volume insofar as they would be reduced if volume were to fall and increased if volume were to rise. These costs include those which are associated with the economies or diseconomies which are realized or lost as volumes change.

In sum, the non-volume variable costs included in the incremental costs of Priority Mail for the Manual Priority Mail Processing Labor Operation may include some "specific fixed" costs (by the loose definition above) and some specific costs which are not fixed,

¹ The Commission itself has given priority to substance rather than semantics in the discussion of incremental and volume variable costs. For example, in its Opinion and Recommended Decision in Docket R90-1 (Remand), the Commission recommended that "... single subclass stop costs are attributable under the exclusivity criterion because causation is clear, regardless of whether they fit the label "specific fixed" or "incremental costs," both of which were applied to them in R87-1." PRC Op. R90-1 (Remand), para. 362. As another example, in its Opinion and Recommended Decision in Docket R90-1, the Commission stated that "[w]e concede that single subclass stop ratios are influenced by volume levels and that in characterizing them as "specific fixed" costs we were imprecise. It would have been more precise to have termed them "specific variable" or "exclusive variable" costs." PRC Op. R90-1, para. 3102. Just as single subclass stops are not fixed costs (in any sense of the term), but were conveniently called "specific fixed" to distinguish them from volume variable costs by the Commission in Docket R90-1, so too do I distinguish volume variable and non-volume variable costs in my testimony.

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but I have made no attempt to separate the two in my analysis or my testimony. Further, for simplicity, I have called all of these non-volume variable costs "specific fixed". While this term is somewhat imprecise in light of my methodology, it renders my primary task more tractable. What is at issue in calculating incremental costs is less the identification of costs which meet some arbitrary definition of "specific fixed" (a Postal Service term) than the identification of all product specific costs, regardless of their nature. To attempt to separate identifiable incremental costs into different categories would only further complicate the task and distract from the issue at hand. I use the term "specific fixed" only because that term has, to my understanding, come to include non-volume variable, product-specific costs in previous proceedings before the Commission.

This issue of combining "fixed" and "non-fixed" product specific costs which I have called "specific fixed" also arises with other cost pools, namely: Manual Express Mail Processing Labor Operations, LDC 48 Express Operations, and SPBS Priority Operations, as well as the premium costs associated with the Eagle Network, the Western Network, and the Christmas Network.

In total there are eighteen cost pools with what I have termed in my testimony "specific fixed" costs (i.e., using the imprecise definition discussed above), the fourteen cost pools on page IV.A.202 and the four cost pools on page IV.A.203 other than the Window Service cost pools. The costs shown on page IV.A.203 include volume variable costs as well. The "specific fixed" (without any volume variable costs included) and accrued costs for each of these eighteen cost pools are shown in the tables below. Note that these costs do not include piggyback factors:

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BY 1996 "SPECIFIC FIXED" COSTS

	C/S 3.1				C/S 3.3
	Express	LDC 48 Express	Priority	SPBS Priority	Clerks and Mailhandlers
Postcards					
Priority			122,827	11,593	
Express	43,686	1,762			10,669
Money Orders					
Accrued	79,142	3,203	222,512	57,966	10,669

BY 1996 "SPECIFIC FIXED COSTS (cont'd)

	C/S 7					
	Letter Stop Em Box	SPR Stop Em Box	Drive Em Box SPR	Drop/PU Em Facil SPR	Drop/PU Em Facil MLR	Em Coll Box MLR
Express	3,501	1,153	790	3,597	400	262
Accrued	3,501	1,153	790	3,597	400	262

BY 1996 "SPECIFIC FIXED" COSTS (cont'd)

	C/S 9	C/S 14			C/S 16		C/S 18
	Express Specific Fixed	Network Air	Western Air	X-mas Network	Computer Track & Trace	Adver- tising	Money Order Admin
First Class Letters						184	
First Class Cards						10	
Priority				64,236		50,704	
Express	8,528	107,196	14,436		12,306		
Third Class Bulk CR						739	
Third Class Bulk Oth						763	
Parcels Zone Rate					22		
International					1,760	13,776	
Money Orders							3,163
Accrued	8,577	156,184	21,658	102,285	14,088	235,734	3,163

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UPS/USPS-T41-6. On pages II-17 and II-18 of your workpapers you list cost segment 3.1 as having specific fixed costs. These costs are not listed on page IV.A 202 of your workpapers. Please explain this discrepancy and identify by component or subcomponent, nature of activity, and amount all specific fixed costs in cost segment 3.1.

UPS/USPS-T41-6 Response:

Please see my response to UPS/USPS-T41-5. In that response, I note the difficulties in using the term "specific fixed" costs to refer to part of the incremental costs associated with certain mail processing operations dedicated to Priority and Express Mail.

In C/S 3.1 there are two manual operations each for Express and Priority which contain what I termed in my testimony as "specific fixed" costs (see my response to UPS/USPS-T41-5). The sum of the volume variable costs and the non-volume variable costs described in my response to UPS/USPS-T41-5 (which may contain "fixed" costs (loosely defined) in addition to other non-volume variable costs, but which I have termed "specific fixed" costs) which are associated with Express and Priority Mail for these costs pools are shown on page IV.A.203, columns 4-7. The volume variable costs of these cost pools which are associated with subclasses other than Express and Priority (i.e., those subclasses for which there are no specific fixed costs) are shown in the Mail Processing translog section of the workpapers (pages IV.A.1-12). The table below shows the accrued costs, "specific-fixed" costs, total volume variable costs, and volume variable costs for Express (columns 1, 2) and Priority (columns 3, 4) only.

	[1] EXPRESS	[2] LDC 48 EXPRESS	[3] PRIORITY	[4] SPBS PRIORITY
Express (Columns 1, 2) / Priority (Columns 3, 4) Incremental Costs (page IV.A.203)	70,413	2,853	203,469	39,311
Express (1, 2) / Priority (3, 4) "Specific Fixed" Costs	43,686	1,762	122,827	11,593
Express (1, 2) / Priority (3, 4) Volume Variable Costs	26,727	1,092	80,642	27,718
Total Volume Variable Costs	35,456	1,441	99,685	46,373
Accrued Costs	79,142	3,203	222,512	57,966

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UPS/USPS-T41-7. In column [10], on page IV.A 220 of your workpapers, the amount for Priority Mail is \$29,785,000. The entry for Priority Mail in the cited source, USPS-T-5, WP-B, 14.2.1, page 1, is \$29,765,000. Please explain this discrepancy. If the change results in new incremental cost numbers, please provide the corrected numbers.

UPS/USPS-T41-7 Response:

The correct number is \$29,765,000. The discrepancy is due to mechanical error in entering data from a printed report into the incremental cost model. Relatedly, in column [2] on page IV.A.218, the amount for Priority is \$323,433,000, while the true number should be \$323,453,000. However, as explained below, due to the format of the incremental cost model and the nature of the costs in question, these under/overstatements cancel each other out and, together, have no impact on the final incremental costs of any subclass for either the BY1996 or the TY1998(AR).

The incremental cost model takes the various cost pools within C/S 14 Purchased Transportation and divides them into two basic categories: SNPI and Not SNPI. SNPI includes those cost pools for which incremental costs can be calculated using the translog methodology, which have specific fixed costs, or which are burdened on other C/S 14 cost pools. The Not SNPI cost pools include all those for which the assumption was made that incremental costs equal volume variable costs (VVC). The Eagle Network cost pool, because it contains specific fixed costs (see my response to UPS/USPS-T41-5), is included in the SNPI category.

For the sake of ease of calculation, all of the Not SNPI cost pools are aggregated in the model and treated as one pool. Their aggregate volume variable costs for subclass i are calculated in the model using the following procedure:

$$\sum VVC_{\text{Not SNPI}, i} = \sum VVC_{\text{Total C / S 14}, i} - \sum VVC_{\text{SNPI}, i}$$

where

$$\begin{aligned} \sum VVC_{\text{Not SNPI}, i} &= \text{Total VVC of Not SNPI cost pools for subclass } i, \\ \sum VVC_{\text{Total C / S 14}, i} &= \text{Total VVC of all C/S 14 cost pools for subclass } i, \\ \sum VVC_{\text{SNPI}, i} &= \text{Total VVC of SNPI cost pools for subclass } i \end{aligned}$$

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This formula makes it apparent why an overstatement (by \$20,000) of volume variable costs of Priority for the Eagle Network results in an understatement of volume variable costs (by \$20,000) of Priority for the Not SNPI aggregate pool. Given a fixed value for total C/S 14 volume variable costs, an increase in Eagle Network costs must imply a corresponding decrease in Not SNPI costs. Hence, the net effect of the original problem on total volume variable costs in the model is zero.

The reason why, in turn, this shift has no net effect on total incremental costs is that the two cost pools are treated similarly in terms of using volume variable costs to arrive at incremental costs. The Eagle Network is an SNPI cost pool not because its costs have a translog functional form (in which case there would have been an impact on final incremental costs) but because it has specific-fixed costs. Further, these fixed costs are for Express only, not for Priority. Hence, the incremental costs of Priority for the Eagle Network are exactly equal to the volume variable costs of Priority for the Eagle Network. And, as noted above, all incremental costs for individual subclasses associated with Not SNPI cost pools are also equal to volume variable costs.

In sum, whether we take a given volume variable cost and assume it belongs to Priority for the Eagle Network or Priority for a Not SNPI cost pool, we will still arrive at the same estimate of incremental costs for Priority (i.e. the value of the volume variable costs themselves).

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UPS/USPS-T41-8. (a) Please refer to page IV.A 202 of your workpapers, where you allocate costs for the "Xmas Network" to Priority Mail, "Network" costs to Express Mail, and "Western Air" costs to Express Mail. Please explain why you allocated these costs in this manner and provide all workpapers and other backup data for those allocations. (b) Please provide copies of all contracts with outside contractors concerning the "Xmas Network," the "Network," the "Eagle Network," and "Western Air."

UPS/USPS-T41-8 Response:

Part (a): Please see page 12, lines 11 through 23 of my testimony. The costs of the Eagle and Western Air networks can be conceptualized in three groups:

- the volume variable costs associated with Express Mail;
- the volume variable costs associated with other subclasses/products;
- "premium" costs (i.e., costs over and above commercial air cargo rates paid by the postal Service).

It is my understanding that the Eagle Network exists to meet the requirements of "expediting" Express Mail. Therefore, as I discuss in my testimony, it is logical to conclude that

". . . if Express Mail were eliminated, then the Eagle network would be shut down, and Priority and First-Class Mail would be diverted onto commercial flights . . ."

(USPS-T-41 at page 12, lines 18-20)

This diversion of Priority and First-Class Mail would not result in any change in the volume variable costs associated with these two products. Therefore, the incremental costs of Express Mail are composed of the volume variable costs associated with Express Mail on these two networks (i.e., the first bullet above) and the premium costs of the networks which are incurred to serve Express Mail but are not needed to serve other subclasses (i.e., the third bullet above). The costs shown on page IV.A 202 of my workpapers are these premium costs.

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A similar argument can be made for the Christmas Network and Priority Mail.

Part (b): I have been informed that the Postal Service will be filing the requested materials as a library reference.

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UPS/USPS-T41-9. On page IV.A 202 of your workpapers, for cost segment 16, you allocate Computerized Tracking and Tracing to Express Mail, Parcel Zone Rate, and International. The cited source, USPS-5A, page 52, does not break down the cost by class. Please explain how and why you allocated Computerized Tracking and Tracing costs to the various classes and subclasses of mail and provide all workpapers and backup data for these allocations.

UPS/USPS-T41-9 Response:

See pages 51-52 of LR-H-3, Cost Segments and Components, Fiscal Year 1996 for the cost allocation of Computerized Tracking and Tracing. A general discussion of these costs can be found in LR-H-1, page 16-4. As I note throughout my testimony, one of the overriding principles in the development of my incremental cost estimates is the adherence to the Postal Service's Cost Analysis Framework, which is embodied in the Cost Segments and Components, Fiscal Year 1996 report. In this case, I followed the treatment of Computerized Tracking and Tracing contained in the FY96 Cost Segments and Components report.

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UPS/USPS-T41-10. On page IV.A 202 of your workpapers, for cost segment 16, you allocate advertising costs to a number of mail classes. The sum of the amount allocated to the various mail classes is \$66,176,000. The cited source, USPS-5A, page 52, does not break down the cost by class and lists \$235,734,000 of costs as "Other."

- (a) Please explain how and why you allocated advertising costs to the various classes.
- (b) Please explain why the sum of the amounts allocated to the various classes does not equal the amount in USPS-5A, page 52.
- (c) Please provide the most detailed breakdown available of the "Other" costs of \$235,734,000, indicating the nature of the advertising in each instance.

UPS/USPS-T41-10 Response:

Part (a): Allocation of specific advertising costs to classes can be found on pages 51-52 of LR-H-3 and is described on page 16-4 of LR-H-1. As I noted in my response to UPS/USPS-T41-9, one of the overriding principles in the development of my incremental cost estimates is the adherence to the Postal Service's Cost Analysis Framework, which is embodied in the Cost Segments and Components, Fiscal Year 1996 report. In this case, I followed the treatment of advertising costs contained in the FY96 Cost Segments and Components report.

Part (b): This explanation can be found on page 16-4 of LR-H-1. Only "media costs for the promotion of particular products" are considered specific fixed, while the remaining promotional costs are fixed and common.

Part (c): I am unaware of any more detailed breakdown of the advertising cost component in C/S 16. The general nature of the costs in this component are described on page 16-4 of LR-H-1.

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UPS/USPS-T41-11. On page IV.A 202 of your workpapers, you list \$1,153,000 for Cost Segment 7 SPR STOP EM BOX. The reference cited in the cross walk table is USPS-T-5, WP-B, 7.0.6.10, pages 1 & 2, column 10, which lists \$0. Please explain this discrepancy.

UPS/USPS-T41-11 Response:

The reference should be USPS-T-5, WP-B, 7.0.6.12, pages 1 & 2, column 10.

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UPS/USPS-T41-12. In your analysis on pages II-3 to II-5 of your workpapers, you calculate a change in the amount of cost driver associated with subclass (i) by using the ratio of volume variable costs for subclass (i) to total volume variable costs for the cost pool. Please confirm that volume variable cost serves as a proxy for the driver, and that volume variable cost is assumed to increase linearly with the driver. If you do not confirm, please explain why you use volume variable cost instead of the driver.

UPS/USPS-T41-12 Response:

Not confirmed. First, in a translog functional form (as is discussed on the pages referenced in your question), volume variable costs do not increase proportionately with the driver. Second, the relationship between volume variable cost and the driver is more precise than is embodied in the term "proxy", which implies an imprecision in the relationship. Volume variable costs are a reflection of the driver through a non-stochastic functional relationship. Please see Bradley, M.D.; Colvin, J.L.; and Smith, M.A., "Measuring Product Costs for Ratemaking: The United States Postal Service", in Crew, M.A., and Kleindorfer, P.R., eds., Regulation and the Nature of Postal and Delivery Services (Boston: Kluwer Academic Publishers, 1993).

Because of the direct reflection of the driver in volume variable costs (described above), I can use the percentage change in volume variable costs resulting from the "elimination" of a particular class or subclass of mail rather than the percentage change in the amount of the driver. Specifically, the proportions of volume variable costs across subclasses in a particular component/pool exactly reflect the distribution key proportions, which in turn, are the proportions of the driver across subclasses in a particular component/pool.

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UPS/USPS-T41-13. On page IV.A 202 of your workpapers, for cost segment 9, Express Specific Fixed, you allocate \$8,577,000 to Express Mail. The cross walk table cites reference USPS-T-5, WP-B, 9.0.3, $C5L14a + C6L14a + C5L18 + C6L18 - C9L18$, which totals \$7,967,000. Please explain this discrepancy.

UPS/USPS-T41-13 Response:

The formula should read $C5L14a + C6L14a + C5L14d + C6L14d - C9L18$, which sums to \$8,528,000. In addition, the amount on page IV.A.202 of my workpapers includes the volume variable Express Mail collection costs, which equal \$49,000.

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UPS/USPS-T41-14. On page IV.A 202 of your workpapers, for cost segment 3, Clerks and Mail Handlers, you allocate \$10,669,000 to Express Mail. The cited source, USPS-5A, page 22, lists \$10,669,000 of "Other" costs. Please explain your rationale for allocating these costs to Express Mail.

UPS/USPS-T41-14 Response:

The cited source should be USPS-T-5, WP-B, 3.0.4, page 1, R1C6. My rationale for allocating these costs to Express Mail is conceptually similar to that used in developing Fiscal Year 1996 costs (LR-H-1, page 3-11). Namely, administrative and support activity costs allocable to Express include the costs of personnel who "have been assigned to the Express Mail section but are not handling mail."

DECLARATION

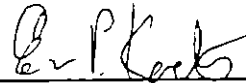
I, William M. Takis, declare under penalty of perjury that the foregoing answers are true and correct, to the best of my knowledge, information, and belief.

W.M. Takis

Dated: 8-27-87

CERTIFICATE OF SERVICE

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

A handwritten signature in black ink, appearing to read "Eric P. Koetting", is written over a horizontal line.

Eric P. Koetting

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August 27, 1997