BEFORE THE POSTAL RATE COMMISSION

POSTAL RATE AND FEE CHANGES, 2000

E MISSION DOCKET NO. R2000-1

ANSWERS OF UNITED PARCEL SERVICE WITNESS DAVID E. M. SAPPINGTON TO INTERROGATORIES AND REQUESTS FOR PRODUCTION OF DOCUMENTS OF THE ASSOCIATION OF PRIORITY MAIL USERS, INC. (APMU/UPS-T6-1 through 22) (July 3, 2000)

Pursuant to the Commission's Rules of Practice, United Parcel Service hereby

files and serves the answers of United Parcel Service witness David E. M. Sappington

to the following interrogatories and requests for production of documents of the

Association of Priority Mail Users, Inc.: APMU/UPS-T6-1 through 22.

Respectfully submitted.

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Of Counsel.

APMU/UPS-T6-1.

At page 5, line 7, you state that "[r]ates that disadvantage competitors unfairly should be avoided."

- a. Please define the term "unfairly" as you use it here.
- b. Please assume that the Commission has full information concerning rates charged by competitors and explain how the Commission should determine whether Postal Service rates (i) disadvantage competitors, and (ii) disadvantage competitors unfairly; *i.e.*, please explain how the Commission should determine when Postal Service rates present competitors with an unfair disadvantage. In your explanation, please define the role, if any, which you assign to factors other than incremental cost in determining whether Postal Service rates are unfair and cite all studies, reports or references to the literature on which you rely to support your response.
- c. Please assume that the only information which the Commission has concerning rates charged by competitors is their published rates for single pieces, but the Commission has ample reason to believe that the majority of business lodged with competitors is at rates discounted from their published rates, including reduced effective rates after rebates. However, the Commission has no further information about the extent or depth of discounting because such information is treated as proprietary and

confidential by shippers and their customers alike, pursuant to shipper-enforced contracts. Under these circumstances, please explain how the Commission should determine whether Postal Service rates disadvantage competitors unfairly.

d. Do you believe that the assumption in the hypothetical question in part (c) is accurate? That is, is the majority of business lodged with competitors at or below published rates?

Answer to APMU/UPS-T6-1.

(a) Please see my answer to USPS/UPS-T6-6(b).

(b) Any Postal Service rates that induce mailers to purchase Postal Service products rather than the products of competitors serve to disadvantage competitors. However, such rates may be entirely consistent with 39 U.S.C. § 3622(b). In contrast, rates for Postal Service products that fail to generate revenues in excess of the sum of attributable costs and a reasonable share of institutional costs (as determined by the Commission) disadvantage competitors unfairly, in that such rates are not consistent with 39 U.S.C. § 3622(b).

(c) Under these circumstances, the Commission would continue to assess Postal Service costs and revenues to the best of its ability, and continue to recommend rates that are expected to generate sufficient revenue to cover attributable costs and a reasonable share of institutional costs, and that are otherwise consistent with 39 U.S.C. § 3622(b).

(d) I do not have the data that would allow me to determine the portion of

competitors' transactions that occur at discounted rates.

APMU/UPS-T6-2.

Your testimony at page 5, lines 13-15, states that "[w]hen mailers can obtain comparable services at reasonable cost from suppliers other than the Postal Service, high postal rates impose fewer hardships on those mailers."

- a. Please define the term "reasonable cost" as you use it here.
- Please define the term "mailers" as you use it here, and explain whether the reference is to individual mailers, such as the general public who mail single packages, or to mailers who ship regularly and with volumes sufficiently large to qualify for discounted, negotiated rates.
- Assuming that the term "reasonable cost from suppliers" means the rates which suppliers charge mailers, please explain whether your reference is to published single piece rates, or to discounted volume rates.
- d. In terms of the rates charged by the Postal Service prior to any general change in rates (*i.e.*, the currently prevailing rates), please explain:
 - (i) whether "reasonable cost" from other suppliers means that the rates available from other suppliers should be lower than, equal to, or higher than those available from the Postal Service;
 - (ii) what information the Commission should use to determine whether comparable services are available at reasonable cost from other suppliers; and

- (iii) what information other suppliers should provide to the Commission to show that they provide mailers with comparable services at reasonable cost.
- e. What information should the Commission use when attempting to determine whether mailers can obtain comparable service at reasonable cost from suppliers other than the Postal Service? Please explain specifically whether and why the Commission should focus on published rates, or attempt to obtain information on unpublished, negotiated rates offered to all major shippers.

Answer to APMU/UPS-T6-2.

(a) The term "at reasonable cost" in this context means "via making similar expenditures."

(b) "Mailers" are users of mail services. Mailers include individuals who send single packages infrequently as well as companies that frequently ship large volumes of packages.

(c) The reference is to the rates that the mailers actually pay.

(d) (i) Comparable services may be available at reasonable cost whether the prices charged by competitors are above, below, or equal to Postal Service prices. What matters most is whether price differences are small relative to differences in service value. If mailers judge the products offered by the Postal Service and a competitor to be virtually identical, for example, then the competing product would be a

comparable service available at reasonable cost if the price of the competitor's product were below the price charged by the Postal Service by a small amount, or if it exceeded the Postal Service's price by a small amount.

(ii) In order to determine whether comparable services are available at reasonable cost from suppliers other than the Postal Service, the Commission can examine all available information about service features, performance, prices, and price elasticities of demand. The Commission can also rely upon expert testimony regarding whether markets in which the Postal Service operates are "competitive." In competitive markets, comparable services are available at similar cost from different suppliers.

(iii) In most cases, I suspect that the expert testimony provided by Postal Service witnesses will enable the Commission to obtain a good sense of whether mailers have access to comparable services at reasonable cost. To illustrate, the Postal Service routinely provides estimates of own-price elasticities of demand. Also, in the present proceedings, witness Bernstein reports that "both Federal Express and UPS operate in competitive markets with free entry" (USPS-T-41, pp. 45-46). And in his analysis of Priority Mail, witness Musgrave states that "the expedited delivery market continues to be highly competitive" (USPS-T-8, p. 23). If competing suppliers disagree with the assessments offered by Postal Service witnesses, they can supply any evidence they may have to support their points of view. Please also see my answer to part (e), below.

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(e) Please see my answer to part (d), above. Also, I believe that the Commission should (and, I am sure, does) consider all price information that witnesses provide.

APMU/UPS-T6-3.

At page 10 of your testimony, you state:

Thus, more substantial increases in Postal Service rates are appropriate when mailers have ready alternatives to the Postal Service, ceteris paribus.... If the Postal Service cannot successfully market a service with rates that cover costs and a reasonable share of institutional costs (as determined by the criteria listed in §3622 (b)), then society may be better served when competitors, not the Postal Service, are the primary providers of the service in question.

- a. When the availability of ready alternatives gives Priority Mail a high own-price elasticity of demand, is it your opinion that the Commission should set rates sufficiently high so as to deliberately reduce the total contribution which Priority Mail makes to institutional cost? Please explain your position fully.
- b. Suppose the Commission deliberately increases rates to the point where the total contribution to institutional costs from Priority Mail is knowingly and deliberately reduced below what it would otherwise be. What would be the impact of such a rate increase on the monopoly classes of mail?
- c. Is it your recommendation that the Commission should help price Parcel
 Post or Priority Mail out of its established the [sic] market? Please explain
 fully.

Answer to APMU/UPS-T6-3.

(a) No. Please see my answer to USPS/UPS-T6-45.

(b) If Priority Mail's contribution to institutional costs were to decline, the combined contribution of all other mail services would have to increase, *ceteris paribus*. The particular impact on the monopoly classes of mail would depend upon what share of the increased contribution the Commission recommends that they bear, after careful consideration of the criteria specified in 39 U.S.C. § 3622(b).

(c) I am not certain what you mean by the phrase "help price Parcel Post or Priority Mail out of its established market." My recommendation is that the Commission follow the requirement of 39 U.S.C. § 3622(b)(3) that rates be set to generate revenues that exceed attributable costs plus a reasonable share of institutional costs for both Parcel Post and Priority Mail.

APMU/UPS-T6-4.

At page 17 of your testimony, you state that "[h]istorically, the Commission has employed such approximations of incremental cost when formulating its rate recommendations because incremental cost measures were not available.... To provide stronger safeguards against cross subsidies, reasonable estimates of incremental cost should be employed when they are available...

- a. Is it your contention that estimates of incremental costs for Priority Mail were not available in Docket No. R97-1?
- b. Is it your contention that the estimates of incremental costs for Priority Mail that were available in Docket No. R97-1 were not reasonable?
- c. Unless your answers to preceding parts a and b are unqualified negatives, please explain fully the shortcomings of the Postal Service's estimate of incremental costs for Priority Mail in Docket No. R97-1. Please provide citations to any testimony in Docket No. R97-1 that supports your position.
- Is it your contention that no reasonable estimate of incremental cost for Priority Mail is available in this docket? Please explain fully any affirmative answer.

Answer to APMU/UPS-T6-4.

(a) No.

(b) No. Since I am neither an econometrician nor an expert on Postal Service costing methodologies, I cannot offer a useful assessment of the estimates of incremental cost provided in R97-1.

(c) Please see my answer to part (b), above. Also see the Commission's explanation for why, in its R97-1 Opinion and Recommended Decision, the Commission "makes no use of witness Takis' estimates of incremental cost and relies instead on attributable costs, as it has in past proceedings" (Docket No. R97-1, ¶¶ 4053-4056).

(d) Please see my answer to part (b), above.

APMU/UPS-T6-5.

At page 18 of your testimony, you state that "I recommend a 40.3 percent increase in the average rate for Priority Mail. This rate increase represents a cost coverage of 176% and a markup (the ratio of contribution to attributed cost) of 76%...."

- Please provide the numerator and denominator (*i.e.*, the total revenue and the attributed cost) which you used to determine that your proposed rate increase results in a cost coverage of 176 percent.
- b. Please provide the numerator and denominator (*i.e.*, the contribution and the attributed cost) which you used to determine that your proposed rate increase results in a markup of 76 percent.
- c. Please provide a full explanation showing derivation of the numerator and denominator in each case.

Answer to APMU/UPS-T6-5.

(a)-(b) The numerator is test year after rates Priority Mail revenue, or \$5,787.8 million; the denominator is test year after rates Priority Mail attributable cost, or \$3,288.7 million.

(c) These numbers are taken from UPS witness Luciani's workpaper UPS-Luciani-WP-3-1.1. The derivation of these numbers is explained in witness Luciani's workpaper and in his testimony (UPS-T-5).

APMU/UPS-T6-6.

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Your testimony at page 19 reviews the Commission's decision concerning coverage in Docket No. R97-1, and cites the Commission as noting that "Priority Mail's attributable costs increased dramatically between the R94-1 and the R97-1 rate cases. Therefore, applying historic coverages to Priority Mail's higher base of attributable costs would have caused Priority Mail's rates to rise more rapidly than they had historically." [footnote citing the *Op. & Rec. Dec.* omitted.] In your opinion, was this part of the Commission's rationale in Docket No.. R97-1 either wrong or misguided? Explain fully any affirmative answer.

Answer to APMU/UPS-T6-6.

Since I did not participate in Docket No. R97-1, I am not in a position to secondguess the Commission. However, I agree that it can be appropriate to mitigate some portion of substantial cost increases, particularly if those cost increases are thought to represent temporary deviations from historic and future cost growth rates.

APMU/UPS-T6-7.

At page 19 of your testimony, you cite the Commission's decision concerning coverage in Docket No. R97-1 as noting that "the Commission expressed the concern that a large rate increase for Priority Mail might jeopardize its ability to compete in the marketplace." (Footnote citing the *Op. & Rec. Dec.* omitted.) In your opinion, was this part of the Commission's rationale in Docket No. R97-1 either wrong or misguided? Please explain fully any affirmative answer.

Answer to APMU/UPS-T6-7.

Since I did not participate in Docket No. R97-1, I am not in a position to secondguess the Commission. However, as I explain in my response to USPS/UPS-T6-45, I agree that it is reasonable for the Commission to consider the contribution that competitive services are likely to make to institutional costs in the course of considering all of the criteria in 39 U.S.C. § 3622(b).

APMU/UPS-T6-8.

At page 20 of your testimony, you state that "[t]he evidence in its entirety also suggests that Priority Mail provides a high level of service quality relative to First Class Mail."

- a. Please define precisely the time period to which this statement refers.
- b. Please explain fully what you mean by "the evidence in its entirety."
- c. If any of the evidence which you cite is in any way conflicting, please explain fully how much weight you give to each datum.
- Is it your contention that the service quality of Priority Mail has been equal to or better than First-Class Mail? Unless your answer is an unqualified negative, please provide all data, studies, reports, or other evidence on which you rely to support such contention.
- e. If the service quality of Priority Mail is inferior to that of First-Class Mail despite its greater cost, please explain why the markups should be equal.

Answer to APMU/UPS-T6-8.

(a) The statement refers to the time period since R97-1, in particular, FY1998 and FY1999.

(b) The evidence in its entirety refers to all of the evidence that I discuss in my testimony on pages 25-33. This evidence includes the facts that: (1) customers choose persistently to send items via Priority Mail when they could do so at lower cost via First Class Mail; (2) Priority Mail's service standard is at least as fast as First Class Mail's

service standard for every ZIP code pair, and there are more than 600,000 three-digit ZIP code pairs for which Priority Mail's service standard is two days whereas First Class Mail's standard is more than two days; (3) Priority Mail offers valuable options (like delivery confirmation and pick-up services) to its customers that First Class Mail does not; (4) Priority Mail achieved its service standard for flats more frequently in FY 1999 than did First Class Mail; (5) the Postal Service provides packaging materials at no charge to Priority Mail users, but not to First Class Mail users; (6) Priority Mail is afforded priority over First Class Mail in assigning transportation and delivery resources; (7) Priority Mail is sometimes delivered on Sundays during the peak year-end season, while First Class Mail is not; and (8) Priority Mail has its own dedicated processing and transportation network in the Northeast and Florida, which is supplemented by the main mail network.

(c)-(d) I have not assigned numerical weights to each of the many dimensions of service quality in order to derive a single, comprehensive measure of aggregate service quality. However, I have seen no convincing evidence that First Class Mail provides a higher level of service quality on any dimension.

The statistic that would seem to suggest most strongly that First Class Mail may provide higher service quality than Priority Mail on some dimension is the fact that First Class Mail meets its overnight standard more frequently than Priority Mail, even though the two mail services have an overnight standard between roughly the same number of ZIP code pairs. However, it is important to recall that Priority Mail and First Class Mail have different mail mixes. Priority Mail consists primarily of flats, parcels, and irregular

pieces and parcels while First Class Mail consists largely of letters. Letters are generally lighter and less bulky than flats, parcels, and irregular pieces, and so may be transported and delivered more easily. If First Class Mail had to transport the same items that Priority Mail does, First Class Mail might well achieve its service standard less frequently. Indeed, when differences in mail mix are taken into account by focusing only on flats, Priority Mail achieved its service standard more frequently than did First Class Mail in FY1999, even though Priority Mail's service standard is never slower and is often faster than First Class Mail's service standard. See footnote 34 in my testimony on page 30.

In summary, even if Priority Mail achieves its more challenging overnight standard less often than First Class Mail achieves its less challenging overnight standard, Priority Mail is not necessarily providing lower service quality.

(e) As explained in my answer to parts (c) and (d), above, I have seen no convincing evidence that Priority Mail provides inferior service quality relative to First Class Mail. Indeed, there is considerable evidence to suggest that Priority Mail provides superior service quality relative to First Class Mail on multiple dimensions. These observations, along with a balanced consideration of all of the criteria in 39 U.S.C. § 3622(b) (as discussed on pages 33-35 of my testimony), suggest that the markup for Priority Mail should be at least as high as the markup for First Class Mail in this case.

APMU/UPS-T6-9.

Please refer to your testimony at page 20, lines 5-7, and your Table 6 on page

36.

- Please confirm that in Table 6 the average annual change in attributed costs per piece in the row indicated "R97-1" was 8.1 percent. Please explain fully if you do not confirm.
- Please confirm that the average annual percentage change in attributed cost per piece in the row indicated "R97-1" was higher than during any of the preceding periods shown in Table 6. Please explain fully if you do not confirm.
- c. Confirm that in Table 6 the average annual change in attributed costs per piece in the row R2000-1 was 11.5 percent. Please explain fully if you do not confirm.
- d. Please confirm that the percentage change in Docket No. R2000-1 is
 higher than any of preceding periods shown in Table 6, including Docket
 No. R97-1. Please explain fully if you do not confirm.
- e. Is it your opinion that another unusually large increase in Priority Mail's attributable cost per piece is present in this case? Please explain fully any negative answer.

Answer to APMU/UPS-T6-9.

(a)-(d) Confirmed.

(e) The increase in Priority Mail's attributable cost per piece in the presentcase is unusually large relative to the corresponding increases in R84-1 through R94-1.The present increase is also larger than the increase in R97-1.

APMU/UPS-T6-10.

At page 38 of your testimony, you recommend a 40.3 percent average rate increase for Priority Mail .

- Did any UPS witness, or anyone working under your supervision at any time, either during or after the preparation of this testimony, project what the effect of your proposed rate increase would be on the volume of Priority Mail during Test Year?
- If your answer to part (a) is negative, please explain fully why you did not consider such a projection to be necessary.
- c. If you (or anyone else) developed one or more volume forecasts while preparing your testimony, please provide the results of each such forecast and explain fully how it was derived.
- Did any UPS witness, or anyone working under your supervision at any time, either during or after the preparation of this testimony, project what the effect of your proposed rate increase would be on the revenues of Priority Mail during Test Year?
- e. If your answer to part (a) is negative, please explain fully why you did not consider such a projection to be necessary.
- f. If you (or anyone else) developed one or more revenue forecasts while preparing your testimony, please provide the results of each such forecast and explain fully how it was derived.

- g. Did any UPS witness, or anyone working under your supervision at any time, either during or after the preparation of this testimony, project what the effect of your proposed rate increase would be on the contribution to institutional cost of Priority Mail during Test Year?
- If your answer to part (a) is negative, please explain fully why you did not consider such a projection to be necessary.
- If you (or anyone else) developed one or more contribution to institutional cost forecasts while preparing your testimony, please provide the results of each and explain fully how it was derived.

Answer to APMU/UPS-T6-10.

(a)-(i) The projected effects of the 40.3% rate increase that I recommend for Priority Mail are summarized in the following table. The numbers in the table are drawn from Table 6 on page 18 of witness Luciani's testimony (UPS-T-5) and from witness Luciani's workpaper, UPS-Luciani-WP-3-1.1, as revised on June 22, 2000. The derivations of the statistics reported in the table are explained in witness Luciani's workpaper and in his testimony.

Projections for Priority Mail Under UPS Recommendations

	Volume (million pieces)	Revenue (\$ million)	Attributable Cost (\$ million)	Contribution (\$ million)
Base Year	1,174.4	4,187.4	2,911.6	1,275.8
Test Year Before Rates	1,356.7	5,229.8	3,892.1	1,337.7
Test Year After Rates	1,070.2	5,787.8	3,288.7	2,499.1

Note that Priority Mail's contribution to institutional costs increases by approximately \$345 million under my proposed rate increase as opposed to under the Postal Service's proposal. See my response to APMU/UPS-T6-11.

APMU/UPS-T6-11.

Do you contend that your recommended 40.3 percent increase in rates for Priority Mail will increase the total contribution to institutional cost from Priority Mail above the amount projected by the Postal Service? If so, please indicate the amount and explain fully how the result was derived.

Answer to APMU/UPS-T6-11.

Yes. The Postal Service projects a contribution of \$2,153.3 million (see UPS-T-5 at 19, Table 7), whereas the rate increase that I recommend is projected to provide a Priority Mail contribution of \$2,499.1 million (see my response to APMU/UPS-T6-10), or approximately \$345 million above the level generated by the Postal Service's proposed 15% rate increase for Priority Mail.

APMU/UPS-T6-12.

At page 25 of your testimony, you state that "Priority Mail's competitive position will be further strengthened if the Postal Service's proposal to introduce a new, lower one-pound rate for Priority Mail is approved. This new rate will enhance the ability of Priority Mail to deliver relatively low rates to a large portion of its customers, and thereby sustain solid volume growth and a dominant market share."

- a. Are you recommending that the proposal to introduce a new one-pound rate be approved?
- b. Confirm that the proposed one-pound rate is not lower than the existing rate for a package weighing up to two pounds, and in fact is over 7 percent more than the existing rate for a 2-pound piece. Please explain any non-confirmation.
- c. Please define the term "relatively low rates" as you use it here, and explain whether you consider the proposed \$3.45 rate to be relatively low in relation to (i) the FedEx rate for government agencies, or (ii) UPS negotiated rates for one-pound packages receiving second-day delivery.

Answer to APMU/UPS-T6-12.

(a) My testimony does not offer any recommendations with regard to rate design issues.

(b) Confirmed. The present rate for a Priority Mail package weighing up to two pounds is \$3.20. The Postal Service proposes a rate of \$3.45 for a one-pound Priority Mail package, which is approximately 7.8% higher than \$3.20.

(c) The term "relatively low rates" in the sentence you cite was intended to compare the proposed one-pound rate for Priority Mail with proposed Priority Mail rates for pieces that weigh more than one pound. The proposed one-pound rate (\$3.45) for Priority Mail is more than 10% below the proposed two-pound rate (\$3.85) for Priority Mail, for example.

The proposed one-pound rate for Priority Mail (\$3.45) is less than the current one-pound rate that Federal Express charges to the U.S. Government for two-day service (\$3.57). APMU witness Haldi (UPS/APMU-T1-9) reports that this FedEx rate applies through August 15, 2001. APMU/UPS-T-1 at 37. I do not have any information regarding UPS's negotiated rates for one-pound packages receiving second-day delivery. The current UPS 2nd Day Air published rate for a one-pound package is \$6.40, or twice the Postal Service's present rate. See Library Reference UPS-LR-4.

APMU/UPS-T6-13.

Please refer to Tables 4 and 5 at pages 26 and 28, respectively, of your testimony.

- a. Would you agree that the number of 3-digit ZIP Code pairs with a
 One-Day Service Standard is approximately equal, and differs by less
 than 1 percent?
- Please confirm that despite all the asserted priority given to Priority Mail in handling and dispatch, according to the data in your Table 4 it did not achieve its overnight standard as often as First-Class Mail.
- c. What is the volume, or share, of First-Class Mail that has an overnight delivery standard?
- d. What is the volume, or share, of Priority Mail that has an overnight delivery standard?

Answer to APMU/UPS-T6-13.

(a) Yes.

(b) Confirmed. Notice, however, that Priority Mail carries a larger proportion of bulkier, heavier pieces than does First Class Mail. Also notice that, as explained in my answer to APMU/UPS-T6-8(c)-(d), above, Priority Mail achieves its more stringent service standards more frequently than First Class Mail achieves its less stringent standards in delivering flats.

(c) ODIS data report the volume of First Class Mail with a one-day service standard in FY1999 to be approximately 32.7 billion pieces, or roughly 43.5% of total First Class Mail volume. Tr. 21/8564.

(d) ODIS data report the volume of Priority Mail with a one-day service standard to be approximately 190 million pieces, or roughly 21.5% of total Priority Mail volume. Tr. 21/8564.

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APMU/UPS-T6-14.

Please refer to footnote 31 at page 29 of your testimony which states that "[h]igher 'failure rates' can be indicative of higher service quality in other important settings also. Some highly regarded hospitals experience higher mortality rates than do less highly regarded hospitals."

- a. Is it your contention that of the various expedited 2-day delivery services offered in the market, Priority Mail is the most highly regarded? Please provide all studies, reports, or other information on which you rely to support an affirmative answer.
- Is it your contention that Priority Mail attracts the most difficult-to-deliver pieces because it is so highly regarded? Please provide all studies, reports, or other information on which you rely to support an affirmative answer.

Answer to APMU/UPS-T6-14.

(a) No. I have not performed any study of customer perceptions of Priority Mail and competing services. The point of the observation in footnote 31 on page 29 of my testimony is that common statistics can provide misleading impressions of relative performance. The different service standards of Priority Mail and First Class Mail provide a case in point. As explained on pages 28 and 29 of my testimony, "there are more than 600,000 three-digit ZIP code pairs between which Priority Mail's service standard is two days whereas First Class Mail's service standard is more than two

days." UPS-T-6 at 28. That is particularly significant since most Priority Mail volume -roughly 78% -- is sent to areas with a two-day or three-day service standard, whereas only about 56% of First Class Mail is sent beyond areas where it has an overnight service standard. Tr. 21/8564. Consequently, Priority Mail may consistently provide faster delivery service than First Class Mail even though Priority Mail does not meet its more stringent service standards as frequently as First Class Mail meets its less stringent standards.

(b) No. Please see my answer to part (a), above.

APMU/UPS-T6-15.

At page 31 of your testimony, you state that "ODIS often reports Priority Mail to have achieved its service standards less frequently than does the PETE system. [footnote omitted] This is counter-intuitive."

- a. What is your understanding of the extent to which the PETE system replicates, covers, or is representative of the entire flow of Priority Mail?
- b. What is your understanding of the extent to which the ODIS system
 replicates, covers, or is representative of the entire flow of Priority Mail?
- Is it your assertion that PETE and ODIS are identical, or nearly identical,
 sampling systems? Please explain your understanding of the two.
- d. Why do you say the results are "counter-intuitive?"

Answer to APMU/UPS-T6-15.

(a) My understanding is that the PETE system attempts to replicate the flow of approximately "70% of the nation's destinating, identified Priority Mail volume." <u>PETE: Priority End-to-End Measurement System</u>, Attachment to DFC/USPS-49, page 1 of 5, Tr. 21/8844. The EXFC and PETE Statement of Work for Transit-Time Measurement (June 23, 1997) states that "The sample frame consists of the largest-volume three-digit ZIP code origins within the 85 Performance Clusters and the largest volume three-digit ZIP code destinations within the 85 Performance Clusters." USPS-LR-I-326, p. 27.

(b) My understanding is that the ODIS system is intended to replicate the entire flow of Priority Mail volume.

(c) No. There are important differences between the PETE and the ODIS systems. Aside from the differences identified in my answers to parts (a) and (b), above, the two systems employ different time frameworks. The PETE system tracks Priority Mail pieces from the time they enter the mail stream to the time they are delivered to the addressee. Tr. 21/8844. The ODIS system measures performance from the time pieces are received at the origin office to the time they arrive at the delivery office. Tr. 21/8875. There may be other differences of which I am not aware.

(d) As I explain in my testimony on pages 30-31, the time between initial deposit into the mail stream and delivery to the door of the addressee cannot be less than the time between receipt at the origin post office and arrival at the destination office, due to the extra time required to deliver to the door of the addressee. Therefore, since the PETE and ODIS systems employ the same service standards but ODIS measures only part of the delivery cycle, it would be natural to expect Priority Mail to meet its service standards less frequently when performance is measured using the PETE system than when it is measured using the ODIS system, *ceteris paribus*. In fact, though, Priority Mail has met its service standards more frequently in recent years when performance is measured using the PETE system. This difference between the expected and the realized outcome is what I describe as "counter-intuitive."

APMU/UPS-T6-16.

At page 31 of your testimony, you state that "[d]irect measures of service quality and value other than achievement of service standards include measures of the reliability...."

- a. Please define the term "reliability" as you use it here.
- b. Please explain what measure, or measures, you would use to ascertain the reliability of an expedited delivery service such as Priority Mail.
- c. Please provide all studies, reports, or other information which you rely to show that Priority Mail is a reliable service, and fares well on this direct
 measure of service quality.

Answer to APMU/UPS-T6-16.

(a)-(b) As it is used on page 31, line 15, of my testimony, the term "reliability" of a mail service refers to the variation in delivery time between a given origin and a given destination. Formally, reliability might be measured as the inverse of the variance in delivery times.¹ A more reliable service, then, would be one that exhibits a lower variance in delivery times.

The variance of a random variable is the expectation of the square of the difference between the realization of the variable and its mean. See Robert V. Hogg and Allen T. Craig, <u>Introduction to Mathematical Statistics</u>, Fourth Edition, New York: MacMillan Publishing Co., Inc., 1978, pp. 48-49.

Customers might value a small variance in delivery times because of the greater certainty it provides as to when a piece of mail is likely to arrive at its destination. Such greater certainty can be valuable for planning purposes.

Of course, reliability is just one of many possible dimensions of service quality.

Mailers typically care about the average speed of delivery, for example, as well as the

variance in delivery times.

(c) I am not aware of any data that is available which would allow an

assessment of the reliability of Priority Mail, as defined above.

APMU/UPS-T6-17.

At page 35, lines 5-6, of your testimony, you state that "[t]his consideration [ECSI value] is less applicable to Priority Mail in light of its greater "non-letter" content.

- a. Please define the term "non-letter content" as you use it here, and state whether you include or exclude documents from non-letter content.
- Please provide all studies, reports, documents and information on which you rely for your assertion that Priority Mail has greater "non-letter" content.

Answer to APMU/UPS-T6-17.

(a) As the term is employed on page 35, lines 5-6, of my testimony,

"non-letter content" refers to parcels and irregular pieces and parcels (IPPS). Parcels and IPPS seem unlikely to include documents to any great degree.

(b) See the Origin-Destination Volume Summary Report (HSA360P1) included as part of Attachment G to the Postal Service's Request.

APMU/UPS-T6-18.

At page 38, line 4, of your testimony, you state that the "recommended rate increase ... mainly reflects the 35% increase in Priority Mail's attributable costs since R97-1."

- a. Please confirm that the numerator and denominator used to derive the 35.9 percent increase in the above-quoted statement were, respectively, the difference between total attributed cost in Docket Nos. R2000-1 and R97-1 (*i.e.*, \$3,288,209,000-\$2,419,687,000) and total attributable cost in R97-1 (*i.e.*, \$2,419,687,000). If you do not confirm, please explain how the 35.9 percent increase was derived.
- What is the economic rationale for having percentage changes in rates track percentage changes in total cost? Please provide references to the economic literature that support and justify your rationale for this comparison.
- Please explain why rate increases should track changes in total cost
 rather than changes in unit cost and provide references to the economic
 literature that support and justify your rationale.

Answer to APMU/UPS-T6-18.

(a) Confirmed, except that Priority Mail's total attributable cost in Docket No.
 R2000-1 should be \$3,288,734,000, as indicated in the errata filed on June 22, 2000.

(b) Percentage changes in rates need not "track" percentage changes in total costs. The 40.3% rate increase that I recommend for Priority Mail is not designed to "track" the 35.9% increase in Priority Mail's attributable costs since R97-1. As I explain in my testimony on pages 18 and 37-38, the rate increase that I recommend for Priority Mail is designed to equate Priority Mail's markup index with the markup index for First Class Mail under the Postal Service's proposal. A substantial rate increase for Priority Mail is required to achieve this equalization, in large part because Priority Mail's attributable costs have increased by 35.9% since R97-1. UPS-T-6 at 35-36. But the recommended rate increase is not designed to "track" this increase in attributable costs; otherwise, I would have proposed a 35.9% increase.

(c) Please see my answer to part (b), above.

APMU/UPS-T6-19.

At page 28, line 7, of your testimony, you refer to a 135 percent increase in Priority Mail's attributable costs since Docket No. R94-1.

- Please indicate the numerator and denominator used to compute the 135 percent referred to in your testimony.
- What is the economic rationale for comparing the cumulative percentage change in total attributable cost with the percentage change in rates, rather than with change in unit attributable cost?
- c. Please provide references to the economic literature which support and justify the appropriateness of your comparison.

Answer to APMU/UPS-T6-19.

(a) The numerator is the difference between Priority Mail's attributable costs in R2000-1 and in R94-1 (\$3,288,724 - \$1,401,597 = \$1,887,127). See UPS-T-6 at 36, Table 6 (as revised 6/22/00). The denominator is Priority Mail's attributable cost in R94-1 (\$1,401,597). All numbers are in thousands.

(b)-(c) There is no particular economic rationale for comparing changes in rates to changes in costs. The comparison that you suggest is also informative, which is why I included the last two columns in Table 6 on page 36 in my testimony.

The data in Table 6 is readily employed to compare recommended changes in rates with changes in unit attributable costs. Priority Mail's attributed cost per piece in R94-1 was \$1.84 (= \$1,401,597 / 762,115). Its attributed cost per piece in R2000-1 is

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\$3.07 (= \$3,288,724 / 1,070,173). The difference in these numbers, \$1.23, constitutes a 67% increase in Priority Mail's attributable cost per piece since R94-1.

As noted on page 38, lines 5-6, of my testimony, the rate increase that I recommend for Priority Mail provides a cumulative rate increase of 48%. Thus, the recommended cumulative increase in the price (per piece) for Priority Mail is approximately 72% of the corresponding cumulative increase in Priority Mail's attributed cost per piece.

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APMU/UPS-T6-20.

At page 35, your testimony states that "the Commission's recommendation was based in part on the substantial increase in Priority Mail's attributable costs that occurred between R94-1 and R97-1." Are you stating that the Commission's recommendation was based on (i) the increase in total attributable costs or (ii) the increase in *unit* attributable cost? Please provide a citation to the Commission's *Opinion and Recommended Decision* in Docket No. R97-1 that supports and clarifies your answer.

Answer to APMU/UPS-T6-20.

Although I cannot say with certainty, I suspect that the Commission based its recommendation in part on both the substantial increase in Priority Mail's total attributable costs (72.6%) and the related substantial increase in its unit attributable cost (24.3%) between R94-1 and R97-1. See UPS-T-6 at 36, Table 6 (as revised 6/22/00). As I explain in footnote 16 on page 19 of my testimony, the Commission cited the "magnitude of growth in the estimated costs of providing the service" in explaining its recommended rate increase for Priority Mail. Opinion and Recommended Decision, Docket No. R97-1, ¶ 5306. Although the Commission did not distinguish between total costs and unit costs in this passage, it may well have had both cost measures in mind.

APMU/UPS-T6-21.

At page 35 you state that "[t]he corresponding increase in Priority Mail's attributable costs since R97-1, while substantial, is less pronounced." Is it your opinion that an average annual increase of 11.5 percent in unit attributable cost between Docket Nos. R97-1 and R2000-1 is less pronounced than an average annual increase of 8.1 percent in unit attributable cost between Docket Nos. R94-1 and R97-1? Please explain fully any negative response.

Answer to APMU/UPS-T6-21.

No. An average annual increase of 11.5% represents a larger percentage increase than an average annual increase of 8.1%. The 11.5% annual increase also represents a larger nominal increase in the present context, since unit attributable costs were higher in R97-1 than in R94-1.

The point you raise here appears to be precisely the point that I emphasize on pages 36 and 37 of my testimony: changes in total costs do not necessarily track changes in unit costs. In particular, although Priority Mail's total attributable costs increased less rapidly between R97-1 and R2000-1 than they increased between R94-1 and R97-1, Priority Mail's unit costs increased more rapidly in the more recent period.

APMU/UPS-T6-22.

In your opinion, when a subclass has suffered a sharp increase in unit attributable cost, and the Commission is setting rates for that subclass, should the Commission attempt to mitigate or compound the effect of the increase in unit cost? Please explain fully, and provide all references, reports, studies, and other documents on which you rely to support your position.

Answer to APMU/UPS-T6-22.

This question cannot be answered in the abstract. The Commission must consider many factors and all of the criteria in 39 U.S.C. § 3622(b) when it formulates its rate recommendation. The Commission often attempts to mitigate the impact of sharp cost increases, at least in part in consideration of the impact of rate increases on mailers (§ 3622(b)(4)). But other considerations, such as the requirement that each mail subclass bear its attributable costs and a reasonable share of institutional costs (§ 3622(b)(3)) and fairness and equity concerns (§ 3622(b)(1)) may necessitate a sharp rate increase. The extent to which the Commission attempts to mitigate a sharp cost increase may also depend upon whether it has provided similar mitigation in the recent past. Ongoing pronounced cost increases cannot be mitigated forever without effecting a significant restructuring of historic markup relationships.

DECLARATION

I, David E. M. Sappington, hereby declare under penalty of perjury that the foregoing answers are true and correct to the best of my knowledge, information, and belief.

E. M. Sappington Dakud

Dated: 7/3/2000

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I hereby certify that I have this date served the foregoing document by first class mail, postage prepaid, in accordance with Section 12 of the Commission's Rules of Practice.

Phillip E. Wilson, Jr. Attorney for United Parcel Service

Dated: July 3, 2000 Philadelphia, Pa.

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