

DOCKET SECTION

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

RECEIVED
Feb 17 12 12 PM '98
U.S. DEPT. OF COMMERCE
OFFICE OF POSTAL SERVICE

POSTAL RATE AND FEE CHANGES, 1997

DOCKET NO. R97-1

FLORIDA GIFT FRUIT SHIPPERS ASSOCIATION
ANSWERS OF WITNESS MEREWITZ TO INTERROGATORIES
OF UNITED STATES POSTAL SERVICE (USPS)

USPS/FGFSA-T1-39-65

February 15, 1998

Florida Gift Fruit Shippers Association (FGFSA) hereby provides the
Answers of Witness Merewitz to interrogatories of USPS, USPS/FGFSA-T1-39-
65.

Each interrogatory is stated verbatim, followed by the Answer.



M. W. Wells, Jr., Attorney for
Florida Gift Fruit Shippers Association

USPS/FGFSA-T1-39. Please refer to your revised testimony on page 7, line 8. Please confirm that the 13.1% should be 16.0% If you do not confirm, please explain the difference between the 13.1% figure on page 7 and the 16 percent figure on page 6 that was revised upwards from 13.1 percent in the original.

ANSWER:

Not confirmed. 13.1% is correct.

USPS/FGFSA-T1-4O. Please refer to page 7 of your revised testimony. Please reconcile the apparent conflict in the following two statements:

Lines 1-2: "The result was a 10.8 percent increase in real purchased highway transportation services." -

Lines 10-11: "So during this period there was a 18% real increase in the purchase of highway transportation services by the postal service."

ANSWER:

Both per cents should read 13.7 per cent.

USPS/FGFSA-T1-41. Please refer to page testimony where you state "FACCAT weighting is alternately used and not used."

- a. Please confirm that this statement was not in your original testimony.
- b. Please provide citations to the record of this proceeding which support your allegation that FACCAT weighting is not used.

ANSWER:

- a. confirmed
- b. See Lib. Ref. FGFSA-H-3. In the y96a11 set of runs, four cases were considered. In two cases the FACCAT weighting from TRACS was used. In the other two cases, such weighting was not used.

USPS/FGFSA-T1-42. Please refer to your response to USPS/FGFSA-T1-2, where you state that you reviewed "other materials concerning C.S.14." Please, list those materials.

ANSWER:

Lib. Ref H-84; Alexandrovich workpaper to USPS-T-5, workpaper B-14; cost segment 14 purchased transportation; worksheet 14.0.1 summary of transportation cost by account; worksheet 14.0.3 TRACS distribution keys; worksheet 14.1.2 pq4, 1996 Purchased Transportation Report; worksheet 14.1.2.1 pq3 1996 Purchased Transportation Report; worksheet 14.2.1 annual Purchased Transportation Report. Manual inputs.PQ4 through PQ1 1996; Worksheets 14.1.1, 14.1.1.1, 14.1.1.2 and 14.1.1.3.

USPS/FGFSA-T1-43. Please refer to your response to USPS/FGFSA-T1-5(b) Do you regard container capacity as a measure of cube or a measure of cube and miles?

ANSWER:

I used a measure of cube and miles for container capacity.

USPS/FGFSA-T1-44. Please refer to your response to USPS/FGFSA-T1-12(a). Is your use of the term "workload" in this response the same as your definition of "workload" on page 5, line 17 of your revised testimony? If not, please answer interrogatory USPS/FGFSA-T1-12(a) using the definition of "workload" as you use it on page 5, line 17 of your revised testimony.

ANSWER:

Question 12 is about work sharing. I use work load with regard to work sharing workload in part a. Work load for the Postal Service is greater from Northern Virginia to Los Angeles than to Washington, D.C.

USPS/FGFSA-T1-45. Please refer to your response to USPS/FGFSA-T1-16. Please explain specifically how TRACS data, should be weighted to yield “actual volume.”

ANSWER:

Mail can be weighted according to density conversion factors.

USPS/IFGFS-A-T1-46. Please refer to your response to USPS/FGFS-A-T1-18. Please confirm that the 40% change in total spending is for the six year period 1990-1996.

ANSWER:

confirmed.

USPS/FGFSA-T1-47. Please refer to your response to USPS/FGFSA-T1-20. Please provide a reference citation to the source of the figure “7.75 observations on average.”

ANSWER:

Witness Nieto' response USPS T 2-16(a). FACCAT 3 Tests conducted “Inbound Other”, i.e., not at SCF's or BMC's.

USPS/FGFSA-T1-48. Please refer to your response to USPS/FGFSA-T1-25.

- a. Please confirm that you consider BMC to SCF1 to be line-haul. If you do not confirm, please explain in detail.
- b. Do you consider SCF1 to SCF2 to be line-haul or back haul? Please explain your understanding of how TRACS would classify this leg.
- c. Do you consider SCF2 to AO to be line-haul or back haul? Please explain your understanding of how TRACS would classify this leg.
- d. Do you consider AO to SCF2 to be line-haul or back haul? Please explain your understanding of how TRACS would classify this leg.
- e. Please confirm that you consider SCF2 to BMC to be back-haul. If you do not confirm, please explain in detail.

ANSWER:

I do not maintain that every contract for postal purchased transportation can be divided into line-haul (outbound) and back-haul (inbound). My understanding of TRACS is that any movement where the destination of the last segment of the trip is at a BMC is considered inbound for every segment of that trip. The TRACS definition, as set forth in Lib. Ref. PCR 17, page 188 is as follows: "In addition creates the variable BOUND, indicating the direction (inbound or outbound) of the trip. If FACTYPE is equal to 'BMC' for the destination of the last segment in the trip, then BOUND equals '1' indicating an inbound trip, otherwise BOUND equals '2' indicating an outbound trip." In Inter-BMC transportation, the terms inbound and outbound do not arise.

USPS/FGFSA-T1-49. Please refer to your response to USPS/FGFSA-T1-26. Please answer the question as originally asked. In other words, please identify each of the legs as either line haul or back haul.

ANSWER:

All transportation in the Inter-BMC account would be considered "line haul", and there is no designation as "inbound" or "outbound", either by TRACS or me.

USPS/FGFSA-T1-50. Please refer to your response to USPS/FGFSA-T1-27.

- a. Please confirm that you consider BMC to SCF to be line-haul. If you do not confirm, please explain in detail.
- b. Do you consider SCF to AO to be line-haul or back haul? Please explain your understanding of how TRACS would classify this leg.

ANSWER:

For Intra-BMC transportation, the movements away from the BMC would be considered outbound, according to the TRACS methodology.

USPS/FGFSA-T1-51. Please refer to your response to USPS/FGFSA-T1-30(a), where you state that "there is no logical reason to aim to produce anything other than the minimum variance estimate."

- a. Would you consider constraints on availability of data collection staff in some localities a logical reason or constraint for not allocating a sample in a way that strictly minimizes variance?
- b. Would you consider concerns about delaying mail or interfering with postal operations logical reasons for not focusing solely on strictly minimizing the variance in the TRACS sample allocation?
- c. Have you analyzed the effect on the precision of TRACS estimates due to minor departures from an optimum, or minimum variance allocation? If so, please provide copies of that analysis.
- d. When discussing deviations from the sample allocation which minimizes variance, the late William G. Cochran, in Sampling Techniques, 3rd edition, pages 115-1 is (copies of which are attached for your reference) states that "the optimum can be described as flat." Please confirm that Cochran shows that deviations in the sample allocation of as large as 20% from the optimum allocation can increase the variance at most 4%. If not confirmed, please explain fully and provide sound evidence in support of your position.
- e. Do you have any substantial basis for concluding that the TRACS sample allocation deviates from the variance minimizing optimum allocation by as much as 20%? If so, please provide all such evidence.

ANSWER: see attached.

T1-51 a.

The statement that “there is no logical reason to produce anything other than the minimum variance estimate” reflected the information in the answer by Nieto in her response T2-16, where she stated that “the difference in frequency sampling between inbound and outbound legs was designed to achieve sampling precision without overburdening the field.” This seemed like an ad hoc reason that suggests that minimum variance is not an important criterion.

A better way of stating the issue is to obtain the optimal precision, given the availability of funds. Constraints can always be converted to costs because it is always possible to obtain a

greater sample size with the investment of sufficient resources. In general, the size of a sample in a stratum should vary inversely with the square root of the costs and directly with the relative variance in each stratum.

Taking cost and variance into consideration in this way will actually lead to the minimum variance estimate for a fixed expenditure level.

b.

It is certainly not a desirable outcome to delay mail or interfere with postal operations. However, it should be possible to obtain samples without unduly interfering with the postal system. Again, it is a question of the cost of obtaining a sample with minimum impact. A possible approach to increasing sample size at points which might not interfere with postal operations would be to increase the number of personnel weighting the unloaded mail so that the process finishes more quickly. This would increase the cost of taking each sample, but these costs would be quantifiable and could be used in allocating the sample.

The question implies that sampling the mail interferes with postal operations. The Postal Service should take obtaining good estimates of costs seriously. Collecting good data is part of postal operations as much as stopping for red lights. PS needs good data for resource allocation and pricing for cost recovery. In the long-run, ignoring good data collection techniques or failing to stop at red lights will negatively impact postal operations while ignoring these two rules may speed up the mail in the short-run.

- c. We have not analyzed precision due to minor departures because we believe the sample has major flaws both in the design and in the analysis of the design as it now stands. This section will enumerate some of the more egregious flaws that we see in the sampling and estimation. This section is not a complete enumeration, and raises only some of the most important issues.

Clustering

The sampling approach includes selection of route-trip-destination-days (primary units) and, then, subsamples from the unloaded mail (clusters). Page 07 of Document USPS-LR-PCR-19 (MC97-2) provides the formula for the variance estimate of the distribution key for a subclass (which is followed in the computer programs). In the formula, there is no reference to the subsamples of clusters. Since not all mail unloaded from a truck is weighed, the total weight of each mailcode unloaded from a truck is an estimate and has error associated with the estimate, thereby increasing the variance.

The conversion of weighed mail to volumes for each mailcode uses fixed density factors, while each sample of mail in a mailcode may vary in its density. Thus, the error in the conversion of the pounds to cubic feet further increases the variance.

The import of the discussion of clustering in moving from the mail actually weighed to the volume of mail unloaded from a truck is that the variances are likely to be underestimated.

Expansion to Truck Size

The process of expanding the unloaded mail to fill the empty space in trucks uses EMPTYAVG, which is a single number for each stratum. The use of an average value can create three problems.

The first problem is that it can lead to incorrect estimates. For illustrative purposes, let us assume two trucks, each with a capacity of 100 cubic feet. Truck 1 traveling in late October, is 50 percent full, carrying 10 cubic feet of parcel post and 40 cubic feet of other mail. The other truck, traveling near Christmas, is full with 60 cubic feet of parcel post and 40 cubic feet of other mail. The actual mail carried on the two trucks is 70 cubic feet of parcel post and 80 cubic feet of other mail (or 46.7% parcel post).

If we were to expand the mail on each truck to fill empty space, we would double all mail on Truck 1 and do nothing with the mail on Truck 2. On Truck 1, we would assign 20 cubic feet to parcel post and 80 cubic feet to other mail. Truck 2 would stay the same. The total would be 80 cubic feet of parcel post and 120 cubic feet of other mail (40% parcel post).

Using the postal TRACS approach does not change the percentage allocation in a truck. The average is 25% empty for the two trucks. Therefore, the imputed mail on each Truck would be multiplied by 133% (100% capacity to 75% full). Truck 1 would have 13.3 cubic feet of parcel post and 53.3 cubic feet of other mail. Truck 2 would have 80 cubic feet of parcel post and 53.3 cubic feet of other mail. The totals would be 93.3 cubic feet of parcel post and 106.6 cubic feet of other mail (46.7% parcel post). The percentage is the same as without the empty average, but the volume has been inflated on both empty and full trucks. The volume of mail for each mailcode in each stratum is inflated by a different number, the ratio $1/(1 - \text{EMPTYAVG for the Stratum})$.

The effect of the computation is to assign to the mailcodes that use trucks in each stratum the wasted space on the trucks for that stratum. The costs of empty space attributed to a mailcode depend on its stratum, not on the amount of empty space on the truck or the route (whether one wants to attribute the empty space on a truck to the mail on that truck or not.) If the USPS has misestimated the future mail volume in a route-trip-destination in contracting for purchased transportation, all shipments in that stratum are affected equally, but not shipments in other strata.

The second problem is similar to that for the use of average densities for mailcodes. Use of an average empty volume can lead to increased variance because the estimates of mail moved will be inexact. The computer analysis does not include any computation in estimating the variances (confidence intervals, coefficients of variation) to account for the use of average, rather than actual, empty volumes on truck.

The third problem involves the cost of moving mail. Not all routes have the same costs and the interaction of the use of average percent empty and variable costs across routes can lead to aberrant results. As illustration, assume that in the example above, the two trucks are on two routes, with costs of \$1 and \$2 per cubic foot respectively. The unexpanded cost, above would be $10 \times 1 + 60 \times 2 = \130 for parcel post and $40 \times 1 + 40 \times 2 = \120 for other mail. This amounts to 52% of the cost for parcel post.

Expanding each truck separately would yield $20 \times 1 + 60 \times 2 = \140 for parcel post and $80 \times 1 + 40 \times 2 = \160 for other mail. This amounts to 46.7% for parcel post.

Expanding the mail using the average empty would multiply the unexpanded costs by 133% to \$173 for parcel post and \$160 for other mail, yielding the same ratio as without the expansion (52%). However, parcel post is clearly being penalized by the inclusion of cost. In the more expensive truck, volume is being expanded beyond capacity. Parcel post, being the most common type of mail carried, is unduly penalized. Without the multiplication of costs later, the estimates would be more variable than would be expected by the estimation methods. With the later cost multiplication, estimates can be incorrect because higher (or lower) cost trucks are imputed to be carrying more than their capacity.

Strata

The sampling method for route-trip-destination-days is a random sample by District USPS-LR-PCR-19,, p. 2. From the computer programs, it appears that route-trip destinations can be sampled with replacement (since there are multiple instances of some route-trip-destinations). The analysis in the computer programs uses FACCAT as strata, aggregates costs to the total for a route-trip-destination during a quarter, and then inflates this value by the ratio of total route-trip-destination-days in the stratum to the total in the sample.

If the sample is actually taken as depicted in LR-PCR-19, then the following should be the way the data are analyzed. The stratification variable should be District (or District and FACCAT

if that is also a selection stratification variable) and each sample of unloaded mail should be counted equally. If a route-trip-destination is selected more than once, because each is selected by the same random process that selected other route-trip-destinations, it should be weighted equally, not by the inverse of the number of times it is selected. Since selection was undertaken by randomly selecting a route-trip-destination-day, data should not be aggregated to the route-trip-destination for the quarter. Instead, each primary sampling unit should be counted on its own, reflecting the method by which the sample was selected. This would mean that the estimates would be different because each primary sampling unit in a stratum would be weighted equally. Needless to say, the variance would be different as well.

It is unclear from the material that FACCAT is a pre-selection stratification variable. That it is not is suggested by the weights in FGFS/USPS T-2-16, part d.. Where stratification is employed before selection, each sampled unit would be selected with known probability. The weights given by Nieto vary so greatly across the PQs that, either there was no ad hoc probability of selection, or the realized sample was quite different from that planned. In the computer programs, the weights are calculated from the empirical data rather than applied from prior knowledge. (This contrasts with the densities of the various mailcodes, which are provided as inputs to the programs.)

The import of the discussion of the strata suggests that, if the sampling plan were used to implement the analysis, the estimates and the variances would be different.

Precision

The estimates that are produced in the computer programs appear to have reasonable precision when the output is examined. The question asks about minor departures from the optimum. We have undertaken a fairly simple analysis that examines the costs, by stratum. We calculated the Intra-BMC variances of costs by stratum for mailcodes that had a distribution key element value of at least 0.10 in any PQ of 1996. There were four such mailcodes: A, J, M, and P, Parcel Post. Because these have such a large proportion of the costs, we figured that

these costs would likely be estimated most precisely, by stratum. Table T1-51-1 presents variances of the costs as used to estimate the distribution key, by stratum, calculated from the cost variable in the INTRA_B1 data sets multiplied by N_UNITS/COUNT.

Two items are notable. First, no estimate of the variance can be made in PQ2, 3, or 4 for mailcode P in FACCAT 3; or in PQ4 for mailcode A in FACCAT 1 because there are not enough observations - three are needed at minimum. We should remember that mailcode P has a distribution key value of 0.19 or more in each PQ. This means that, most of the time, we obtain no real estimate for the cost of mailcode P from FACCAT 3.

The other notable insight to be obtained from the table is that the ratio of the largest to the smallest variances on each line are phenomenally high: the smallest number in the ratio column is over 17. (The largest number is greater than 100,000.) The extract from Cochran referred to in a later part of the question, suggests that a fairly large sample misallocation can increase the variance by at most 4%. In the tables, the variances range over several orders of magnitude within a single mailcode i.e , not by a factor of 20 but 100 or 1000.. (It is true that the overall estimates for all strata together may not be this inaccurate. However, the ratios of the variances across strata are suggestive that at least some of the inputs into the overall estimate are very inaccurate.)

Further insight into how inaccurate the strata values are can be seen in Table T1-51-2. The table shows the coefficients of variation for the costs of mailcode P. Usually, a coefficient of variation can be expected to be smaller than 1, signifying that the standard deviation is smaller than the mean. (One notes that the coefficients of variation output from the HWY12 program are much smaller than 1.) The values found in Table T1-51-2 are nowhere near 1. They range from 48 to 300. Part of the explanation lies in the small sample sizes in many of the strata. In strata 2, 3, and 5, the largest sample size is 10 in any quarter. (The smallest is 0.) But even in stratum 4 (sample sizes over 40) and stratum 1 (sample sizes over 100) the coefficients of variation are large. What this suggests is that costs are so variable across route-trip-destinations that a much larger sample is necessary.

The problem of variable costs also can be seen if all the data are examined together. We calculated the unweighted variances and coefficients of variation for the data taken across all five strata. (Because the analysis is unweighted, the actual values are not exactly correct, but should be in the same ball park as the true values.) The variances for mailcode P were all over 49 million, while the coefficients of variation were all over 148.

Why are the coefficients of variation so high for costs, but so low for the distribution key values? One possibility is that the numerators and denominators covary; that is, the costs for a mailcode on a route-trip-destination are more closely related to the total costs for that route-trip-destination than to the costs on other route-trip-destinations. However, just because the numerator and denominator covary does not mean that the actual estimates are as precise as it appears. If the main variation is in total costs for a route-trip destination, the effects of the highest cost trips will overwhelm those of the lowest cost trips in calculating a total (especially if the highest cost trips run most frequently and the total costs for a quarter are being analyzed, as they are in the TRACS programs), the covariation between the numerator and denominator will make it appear that the coefficient of variation is low, and the result will be **apparently** precise estimates. The analysis picks up the very high correlation caused by very disparate units within each category. The analyses presented in this response do not allow this masking to take place because they do not examine a ratio, but instead examine the costs themselves.

With a population containing disparate units (a population with a large variance), a small sample is insufficient. A large sample is needed to ensure adequate representation from across the spectrum. The fact that the TRACS system to estimate Intra-BMC truck transportation contains a small sample each quarter (from about 400 to 500 units) means that estimates are imprecise. The remedy for this imprecision is the increase in the number of sampled unloadings.

The import of the discussion of precision is that, while the sample may be misallocated, it also appears that the sample is way too small to do the job that is required. The variances in costs

for the most important Intra-BMC mailcodes are so large, both in relative terms among the strata and in absolute terms, that any estimates that come from the TRACS system should be suspect.

d. What Cochran says is certainly correct.

e.

As was discussed above in Part c, the estimate of the variance in the TRACS truck transportation system is suspect. We believe that the effect of all the problems makes the variance deviate from optimum, given cost constraints, by much more than 20%. We also suspect that the estimates in the distribution key may deviate from the population parameters by more than 20% of the value of the estimate. We do not have proof that it is the case, but believe that the reasons enumerated under Part c, above, lend credence to our belief.

TABLE T1-51 - 1

Variances of Route-Trip-Destination Costs by FACCAT

PQ1

Mailcode	1	2	3	4	5	Max/Min
A	22,316,020	2,779,250	226,355	2,223,109	151,209	147.6
J	85,227,953	58,778,715	4,222,394	3,532,858	177,902	479.1
M	105,324,649	38,627	261,997	13,361,768	147,545	2,726.7
P	52,370,895	92,184	476,023	53,737,055	119,053	582.9

PQ2

Mailcode	1	2	3	4	5	Max/Min
A	6,794,950	7,219,896	998,982	11,984,199	617,348	19.4
J	7,134,583	26,369,239	2,341	9,844,029	2,442,325	11,265.9
M	97,190,964	3,189,973	2,416	4,919,041	2,302,570	40,235.2
P	74,068,400	2,014,983	no estimate	6,081,751	950,246	77.9

PQ3

Mailcode	1	2	3	4	5	Max/Min
A	3,013,408	46,581,457	22,390,836	5,866,606	2,711,784	17.2
J	59,045,999	3,763,636	442	20,311,774	319,119	133,613.8
M	46,318,441	686,199	3,699,698	61,515,294	41,954,828	89.6
P	73,068,567	2,267,812	no estimate	46,304,332	24,841,342	32.2

PQ4

Mailcode	1	2	3	4	5	Max/Min
A	no estimate	4,511,805	130,823	9,244,899	66,484	139.1
J	11,605,156	1,301,707	16,282	20,292,988	3,547,163	1,246.3
M	16,248,255	59,595	90,623	10,543,909	47,005	345.7
P	60,499,560	3,117,847	no estimate	16,211,940	725,345	83.4

Note: Costs are calculated as Cost in data INTRA_B1 multiplied by N_UNITS / COUNT

Table T1-51-2

Coefficients of Variation for Route-Trip-Destination Costs by FACCAT for Mailcode P

PQ	FACCAT				
	1	2	3	4	5
1	131.9	48.1	138.9	300.5	136.6
2	144.1	162.0	no estimate	110.5	111.0
3	144.1	131.3	no estimate	186.8	140.6
4	142.3	96.6	no estimate	132.4	85.4

Note: Costs are calculated as Cost in data INTRA_B1 multiplied by N_UNITS / COUNT

Handling of Samples With No Mail Unloaded

We assemble here a list of ROUTE TRIP DCODE values that appear in the SURVEY data set with a WT of 0 and do not appear in the data sets analyzed in HWY11. The term 0 WT refers to a sample in which there was nothing unloaded.

The analysis in HWY11 estimates the distribution key using as a weight for each FACCAT:

$$\frac{\text{Sum of ROUTE TRIP DCODE trips in the frame for the FACCAT}}{\text{Sum of ROUTE TRIP DCODE trips in the sample for the FACCAT}}$$

When a ROUTE TRIP DECODE has a 0 WT value in the SURVEY data set, it is usually excluded from the denominator in the above ratio. In the HWY11 program, when the SAMPLE data set is used, the observations are divided into HIT (both in the sample and in the survey), NOSAMPLE, and NOSURVEY. Only the HIT observations are used in the denominator, while almost all the 0 WT observations are output to the NOSURVEY data set along with those observations not actually surveyed.

The result is that some ROUTE TRIP DCODE values are excluded from the denominator, the ratio is larger than it should be, and the weight for a FACCAT with any 0 WT observations is too large.

PQ196 List of Route Trip Dcode with Only 0 WT
Not Found in Any Data Set from HWY11

ACCOUNT=53121

ROUTE	TRIP	DCODE
00631	1	004
00635	1	004
01544	12	076
03031	2	080
03040	2	080
04011	28	050
04031	4	050
05416	12	065
05416	4	065
06412	11	040
07930	8	019
07933	6	019
12976	2	73991
13064	2	78093
13374	6	78537
13739	6	781
15332	4	768
15533	2	766
16161	2	747
17330	4	71878
17541	8	71860
19448	6	798
27532	3	31687
30139	2	807
30543	16	807
30632	2	804
31533	7	87647
32031	8	830
32169	9	83783
33935	4	889
43132	2	580
43449	2	585
43960	2	589
46338	6	548
478AA	16	512
48834	12	522
49234	18	593
50042	8	600
51535	2	420
559AD	4	669
574AD	6	615
57736	1	611
580AA	4	620
58787	1	62121
59139	2	69081
59936	2	69934
61233	6	473
61830	6	472
64034	10	450
65831	2	46113
67660	1	41486
68334	2	42564
72018	14	130
75332	3	163
786AA	12	124
82561	1	23675
835AD	8	286
875BA	4	216
89036	6	290
90735	10	901

91339	204	978
91733	6	971
92354	2	938

PQ196 List of Route Trip Dcode with Only 0 WT
Not Found in Any Data Set from HWY11

ACCOUNT=53121
(continued)

ROUTE	TRIP	DCODE
94531	18	95690
95938	10	969
973AA	16	918
973AA	34	918
98666	2	92408
99033	2	99034

ACCOUNT=53124

ROUTE	TRIP	DCODE
02338	4X	038
023MG	1	03058
07611	7	010
07711	17	022
08517	17	010
11412	2	010
15060	1	76055
152CG	2	74353
15914	1	766
15945	18	76981
16640	4	74210
16674	1	760
17014	9	SMK
18016	4	01099
19020	2	026
19910	3	791
20613	1	370
21017	24	377
21712	3	377
23090	816	30J
27534	2	31659
30016	1	807
30016	1	807
32073	2	83040
32340	2	83862
32511	2	83684
33946	2	880
38012	2	13837
38690	806	820
38694	803	890
38698	811	820
40017	1	807
40313	4	578
42144	6	53385
44014	2	55206
44022	5	WKD
44112	807	52J
46090	844	540
48192	5	59137
56011	1	668
57322	2	61317
64013	1	45432
67932	2	18955
67933	4	18989

73023	2	IUW
73028	6	18052
75213	4	163
80016	1	200
90714	4	901
91016	3	900

PQ196 List of Route Trip Dcode with Only 0 WT
Not Found in Any Data Set from HWY11

ACCOUNT=53124
(continued)

ROUTE	TRIP	DCODE
91030	27	97030
92319	2	901
92319	3	901
95512	2	96681
97058	2	91784
99012	2	99777

ACCOUNT=53127

ROUTE	TRIP	DCODE
01097	806	07J
06490	801	07J
07090	10	01099
07090	816	01099
07690	812	01099
07790	801	01J
07790	815	01J
07990	17	01099
07990	803	01099
08891	806	01J
10590	801	01099
10590	840	01099
10590	848	01099
16191	804	740
18090	819	79J
202BN	809	30J
22990	803	30J
25013	1	760
27191	828	31J
27193	826	31J
27195	834	31J
27196	801	320
27297	804	31J
27297	804	31J
27298	805	310
30012	801	COK
30012	804	80J
30095	807	80J
30095	822	80J
30096	808	COK
30097	810	80J
30194	7	COK
30194	810	80J
30195	802	80J
30197	806	80J
30291	806	80J
32192	804	ZCX
32290	838	83J
32290	840	OSC
38091	801	810
38110	803	890

38110	805	894
38110	806	82J
38110	816	82J
38112	802	118
38112	802	82J
38792	802	82J
40090	802	560
40090	805	56J
44091	805	76J

PQ196 List of Route Trip Dcode with Only 0 WT
Not Found in Any Data Set from HWY11

ACCOUNT=53127
(continued)

ROUTE	TRIP	DCODE
48090	804	52J
48090	810	520
48090	814	52J
49390	803	52J
49390	805	52J
50490	807	60J
50590	801	60J
50590	805	606
50590	808	600
50690	802	600
52390	812	600
52690	802	600
54791	804	660
54791	806	651BR
54990	804	660
55213	802	66J
55291	803	648MS
56290	801	66J
61290	806	600
63790	4	480
66322	857	450
66325	807	440
66325	808	44J
66328	804	44J
75095	802	16J
75121	802	16J
75192	804	16J
75193	803	119
75197	802	142
75198	803	163
75392	809	150
75398	806	16J
80093	831	270
80216	822	270
80216	826	20J
90091	806	90J
90190	821	934
94690	824D	95J
94896	818C	95J
98097	807	9208E
98111	801A	910
98192	812A	92J
98192	828B	92J

ACCOUNT=53131

ROUTE	TRIP	DCODE
01112	802	310

10211	806	01099
14017	802	300
15115	802	830
19212	815	01J
19212	815	01J
19218	801	16J
19218	806	79J
19492	819	79J
20215	804	527
32213	801	01099
32213	806	83J
38113	801	31J

PQ196 List of Route Trip Dcode with Only 0 WT
Not Found in Any Data Set from HWY11

ACCOUNT=53131
(continued)

ROUTE	TRIP	DCODE
38115	803	180
38117	801	810
38118	802	82J
38120	802	900
38121	802	956
38123	804	163
38123	805	163
38124	803	01099
45214	806	585
45218	804	163
45218	804	163
45218	807	503
45221	804	56J
45292	802	580
48312	802	52J
50311	806	450
50321	802	956
50323	1	760
55223	802	820
60814	804	540
60816	905	750
63215	802	48J
66316	804	163
75110	802	200
75110	802	200
75114	801	160
75116	802	310
75125	802	920
90110	801	900
94810	802	95J

USPS/FGFSA-T1-52. Please confirm that the file contre-1.wb3, provided in library reference LAM-H-1 is identical to the file c:\myfiles\contr.wb3 named at the bottom of LAM4b. If you do not confirm, please provide the latter and explain any and all differences between the two files.

ANSWER

Not confirmed. The latter will be provided in Lib. Ref. FGFSA-H-4. It contains one panel, while the first was merely a stage in development and had several and has a different title.

USPS/FGFSA-T1-53. Please refer to LAM3.

- a. Please confirm that LAM3 was produced using the program c:\dkrerun1.wb3 as noted on page 3 of the exhibit.
- b. Please confirm that the program c:\dkrerun1.wb3 is identical to the file DKRERU-1.wb3 contained in library reference LAM-H-1.
- c. Please confirm that LAM3 contains output from a SAS program that you have not provided.
- d. If you do not confirm subpart (c) above, please explain in detail.
- e. If you confirm subpart (c) above, please provide the SAS program.

ANSWER:

- a. Confirmed
- b. Confirmed
- c. Not confirmed, see Library Reference FGFSA-H-3
- d. See answer to c
- e. Not applicable

USPS/FGFSA-T1-54. Please refer to LAM 4a.

- a. Please confirm that the file name (C:\dk.rerun1.wb3, sheet A) handwritten at the bottom of LAM 4a, page 6 is the file used to produce the library reference.
- b. Is it your understanding that this library reference is identical to the file DKRERU-1.WB3 provided in LAM-H-1? If they are not identical explain any differences.
- c. LAM 4a appears to be the output of a SAS program. Please provide the SAS program.

ANSWER

- a. Not confirmed, see Library Reference FGFSA-H-3
- b. The referenced file is provided in Lib. Ref. FGFSA-H-1.
- c. Library Reference FGFSA-H-3 includes the SAS Programs and Logs

USPS/FGFSA-T1-55. Please refer to the file intrae-1.wb3 contained in LR-LAM-H-1.

a. Please confirm that this file was used to generate LAM-H-1.

b. The file contains a reference to

C:\WINDOW...ttyGFS\hist\intra.erpp.wb3. Please provide this file.

ANSWER

a. Confirmed

b. See Library Reference FGFSA-H-4

USPS/FGFSA-T1-56. The file dropsh-1.wb3 in Library Reference LAM-H-1 contains what appears to be the source information for Exhibit LAM-6. Included in this file is a reference to the file dropship.incr.purch2.wb3. provide this file.

ANSWER

See Library Reference FGFSA-H-4

USPS/FGFSA-T1-57. Please refer to the file dropsh-1.wb3 In Library Reference LAM-H-1. In that file the number 50,354.1 appears as a measure of Bulk Rate Regular volume in FY 1991. The spreadsheet further indicates that this number was developed using the 1991 billing determinants. Please provide all source data and the actual calculation used to produce this number, and indicate the subclass and mail category of the source data and the units of measurement (e.g., pieces, weight).

ANSWER:

The number 50,354 million is not a measure of bulk rate regular volume in 1991. Instead, a careful reading of the table shows that this is the number of pieces "DS beyond SCF" , or drop shipped beyond the SCF. This is derived from 1991 Billing Determinants. Please see the Workpapers to LAM-6 filed as a Library Reference.

USPS/FGFSA-T1-58. FOR ALL other numbers in dropsh-1.wb3 in Library Reference LAM-H-1 that are sourced to the 1996 and 1991 billing determinants, please provide the same information as requested in interrogatory USPS/FGFSA-T1-67.

ANSWER

This material is incorporated in LAM-6(rev)

USPS/FGFSA-T1-59. Please refer to dropsh-1.wb3 In Library Reference LAM-H-1.

- a. Please confirm that you developed volume of mail not dropshipped beyond the BMC for FY 1996. If not confirmed, please explain fully.
- b. Please confirm that this calculation includes the subtraction of single piece Standard A volume from bulk Standard A volume. If not confirmed, please explain fully.
- c. Is it your understanding that single piece volume is included in bulk volume? Please explain fully.

ANSWER

- a. Confirmed
- b. Confirmed for LAM 6, but corrected in LAM 6(rev)
- c. No

USPS/FGFSA-T1-60. Please refer to MA-6. Please confirm that the volumes shown do not include volumes of nonprofit mail regular rate, Nonprofit standard A or Nonprofit enhanced carrier route.

ANSWER:

Confirmed, but the revised table filed considers these factors and thus finds that purchased transportation needs in Intra-BMC and Inter-BMC declined some 4.3 per cent, which is more than the 3.0 per cent proffered earlier before nonprofit mail was considered. Standard A mail drop shipped to the BMC has not been included in this estimate. Such mail avoids Inter-BMC transportation and if this increase in worksharing over the period 1991 to 1996 were considered, the estimate of the decline in transportation needs would be even greater. Thus, we can regard the estimate in LAM-6(rev) as a lower bound on transportation savings or a conservative estimate.

USPS/FGFSA-T1-61. Please refer to LAM-6.

- a. Please indicate whether the workload you refer to on page 2 includes any accounting for the distance the mail travelled in either 1991 or 1996
- b. Is it your understanding that transportation workload should not include a measure of distance travelled? Please explain fully.

ANSWER

- a. No
- b. I would like to include the measure of distance traveled, but the data was not readily available to me. These tend to be relatively stable over time, because of the large numbers involved. A change, like drop shipping, would have a perceptible effect on these numbers, but the change would not show up very much in the two major highway accounts I explored. Where Standard A mail goes over 400 miles to the destination postal facility, the Postal Service would likely route it by rail. Length of haul by truck should not change very much, because there is more drop shipping in short-haul than in long-haul mail. Standard A mail uses rail transportation as shown by the following:

TRACS Distribution Key - Freight Rail

	Standard A Mail	Parcel Post
PQ 1 1996	0.476	0.238
PQ2, 1996	0.517	0.200
PQ 3 1996	0.492	0.207
PQ 4 1996	0.526	0.196

See: Worksheet 14.0.3 and 14.0.7 in Alexandrovich Workpapers.

The amount spent by the Postal Service on purchased freight rail transportation in 1996 was \$187 million.

USPS/FGFSA-T1-62. Please refer to Library Reference LAM-H-1, file LAM13.wb3.

- a. Please explain where in your testimony this file is used.
- b. Please provide the source code noted in the spreadsheet as "Source: Running of Postal Service SAS Model in Lib. Ref. H-82 and H-84, y96a11."

ANSWER

- a. Page 24, lines 1-2
- b. Case D in y96a11, in Library Reference FGFSA-H-3

USPS/FGFSA-T1-63. Please refer to Library Reference LAM-H-1, file LAM3REV.wb3.

- a. Please explain where and how in your testimony this library reference is used.
- b. Please also provide the SAS code used to construct this file.

ANSWER

- a. See pages 14 and 25. I do not advocate use as the distribution key, but provide the information for the Commission and the parties. The data looks at outbound trips only.
- b. The SAS run in y96a11, documented in Library Reference FGFSA-H-3

USPS/FGFSA-T1-64. Please refer to Library Reference LAM-H-1, file LAM4B-1.wb3.

- a. Please confirm that this file underlies the calculations shown in Exhibit LAM-4b.
- b. Please confirm that the cubic feet of Standard A mail (136,980 and 395,797) in panel B are developed using a calculation that multiplies weight by cubic feet per pound.
- c. Please confirm that the calculation described is not included in the file provided.
- d. Please provide the explicit calculation of the numbers referred to in subpart (b) above.
- e. Please provide the units of measure (e.g., thousands, millions) for these two numbers and all other numbers shown in LAM4B-1.wb3.
- f. LAM4b-1.wb3 contains a reference to C:\myfiles\contr1.est.wb3, Please provide this file.

ANSWER

- a. Confirmed
- b. Confirmed, but see LAM-4b(rev) which modifies some numbers slightly
- c. The calculation is suggested by the footnote in the second panel to Lib. Ref. H-111, Appendix A, Table 4, and is fully documented in Library Reference FGFSA-H-4. Although the items addable were clearly labelled as “intraBMC” or “interBMC” in the table cited.
- d. Please see Workpaper 1 to LAM 4(b)(rev) filed in Library Reference FGFSA-H-4
- e. All items are clearly labelled in LAM-4b(rev).
- f. This is not a file, but rather merely directions for locating the material in the computer.

USPS/FGFSA-T1-65. Please refer to Library Reference LAM-H-1, file QURTPU-1.wb3

- a. Please confirm that this file was used to create LAM-2a
- b. Please confirm that this file (and LAM-2b) show only accrued costs for intra and inter BMC accounts.
- c. Please confirm that footnote (c) in LAM-2a and in the file on which it is based refers to nothing in the Exhibit or the file. Please explain footnote (c) fully.

ANSWER

- a. Confirmed
- b. Confirmed
- c. The second line of footnote (c) referred to columns in the original exhibit, but which were deleted from the final version. The reference can be ignored.

DECLARATION

I, Leonard Merewitz, declare under the penalties of perjury that the foregoing answers are true and correct, to the best of my knowledge, information and belief.



Leonard Merewitz

Dated February 16, 1998

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all parties of record in this proceeding on this date in accordance with Section 12 of the Rules of Practice and Procedure.

Dated : February 15, 1998



M. W. Wells, Jr., Attorney