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POSTAL RATE COMMISSION OFFICE OF THE SECRETARY

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

POSTAL RATE AND FEE CHANGES, 1997

Docket No. R97-1

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS NIETO TO INTERROGATORIES OF THE FLORIDA GIFT FRUIT SHIPPERS ASSOCIATION (FGFSA/USPS-T2—1–12(B), 13–41, 44–47)

The United States Postal Service hereby provides responses of witness Nieto to the following interrogatories of the Florida Gift Fruit Shippers Association: FGFSA/USPS-T2—1-12(b), 13-41, 44-47, filed on September 3, 1997. An objection to interrogatory subparts FGFSA/USPS-T2-12(a) and (c) was filed on September 15, 1997. Interrogatories FGFSA/USPS-T2-42-43 were redirected to witness Bradley.

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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FGFSA/USPS-T2-1

Refer to the Library References pertaining to TRACS - USPS-LR-H-78 through 84:

- a) Was each library reference prepared by you or under your direction?
- b) Are you the sponsor of any or all of these library references?

- a) Yes.
- b) I am not certain what you mean by 'sponsoring' the library references. I prepared them and am prepared to answer questions about them.

FGFSA/USPS-T2-2

Were the data collection instructions applicable during FY 1996 the same as those shown in LR-G-112, Docket No. R94-1? Please identify any changes.

Response:

Yes.

FGFSA/USPS-T2-3

Refer to LR-H-82. Please provide the code to read the 5 digit TESTDATE which begins with the numbers 78.

Response:

The variable TESTDATE is a SAS date. SAS dates represent an absolute number of days from an arbitrary point in time, thus must be formatted to be presented in familiar form. For example, the SAS date 13042 represents the date September 16, 1995.

Under normal circumstances the code below would accomplish the reading and formatted printing of the SAS dates in question:

DATA TEMP:

INFILE "TRACSSMN.Z.HWY196.FLAT.TEXT";

INPUT @29 TESTDATE 5.;

RUN:

PROC PRINT DATA=TEMP; FORMAT TESTDATE MMDDYY8.;

RUN;

However, in the TRACS data files submitted, most date variables have been encrypted due to their direct relation to TESTID, whose encryption was also required to secure the encryption algorithm. The overall purpose of data encryption is to allow intervenors to replicate the TRACS results without compromising the security of commercially sensitive information.

FGFSA/USPS-T2-4

Refer to LR-H-82. Explain the derivation and method of determining the numbers shown in the columns headed TOTWT and WT.

- a) Are these numbers actual weights from a scale measurement, or computed weights? If the latter, explain what weight factor is used in the TRACS programs to calculate the weight for each mailcode.
- b) Where mail is sacked, trayed or containerized, is the weight of the sack, tray or container taken into account? If so, explain, with the weight factor used for each type of container. Also, explain how the weight of the sack, tray or container is distributed to the mail contained therein.

- a. These numbers are actual weights, typically recorded from an electronic scale attached to the data collector's computer. The weights are initially recorded as pounds and ounces, and are represented as pounds (and decimal fractions thereof) in the variables TOTWT and WT.
- b. The variable TOTWT is the actual gross weight, measured by electronic scale, of an item (such as a sack, a tray, etc.), including both the contents of the item and the tare weight of the item itself. A TRACS data collector also takes the mail out of the item and groups it into categories by mailcode for electronic weighing. For each mailcode grouping, the variable WT is the weight of that group. The tare weight of the item itself is the difference between TOTWT and the sum of WT across all mailcodes found within the item. No weight factor is used. When the item's contents are expanded to the item level, the tare weight is distributed to the contents of the item proportionately to each mailcode's share of the net weight. At this point, TOTWT will equal the sum of WT across all mailcodes found within the item.

FGFSA/USPS-T2-5

Confirm that, as used in LR-H-82,	transportation account number	⁻ 53127 is	s Intra	BMC
and 53131 is Inter BMC				

Response:

Confirmed.

FGFSA/USPS-T2-6

Confirm that the percent of total sample size allocated to each facility type is as shown in Exhibit 2 on page 3 of LR-H-78. If you do not confirm, please provide the correct percentage for each.

- a) In Exhibit 2, for the Intra-BMC entries, confirm that the inbound refers to inbound to the BMC and that the outbound refers to outbound from the BMC. If you do not confirm, please provide complete clarification.
- b) Explain the basis and criteria used in assigning the percentage to each facility type.
- c) For the Inter-SCF account, it is stated, on page 2 of LR-H-78, that BMCs are generally not served. Explain why 5% of the samples for Inter-SCF are taken at BMC destinations.
- d) For Intra-BMC, the volume of mail outbound from the BMC is greater than the volume of mail inbound to the BMC. Explain why 70% of the samples are taken on the inbound move, and only 30% on the outbound move.

- a. For intra-BMC contracts, a specific contract route-trip is defined as inbound when the final destination (last stop) is a BMC. Otherwise, it is considered outbound. All stops on the contract route-trip are eligible for sampling.
- b. There are two criteria used in assigning the sampling percentages to each facility
 type: efficient allocation of limited data collection resources, and minimization of overall
 variance in the resulting distribution key.
 - c. Even though Inter-SCF contracts generally do not serve BMC's, five percent of Inter-SCF samples are taken at BMC destinations because Inter-SCF contracts do occasionally have BMC stops. This occurs because most contracts are composed of more than one route-trip. Although the majority of the route-trips in a contract provide the same type of service, there may be one route-trip served under the contract which would fall into a different type of service. Route-trips cannot be classified individually,

and thus the whole contract must be classified as Intra-SCF, Inter-SCF, Intra-BMC, or Inter-BMC. For a hypothetical example, a contract can be established for the purpose of providing Inter-SCF service in a certain area. Later, it is decided that a run to the BMC is desired, and a route-trip is added to the existing contract. Then we have an Inter-SCF contract with a route-trip that serves a BMC. TRACS samples at these facilities because the contracts under these accounts serve these destinations.

d. Please refer to my response to FGFSA/USPS-T2-16, parts d. and e.

FGFSA/USPS-T2-7

Do you agree that, as a general rule, Inter-BMC transportation is not used for Priority or Express mail, except to destinations other than a BMC? If not, please fully explain.

Response:

One would not expect to see Inter-BMC transportation used for Priority Mail or Express Mail, except on contracts also serving SCF's. However, the TRACS sample does occasionally show small amounts of Priority Mail and Express Mail moving on Inter-BMC transportation.

FGFSA/USPS-T2-8

Confirm that, in Q1 1996, TRACS sample data for account 53131

- a) Records 1 sample at a BMC destination facility for Priority Mail (see, TESTID no. 70346UA) Please provide, for that TESTID, the place of origin of the sampled priority mail, and explain why this mail was unloaded at a BMC facility.
- b) No other sample of Priority mail was recorded at a BMC destination facility.
- c) If you do not confirm any of the above, please fully explain.

- a. Not confirmed.
- b. Not confirmed.
- c. Our review of the Q1 1996 data showed that no Priority Mail was sampled under TESTID no. 70346UA, but that Priority Mail was sampled at a BMC destination facility from an account 53131 movement during Q1 1996 under TESTID's 70086YB, 70706QM, 70316JX, and 77026RY. For each Priority Mail piece sampled, the origin facility was another BMC. TRACS data collectors simply record what types of mail were sampled at the time of the test. They are not trained to speculate if a mailclass should be found on a certain type of movement. In fact, they are not aware of what account the contract that they are sampling falls into. However, this could occur if a BMC and SCF are co-located.

FGFSA/USPS-T2-9

Confirm that, in Q1, 1996, TRACS data for account 53131

- a) Records 4 samples at BMC destination facilities for Express mail. See, TESTID nos. 70086YB, 70706QM, 73016JX and 77026RY.
- b) No other samples of Express mail were taken at BMC destination facilities.
- c) If you do not confirm any of the foregoing, please fully explain.
- d) For each of the above TESTID numbers, provide the place of origin of the sampled Express mail, and explain why Express mail was unloaded at a BMC facility.

- Not confirmed.
- b. Not confirmed.
- c. Our review of the Q1 1996 data showed that no Express Mail was sampled under TESTID's no. 70086YB, 70706QM, 70316JX, and 77026RY, but that Express Mail was sampled at a BMC destination facility from an account 53131 movement during Q1 1996 under TESTID 70346UA.
- d. The origin facility was another BMC. A TRACS test simply measures what types of mail were on a particular truck, but does not attempt to speculate why a particular class of mail is on a particular movement. However, it may occur when a BMC is co-located with an SCF or another facility.

FGFSA/USPS-T2-10.

- a) Within the Intra-BMC highway transportation account, do most or all contracts specify a trip from/to a BMC with a return trip to/from the BMC (that is, a round trip)? If the number or percentage of IntraBMC highway contracts that do not specify or require a return trip (that is, a non-paired trip) is known, please provide.
- b) For those Intra-BMC highway contracts that specify a round trip, do most such round trips originate and terminate at (i) the BMC, or (ii) some other point, such as an SCF?
- c) For those Intra-BMC highway contracts that specify a round trip, (i) do most such trips stop at specified facilities on the outbound leg and then return to the BMC via the same route (stopping at the same facilities), or (ii) do most such trips make a "loop" back to the BMC without retracing the stops (ie., making only one stop at all or most facilities before returning to the BMC)?

- a. Highway contract routes generally have multiple trips specified within them.
 These trips do not generally represent a round-trip unto themselves. However,
 Trip 1 is generally the first part of a round-trip and Trip 2 is generally the return
 portion of the round-trip. Based on the number of non-paired trips (i.e., Trip 3 but no corresponding Trip 4), an estimate of the percentage of non-round trips is less than 5%.
- b. The number is roughly even, with slightly more trips originating at BMCs.
- c. There exists a great deal of variety within the contracts for specified trips, and both examples provided in your interrogatory occur. As a generalization, most routes follow the specified route back to the BMC. However, another example of a route might be SCF1-SCF2-SCF3-BMC-SCF3-SCF1.

FGFSA/USPS-T2-11.

- a) Confirm that under TRACS all samples of highway transportation are taken when the truck is unloaded. Please explain fully any non-confirmation.
- b) Please confirm that when a truck on an intra-BMC route is sampled at the BMC, (i) the sample necessarily represents a truck that was in-bound to the BMC, and (ii) mail that is unloaded at the BMC consists of mail that originated at facilities from within the area served by the BMC. Please explain fully any non-confirmation.

- Confirmed.
- b. (i) Confirmed.
 - (ii) While this is generally true, there exists a great deal of variety within highway contract route specifications, and there may be exceptions.

FGFSA/USPS-T2-12.

Please confirm that TRACS data are used to estimate on a quarterly basis the percentage of capacity utilized with respect to the four different highway accounts.

a. Confirm that the TRACS data for the highway capacity utilization factors for FY 1995 is accurately reflected in the following table.

(TABLE WAS OMITTED)

- b. Provide a similar table showing the highway capacity utilization factors for FY96.
- c. Provide comparable capacity utilization data for each of the FYs from 1990 through 1994.

Response:

Not confirmed. This data is collected by TRACS and these estimates are produced, but they are used only by the TRACS system itself as part of the distribution key development.

a. We confirm that the following table represents FY95 highway capacity utilization factors as estimated by TRACS:

Highway Capacity Utilization Factors FY95

	FY 1995				
	PQ1	PQ2	PQ3	PQ4	
Intra-SCF Test Conducted At.	39 4%	39.3%	39 7%	35.4%	
Inbound SCF	43.5%			33.4%	
Inbound Other Outbound SCF Outbound Other (a.m.)	29.2% 48.8% 50.2%	47.2%	52.9%		
Outbound Other (p.m.)	25,4%	27 5%	28 4%	24 8%	
Inter-SCF Test Conducted At	49 6%	43 4%	45.3%	40.3%	
BMC	49.5%				
SCF Other	53.3% 46.0%	49.7% 40.1%		49.0% 39.4%	
Intra-BMC Test Conducted At	57 7%	59,7%	60.2%	52 0 %	
вмс	42.0%				
Inbound SCF Inbound Other	64 2% 50.9%		61.4% 57 1%		
Outbound SCF Outbound Other	74.8% 56,3%		74 7% 67.5%	67.2% 58.5%	
Inter-BMC Test Conducted At	64 1%	73.0%	66 3%	69.9%	
вмс	68 9%	68 7%	65.5%	64.2%	
SCF Other		69.0% 81.4%	59.9% 73.6%		

b. Highway capacity utilization factors for FY96 can be seen in the table below:

Highway Capacity Utilization Factors
FY96

	FY 1996				
	PQ 1	PQ 2	PQ 3	PQ 4	
Intra-SCF	43 1%	44.1%	41.7%	35.1%	
Test Conducted At					
Inbound SCF	33.3%	41 5%	35.1%	29.3%	
Inbound Other	56.3%	51.4%	43.5%	28.6%	
Outbound SCF	51,6%	56 4%	50.6%	52.1%	
Outbound Other (a.m.)	47 1%	48.3%	43.9%	42.5%	
Outbound Other (p m)	27.1%	22 9%	35,3%	22.9%	
Inter-SCF Test Conducted At:	54.7%	44.7%	40.9%	38 3%	
вмс	63.5%	38.1%	28,2%	23.2%	
SCF	53 1%	53.1%	50.3%	49.3%	
Other	47.5%	42.9%	44,2%	42 5%	
Intra-BMC Test Conducted At:	53.8%	58 8%	54.0%	48.1%	
BMC	44.8%	40.5%	38.0%	41 3%	
Inbound SCF	57 1%	61.2%	60.0%	56.9%	
Inbound Other	37,5%	58 9%	42 8%	29 5%	
Outbound SCF	73.8%	75.2%	72.2%	66,2%	
Outbound Other	55,6%	58.2%	56.7%	46.6%	
Inter-BMC Test Conducted At	70.1%	67.3%	63.6%	57.5%	
ВМС	69 1%	71.0%	63.2%	61.1%	
SCF	69 3%	67.4%	64.0%	61.3%	
Other	71.8%	63 3%	63.4%	50,0%	

c. Objection filed September 15, 1997.

FGFSA/USPS-T2-13.

For purposes of your response to this interrogatory, assume that an intra-BMC truck makes a 200-mile run out from the BMC and en route to the final destination facility it makes four equidistant stops including the final destination facility (i.e., 50 miles per segment), then returns to the BMC via the same route. For simplicity, assume that the total cost for the entire trip is \$400, which averages \$1.00 per mile.

- a. Please confirm that (i) under TRACS the cost of the 200-mile outbound run is considered to be equal to the cost of the return inbound run, and (ii) under the hypothetical posited here, the cost of one outbound and one inbound run would each be \$200.
- b. Please confirm that TRACS would treat each of the four outbound segments and each of the four inbound segments as having a cost of \$50. If you do not confirm, please explain how TRACS determines the cost of individual segments.
- c. Please confirm that under TRACS neither the cost apportioned to segments on the outbound portion of the trip nor the cost apportioned to segments on the inbound portion depend on (i) the actual load factor (capacity utilization) of the sampled trip, or (ii) the average load factors outbound from and inbound to BMCS. if you do not confirm, please explain how load factors enter into apportionment of the total trip cost to the different segments.

Response:

a and b. Confirmed for the sample selection process, not confirmed for the expansion process. In the sample selection process, cost stratification was used in the sample design prior to FY95 in addition to the FACCAT stratification. In order to group the primary sampling unit (essentially, a route-trip-segment-day) into cost strata, the historical cost of the whole contract had to be divided into costs of the individual route-trip-segments by capacity cubic feet and miles to serve as a proxy for the primary sampling unit. Although this code remains in the sample selection program and the variable is not dropped, this proxy cost (SEGCOST) is

C.

not used either for sampling or expansion. In the last stage of the expansion process, the cubic-foot miles of a class of mail (which can include more than one segment; refer to FGFSA/USPS-T2-14) are simply multiplied by the cost per cubic-foot mile of the contract which they traveled under.

Please refer to the above response. Since in the sample selection process only historical information on the contract costs and route are available, load factors cannot be taken into account. For the expansion process, costs are not apportioned to trips or segments; rather, the cost per cubic-foot mile of the contract is applied to the estimated cubic-foot miles of mail.

FGFSA/USPS-T2-14.

- a. For purposes of your response to this interrogatory, assume that an intra-BMC truck makes a run out from the BMC and en route to the final destination it makes five stops at facilities A, B, C, D and E, where E is the final destination. Assume further that (i) the truck picks up and drops off mail at each stop, and (ii) the truck is sampled at an intermediate point, such as when the truck arrives at point D from point C. For the sample taken at point D, does the TRACS program distribute any of the cost apportioned to prior segments (e.g., from the BMC to facility A, or from A to B, or from B to C) or the final segment (e.g., from D to E or does the TRACS program limit itself to distributing only the cost apportioned to the trip segment between facilities C and D?
- b. When a particular trip is sampled, does the TRACS program distribute any portion of the cost of segments prior or subsequent to the segment that was sampled? If so, please state (i) the percent of such other segment costs that are distributed, and (ii) explain the basis for distributing costs of other segments even though no sample was taken at A, B, C or E.

Response:

a. and b. The TRACS data collector samples various item types (i.e., sacks, pallets) at point D. The data collector records not only the weight and number of pieces within the item type, but also the facility code of origin (FCODE3) for the item type (where the item got onto the truck). If all the item types sampled at point D originated at point C, then TRACS only uses cubic-foot miles on that leg for the expansion process.

However, if the origin facility code of an item type corresponds to Point A or Point B, then TRACS calculates and uses the total cubic-foot miles for the classes within that item as they were incurred. For example, let's assume that two loose parcels were sampled at Point D by the TRACS data collector, and that one parcel (A, say) got on at Point C, and one

parcel (B) got on at Point B. Let us further assume that each parcel was assigned 2 cubic-feet after empty space allocation, and that the distance from Point B to Point C is 100 miles, and the distance from Point C to Point D is 50 miles. The cubic-foot miles assigned to each parcel are then as follows:

Parcel A CFMs = 2 cubic-feet x 50 miles = 100 CFMs
Parcel B CFMs = 2 cubic-feet x (100 + 50) miles = 300 CFMs

The total CFMs for parcels which would be used in the expansion process would be 400. The cost per cubic-foot mile of the contract would then be applied to the cubic-foot miles to obtain the cost of the parcels used to calculate the distribution keys. Please also refer to my response to FGFSA/USPS-T2-13.

If a parcel originated at Point C and destinated at Point E, it would not be unloaded and thus not sampled by the TRACS data collector. Therefore, none of its CFMs are used in the expansion process.

FGFSA/USPS-T2-15.

With respect to intra-BMC highway transportation, please confirm that under TRACS if capacity utilization on the initial leg out from the BMC were to average twice the capacity utilization on the return portion of the trip back to the BMC, then on average the intra-BMC transportation cost that TRACS assigns to mail travelling to the BMC on the return portion of the trip will be twice as great per cubic foot of actual mail as on the initial leg outbound from the BMC. if you do not confirm, please explain fully why not.

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Confirmed.

FGFSA/USPS-T2-16.

- a. For Base Year 1996 in this docket, please indicate the TRACS sample design for Intra-BMC highway transportation (in terms of facilities sampled) and the actual number of samples taken at each facility type, including whether the truck was inbound or outbound at facilities other than the BMC.
- b. in the TRACS Intra-BMC sample design for Base Year 1996, do trucks outbound from the BMC have the same probability of being sampled as do trucks inbound to the BMC?
- c. If an imbalance exists in the frequency of sampling between inbound and outbound legs, please explain how and why this occurs.
- d. If an imbalance exists in the frequency of sampling between inbound and outbound legs of intra-BMC highway transportation, please explain whether TRACS makes any "correction" for such imbalance when expanding the sample data to the universe and deriving final estimates used to determine the distribution key for Intra-BMC highway transportation costs. If any such correction is made, please (i) indicate which components of the various programs within TRACS make this adjustment, and (ii) state the adjusting blow-up factors actually used by the TRACS program(s) to correct for any such imbalance in the sample design.
- e. Please explain whether the rationale for the TRACS Intra-BMC sample design bears any relationship to the volume of mail that moves outbound from the BMC and the volume of mail that moves inbound to the BMC.

Response:

a. The sampling percentages by facility type and bound in the TRACS sample design have not changed. Please refer to USPS-LR-H-78 for the TRACS Sample Design Executive Summary. For the actual numbers of tests by account (53127 = intra-BMC) and facility type and bound (FACCAT) for FY96 by quarter, please refer to the table below:

FACCAT	Quarter 1	Quarter 2	Quarter 3	Quarter 4
1 - Test conducted at BMC	237	232	229	315
2 - Test conducted at inbound SCF	31	31	26	40
3 - Test conducted at inbound other	6	8	6	11
4 - Test conducted at outbound SCF	97	94	99	135
5 - Test conducted at outbound other	19	20	19	26

- b. No.
- c. The difference in frequency sampling between inbound and outbound legs was designed to achieve sampling precision without overburdening the field.
- d. TRACS expands to the population level, and weights each account/facility type-bound (FACCAT) sample by its population occurrence. The sample counts (number of times movement was sampled in TRACS) are first expanded up to the number of times that particular movement occurred in the quarter. If that movement was sampled only once and runs 6 times a week, its sample count will be 72 (Perweek * 12 weeks in quarter / times sampled). These sample counts per movement are then summed to the account/FACCAT level (variable SAMPCNT). The number of times a movement occurred in the frame is then calculated in a similar manner (FRMCOUNT).

The weighting factor (STRATWT) is calculated by FACCAT as the frame count divided by the sample count, or FRMCOUNT/SMPCOUNT. This weighting factor is then applied to the sampled costs. Please refer to the following table for the weighting factors for FY96:

FACCAT	Q1 Wt. Factor	Q2 Wt. Factor	Q3 Wt. Factor	Q4 Wt. Factor
1	9.702	11.2028	11.505	7. 9 29
2	26.210	29.7132	28.643	20.359
3	106.158	63,4681	111.75	60.3415
4	31.29	29.3232	31.045	24.2206
5	79.899	65.0361	61.108	57.1827

Please note that the expansion described above is not a correction for sampling

error. Rather, these factors expand the sampled day to the number of times the movement occurred in the quarter.

e. The rationale for the TRACS intra-BMC sample design does not currently bear any direct or ongoing relationship to the volume of mail that moves outbound from the BMC and the volume of the mail that moves to the BMC. However, considerations for the amount and variance of the mail incoming and outgoing from the different facility types were taken into account when the TRACS system was designed. This sampling method is successful in promoting efficiency and does not impart bias.

FGFSA/USPS-T2-17.

In Docket No. R90-1, the response to FGFSA-USPS-TII-B, at Tr. 1283-84, briefly explains the distinction between the variables TYPE, FACTYPE and FACCAT. As stated there, "For Intra-BMC, FACCAT equals: 1 when FACTYPE is BMC, 2 when FACTYPE is SCF and the trip is inbound, 3 when FACTYPE is OTH and the trip is inbound, 4 when FACTYPE is SCF and the trip is outbound, and 5 when FACTYPE is OTH and the trip is outbound."

- a. For the base year in this case, FY 1996, are the above definitions applicable to the TRACS data base? If not, please indicate all changes made to the definition of the variables TYPE, FACTYPE and FACCAT since 1990.
- c. (sic)Where in the TRACS data base can there be determined:
- i. the actual square feet of floor space occupied by Standard (A) regular rate and Standard (B) parcel post, before the data are blown up or adjusted to any level above that of the trucks that were sampled?
- ii. the actual cubic feet of Standard (A) regular rate and Standard (B) parcel post recorded in the TRACS sample, before the data are blown up to any level above that of the trucks that were sampled?
- iii. the total cubic feet of Standard (A) regular rate and Standard (B) parcel post (including empty space assigned to each), before the data are blown up to any level above that of the trucks that were sampled; and/or
- iv. estimated cubic foot-miles of Standard (A) regular rate and Standard (B) parcel post before the data are blown up to any level above that of the trucks that were sampled.
- d. Please provide a non-technical but full explanation of why the TRACS data base cannot provide compilations of the data specified.

- a. The definition of the variable FACCAT has not changed in TRACS. Please note that TRACS is not a database, but rather a data collection system.
- b. (No part b. in original question)
- c. i. Square feet data by rate category cannot be obtained.
 - ii. TRACS data collectors collect weight information but do not collect actual cubic feet data. The collected weight data is converted to cubic feet using density factors (cubic feet per pound) refer to USPS-LR-H-82, Part 4, TRACS Highway Estimation Programs, Program HWY1. The cubic feet data is expanded

to account for empty container space and up to the item type level in the programs HWY1 (for containerized items) and HWY2 (for loose items). In program HWY4, the records within each of the item type databases – one each for containerized items, loose items and pallets (which is created in program HWY3) – are collapsed to produce one record for each unique test / origin / mailcode combination; that is, the cubic feet data is summed up for each unique test / origin / mailcode combination. The three databases are then combined into one data set (TRACSSMN.Z.EXPAND.HIGHWAY.PQ*96.DATA(FOUR)).

- iii. In program HWY10, the last four lines of the program could be modified and the program rerun to sort and sum cubic feet (CUFT) by ACCOUNT and MAILCODE to obtain total cubic feet by mailcode and account.
- iv. In program HWY10, the last four lines of the program also could be modified and the program rerun to sort and sum cubic-foot-miles (CFM) by ACCOUNT and MAILCODE to obtain total cubic-foot-miles by mailcode and account.
- d. i. The TRACS data collectors record only the percentages of the floor space as occupied by various container and item types (i.e., wheeled containers, pallets, loose items), not by particular rate categories. Weight by rate category within item types is converted to cubic feet by rate category, and those are then expanded to volume within the containers or items, not the square feet.

FGFSA/USPS-T2-18.

a. With respect to the 1996 TRACS data base, please confirm that the value assigned to the variable FACCAT distinguishes whether an intra-BMC truck sampled at a non-BMC facility was travelling outbound from or inbound to the BMC. If you do not confirm, please explain whether any other variable in the 1995 TRACS database distinguishes whether the truck was outbound from or inbound to the BMC.

Confirmed.

FGFSA/USPS-T2-19.

Please refer to LR-H-82, TRACS Estimation Programs and Documentation. For intra-BMC highway transportation, account 53127, please identify the program (or programs) which add empty cube to the basic data on the actual amount of mail that was measured or identified in the sample.

<u>Program</u> name	Description
HWY1	Expands sampled cubic feet data for containerized mail, first up to the item level (which accounts for empty space in box-type items and, in the case of sampled sacks, the space taken up by the sacks themselves) and then up to the container level.
HWY2	Expands sampled cubic feet data for loose mail up to the sampled item level.
HWY5	For tests in which space utilization for items was recorded as a count (rather than a percentage), sampled data is expanded to reflect the proportion of sampled items to the total number of items recorded in a test.
HWY6	Distributes the total item group unloaded capacity to origin/mailcode records for the same TESTID and item group based on the proportion of total cubic feet in the TESTID/item group that the record represents.
HWY10	Computes the estimated cubic feet of truck capacity that was empty for the test on all legs and adjusts the cubic feet of mail unloaded to add in the appropriate proportion of empty space on the truck (the cubic feet unloaded divided by the total truck capacity used before unloading).

FGFSA/USPS-T2-20.

Please provide a detailed but non-technical explanation of the procedure by which TRACS assigns empty cube to the different classes of mail on intra-BMC highway transportation. For purposes of your explanation, assume that after leaving the BMC a truck makes stops at facilities A, B and C, and is sampled at facility B. Assume further that from A to B the truck was 50 percent empty, and when it arrived at B it contained only two classes of mail. Starting with the actual volume of mail in the truck and the square feet of floor space occupied by that mail when the truck arrived at facility B, explain how TRACS apportions the empty cube to the classes of mail (please make explicit any further assumptions necessary for a complete explanation).

Response:

If the truck's floor space was 50 percent empty, then the remainder of the floor space was occupied by mail. Let us assume that the truck has a total capacity of 2400 cubic feet. Let us also assume that the remainder of floor space which was occupied by mail was 40 percent wheeled containers and 10 percent loose sacks. For the purpose of this exercise, let us assume that the wheeled containers contained only Standard B (parcel post) mail, and the sacks contained only Standard A (regular rate) mail.

TRACS expands the sampled cubic feet up to the total cubic feet for that container type. The total cubic feet for the container types are as follows:

	% Floor Space	Total Cubic Feet
Wheeled	40	960
Loose	10	240
Empty	50	1200

Each rate category's actual cubic feet within a container type is then expanded to the rate category's share of total cubic feet for the container type. Since we only have one

rate category per container type, the total cubic feet assigned to Standard B (parcel post) at this point is 960, and the total cubic feet assigned to Standard A (regular rate) is 240.

The empty space allocation is then as follows:

Cubic feet A (adj.) = Cuft A + (Cuft A/(Cuft A + Cuft B) * Empty Cuft

In our example:

Standard A cubic feet = 240 + (240/(240+960)*1200) = 240 + 240 = 480Standard B cubic feet = 240 + (960/(240+960)*1200) = 960 + 960 = 1920

FGFSA/USPS-T2-21.

This interrogatory posits a hypothetical. Assume that the TRACS data base for intra-BMC highway transportation consists of only two samples taken when each truck was off-loaded. The sampled segments each had the same total cost, and each of the two sampled trucks had the same cubic capacity, 1,200 cubic feet. One truck (Alpha, say) was 100 percent fully loaded (i.e., it had no empty cube), and the load consisted of 90 percent Standard (A) regular rate mail and 10 percent Standard (B) parcel post. The other truck (Beta), was 30 percent full (i.e., it was 70 percent empty), and the load consisted of 10 percent Standard (A) regular rate mail and 20 percent Standard (B) parcel post. In terms of total cubic feet of mail, the situation can be summarized as follows:

	Standard (A)	Standard (B)	
<u>Truck</u>	(regular rate)	(parcel post)	Empty
Alpha	1,080	120	0
Beta	100	200	900
Total	1,180	320	900

- a. Please confirm that if the empty cube were to be computed on the basis of each truck individually, then no empty cube would be assigned to the mail on truck Alpha, and the empty cube on truck Beta would be assigned one-third to Standard (A)regular rate mail and two-thirds to Standard (B) parcel post; ie., empty capacity assigned to Standard (A) regular rate would equal 300 cubic feet, and empty capacity assigned to Standard (B) parcel post would equal 600 cubic feet.
- b. Please confirm that if empty cube is averaged over the total utilization of the two Intra-BMC trucks, then the empty cube assigned to Standard (A) regular rate would equal 708 cubic feet (1180/1500 x 900), and the empty cube assigned to Standard (B) parcel post would equal 192 cubic feet (320/1500 x 900).
- c. In terms of the preceding two alternatives for apportioning empty cube, please explain which one best describes the way in which TRACS assigns empty capacity of intra-BMC highway transportation. If neither of the two preceding alternatives provides a good analogy to the way TRACS assigns empty cube, please use the hypothetical to explain how the empty cube would be assigned.
- d. Please explain the rationale that underlies the way in which TRACS assigns empty capacity of intra-BMC highway transportation to the different classes and subclasses of mail.

- a. Confirmed.
- b. Confirmed.

- c. The methodology presented in a. best describes the empty space allocation in TRACS.
- d. Assuming that the two trucks (A and B) are separate routes, there is no valid reason for allocating empty space across the mail classes on two different contracts. The situation does not change even if the two trucks represented two legs of the same round-trip. TRACS treats each route-trip individually, even though together they may represent a round trip. TRACS was designed to provide a snapshot of the incurrence of cubic-foot miles across various route-trips across facilities.

FGFSA/USPS-T2-22.

As a hypothetical, consider two identical-size Intra-BMC trucks travelling inbound to the BMC. For simplicity, assume that each truck can hold 10 over-the-road containers. The bed of each truck is fully loaded with over-the-road containers that, essentially, are being returned to the BMC from various facilities served by the BMC. In truck number 1, one container has some Standard (A) mail and exactly one Standard (B) parcel post item is in each of the other nine containers. Truck number 2 also has one container with some Standard (A) mail and it has the same number of Standard (B) parcel post items as truck number 1, but all parcel post items have been loaded into one container, and all other 8 containers in the truck are conspicuously empty. Finally, assume that both trucks happen to be sampled by TRACS upon arrival at the BMC.

- a. is it correct that under the TRACS accounting system 90 percent of the cost of the return trip of truck number one, which has one parcel post item in each of 9 containers, would be charged to Standard (B) parcel post? If not, please explain what percentage of the cost of the return segment would be charged to Standard (B) parcel post, if the answer is indeterminate, please explain what information is missing.
- b. With respect to truck number 2, assume that the only two containers with mail in it were sampled, and they were found to contain all Standard (A) and Standard (B) parcel post, as specified above. The sampler notes that all the other 8 containers are empty. Under the conditions specified here, would half the cost of the return segment to the BMC be charged to Standard (B) parcel post, or would some of the cost of the return trip be charged to "moving empty equipment" (or to something else)? If the answer is indeterminate, please explain what information is missing.
- c. The purpose of the above hypothetical, obviously, is to inquire about whether or the extent to which the way that largely empty trucks are loaded can affect the assignment of costs when such a truck happens to be sampled under TRACS. Please give a non-technical description explaining how the way a largely empty truck is loaded can cause the apportionment of cost to vary, and why.

Response:

a. Although this hypothetical is extremely unlikely, were it to occur, we do not confirm. If the TRACS data collector were to treat this as an ordinary test, the cubic feet (not costs at this stage) allocated to the classes of mail would vary depending on the wheeled containers selected. The data collector receives a random start number for the wheeled containers. If the data collector's random

start number is 2, the data collector would sample the second wheeled container to be offloaded from the vehicle, and every third wheeled container after that. So in this hypothetical, they would sample containers 2, 5, and 8. If Container 8 contained the Standard A mail, then the cubic feet assigned to Standard A would be 33.3% and the cubic feet assigned to Standard B would be 66.6%. If the data collectors random start number was 5, they would sample containers 5 and 8, and then Standard A would be assigned 50% of the cubic feet and Standard B would also be assigned 50% of the cubic feet.

- b. Again, this hypothetical is highly unlikely, since there is a separate account for moving empty equipment between facilities (53191, Hwy. Transportation of Empty Mail Equipment). However, were it to occur, and the TRACS data collector sampled the two full containers, half of the cubic feet on the return segment would be charged to parcel post.
- c. Regardless of the type of movement and the percentage of empty space on it, how trucks are loaded will affect the allocation of costs to the various classes of mail, as seen in the response to part a. However, sampling random movements over time at different facilities, selecting random wheeled containers from vehicles, selecting representative item types within containers, presents a reliable picture of the way costs are incurred by the various classes of mail across a given year.

FGFSA/USPS-T2-23.

Please refer to LR-H-82, Part 5, TRACS Edit Check, Programs and Documentation, PFY 1996, the program TRACS.EDIT.HWY.PQ*95.CNTL(IMPUTED).

- a. For PQ*96 (i.e., for the four quarters of FY 1996), how many highway records were missing weight information at the time the edit check program was run?
- b. What was the number of total highway records for PQ*96, and what percentage (or what number) of such records were missing weight information prior to the edit check program being run?
- c. What was the average weight that was imputed to all Standard A (then 3C) subclass items that were missing weight information? If separate average weights were used for BSPS and (ii) other third-class items, please specify the weights used for each.
- d. What was the average weight that was imputed to all Standard B parcel post (then 4CPP) subclass items that were missing weight information?
- e. For Standard A (then 3C) and Standard B parcel post (then 4CPP), what basis is used to determine the average weight that is imputed by this program? Please specify (i) the data used in the numerator and the denominator, (ii) the source of the data (e.g., TRACS, RPW, etc.), and (iii) the time period over which the data in the numerator and denominator were gathered.

Response:

QUARTER 196: 0 records missing weight
 QUARTER 296: 0 records missing weight
 QUARTER 396: 0 records missing weight
 QUARTER 496: 0 records missing weight

Please note that this information can be found in the program log provided in the

library reference at approximately line 41 for each quarter. For example:

NOTE: The data set WORK.GOOD has 13356 observations and 118 variables. NOTE: The data set WORK.BAD has 0 observations and 118 variables.

b. QUARTER 196: 13356 total item records; 0% missing weight information QUARTER 296: 12824 total item records; 0% missing weight information QUARTER 396: 12501 total item records; 0% missing weight information QUARTER 496: 16335 total item records; 0% missing weight information

Please note that this information can be found in the program log provided in the library reference at approximately line 41 for each quarter. For example:

NOTE: The data set WORK GOOD has 13356 observations and 118 variables. NOTE: The data set WORK BAD has 0 observations and 118 variables.

- c. No average weights were applied as no records were missing weight information.
- d. No average weights were applied as no records were missing weight information.
- e. No average weights were applied as no records were missing weight information.

FGFSA/USPS-T2-24.

Please refer to LR-H-82, Part 5, TRACS Edit Check, Programs and Documentation, program TRACS.EDIT.HWY.PQ*96.CNTL(FLAT), Please provide a list showing the name and description of each of the 124/126 variables contained in the final edited data set available in the output file TRACSSMAN.HIGHWAY.PQ*96.SURVEY.TEXT.

1.	_FREQ_	SAS system variable from PROC MEANS
2.	_TYPE_	SAS system variable from PROC MEANS
3.	COLL1	Data collector 1's initials
4.	COLL2	Data collector 2's initials
5.	COLL3	Data collector 3's initials
6.	COLL4	Data collector 4's initials
7.	CONTNO	Container number
8.	COUNT	Count variable
9.	CTARE	Container tare
10.	CTYPE	Containerized item type
11.	DAY1	Day 1
12.	DAY2	Day 2
13.	DAY3	Day 3
14.	DESCRIP	Data collector's description (comment)
15 .	DIS_CODE	District code
16.	DUMEXPRE	Dummy variable
17.	DUMOTHER	Dummy variable
18.	DUMSACKS	Dummy variable
19.	EMPTY	Percent of truck floor empty
20.	ENUM	Express number
21.	EXPRESS	Express indicator
22.	FCODE1	Facility code from FORM 1
23.	FCODE3	Facility code from FORM 3
24.	FTOTWT	Facility total weight
25.	FTYPE1	Facility type
26.	FWT	Facility weight
27.	HEXPRESS	
28.	HOTHER	Other Height
2 9.	HOURS	Hours duration of test
30.	HSACKS	Sacks height
31.	ID	Alpha portion of TESTID
32.	IDESCRIP	Item description
33.	IMPTOTWT	Imputed total weight
34.	IMPWT	Total weight
35.	ITEMNO	Item number in test

3 6.		Subclass code
37.	MIN	Minutes of test duration
38.	MONTH1	Month 1
39.	MONTH2	Month 2
4 0.	MONTH3	Month 3
41.	NCTYPE	Noncontainerized item type
42.	NEWSTOP	New stop indicator
43 .		, ,
44. 45	NOFORM3 NOITEMS	No Form 3 Indicator
45. 46.	NOTHER	No items indicator Number of other items
40. 47.	NPALLETS	Number of pallets
4 7. 4 8.	NSACKS	Number of panets Number of sacks
4 9.		Number of sacks Number of wheeled containers
50.	OCODE1	Origin Code 1from pallet
51.	OCODE2	Origin Code 2 from pallet
52.	OCODE3	Origin Code 3 from pallet
53.	OCODE4	Origin Code 4 from pallet
54.	ONUM	Origin number
55.	OTHER	Percentage of truck that was other (loose) items
56.	OUNCES	Ounces portion of subclass weight
57.	P1CODE1	First mailcode of pallet 1
58.	P1CODE2	Second mailcode of pallet 1
59.	P1CODE3	Third mailcode of pallet 1
60.	P1CODE4	Fourth mailcode of pallet 1
61.	P1FCODE2	Origin facility code for pallet 1
62.	P1HEIGHT	Height of pallet 1
63.	P1LENGTH	Length of pallet 1
64.	P1PERC1	Percentage of first mailcode of pallet 1
65.	P1PERC2	Percentage of second mailcode of pallet 1
6 6.	P1PERC3	Percentage of third mailcode of pallet 1
67.	P1PERC4	Percentage of fourth mailcode of pallet 1
68.	P1PIECE1	Number of pieces of first mailcode of pallet 1
69.	P1PIECE2	Number of pieces of second mailcode of pallet 1
70.	P1PIECE3	Number of pieces of third mailcode of pallet 1
71.	P1PIECE4	Number of pieces of fourth mailcode of pallet 1
72.	P1WEIGHT	Weight of pallet 1
73.	P1WIDTH	Width of pallet 1
74. 75.	P2CODE1	First mailcode of pallet 2
75. 76.	P2CODE2	Second mailcode of pallet 2
70. 77.	P2CODE3	Third mailcode of pallet 2
77. 78.	P2CODE4 P2FCODE2	Fourth mailcode of pallet 2 Origin facility code for pallet 2
, O.	FZECODEZ	Origin racinty code for patiet 2

78.

79.	P2HEIGHT	Height of pallet 2		
80.	P2LENGTH	Length of pallet 2		
81.	P2PERC1	Percentage of first mailcode of pallet 2		
82.	P2PERC2	Percentage of second mailcode of pallet 2		
83.	P2PERC3	Percentage of third mailcode of pallet 2		
84.	P2PERC4	Percentage of fourth mailcode of pallet 2		
85.	P2PIECE1	Number of pieces of first mailcode of pallet 2		
86.	P2PIECE2	Number of pieces of second mailcode of pallet 2		
87.	P2PIECE3	Number of pieces of third mailcode of pallet 2		
88.	P2PIECE4	Number of pieces of fourth mailcode of pallet 2		
89.	P2WEIGHT	Weight of pallet 2		
90.	P2WIDTH	Width of pallet 2		
91.	PALLETS	Percentage of unloaded that was pallets		
92.	PERÇONT	Percentage of container filled with items of same item type		
93.	PIECES	Pieces of mailcode		
94.	POUNDS	Pounds of mailcode		
95.	RCONNO	Replacement Container Number		
96.	RCONTYPE	Replacement Container Type		
97.	RDAY Replacement Day			
98.	REMAIN	Percentage of truck that had mail remaining		
99.	REPLACE	Indicates replacement test		
100.	RESCHED	Indicates rescheduled test		
101.	RMONTH	Replacement month		
102.	ROUTENO	Highway contract route number		
103.	RTRIPNO	Replacement trip number		
104.	RYEAR	Replacement year		
105.	SACKS	Percentage of unloaded that was loose sacks		
106.	SEALED	Indicates sealed registered item		
107.	SETASIDE	Setaside number		
108.	SNUM	Sack number		
109.	SUM	Temporary sum variable		
110.	TEST	Date portion of testid		
111.	TESTDATE	Test Date		
112.	TESTID	Unique code identifying a particular test		
113.	TESTID2	Total weight of item		
114.	TOTALLBS	Total pounds		
115.	TOTALOZS	Total ounces		
116.	TOTWT	Total weight of item		
117.	TRIPNO	Trip number		
118.	UNLOADED	Percentage of truck unloaded		
119.	WHEELED	Percentage of unloaded that was wheeled containers		
120.	WNUM	Wheeled container number		

Total weight of item by subclass

121. WT

122.	YEAR1	Year 1
123.	YEAR2	Year 2
124.	YEAR3	Year 3

FGFSA/USPS-T2-25

In Docket No. MC96-3, witness Patelunas (USPS-T-5, page 9, revised 8/7/96) testified as follows:

Another set of IOCS-related changes to the Fiscal Year 1995 CRA and the Base Year 1995 consists of refinements in the rules used to assign activity codes for Bulk Small Parcel Service (BSPS), third-class single piece, and First-Class ZIP+4 barcoded flats. The BSPS changes were made in the assignment of tallies for bulk small parcels to correct an overstatement of Parcel Post. Under this modification, bulk small parcels weighing one pound or less are assigned to either First- or third-class. Prior to this change, all bulk small parcel tallies were assigned to parcel post.

- a. Please define or explain what the Bulk Small Parcel Service (BSPS) consists of.
- b. Please explain how items in the BSPS that were sampled under TRACS during Base Year 1996 were recorded. In you explanation, give explicit attention to instructions given to TRACS samplers and the possibility that BSPS items may have been assigned to parcel post, and not third-class, as they were in IOCS tallies.
- c. What assurance is there that TRACS samplers do not record BSPS items as parcel post? Specifically, are any of the edit programs in TRACS capable of checking for and correcting such an error? If so, please explain which program(s) accomplish this correction.

Response:

a. Please note that these questions pertaining to BSPS suggest that FGFSA has misunderstood the definition of BSPS. Bulk Small Parcels are a type of Fourth Class Parcel Post, not Third Class. The problem in IOCS was that some thirdclass pieces were mistaken for BSPS.

Bulk Small Parcels was a proposed parcel post subclass that never became official. The Bulk Small Parcels study began in PQ3 of FY94, and involved five parcel mailers endorsing fourth-class Parcel Post weighing between one and five pounds with a special BSPS endorsement for identification by USPS data collectors (some mailers were not strict in their interpretation of this weight range). The resulting information would be used to estimate the costs for the

proposed parcel post subclass to see if small parcels had different cost incurrence patterns than general parcel post. BSPS was incorporated into USPS data collection systems effective PQ1 of FY95 and removed from TRACS with Reclassification. BSPS never became an official subclass of Parcel Post.

b. BSPS Parcels were separately recorded in TRACS with the mailcode "KK" (whereas other Fourth Class Parcel Post is recorded with the mailcode "P" and DBMC Parcel Post is recorded with the mailcode "LL"). TRACS data collectors were given a "text message" (a field memo) notifying them of the Bulk Small Parcels Study. TRACS data collectors were told to record only Parcel Post bearing the BSPS endorsement as BSPS.

The structure of a TRACS test minimizes the potential for misclassification.

Because a TRACS test involves the sampling of numerous items (containers and loose pieces) and their contents, mail items are grouped into rate categories prior to weighing. This reduces the likelihood that an individual mailpiece would be misclassified as BSPS, as such a misclassification would typically require grouping a mailpiece with dissimilar items.

c. The CODES data entry software has a pop-up screen which provides data collectors with the minimum and maximum weight limits of the various rate categories so they can verify their piece to ensure that it meets the weight requirements. TRACS records total weight by mailcode. So, if the average weight is less than one pound or greater than five pounds, this all but rules out misclassification.

FGFSA/USPS-T2-26.

- a. LR-H-82, Part 4 states that in the TRACS program TRACS.EXPAND.HWY.PQ*96.CNTL (SURVEY) the input file TRACSSMN.HIGHWAY.PQ*96.SURVEY.TEXT contains a number of observations for each PQ, and the output file TRACSSMN.HIGHWAY.Q*96.CREATE.SURVEY.DATA likewise contains a number of observations for each PQ. Please define the term "observation" as used here.
- b. To provide a concrete illustration, assume that at a destination where a TRACS sample is taken, 4 pallets, 6 wheeled containers and 15 bed-loaded parcels are unloaded. Of these, the TRACS sampler records appropriate data pertaining to 2 pallets, 2 wheeled containers (containing mixed subclasses), and 8 of the bed-loaded parcels. The data recorded by the TRACS sampler at the time this one truck was off-loaded would represent how many observations (as defined in preceding part a)? If the preceding information is not sufficient to determine the number of observations, please specify all missing information and indicate how such information would affect the number of observations for the sample from this particular truck.

- a. An observation is a SAS term indicating one row in a SAS data set (variables are columns, observations are rows). In the SURVEY.TXT dataset each observation represents one mailcode found in an item, with the rest of the information for that test merged on. Therefore if twenty mailcodes turned up in a TRACS test, there will be twenty observations pertaining to that test in the dataset. Each of the twenty observations will have some unique information pertaining to the mail code (weight, pieces, etc.), and will have some general information characteristic of the entire test (percent of truck unloaded, etc.)
- b. The pallets themselves do not create additional observations for a TRACS test; rather the pallet data in included on every observation from the test, as pallet data is considered general test information. The loose parcels would each create an additional observation. The number of observations generated from the

wheeled containers depends on the number of different mailcodes that turn up in the items (letter tray, flat tray, sack, loose parcel, etc.) selected from the wheeled containers. Items are selected from wheeled containers using the following rules:

1) Select all Express Mail sacks and all loose Express Mail items. 2) Select at least one item from each type of item present in the container. For example, if a container had sacks (non-Express), envelope trays (also known as letter trays), and flat boxes (also known as flat trays or four-sided plastic trays), select one sack, one envelope tray, and one flat box for sampling. If the container had all envelope trays, just select one envelope tray.

FGFSA/USPS-T2-26a.

Please refer to LR-H-82, Part 4, program

TRACS.EXPAND.HWY.PQ*96.CNTL(SURVEY), which lists and describes the final (48) variables in the SAS dataset containing the cleaned survey data, . Assume that during FY 1996 one of the sampled items from an Intra-BMC highway truck was a wheeled container, 60 percent full, the contents of which consisted of:

- i).70 percent parcels (parcel post), or 42 percent of the container;
- ii).20 percent bound printed matter, or 12 percent of the container; and
- iii).10 percent Special fourth-class, or 6 percent of the container.
- a. Would the contents of the container be recorded by the TRACS sampler as only parcel post? If not, how would the contents be entered or recorded (i) in the original data set, or
- ii)the input dataset TRACSSMN.HIGHWAY.PQ*96.SURVEY.TEXT?
- b. In the program TRACS.EXPAND.HWY.PQ*96.CNTL(SURVEY), in the 48 variable SAS dataset comprising the file
- TRACSSMAN.HIGHWAY.Q*96.CREATE.SURVEY.DATA, would the contents of the container be recorded as only parcel post?
- c. Unless your answer to the preceding part b is an unqualified affirmative, please indicate (i) which of the 48 output variables show the amount of mail in each of the three subclasses, and (ii) how the original input data pertaining to the contents of the container are transformed to the data contained in the 48 variable SAS dataset TRACSSMAN.HIGHWAY.Q*96.CREATE.SURVEY.DATA.
- d. Which of the variables in the SAS dataset indicates that the container is only 60 percent full?
- e. Which of the variables in the SAS dataset TRACSSMAN.HIGHWAY.Q*96.CREATE.SURVEY.DATA indicates (i) the weight, and (ii) the volume of parcel post in the wheeled container?
- f. Do any of the input variables in the SAS dataset TRACSSMAN.HIGHWAY.Q*96.CREATE.SURVEY.DATA indicate (i) the estimated square feet occupied by parcel posts or (ii) the cubic feet of parcel post? If so, provide the name and description of each such variable.
- g. For the parcel post that was in the sampled container, which variables in the SAS dataset TRACSSMAN.HIGHWAY.Q*96.CREATE.SURVEY.DATA reflect the number of square feet occupied by parcel post? If the number of square feet do not constitute one of the 48 SAS dataset variables, please indicate whether the square feet occupied by parcel post is computed subsequently in one of the other TRACS programs, (ii) if so, in which program, and (iii) how the computation is made, including which of the output variables listed on pp. 2026-2028 are used to compute the square feet occupied by parcel post.

h. For the parcel post that was in the sampled container, which of the 48 output variables reflect the number of cubic feet occupied by parcel post? If the number of cubic feet do not constitute one of the 48 output variables, please indicate (i) whether the cubic feet occupied by parcel post is computed subsequently in one of the other TRACS programs, (ii) if so, in which program, and (iii) how the computation is made, including which of the output variables are used to compute the cubic feet of parcel post.

- a. Assuming that the parcels, the bound printed matter, and the Special Fourth-Class were all loose items within the wheeled container (i.e., not contained in sacks, etc.), then the data collector would have randomly sampled just one of these parcels from the loose container. The chance that the sampled item would be any of the three aforementioned subclasses would be equal to the items relative proportions of the wheeled container. A TRACS data collector samples one item of each type within the wheeled container. In the above example, if the parcels were loose, the bound printed matter was in a flat tray, and the Special fourth-class was in a sack, then the data collector would have sampled all three, and for each item, recorded the percentage of the contents of the wheeled container composed of like items. How the contents of a wheeled container are recorded depends on which items the data collector samples. The SURVEY.TEXT dataset will show one observation for each different subclass sampled in the wheeled container.
- b. As stated above, how the contents of the container are recorded depends on which pieces the data collector randomly samples from the wheeled container.

- c. The variables WT, TOTWT, ITEMTYPE, MAILCODE, and PERCONT show what the data collector has recorded from the container. The data is not "transformed".
- d. The data collector does not record the utilization of the wheeled container.
- e. For each subclass recorded by the data collector, the variables WT (subclass) and TOTWT (item) show the weights recorded by the data collector.
- f. Neither square feet nor cubic feet are recorded for the mail found within a wheeled container.
- g. Square feet by rate category is neither recorded nor used.
- h. None. Cubic feet are calculated using density factors in expansion program
 HWY1.

FGFSA/USPS-T2-27.

Please refer to LR-H-82, Part 4, program TRACS.EXPAND.HWY.PQ*96.CNTL(SURVEY), which lists and describes the 48 output variables in the SAS dataset containing the cleaned survey data, TRACSSMN.HIGHWAY.Q*96.CREATE.SURVEY.DATA. Assume that one of the sampled items from an Intra-BMC highway truck was a wheeled container, 80 percent

sampled items from an Intra-BMC highway truck was a wheeled container, 80 percent full, the contents of which were (i) 90 percent Standard (A) parcels (parcel post), (ii) 10 percent Standard (B) small (under 16 oz.) parcels in a sack (or sacks) placed in the container on top of the parcels.

a. Would the contents of the container be recorded by the TRACS sampler as only

- parcel post? If not, how would the contents be entered in the original data set?
 b. In the program TRACS.EXPAND.HWY.PQ*96.CNTL(SURVEY), in the 48 variable SAS dataset output, TRACSSMN.HIGHWAY.Q*96.CREATE.SURVEY.DATA, would the contents of the container be recorded as only parcel post?
- c. Unless your answer to the preceding part b is an unqualified affirmative, please indicate (i) which of the 48 variables listed in the above-cited reference would show the appropriate data pertaining to the volume of each of the two subclasses actually recorded in the survey data, and whether (and how) the original input data are transformed to the data contained in the 48 variable SAS dataset.

- a. Assuming that the Standard (A) parcels were loose parcels, the data collector would sample (record the weight and rate category) one loose parcel, and also record that 90% of the items in the wheeled container were of the same item type. The data collector would also sample one sack, counting and weighing its contents by rate category. If multiple sacks were present, the data collector would record that 10% of the container were items of the same type (sacks).
- b. No.
- c. The relevant variables are MAILCODE, PERCONT, ITEMTYPE, WT, TOTWT.The data is not "transformed" in any way.

FGFSA/USPS-T2-28

Assume that part of a TRACS sample consists of two large, loose parcels that were bed loaded in an Intra-BMC truck.

- a. In the program TRACS.EXPAND.HWY.PQ*96.CNTL(SURVEY), the input file TRACSSMN.HIGHWAY.PQ*96.SURVEY.TEXT, which of the 124/126 input variables record the weight and volume of these two parcels?
- b. Which of the 124/126 input variables record the square feet occupied by these two parcels?
- c. Which of the 124/126 input variables record the cubic feet of these two parcels?
- d. From the program TRACS.EXPAND.HWY.PQ*96.CNTL(SURVEY), the 48 variable SAS dataset output file

TRACSSMN.HIGHWAY.Q*96.CREATE.SURVEY.DATA, which output variables indicate (i) the square feet occupied by these two parcels, and (ii) the cubic feet occupied by these two parcels?

e. If the square feet or the cubic feet are not part of either the input data in the file TRACSSMN.HIGHWAY.PQ*96.SURVEY.TEXT or the output data in the file TRACS.EXPAND.HWY.Q*96.CREATE.SURVEY.DATA, please indicate where and how these measures are subsequently derived in the TRACS program.

- For each parcel, the variables WT and TOTWT show the weight of the parcels.
 The volume of the parcels is not recorded.
- b. No variable records the square feet assigned to individual parcels. Only floorspace percentages by empty, remaining, and unloaded by type (wheeled containers, pallets, loose items) are recorded.
- No variable in the SURVEY.TEXT dataset records cubic feet.
- d. No variable in CREATE.SURVEY.DATA records the cubic feet or the square feet of these two hypothetical parcels.
- e. Square feet are not calculated. Cubic feet are calculated using density factors in expansion program HWY1.

FGFSA/USPS-T2-29.

- a. Assume that a pallet has a length of 4 feet, a width of 3 feet, and it is sampled upon being unloaded from a truck. Would TRACS compute the floor space occupied by that pallet as 12 square feet, or as something greater than 12 square feet? That is, does TRACS add any margin to allow for the fact that pallets may not fit precisely against each other?
- b. Assume that two pallets measuring 4ft. x 3 ft. are stacked one on top of the other; i.e., two-high. Under the TRACS method for entering and computing data, would the average square feet of floor space occupied by each of the two pallets in a highway truck be considered equal to 6 square feet; ie., one half the number of square feet occupied by pallets when they are only one-high? Please explain fully any answer that is not an unqualified affirmative.

- a. TRACS does not inflate pallet dimensions to account for space between pallets.

 Pallet dimensions are recorded only for determining the relative cubic feet of the mailclasses within the sampled pallets. The TRACS data collector only records the percent of floorspace occupied by pallets as a group. If there is unusable space between two pallets in close proximity, the data collector will record the entire area as occupied by pallets.
- b. TRACS does not record absolute square footages. TRACS records the percentage of floorspace occupied by pallets. The pallets that are sampled are expanded to the percentage of floorspace occupied by all pallets.

FGFSA/USPS-T2-30.

- a. In the program TRACS.EXPAND.HWY.PQ*96.CNTL(SURVEY), the SAS dataset TRACSSMAN-HIGHWAY.Q*96.CREATE.SURVEY.DATA, which of the 48 variables indicates whether pallets were stacked one-high or two-high?
- b. If no variable indicates whether pallets are stacked one-high or two-high, please explain how TRACS computes the average square feet of floor space occupied by palletized mail (i) when pallets are stacked only one-high, and (ii) when pallets are stacked two-high.

- There is no variable in CREATE.SURVEY.DATA which indicates if pallets are stacked.
- b. The TRACS data collector records the percentage of floorspace occupied by pallets, not the absolute square feet. The percentage of floorspace occupied by pallets does not change if additional pallets are stacked in the same amount of floorspace.

FGFSA/USPS-T2-31.

Please refer to LR-H-82, program

TRACS.EXPAND.HWY.PQ*96.CNTL(HWYI), Under outputs, it is stated that TRACSSMN.EXPAND.HIGHWAY.PQ*96.DATA(DENSITY) has 41 observations and 2 variables.

- a. Please define "observation" as the term is used here and explain what the 41 observations consist of.
- b. What is the source of these 41 observations? In your answer, please state specifically whether they represent observations and data recorded by TRACS data collectors.
- c. What are the 2 variables?

- a. An observation is a SAS term indicating one row in a SAS data set (variables are columns, observations are rows). The 41 observations form a lookup table of TRACS mailcodes and density.
- b. These 41 observations are hard coded into the SAS program. They are not
- recorded by TRACS data collectors.
- c. The two variables are MAILCODE (TRACS rate category) and DENSITY (mailcode density).

FGFSA/USPS-T2-32

Please refer to LR-H-82, program TRACS.EXPAND.HWY.PQ*96.CNTL(HWYI), Under outputs, it is stated that TRACSSMN.EXPAND.HIGHWAY.PQ*96.DATA(CONTCUFT) has 7 observations and 2 variables.

- a. Please define "observation" as the term is used here and explain what the 7 observations consist of.
- b. What is the source of these 7 observations? In your answer, please state specifically whether they represent observations and data recorded by TRACS data collectors.
- c. What are the 2 variables?

- a. An observation is a SAS term indicating one row in a SAS data set (variables are columns, observations are rows). The seven observations form a lookup table of container types and standard cubic feet. The seven container types included are BMC-OTRs, ERMCs, GPC/GPMCs, hampers, wiretainers, Postal-Paks, and other.
- b. These 7 observations are hard coded in the program. They are the standard cubic feet of each container (setaside) type. They are not recorded by data collectors.
- The two variables are SETASIDE (number indicating container type) and
 CONTCUFT (standard cubic feet of container type).

FGFSA/USPS-T2-33.

Please refer to LR-H-82, program TRACS.EXPAND.HWY.PQ*96.CNTL(HWYI), Under outputs, it is stated that TRACSSMN.EXPAND.HIGHWAY.PQ*96.DATA(ITEMCUFT) has 5 observations and 3 variables.

- a. Please define "observation" as the term is used here and explain what the 5 observations consist of.
- b. What is the source of these 5 observations? In your answer, please state specifically whether they represent observations and data recorded by TRACS data collectors.

- a. An observation is a SAS term indicating one row in a SAS data set (variables are columns, observations are rows). The five observations form a lookup table of item types and standard cubic feet. The five items included are letter trays, half-size letter trays, flat trays, small parcel trays, and CON-CONs.
- b. These five observations are hard coded in the program. They contain the standard cubic footage of the these item types. They are not recorded by data collectors.
- c. The three variables are CTYPE (item type), NCTYPE (same as item type), and ITEMCUFT (standard item cubic feet).

FGFSA/USPS-T2-34.

Please refer to LR-H-82 program TRACS.EXPAND.HWY.PQ*96.CNTL(HWYI), Under outputs, it is stated that TRACSSMN.EXPAND.HIGHWAY.PQ*96.DATA(CONTAINER) has 8.756 observations in PQ4 and 7 variables.

- a. Please define "observation" as the term is used here and explain what the 8,756 observations consist of, and how the 8,756 observations are derived from or related to the 16,475 PQ4 observations contained in the input data file.
- b. What is the source of these 8,756 observations? In your answer, please state specifically whether they represent observations and data recorded by TRACS data collectors.
- c. What are the 7 variables?

- a. An observation is a SAS term indicating one row in a SAS data set (variables are columns, observations are rows). The 8,756 observations in this data are the containerized mail. They are a subset of the 16,475 overall observations.
- b. These observations represent data from the CREATE.SURVEY.DATA file, which
 comes from the SURVEY.TEXT file, which contains data collected in the field by
 TRACS data collectors.
- c. The seven variables are TESTID (test identification code), CONTNO (container number), MAILCODE (TRACS rate category), FCODE3 (origin facilty code), CUFT (cubic feet), _TYPE_ (SAS system variable indicating numeric variables), and _FREQ_ (SAS system variable indicating the number of observations going into the MEANS procedure).

FGFSA/USPS-T2-35.

Please refer to LR-H-82 program TRACS.EXPAND.HWY.PQ*96.CNTL(HWYI).

- a. What is the source of data used to arrive at the FY 96 density factors for each mail rate category? In your answer, please specify whether any of these density factors were originally derived from observations and sample data collected by TRACS data collectors during FY 96. If not, what was the source of these density factors?
- b. For the new mail rate categories created as a result of reclassification in MC95-1, what is the source of density factors that will be used in the TRACS program for FY 1997?
- c. How many container types are there (please specify), and what is the source of "standard cubic feet" (CONTCUFT) for each container type (SETASIDE),
- d. How many item types are there (please specify), and what is the source of the standard cubic feet (ITEMCUFT) for each item type (CTYPE)?
- e. With respect to lines 191-205, it states that the program calculates the average cubic feet for each mailcode, compares each observation to the average, and prints those observations with cubic feet exceeding 15 times the average for that mailcode. When an observation is 15 times the average for that mailcode, by how many standard deviations is it removed from the average? Also, what does the TRACS program then do with these "outliers" that get printed?
- f. The discussion with respect to lines 214-252 contains several references to measured cubic feet. Please define the term "measured cubic feet" as used here. In your answer, please address specifically whether measured cubic feet represents data recorded directly by TRACS data collectors, or whether it is a computed number based on other data recorded by TRACS data collectors. If it is computed, please explain how it is computed.

- a. The density factors come from the Form 22 density study of PQ492. Please refer to Docket No. R94-1, USPS-LR-G-127 for a description of the methodology, data collected, and results underlying the Form 22 Density Study. They are not derived from TRACS data collected during FY96.
- b. Two additional density studies provided densities that were used to estimate transportation costs for mail classes impacted by classification reform. They are documented in Docket No. MC95-1, USPS-LR-MCR-13 and Docket No. MC96-2,

USPS-LR-PRR-5. It is not known at this time which density factors will be used in the FY97 TRACS programs.

- c. There are 7 container types. The standard cubic feet come from the USPS container reference guide "Container Methods".
- d. There are 5 item types. The standard cubic feet come from the USPS container reference guide "Container Methods".
- e. Standard deviations from the average are not calculated. The TRACS program does not delete or manipulate these "outliers"; they are only printed for manual investigation.
- f. The passage in question reads, "For box-type containers, the cubic foot capacity of the items is apportioned to rate categories based on measured cubic feet per rate category (CUFT/TOTCUFT). For items such as bundles, loose parcels, and loose Express items no expansion beyond measured cubic feet is made."

 Measured cubic feet is not directly recorded by the data collector. The data collector records weight by rate category. This weight, when converted using a density factor, yields measured cubic feet.

FGFSA/USPS-T2-36.

Please refer to LR-H-82, program TRACS.EXPAND.HWY.PQ*96.CNTL(HWY1).

- a. It is stated that "the objective of the program is to expand the sample containerized mail up to the container level." Please explain whether this program adds any empty cube (e.g., in partially filled containers) to the actual cubic feet that were measured or counted in the sampling process. If this is not what occurs with this program, please explain fully what is meant by the phrase "expand the sample ... up to the container level."
- b. Please define and describe the 7 variables contained in the dataset TRACS.EXPAND.HWY.PQ*96.DATA(CONTAINR).
- c. What do the observations in the dataset TRACS.EXPAND.HWY.PQ*96.DATA(CONTAINR) consist of; i.e., what information do they contain?
- d. From the dataset TRACS.EXPAND.HWY.PQ*96.DATA(CONTAINR), how can one determine the total weight and cubic feet of containerized mail assigned to each rate category at this stage of the expansion process?

Response:

a. The cubic feet of the items in the container are expanded to represent the total cubic feet of the container in proportion to their cubic feet. Actual empty space within the container itself is not explicitly calculated and applied, but it is accounted for. For example, let's say that a flat tray contains items representing two different classes of mail within it. After the recorded weight of each group of items has been converted to cubic feet by applying the appropriate mailcode density factor, let us assume that the total cubic feet of items of mailcode A are 0.5 and the total cubic feet of items of mailcode B are 2, for a total of 2.5 cubic feet of mail. Also, assume that the standard cubic feet of a flat tray is 4. Then, after this program, the cubic feet of mailcodes A and B are as follows:

CUFT A =
$$(0.5 / 2.5) * 4 = 0.8$$
 cuft
CUFT B = $(2 / 2.5) * 4 = 3.2$ cuft

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- b. The seven variables are TESTID (test identification code), CONTINO (container number), MAILCODE (TRACS rate category), FCODE3 (facilty code), CUFT (cubic feet), _TYPE_ (SAS system variable indicating numeric variables), and _FREQ_ (SAS system variable indicating the number of observations going in to the MEANS procedure).
- c. The observations contain the cube of each subclass in each container.
- d. The total cubic feet assigned to each rate category at this stage of the expansion process is contained in the variable CUFT. Weights are not included in this dataset.

FGFSA/USPS-T2-37.

Please refer to LR-H-82, program

TRACS.EXPAND.HWY.PQ*96.CNTL(HWYI). Under "action of program," for lines 105-110, it states that the program "merges in standard rate category density factors," and for lines 126-134 it "merges in standard item cubic feet."

- a. Please explain the source of the standard rate category density factors contained in or used by this program.
- b. Does this TRACS program incorporate and use the different cube-weight relationship results for Intra-BMC, Inter-BMC and DBMC? If not, please explain why these different cube-weight relationships are not used.
- c. Does the TRACS program TRACS.EXPAND.HWY.PQ*96.CNTL(HWYI) contain separate standard rate category density factors for Bulk Small Parcel Service and other third-class mail? If so, please provide those factors.
- d. What is the source of the "standard item cubic feet" that are merged in?
- e. What are the standard item cubic feet for (i) parcel post, and (ii) BSPS, or bulk small parcels that weigh less than 16 ounces?

- a. Please refer to my response to FGFSA/USPS-T-2-35.
- b. No. TRACS uses a single density for Fourth-Class Zone-rated Parcel Post, whereas Exhibit USPS-6B separates parcel-post into a finer level of detail corresponding to the rate categories. Please refer to witness Hatfield's response to FGFSA/USPS-T-16-6 and to my response to UPS/USPS-T2-1.
- c. As previously stated, Bulk Small Parcels are Fourth Class Parcels, not thirdclass. TRACS has a separate density for Bulk Small Parcels and separate densities for third-class rate categories. Please refer to USPS-H-82, TRACS.EXPAND.HWY.PQ*96.CNTL(HWY1), Program Log, Lines 20-63 for the density factors by mailcode used by TRACS.
- d. The standard item cubic footages come from the Container Methods Handbook.

e. Standard item cubic feet are the cubic footages of container item types (letter trays, flat trays, etc.), not of subclasses.

FGFSA/USPS-T2-38.

Please refer to LR-H-82, program TRACS.EXPAND.HWY.PQ*96.CNTL(HWY2).

- a. Please define the term "loose items" as used by this TRACS program.
- b. Are bed-loaded pieces of parcel post considered to be loose items?
- c. Are sacks of BSPS (i.e., small, under 16 OZ. parcels) that are loaded (i) on top of bed-loaded parcel post, or (ii) on top of OTR containers considered to be loose items?
- d. From the dataset TRACS.EXPAND.HWY.PQ*96.DATA(LOOSE), how can one determine the total weight and cubic feet of loose items assigned to each rate category at this stage of the expansion process?
- e. Assume that a TRACS sampler has recorded some pieces of parcel post as being bed-loaded on an Intra-BMC truck. How, and in what way, would the weight and cubic feet assigned to those parcels by this expand program differ from the actual weight and cubic feet of those parcels as recorded by the TRACS sampler?

- Loose items are non-containerized pieces.
- b. Yes.
- c. Sacks are a distinct item type and are not loose items. In example (i) the data collector would consider it part of the loose items on the floor but would sample its contents just like any other item (i.e., letter tray). In (ii), it is difficult to imagine that a sack would be on top of an OTR without actually being in it since OTRs are open. Therefore, the data collector would treat the sack just like any of the other item types within the OTR (other sacks, trays, loose items) and sample the container accordingly.
- d. The variable TOTCUFT contains cubic feet of loose items at this stage of the expansion process. The variable TOTWT contains the weight of loose items at this stage of the expansion process.

e. As stated in the documentation for expansion program HWY2, "For items such as bundles, loose parcels, and loose Express items no expansion beyond measured cubic feet is made."

FGFSA/USPS-T2-39

Assume that there are two identical parcels, with the same weight, dimensions, cube, origin and destination, and that these two parcels are transported in Intra-BMC transportation in the same vehicle on the same route, but on different days, and that both parcels are sampled under TRACS at the same destination. At destination the TRACS data reflects that, for the day 1 trip the truck was 0% empty, and for the day 2 trip the truck was 50% empty.

Please confirm that, in the TRACS program::

- a) The computed cubic feet for each of the two parcels will be the same.
- b) In the expansion process different factors are taken into account for each parcel to reflect the different empty percentages.
- c) The expanded cubic feet for each of the two parcels will be different.
- d) The expanded cubic feet of the parcel sampled on day 1 will be less than the expanded cubic feet of the parcel sampled on day 2.
- e) The computed cubic foot miles for each of the parcels will be different.
- f) The computed cubic foot miles for the parcel sampled on day 1 will be less than the computed cubic foot miles for the parcel sampled on day 2.
- g) Fully explain how and why the expanded cubic feet for these two parcels will be different.
- h) If you do not fully confirm any of the above, please fully explain.

- If computed cubic feet of the parcels refers to the weight times the density factor,
 confirmed.
- b-h. There are a great deal of factors that must be known about these tests before these statements can be confirmed. For example, the containerization of the parcel would affect the expanded cubic feet, such as whether the parcel had been loose in the truck, in a sack in a wheeled container, loose in a container, and what other proportions of mail were in the container and trucks. The floor space occupied by the group of items from which the parcels were sampled as a percentage of the mail unloaded would also need to be known.

FGFSA/USPS-T-2~40

When a TRACS test is taken, the data collector records the percentage of floor space that was (a) already empty, (b) unloaded and (c) remaining after unloading.

- a) Confirm that these are percentages of square feet of floor space. If you do not confirm, please explain.
- b) Confirm that the utilization figures which you identified in response to FGFSA/USPS-T-13-30 are the averages for each quarter of the empty square feet as recorded by the data collectors.

- a. Confirmed.
- b. Confirmed.

FGFSA/USPS-T-2-41

To what extent are the trailers used in Intra-BMC and Inter-BMC vertically utilized? Are these trailers ever fully vertically utilized?

Response:

The typical trailer used in Intra-BMC and Inter-BMC transportation is 96" tall. A review of the survey data from the 1,233 FY96 Intra-BMC and 1,467 FY96 Inter-BMC TRACS tests in which mail was unloaded (and thus height measurements were taken inside the truck) has shown that, for the mail unloaded from the truck, the average height of the loaded mail (including wheeled containers which are approximately 72" tall) is approximately 65" for Intra-BMC, and approximately 54" for Inter-BMC. The higher vertical utilization for Intra-BMC is due to a higher occurrence of wheeled containers relative to sacks, pallets, or bedloaded mail. There were four Intra-BMC TRACS tests in which a portion of the truck was vertically used up to 96", and two Intra-BMC TRACS tests in which the entire truck was vertically used up to 96". There was only one Inter-BMC TRACS test in which a portion of the truck was vertically used up to 96".

FGFSA/USPS-T-2-42

Do you agree that the cubic feet of available capacity for any given route on any particular day is provided in fixed and equal amounts on each mile of the route service by the vehicle on that day? Please fully explain any disagreement.

Response:

Redirected to witness Bradley.

FGFSA/USPS-T-2-43

Do you agree that, for any given route on any particular day, the cost of providing cubic capacity for each mile of the route represents an example of what economists refer to as a joint cost? If you do not agree, please explain how the contractor can (and does) vary the amount of capacity on different segments of the route.

Response:

Redirected to witness Bradley.

FGFSA/USPS-T-2-44

- a) Do you agree that, under TRACS, the cost of a route is allocated to individual segments of a route? Please explain any disagreement.
- b) Is this allocation of costs to individual segments of a route simply a division of the joint cost of providing capacity over the entire route? Please explain any negative response.

- (a) I do not agree. Please refer to my response to FGFSA/USPS-T-2-13.
- (b) Please refer to my response to FGFSA/USPS-T-2-13.

FGFSA/USPS-T-2-45

Refer to your response to FGFSA/USPS-T16-15. There you state: The cost of a cubic-foot mile is determined for the whole contract, not for each specific leg. And The purchased capacity of a truck is a resource purchased for all the types of mail which use it, and empty space on a truck reflects the requirements of all the mail on that particular contract route.

- a) Explain why TRACS divides the joint cost of the route into segment costs and assigns complete responsibility for individual segments to the mail on that segment.
- b) Explain why the joint cost of the entire route should not be allocated to all mail using the route on that day.
- c) Explain why TRACS assigns responsibility for empty space on a particular segment of a route to the mail that was on the truck over that segment, rather than assign the empty space to the mail that caused the truck to be dispatched on the day when the sample was taken.
- d) Do you agree that it would be proper to average the empty space along each segment of the total route over all of the mail utilizing the truck on that day?

- (a) Not applicable. Again, please refer to my response to FGFSA/USPS-T-2-13.
- (b) The cost per cubic foot mile reflects the costs of the entire contract. The cost per cubic foot mile is applied to all the cubic foot miles sampled by TRACS on that contract during the quarter. TRACS cannot sample all the mail on the contract during the entire year, so it must sample selected trips, segments, and days on a contract, producing a snapshot of the classes of mail which utilize the transportation resource, cubic-foot miles.
- (c) TRACS samples only some destinations on a contract-route-trip, and not likely on the same day. TRACS data collectors are trained to record and measure what they observe, not to speculate as to what specific subclass of mail "caused" a truck to be dispatched from a downstream facility which they are not located at. It is doubtful that

even the dispatcher at that facility could identify a container which "caused" a truck to be dispatched, let alone a specific subclass. There are so many factors both at the downstream and upstream facilities related to mail processing and transportation requirements that to even say that a specific subclass or even a group of mail caused a specific truck to be dispatched is speculative, at best. Instead, TRACS estimates the utilization of the purchased transportation resource, cubic-foot miles, by the different classes and subclasses. By allocating the empty costs of the space to the mail on the segment which we sample, and by sampling different segments on different contracts over a period of time, the distribution keys will reflect that certain classes of mail (for whatever reason) travel on trips or segments which tend to be emptier.

(d) I do not agree. Please refer to my answer to part (c).

FGFSA/USPS-T-2-46

Your response to FGFSA/USPS-T16015 characterized TRACS as a measurement system

- a) Explain what is measured by the allocation of total route cost to individual segments of the route.
- b) Explain whether the measurement of individual segment costs is an accounting measure, an economic measure, or some other type of measure. Please include definitions of your terms.

Response:

a) and b) Not applicable. Please refer to my response to FGFSA/USPS-T-2-13.

.. FGFSA/USPS-T-2-47

- a) Confirm that, under TRACS, the distribution key is developed through the assignment of joint costs to individual segments of the route. If you do not confirm, please explain.
- b) Do you agree that a reasonable distribution key would reflect actual utilization of the Intra-BMC capacity over the entire route? Please explain any negative response.
- c) Do you agree that distribution keys developed under a and b above would be significantly different?

- a) Not confirmed. Please refer to my response to FGFSA/USPS-T-2-13.
- b) I do not agree. If TRACS sampled every route-trip-segment under a contract, then we could reflect the actual utilization of the intra-BMC capacity over the entire route. The distribution key would then reflect actual utilization over the entire route. However, I do not feel that to sample every route-trip-segment on a contract is reasonable.
- c) I have not done any analyses on this subject.

DECLARATION

I, Norma B. Nieto, declare under penalty of perjury that the foregoing answers are true and correct, to the best of my knowledge, information, and belief.

Doma B Duto

Dated: <u>09/17/97</u>

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.

Anne B. Reynolds

475 L'Enfant Plaza West, S.W. Washington, D.C. 20260–1137 September 17, 1997