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

| SPECIAL SERVICES REFORM, 1996 | Docket No. MC96-3 |

RESPONSE OF UNITED STATES POSTAL SERVICE
TO INTERROGATORIES OF
THE OFFICE OF THE CONSUMER ADVOCATE
(OCA/USPS–49, 50-52, 53(a), 54-55, 56(a)-(b) AND (d)-(e))

The United States Postal Service hereby provides responses to the following

interrogatories of the Office of the Consumer Advocate: OCA/USPS–49, 50-52,

53(a), 54-55, 56(a)-(b) and (d)-(e), filed on August 22, 1996. Responses initially

were due on September 5, 1996, but the Postal Service was granted an extension

of time until today to file the responses. *Presiding Officer's Ruling Granting Motion*

for Extension of Time to Respond, Ruling No. MC96-3/9, September 5, 1996.

Objections to interrogatories OCA/USPS–48, 53(b) and (c), 56(c), and partial

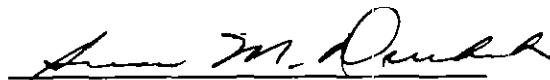objections to 54(b) and (e) were filed on September 3, 1996.

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

Respectfully submitted,

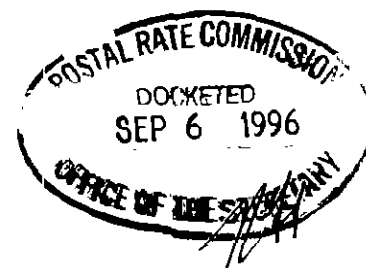UNITED STATES POSTAL SERVICE

By its attorneys:

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September 6, 1996

OCA/USPS-48.   Please provide the Summary Description of USPS Development of Costs by Segments and Components for FY 1994 and FY 1995 (library references SSR-1 and SSR-123) in electronic form.

OCA/USPS-48 Response:

Objection filed September 3, 1996.

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OCA/USPS-49.   Please refer to Attachment 2 to the response to OCA/USPS-T5-13.
The total number of unweighted tallies listed in that table is 842,761. According to page
11 of SSR-22, the FY 1995 IOCS data set has 842,785 observations. Please explain
why these two totals differ.

OCA/USPS-49 Response:

These two totals differ by 24 because Attachment 2 to the response to OCA/USPS-T5-

13 excludes records generated by the In-Office Cost System, Cost Allocation

Subsystem. Each quarter tallies are checked to ensure that at least one tally (excluding

basic function 4) is received for each craft within each CAG/finance number group. If a

tally has not been received, one tally is generated. Refer to SSR-19, program

ALB095C4, pages 652-653, lines 34700-35562 for the program code performing this

function.

OCA/USPS-50.   Please confirm that the sampling rates provided in response to OCA/USPS-T5-13b are the weekly sampling rates for IOCS sample offices. If you do not confirm, please explain.

OCA/USPS-50 Response:

Confirmed.

OCA/USPS-51.   This interrogatory refers to the cost based weighting used for the
FY 1995 IOCS estimates.

a.   Please confirm that the major advantage of using the cost based weighting
        methodology is that it simplifies the direct estimation of costs of activities
        measured by the IOCS. If you do not confirm, please explain.

b.   Witness Ellard's library reference SSR-111 (page 51) provides typical steps in
        survey weighting. The first stage is the "computation of design or base weights."
        Was such a step necessary for the IOCS weighting? If so, where is it
        documented? If this step was not necessary, please explain why not.

c.   Suppose one wanted to estimate the amount of employee time (person-weeks,
        person-hours, ...) spent performing a particular activity.

        i.   Please confirm that this is a different estimate than the cost of performing
                that activity. If you do not confirm, please explain.

        ii.   Please confirm that IOCS data can be used to develop such estimates. If
                you do not confirm, please explain.

        iii.   Please confirm that the weighting factors used to estimate costs may not
                be appropriate for estimating time proportions. If you confirm, please
                explain how appropriate weighting factors would be constructed. If you do
                not confirm, please explain why cost and time are equivalent.

d.   Suppose one wanted to expand the IOCS tallies to estimate the proportion of
        employees potentially accessible only by telephone for IOCS readings. For
        example, these estimates would be compatible with estimates of telephone
        readings in dockets prior to the change to cost based IOCS weighting.

        i.   Can such an estimate be formed from IOCS data? If so, please explain
                how to use the FY 1995 IOCS weighting factors to form these estimates.

        ii.   Is it more appropriate to use the design based weights or the cost based
                weighting factors for this type of estimate? Please explain.

        iii.   If design based weights are more appropriate, please explain how they
                would be constructed.

OCA/USPS-51 Response:

a.   Confirmed.

b.   Such a step has been taken into consideration in the IOCS weighting. Costs

were applied to the IOCS data by taking into consideration the employee sampling rate

within a CAG (see answer to OCA/USPS-21c and OCA/USPS-29 for the

documentation). *To that extent, the design weights were incorporated in the broader*

context of the cost based weighting methodology and referred to in the documentation.

Exception offices with sampling rates different from their CAG sampling rate were not

listed in the documentation because we do not provide facility-specific information.

c. and d.   We have not used the IOCS for these types of estimation procedures.

Therefore, we are not in a position to evaluate them.

OCA/USPS-52.   Please refer to the FY 1995 c.v. estimates for IOCS (SSR-90, pages 18-20) and to the documentation of the variance estimation formulas for the FY 1993 IOCS estimates at Tr. 1/56-58 of Docket No. R94-1, June 1, 1994. Interrogatory OCA/USPS-31a asks for confirmation that these variance formulas were applied to the FY 1995 estimates. If OCA/USPS-31a is confirmed, then:

a.   Since CAG A/B do not constitute certainty strata for FY 1995 (Attachment 1 to the response to OCA/USPS-T5-13), is the variance formula for certainty strata (Tr. 1/57) still correct? If it no longer applies, please provide the corrected formula and SSR-90 tables. If it no longer applies, please confirm that the effect of using the R94-1 variance formula would be to understate variance.

b.   Please refer to the formula for var($p_{ik.}$) for the noncertainty strata at Tr. 1/57.

    i.   Please confirm that this formula represents the variance of a proportion estimate from a cluster sample design. If you do not confirm, please explain.

    ii.   Please confirm that variance formulas for cluster sample designs (with subsampling within selected clusters) generally have two terms—one capturing variance between the clusters (offices) and one capturing variance within clusters (tallies within offices). For example,[1] for subsampling with units of equal size, the formula would be

$$v(\bar{p}) = \frac{1-f_1}{n(n-1)}\sum_I (p_I - \bar{p})^2 + \frac{f_1(1-f_2)}{n^2(m-1)}\sum_I p_I q_I, .$$ If you do not confirm, please explain.

    iii.   Please confirm that IOCS sampling for the non-certainty strata is a cluster sample (office selection) with subsampling within office (employee selection).

    iv.   Please confirm that the formula for v($p_{ik.}$) at Tr. 1/57 only captures the variance between clusters with the $1/[m_k(m_k-1)] \Sigma_j n_{kj}^2/[n_k/m_k]^2 * (p_{ijk}-p_{ik.})^2$ term. If you do not confirm, please explain how sampling error introduced by subsampling within selected offices is accounted for. If you confirm, please confirm that the effect of omitting the within cluster variance term is to understate variance. If you do not confirm, please explain fully.

    v.   Please provide a textbook reference for the formula used for var($p_{ik.}$) at Tr. 1/57.

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[1] See Cochran, W. (1977), Sampling Techniques, 3rd Ed., page 279.

OCA/USPS-52(a) and (b) Response:

Not applicable since OCA/USPS-31a was not confirmed.

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OCA/USPS-53.   At Tr. 1/57 of Docket No. R94-1, June 1, 1994, C_k is defined as the actual (not estimated) cost associated with the kth craft for a particular stratum (CAG) and postal quarter.

a.   Please provide the values of these costs for FY 1995.
b.   Please provide the values of these costs for each sample office for FY 1995.
c.   Please provide costs analogous to those provided in part (b) of this interrogatory, but estimated using cost weighted IOCS data.

OCA/USPS-53 Response:

a.   The attachment to this interrogatory provides a printout of the FY 1995 quarterly

costs by IOCS CAG and craft. A copy of the record layout for the printout is also

included with the attachment.

b. and c.   Objection filed September 3, 1996.

Field	Position	Length	Comments
POSTAL QUARTER	1	1	
FISCAL YEAR	2-3	2	
CAG	4	1	
FINANCE NUMBER	5-10	6	
FILLER	11-17	7	
SUPERVISOR	18-26	9	
CLERK-REGULAR	27-36	10	
CLERK-SUBSTITUE	37-45	9	
MAILHANDLER	46-54	9	
CARRIER-REGULAR	55-64	10	
CARRIER-SUBSTITUE	65-73	9	
SPECIAL DELIVERY MESSENGER.	74-81	8	

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START
COL    ----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8-

   1   195A555555   88800176502159067078861209125893119556491504639085870648864770766 1612
   1   195A666666   8880002442688900675102300140080231052480980000000000000000000000000000
   1   195B777777   888002813811591069121104194308460315596337059353345608133113909080061
   1   195C777777   8880010177483203056736530569456670158884360610854286089575828055 06565
   1   195D000000   88800038673035012071162103458213500265828302214161140395921770 1055900
   1   195E000000   88800044322845012327167706090136000075920402263482310480352320 0795992
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   1   195G000000   888000038916810028471011054911414000018188003729018701899900800055309
   1   195H000000   8880000821284700065711470423288230000000000007494041005733455 00000000
   1   195J000000   88800000000000000006221450187569410000000000000075693700092478 200000000
   1   195K000000   8880000000000000000000000000232491000000000000000000000000000000 00000000
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START
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   1   295A666666   88800023206432006406252801342794409896461000000000000000000000000000
   1   295B777777   88800280194881107711005921942880431741229105904197420751589200933755B
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   1   295E000000   88800043638616012466951706175151200093043702256789660460548810103358 1
   1   295F000000   888000198071060055345247051820209000025453008917403102627521400283745
   1   295G000000   888000038353440028421430054155352000018275003751991201817074300068730
   1   295H000000   888000079845580006583921040940754000000000000758269000550296900000000
   1   295J000000   888000000000000000600980017542098000000000000000774062000842544000000 00
   1   295K000000   888000000000000000000000002450810000000000000000000000000000000000000
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START
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    1   395B777777   88800291101295103725965718896272130482023205929223000724544410859225 1
    1   395C777777   88800104423907030132420805621410701531545606028160450842674260571814 6
    1   395D000000   88800039828788011874641203291799200258759502186584450380910400117172 1
    1   395E000000   88800045185281012252342105780916400073149202249787210454470700094039 8
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    1   395G000000   88800046496730028251164052771261000012228003775354101810834500064211
    1   395H000000   88800010927360000647763103978661100000000000007599980005418134000000 00
    1   395J000000   88800000000000000005759180171065170000000000000007594650008431030000 0000
    1   395K000000   88800000000000000000000000002553746000000000000000000000000000000000 0000
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START
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     1   495B777777   888003860219291289849167240831041397615249077495382709679657311814030
     1   495C777777   888001398804520377110095073853721020061848078879327811222593707550582
     1   495D000000   888000537181490148994128043780927003421438028583742405170095301563683
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     1   495F000000   888000281463660070225731065032625000022051011740918803597490700307191
     1   495G000000   888000068900400036418658070279235000014084005019478302510576300090950
     1   495H000000   888000159344660000839991605368054100000000000100682660073634290000000
     1   495J000000   888000000000000000080421002291733000000000000000963274001202537000000
     1   495K000000   888000000000000000000000000003310467000000000000000000000000000000000
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OCA/USPS-54.   Please refer to the response to OCA/USPS-T5-14. This
interrogatory states, "One hundred eighteen (118) offices advanced from CAG C or
lower to CAG B or A since the [FY 1993] sample was drawn. Fifty (50) of these offices
were in the sample in FY 1993."

a.   Please confirm that the 50 offices that were in sample in FY 1993 are in the FY
       1995 sample. If you do not confirm, please provide a list of these offices
       indicating which are in the FY 1995 sample. For each of the offices excluded
       from the FY 1995 sample, please include the reason for its exclusion.
b.   How many finance numbers correspond to these 50 offices?
c.   Please confirm that the 68 (118-50) CAG C or lower offices that were not in the
       FY 1993 sample but advanced to "certainty strata" (CAGs A and B) by FY 1995
       had no chance of selection for the FY 1995 IOCS sample. If you do not confirm,
       please list each of the 68 offices along with its sample selection probability for
       the FY 1995 office sample.
d.   Other than these 68 FY 1993 CAG C or lower offices, are there any other offices
       in the "certainty strata" that are not included in the FY 1995 IOCS sample?
       Please provide a count of such offices and list the reason that each of them was
       not included in sample.
e.   In addition to any "certainty strata" offices that had no chance for selection in the
       FY 1995 IOCS office sample, were there any offices in the noncertainty strata
       that had no chance for selection in the FY 1995 IOCS office sample? If so,
       please list these offices, their CAG designations, and the reason for their
       absence from the sampling frame.
f.   Please define the office sampling frame for the FY 1995 IOCS sample and
       describe any known frame inadequacy or coverage problems associated with it.
g.   Does the FY 1995 sampled office population (the population of offices from
       which the office sample was selected) coincide with the target office population
       (the population of offices about which information was sought)? Please explain.

OCA/USPS-54 Response:

a.   Confirmed.

b.   50.

c.   Not confirmed. Please note from the response to OCA/USPS-T5-13 that

employees who used to be under a single finance number were split into two finance

numbers under the Restructuring: all mail processing functions were given new finance

numbers and assigned to CAG A, while their customer service counterparts continued

under the existing finance numbers and remained in the existing CAG C or lower. This

'advancement ' of mail processing finance numbers to CAG A had the effect that, at

the same time that the sampled IOCS mail processing finance numbers were assigned

('advanced') to CAG A, so was the universe of all mail processing finance numbers.

Thus it is reasonable to think of those 50 mail processing offices in IOCS as a sample

of the universe of all such mail processing functions (50+56) that were split and

assigned to CAG A under the Restructuring, and of the 56 offices as having the same

chance of selection as before the Restructuring when all of those offices were grouped

under unsplit finance numbers. The remaining 12 offices (68-56) had no chance of

selection for the FY 1995 IOCS sample. Partial objection filed September 3, 1996 for a

listing of the 68 offices.

Note that although these 12 offices are not included in the sample, their labor

costs are incorporated in the cost based weighting methodology where costs reflect

labor costs for all offices within a CAG stratum.

d.   There are 28 other offices in the 'certainty strata' which are not included in the

FY 1995 IOCS sample. These offices were in CAG A or B. These offices were not

added to the sample because due to limited resources, no new finance numbers were

added to the sample. 10 of the 28 offices were under the Customer Service functions

and the remaining 18 were under the Processing and Distribution Functions.

Note that although these 28 offices are not included in the sample, their labor

costs are incorporated in the cost based weighting methodology where costs reflect

labor costs for all offices within a CAG stratum.

e.   Other than for the certainty strata which were designed until 1992 to include all

CAG A or B offices which are associated with the large majority of the IOCS costs, no

offices from other CAG strata were designed to be added to the sample. The IOCS

sample of offices in the other CAG strata is considered to be representative of the

offices for those strata and the CAG costs include costs for all offices in a CAG. Partial

objection filed September 3, 1996 for a listing of offices.

f.   The sampling frame for the FY 1995 sample is consistent with the sampling

frame for the FY 1993 sample. It has been updated to include split finance numbers

that resulted from the Restructuring so as to be consistent with the unsplit finance

numbers from before the Restructuring. It includes Processing Distribution Centers or

Facilities, Air Mail Centers or Facilities, Bulk Mail Centers, Customer Service Offices.

The Postal Service monitors emerging facilities or functions for mail class and service

coverage adequacy.

g.   Yes. The population of offices from which the office sample was selected to

coincide with the population of offices about which information was sought. The

information being sought is information used for costing, such as the identification of

mail classes or services to which costs for all offices can be attributed and distributed

The IOCS panel of offices is considered to provide a representative sample of those

mail classes or services.

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OCA/USPS-55.   For CAG C and lower offices, are the probabilities of office
selection for the FY 1995 IOCS the same for all offices in the same CAG? Please
explain.

OCA/USPS-55 Response:

The FY 1995 IOCS sample for CAG C and lower is a panel of offices which

consists of the same offices that were in the FY 1993 sample as in previous years'

samples. These offices were initially selected with equal probabilities of selection. As

offices migrate between CAGs, the offices in the sample are regarded as a

representative sample of offices in their respective CAGs.

OCA/USPS-56.   Please refer to Attachment 1 to the response to OCA/USPS-T5-13.
This attachment shows that of the 600 CAG A/B finance numbers, 504 were in the FY
1995 IOCS sample and 96 were not.
a.   Please confirm that the 96 finance numbers absent from the sampling frame for
        FY 1995 had no chance of selection in the FY 1995 IOCS sample. If you do not
        confirm, please list the sample selection probability for each of these finance
        numbers for the FY 1995 finance number sample.
b.   Please confirm that 25235 (25331-96) CAG C-K finance numbers were not in the
        FY 1995 IOCS sample. If you do not confirm, please provide the correct figure.
c.   Of the finance numbers that were not in the FY 1995 IOCS sample, how many
        had no chance for selection for FY 1996? For each such finance number,
        please list the finance number, its CAG, and the reason for its absence from the
        sample frame.
d.   Please define the finance number sampling frame for the FY 1995 IOCS sample
        and describe any known frame inadequacy or coverage problems associated
        with it.
e.   Does the FY 1995 sampled finance number population (the population of finance
        numbers from which the finance number sample was selected) coincide with the
        target finance number population (the population of finance numbers about
        which information was sought)? Please explain.

OCA/USPS-56 Response:

a.   Not confirmed. See response to OCA/USPS-54.c-d.

b.   Not confirmed. Attachment 1 to the response to OCA/USPS-T5-13 shows 25311

instead of 25331.

c.   Objection filed September 3, 1996.

d. and e.   See response to OCA/USPS-54 c and d.

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.

Susan M. Duchek
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September 6, 1996