

ORIGINAL

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

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POSTAL RATE COMMISSION
OFFICE OF THE SECRETARY

SPECIAL SERVICES REFORM, 1996

Docket No. MC96-3

RESPONSE OF UNITED STATES POSTAL SERVICE
TO INTERROGATORIES OF
THE OFFICE OF THE CONSUMER ADVOCATE
REDIRECTED FROM WITNESS PATELUNAS
(OCA/USPS-T5-6-9)

The United States Postal Service hereby provides responses to the following interrogatories of the Office of the Consumer Advocate: OCA/USPS-T5-6-9, filed on July 19, 1996, redirected from witness Patelunas. A motion requesting an extension of time to respond to OCA/USPS-T5-5 also is being filed today.

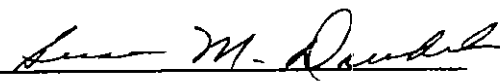
Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

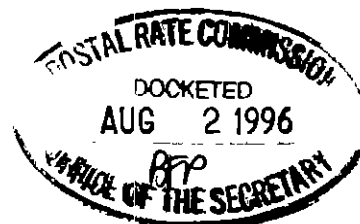
UNITED STATES POSTAL SERVICE

By its attorneys:

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August 2, 1996



U.S. POSTAL SERVICE RESPONSE TO INTERROGATORIES OF
OFFICE OF THE CONSUMER ADVOCATE
(Redirected from Patelunas USPS-T-5)

OCA/USPS-T-5-6
Page 1 of 1

OCA/USPS-T5-6. Please refer to page 21 of SSR-111 and to page 11 of R94-1 library reference G-127. In the R94-1 documentation the sample design was described as a "stratified, three-stage sample design." However, the MC96-3 documentation refers to the FY95 sample design as a "stratified, three-stage cluster sample design." Please explain in more detail the changes over the FY93 design that make it a cluster design for FY95.

OCA/USPS-T5-6 Response:

The sample design for FY95 is the same as it was for FY93. Since the same routes are sampled repeatedly once each accounting period, it is more appropriate to refer to the sampled route-delivery days for a single route as a systematic sample from the route-delivery year cluster. Hence, the term "cluster" is used in the description of the sample design.

U.S. POSTAL SERVICE RESPONSE TO INTERROGATORIES OF
OFFICE OF THE CONSUMER ADVOCATE
(Redirected from Patelunas USPS-T-5)

OCA/USPS-T5-7
Page 1 of 3

OCA/USPS-T5-7. Please complete the documentation of the City Carrier System sample design documentation on pages 21-23 of SSR-90. In particular, please provide:

- a. Universe size at sample selection, sampling rates, and effective sample sizes by strata. If sample selection occurs more than once per year, provide this information for each FY95 sample selection.
- b. Weighting factors and the formulas used to compute weighting factors.
- c. Instructions and estimation formulas for the proper use of weighting factors.
- d. Please explain how the second stage of sample selection is accounted for in the estimation procedures. Please describe any additional weighting factors computed to account for second stage sampling.
- e. Please confirm that there is some attrition in the panel of routes initially selected for FY95. If you confirm, provide a count of the number of affected routes and explain any process used to replace them during FY95. If routes subject to attrition are replaced, please explain any effects on weighting factors for the replacement routes.
- f. Please confirm that new routes are formed during FY95 after the sample of routes has been selected. Please explain the process (if any) for sampling these new routes during FY 95.
- g. Please define the sampling frame for the FY 95 carrier cost route selection. Please describe any provisions in the frame definition for newly formed routes

Answer of United States Postal Service to the Interrogatories of
Office of the Consumer Advocate

Revised
8/22/96

Page 1 of 3

OCA/USPS-T5-7. Please complete the documentation of the City Carrier System sample design documentation on pages 21-23 of SSR-90. In particular, please provide:

- a. *Universe size at sample selection, sampling rates, and effective sample sizes by strata.* If sample selection occurs more than once per year, provide this information for each FY95 sample selection.
- b. *Weighting factors and the formulas used to compute weighting factors.*
- c. *Instructions and estimation formulas for the proper use of weighting factors.*
- d. *Please explain how the second stage of sample selection is accounted for in the estimation procedures. Please describe any additional weighting factors computed to account for second stage sampling.*
- e. *Please confirm that there is some attrition in the panel of routes initially selected for FY95. If you confirm, provide a count of the number of affected routes and explain any process used to replace them during FY95. If routes subject to attrition are replaced, please explain any effects on weighting factors for the replacement routes.*
- f. *Please confirm that new routes are formed during FY95 after the sample of routes has been selected. Please explain the process (if any) for sampling these new routes during FY 95.*
- g. *Please define the sampling frame for the FY 95 carrier cost route selection. Please describe any provisions in the frame definition for newly formed routes.*

U.S. POSTAL SERVICE RESPONSE TO INTERROGATORIES OF
OFFICE OF THE CONSUMER ADVOCATE
(Redirected from Patelunas USPS-T-5)

OCA/USPS-T5-7
Page 2 of 3

OCA/USPS-T5-7 Response

a

	Q1	Q2	Q3	Q4	ANNUAL
BUSINESS A TO E					
UNIVERSE SIZE	4158	4158	4158	4158	4158
SAMPLE SIZE	123	120	120	160	523
SAMPLING RATE	0.029581	0.028860	0.028860	0.038480	0.125781
EFFECTIVE SAMPL	83	81	78	107	349
EFF SAMP RATE	0.019961	0.019480	0.018759	0.025733	0.083934
BUSINESS F TO K					
UNIVERSE SIZE	52	52	52	52	52
SAMPLE SIZE	3	3	3	4	13
SAMPLING RATE	0.057692	0.057692	0.057692	0.076923	0.25
EFFECTIVE SAMPL	3	3	3	4	13
EFF SAMP RATE	0.057692	0.057692	0.057692	0.076923	0.25
RESIDENTIAL A TO E					
UNIVERSE SIZE	141215	141215	141215	141215	141215
SAMPLE SIZE	1656	1659	1659	2212	7186
SAMPLING RATE	0.011726	0.011748	0.011748	0.015664	0.050886
EFFECTIVE SAMPL	1606	1591	1627	2165	6989
EFF SAMP RATE	0.011372	0.011266	0.011521	0.015331	0.049491
RESIDENTIAL F TO K					
UNIVERSE SIZE	13720	13720	13720	13720	13720
SAMPLE SIZE	162	162	162	216	702
SAMPLING RATE	0.011807	0.011807	0.011807	0.015743	0.051166
EFFECTIVE SAMPL	161	161	161	214	697
EFF SAMP RATE	0.011734	0.011734	0.011734	0.015597	0.050801

b The formula used to compute the weighting factors is

$$\text{WGT} = \frac{(10 * \text{UNIVERSE TOTAL} * \text{DELIVERY DAYS IN QUARTER})}{(\text{EFFECTIVE SAMPLE SIZE} * 1000)}$$

The formula is used for each stratum.

The weights used each quarter are

	Q1	Q2	Q3	Q4	
ANNUAL					
Business A to E	34.566506024	34.906666667	38.381538462	36.139626168	35.980401146
Business F to K	11.96	11.786666667	12.48	12.09	12.08
Residential A to E	60.671450809	60.355876807	62.492194222	60.660484988	61.020074403
Residential F to K	58.8	57.947826087	61.356521739	59.624299065	59.446771879

Answer of United States Postal Service to the Interrogatories of
Office of the Consumer Advocate

Revised
8/22/96

Page 2 of 3

OCA/USPS-T5-7a and b Response

a.

	Q1	Q2	Q3	Q4	ANNUAL
BUSINESS A TO E					
UNIVERSE SIZE	4158	4158	4158	4158	4158
SAMPLE SIZE	123	120	120	160	523
SAMPLING RATE	0.029581	0.028860	0.028860	0.038480	0.125781
EFFECTIVE SAMPL	83	81	78	107	349
EFF SAMP RATE	0.019961	0.019480	0.018759	0.025733	0.083934
BUSINESS F TO K					
UNIVERSE SIZE	52	52	52	52	52
SAMPLE SIZE	3	3	3	4	13
SAMPLING RATE	0.057692	0.057692	0.057692	0.076923	0.25
EFFECTIVE SAMPL	3	3	3	4	13
EFF SAMP RATE	0.057692	0.057692	0.057692	0.076923	0.25
RESIDENTIAL A TO E					
UNIVERSE SIZE	141215	141215	141215	141215	141215
SAMPLE SIZE	1656	1659	1659	2212	7186
SAMPLING RATE	0.011726	0.011748	0.011748	0.015664	0.050886
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RESIDENTIAL F TO K					
UNIVERSE SIZE	13720	13720	13720	13720	13720
SAMPLE SIZE	162	162	162	216	702
SAMPLING RATE	0.011807	0.011807	0.011807	0.015743	0.051166
EFFECTIVE SAMPL	161	161	161	214	697
EFF SAMP RATE	0.011734	0.011734	0.011734	0.015597	0.050801

b. The formula used to compute the weighting factors is

$$\text{WGT} = \frac{(10 * \text{UNIVERSE TOTAL} * \text{DELIVERY DAYS IN QUARTER})}{(\text{EFFECTIVE SAMPLE SIZE} * 1000)}$$

The formula is used for each stratum.

The weights used each quarter are:

	Q1	Q2	Q3	Q4	ANNUAL
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U.S. POSTAL SERVICE RESPONSE TO INTERROGATORIES OF
OFFICE OF THE CONSUMER ADVOCATE
(Redirected from Patelunas USPS-T-5)

OCA/USPS-T5-7
Page 3 of 3

OCA/USPS-T5-7 Response continued:

c. See R94-1, Tr 1, pp 118-119.

d. Since such a small number of routes have parts, there are no additional weighting factors computed to account for second stage sampling.

e. Confirmed.

Attrition affected nine sample routes during FY 95. Routes subject to attrition are replaced with a similar route. Every effort is made to preserve route type and CAG of the original route.

No changes are made to the weighting procedure to account for a route substitution.

f. Confirmed. See R94-1, Tr 1, p 85.

g. See R94-1, Tr 1, p. 85.

Answer of United States Postal Service to the Interrogatories of
Office of the Consumer Advocate

Revised
8/22/96

OCA/USPS-T5-7c - g Response

c. See R94-1, Tr 1. pp 118-119.

d. Since such a small number of routes have parts, there are no additional weighting factors computed to account for second stage sampling.

e. Confirmed.

Attrition affected four sample routes during FY 95. Routes subject to attrition are replaced with a similar route. Every effort is made to preserve route type and CAG of the original route.

No changes are made to the weighting procedure to account for a route substitution.

f. Confirmed. See R94-1, Tr 1, p 85.

g. See R94-1, Tr 1, p. 85

U.S. POSTAL SERVICE RESPONSE TO INTERROGATORIES OF
OFFICE OF THE CONSUMER ADVOCATE
(Redirected from Patelunas USPS-T-5)

OCA/USPS-T5-8
Page 1 of 1

OCA/USPS-T5-8. Please refer to SAS program lines 388 to 391 of page 74 of SSR-31. Please explain how the values for UBSA2E, UBSF2K, URSA2E, and URSF2K were calculated. Provide step-by-step calculations with any intermediate results and provide the source for all figures used to compute these four parameters

OCA/USPS-T5-8 Response

T5-8 The values for UBSA2E, UBSF2K, URSA2E, and URSF2K were obtained from the universe of city carrier routes by summing the counts of city carrier routes in existence as of Q4 FY 94, the last postal quarter for which such counts were available.

U.S. POSTAL SERVICE RESPONSE TO INTERROGATORIES OF
OFFICE OF THE CONSUMER ADVOCATE
(Redirected from Patelunas USPS-T-5)

OCA/USPS-T5-9

Page 1 of 1

OCA/USPS-T5-9. Please refer to SAS program lines 452-458 of page 75 of SSR-31. Line 452 contains the SAS statement:

IF STRATUM = 'SBSA2E' THEN WGT =
(10*UBSA2E*DELDAY)/(COUNT*1000).

a. Please confirm that the "10" adjusts the weight to reflect that one in ten stops on the sample route are sampled. If you do not confirm, then please explain.

b. Please explain the role of "UBSA2E" in the formula for WGT.

c. Please explain what the variable "DELDAY" represents in the formula for WGT and provide its value.

d. Please confirm that "COUNT" refers to the unweighted count of route days sampled for each stratum. If you do not confirm, please explain what the variable "COUNT" represents.

e. Please explain the purpose of the "1000" in the denominator of the formula for WGT.

f. Please confirm that the weighting factor WGT blows up sample data to represent total city carrier delivered mail volume for FY 1995. If you do not confirm, please explain what universe totals the WGT factor expands the sample data to.

OCA/USPS-T5-9 Response.

T5-9a. Confirmed.

T5-9b. UBSA2E is the universe count of business routes, CAG A to E.

T5-9c. DELDAY is the number of delivery days in the qth quarter.


T5-9d. COUNT is the number of route days for which we have data.

T5-9e. 1000 is used since volumes are reported in thousands.

T5-9f. Confirmed.

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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Washington, D.C. 20260-1145
August 2, 1996