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

POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000-1

DIRECT TESTIMONY OF
THOMAS W. HARAUSH
ON BEHALF OF
UNITED STATES POSTAL SERVICE

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LIST OF RELATED LIBRARY REFERENCES

USPS-LR-I-16 City Carrier System (CCCS) Statistical and Computer Documentation (Source Code and Data on CD-ROM)
USPS-LR-I-17 Rural Carrier System (RCCS) Statistical and Computer Documentation (Source Code and Data on CD-ROM)
USPS-LR-I-18 Handbook F-65, Data Collection User's Guide for Cost Systems
USPS-LR-I-19 CCS-CODES Computer System Documentation
USPS-LR-I-20 CCS-CODES Computer System Source Code

1 DIRECT TESTIMONY
2 OF
3 THOMAS W. HARAUSH

4
5
6 AUTOBIOGRAPHICAL SKETCH
7

8 My name is Thomas W. Harahush. I am a Mathematical Statistician in Cost
9 Systems, Finance. I have been employed by the Postal Service since 1985.
10 During that time I have worked on a number of statistical issues in the areas of
11 cost and service performance. I have provided technical support for rate case
12 witnesses in a number of cases since Docket No. R90-1 and I was the statistical
13 witness for the carrier cost programs in Docket No. R97-1.
14
15 Prior to my employment with the Postal Service I was a Mathematical Statistician
16 with the Bureau of the Census for twelve years. There I worked on sample
17 design, field work, and processing issues on the 1980 Decennial Census and a
18 number of ongoing surveys, including the Annual Housing Survey, Consumer
19 Expenditures Survey and the Survey of Disabled Adults. Prior to my work with
20 the Bureau of the Census, I was a Statistician at the Bureau of Mines.
21
22 I received a Bachelor of Science Degree in Mathematics from Pennsylvania
23 State University in 1972. My graduate studies in mathematical statistics and
24 survey sampling were conducted at George Washington University.
25
26 I am currently a member of the American Statistical Association and the

1 Washington Statistical Society.

1 PURPOSE AND SCOPE OF TESTIMONY

2 The requirement that each class of mail and special service be priced so as to
3 cover its attributable costs compels the Postal Service to determine the
4 revenues, volumes and costs of each class, subclass, and special service.

5 However, the Service's revenue and cost accounting systems do not in general
6 coincide with, or specifically identify individual categories of mail or service.

7 Therefore, the Postal Service relies on various statistical systems and special
8 studies to provide estimates of accrued costs for certain postal operating
9 functions, and to provide estimates of revenues, volumes and attributable costs
10 of various categories of mail.

11

12 The purpose of my testimony is to describe the City and Rural Carrier Cost
13 Systems, which are two of the statistical information systems used to distribute
14 attributable carrier costs to categories of mail in the Postal Service's request. My
15 testimony covers the general design of the Carrier Cost Systems, the types of
16 estimates that are produced, and tables showing the reliability of major
17 estimates.

ESTIMATION OF CARRIER COSTS

1
2 The Postal Service supplements its carrier accounting information with statistical
3 data from two cost systems to develop various estimates of costs by the type of
4 carrier and category of mail.

5

6 The distribution of both city and rural carrier street cost is based on mail volume
7 delivered on city carrier and rural carrier routes. Estimates of these volumes are
8 utilized to produce ratios that are, in turn, used to distribute costs to the various
9 categories of mail.

10

11 City Carrier System

12

13 The city carrier system is a probability sample of city carrier routes. The
14 randomly selected panel of routes is sampled repeatedly throughout the year.
15 For each sampled route, a subsample of stops is selected. For each selected
16 stop, the type of stop and the volume of mail by shape and category of mail are
17 recorded directly into a portable microcomputer using CODES software.

18

19 These data are used to estimate the number of actual and potential stops for
20 three types of stops: (1) business and mixed business/residential; (2) single
21 delivery residential; and (3) multi-delivery residential. For each of these three
22 types of stops, sample data are also used to estimate the distribution of mail
23 volume by shape (letter, flat, and parcel), and within shape, by category of mail.

1 The number of actual and potential deliveries are also estimated for both single-
2 delivery and multi-delivery residential stops.

3

4 A description of the statistical design of the City Carrier System is contained in
5 Library Reference I-16, Statistical Study Design. Data collection instructions and
6 CODES software documentation are contained in Library References I-18,
7 Chapter 3 and I-19, Sections 1 and 2. Fiscal Year 1998 estimates of major items
8 with associated confidence intervals are shown in Tables 1 - 4.

9

10

11

Rural Carrier System

12

13 The Rural Carrier System is a probability sample of rural carrier routes. For each
14 sampled route, all collected mail, delivered parcels, accountable mail, and
15 postage due mail are counted and recorded. In addition, for each sampled
16 route, a subsample of boxes is selected. For each sampled box, all mail is
17 identified as boxholder or non-boxholder mail. The non-boxholder mail is further
18 identified as letter or flat. The data are entered into a portable microcomputer
19 using CODES software.

20

21 From the sample data described above, estimates are developed of the volume
22 of each category of mail collected and delivered on rural routes. Estimates are
23 developed for accountable mail by fee category. For non-accountable mail,

1 estimates are developed by category of mail within each of four shape
2 categories: (1) letters, (2) flats, (3) parcels, and (4) letters and flats prepared as
3 boxholder deliveries.

4

5 A description of the statistical design of the Rural Carrier System is contained in
6 Library Reference I-17, Statistical Study Design. Data collection instructions and
7 CODES software documentation are contained in Library References I-18,
8 Chapter 4 and I-19, Sections 1 and 2. Fiscal Year 1998 estimates of major items
9 with associated confidence intervals are shown in Tables 5 and 6.

10

TABLE 1: Fiscal Year 1998 Proportions Of Letter Shaped Mail Volume And Associated Confidence Limits - Single Delivery Residential Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.2021	0.70%	0.1993	0.2049
Presort Letters & Parcels	0.3187	0.53%	0.3154	0.3221
Private Mailing Cards	0.0221	1.45%	0.0215	0.0227
Presort Private Cards	0.0187	2.20%	0.0179	0.0196
TOTAL FIRST-CLASS	0.5616	0.36%	0.5576	0.5656
PRIORITY MAIL	0.0006	6.83%	0.0005	0.0006
EXPRESS MAIL	0.0000	21.03%	0.0000	0.0001
MAILGRAMS	0.0002	11.71%	0.0001	0.0002
PERIODICALS	0.0109	2.38%	0.0104	0.0114
STANDARD A MAIL				
Single-Piece Rate	0.0001	11.90%	0.0001	0.0002
Regular Standard A				
Enhanced Carrier Route	0.1647	1.15%	0.1610	0.1684
Other	0.1762	0.63%	0.1740	0.1784
Total Regular	0.3409	0.57%	0.3371	0.3447
Nonprofit Standard A				
Enhanced Carrier Route	0.0110	4.13%	0.0101	0.0119
Other	0.0705	0.93%	0.0692	0.0717
Total Nonprofit	0.0814	0.97%	0.0799	0.0830
TOTAL STANDARD A	0.4225	0.48%	0.4185	0.4265
STANDARD B MAIL:				
Parcel Post	0.0001	20.98%	0.0000	0.0001
Bound Printed Matter	0.0000	25.11%	0.0000	0.0000
Special Standard	0.0000	34.03%	0.0000	0.0000
Library Rate	0.0000	33.31%	0.0000	0.0000
TOTAL STANDARD B	0.0001	14.72%	0.0001	0.0002
U.S. POSTAL SERVICE	0.0013	10.03%	0.0010	0.0016
FREE for BLIND & HNDCPD	0.0002	10.83%	0.0001	0.0002
INTERNATIONAL MAIL	0.0027	2.85%	0.0025	0.0028
TOTAL MAIL	1.0000			

¹ Coefficient of variation = 100% X (Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 1: (Continued)
Multiple Delivery Residential Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.2074	1.25%	0.2023	0.2126
Presort Letters & Parcels	0.3402	0.89%	0.3342	0.3461
Private Mailing Cards	0.0204	2.41%	0.0194	0.0213
Presort Private Cards	0.0159	3.32%	0.0149	0.0170
TOTAL FIRST-CLASS	0.5839	0.68%	0.5761	0.5917
PRIORITY MAIL	0.0005	15.20%	0.0003	0.0006
EXPRESS MAIL	0.0001	39.39%	0.0000	0.0001
MAILGRAMS	0.0001	29.31%	0.0000	0.0001
PERIODICALS	0.0084	3.91%	0.0078	0.0091
STANDARD A MAIL				
Single-Piece Rate	0.0001	22.17%	0.0001	0.0002
Regular Standard A				
Enhanced Carrier Route	0.1804	2.32%	0.1722	0.1886
Other	0.1553	1.26%	0.1515	0.1592
Total Regular	0.3357	1.21%	0.3277	0.3437
Nonprofit Standard A				
Enhanced Carrier Route	0.0102	8.23%	0.0086	0.0119
Other	0.0548	2.02%	0.0527	0.0570
Total Nonprofit	0.0651	2.21%	0.0623	0.0679
TOTAL STANDARD A	0.4010	1.01%	0.3930	0.4089
STANDARD B MAIL:				
Parcel Post	0.0000	31.51%	0.0000	0.0001
Bound Printed Matter	0.0000	49.91%	0.0000	0.0000
Special Standard	0.0000	40.82%	0.0000	0.0000
Library Rate	0.0000	49.94%	0.0000	0.0000
TOTAL STANDARD B	0.0000	21.92%	0.0000	0.0001
U.S. POSTAL SERVICE	0.0013	12.94%	0.0010	0.0017
FREE for BLIND & HNDCPD	0.0001	22.23%	0.0001	0.0002
INTERNATIONAL MAIL	0.0046	4.23%	0.0042	0.0050
TOTAL MAIL	1.0000			

¹ Coefficient of variation = 100% X (Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 1: (Continued)
Business And Mixed Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.4997	0.82%	0.4916	0.5078
Presort Letters & Parcels	0.2444	1.29%	0.2381	0.2506
Private Mailing Cards	0.0218	2.80%	0.0206	0.0230
Presort Private Cards	0.0106	4.40%	0.0097	0.0115
TOTAL FIRST-CLASS	0.7765	0.41%	0.7702	0.7827
PRIORITY MAIL	0.0004	12.31%	0.0003	0.0005
EXPRESS MAIL	0.0000	42.16%	0.0000	0.0001
MAILGRAMS	0.0001	24.11%	0.0000	0.0001
PERIODICALS	0.0064	5.56%	0.0057	0.0072
STANDARD A MAIL				
Single-Piece Rate	0.0001	18.73%	0.0001	0.0002
Regular Standard A				
Enhanced Carrier Route	0.0309	3.94%	0.0285	0.0333
Other	0.1336	1.49%	0.1297	0.1375
Total Regular	0.1646	1.49%	0.1597	0.1694
Nonprofit Standard A				
Enhanced Carrier Route	0.0050	27.30%	0.0023	0.0077
Other	0.0411	2.38%	0.0391	0.0430
Total Nonprofit	0.0461	3.58%	0.0428	0.0493
TOTAL STANDARD A	0.2108	1.47%	0.2047	0.2169
STANDARD B MAIL:				
Parcel Post	0.0000	42.78%	0.0000	0.0001
Bound Printed Matter	0.0000	36.55%	0.0000	0.0001
Special Standard	0.0000	100.00%	0.0000	0.0000
Library Rate	0.0000	99.98%	0.0000	0.0000
TOTAL STANDARD B	0.0001	28.79%	0.0000	0.0001
U.S. POSTAL SERVICE	0.0020	11.39%	0.0015	0.0024
FREE for BLIND & HNDCPD	0.0001	34.38%	0.0000	0.0002
INTERNATIONAL MAIL	0.0036	5.44%	0.0032	0.0040
TOTAL MAIL	1.00000			

¹ Coefficient of variation = 100%X(Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 2: Fiscal Year 1998 Proportions Of Flat Shaped Mail Volume
And Associated Confidence Limits -- Single Delivery Residential Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.0425	1.57%	0.0412	0.0438
Presort Letters & Parcels	0.0085	3.05%	0.0080	0.0090
Private Mailing Cards				
Presort Private Cards				
TOTAL FIRST-CLASS	0.0510	1.46%	0.0495	0.0525
PRIORITY MAIL	0.0075	3.93%	0.0069	0.0081
EXPRESS MAIL	0.0006	14.79%	0.0004	0.0008
MAILGRAMS				
PERIODICALS	0.1965	0.97%	0.1927	0.2003
STANDARD A MAIL				
Single-Piece Rate	0.0003	16.65%	0.0002	0.0004
Regular Standard A				
Enhanced Carrier Route	0.4467	0.79%	0.4398	0.4537
Other	0.2409	0.98%	0.2362	0.2455
Total Regular	0.6876	0.37%	0.6826	0.6926
Nonprofit Standard A				
Enhanced Carrier Route	0.0165	6.28%	0.0144	0.0185
Other	0.0357	2.11%	0.0343	0.0372
Total Nonprofit	0.0522	2.41%	0.0497	0.0547
TOTAL STANDARD A	0.7402	0.30%	0.7358	0.7445
STANDARD B MAIL:				
Parcel Post	0.0001	19.13%	0.0001	0.0002
Bound Printed Matter	0.0022	6.66%	0.0019	0.0025
Special Standard	0.0005	10.32%	0.0004	0.0005
Library Rate	0.0001	19.55%	0.0001	0.0002
TOTAL STANDARD B	0.0029	5.48%	0.0026	0.0032
U.S. POSTAL SERVICE	0.0002	24.28%	0.0001	0.0004
FREE for BLIND & HNDCPD	0.0002	14.85%	0.0001	0.0003
INTERNATIONAL MAIL	0.0009	7.51%	0.0007	0.0010
TOTAL MAIL	1.0000			

¹ Coefficient of variation = 100% X (Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 2: (Continued)
Multiple Delivery Residential Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.0446	2.86%	0.0421	0.0471
Presort Letters & Parcels	0.0098	6.73%	0.0085	0.0111
Private Mailing Cards				
Presort Private Cards				
TOTAL FIRST-CLASS	0.0545	2.72%	0.0515	0.0574
PRIORITY MAIL	0.0090	6.50%	0.0079	0.0102
EXPRESS MAIL	0.0006	17.10%	0.0004	0.0008
MAILGRAMS				
PERIODICALS	0.1760	2.00%	0.1691	0.1830
STANDARD A MAIL				
Single-Piece Rate	0.0002	26.29%	0.0001	0.0003
Regular Standard A				
Enhanced Carrier Route	0.5072	1.46%	0.4926	0.5218
Other	0.2024	2.11%	0.1940	0.2108
Total Regular	0.7096	0.71%	0.6996	0.7195
Nonprofit Standard A				
Enhanced Carrier Route	0.0153	11.88%	0.0117	0.0189
Other	0.0305	5.46%	0.0272	0.0337
Total Nonprofit	0.0458	5.33%	0.0410	0.0506
TOTAL STANDARD A	0.7555	0.57%	0.7471	0.7640
STANDARD B MAIL:				
Parcel Post	0.0002	30.51%	0.0001	0.0002
Bound Printed Matter	0.0020	10.43%	0.0016	0.0024
Special Standard	0.0004	17.01%	0.0003	0.0005
Library Rate	0.0002	28.73%	0.0001	0.0003
TOTAL STANDARD B	0.0028	8.72%	0.0023	0.0032
U.S. POSTAL SERVICE	0.0002	25.58%	0.0001	0.0002
FREE for BLIND & HNDCPD	0.0002	28.59%	0.0001	0.0003
INTERNATIONAL MAIL	0.0013	10.46%	0.0010	0.0015
TOTAL MAIL	1.0000			

¹ Coefficient of variation = 100% X (Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 2: (Continued)
Business And Mixed Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.2090	1.71%	0.2020	0.2160
Presort Letters & Parcels	0.0216	4.12%	0.0198	0.0233
Private Mailing Cards				
Presort Private Cards				
TOTAL FIRST-CLASS	0.2306	1.62%	0.2232	0.2379
PRIORITY MAIL	0.0283	3.72%	0.0262	0.0303
EXPRESS MAIL	0.0015	17.71%	0.0010	0.0020
MAILGRAMS				
PERIODICALS	0.2088	1.65%	0.2020	0.2156
STANDARD A MAIL				
Single-Piece Rate	0.0004	20.24%	0.0003	0.0006
Regular Standard A				
Enhanced Carrier Route	0.1490	2.68%	0.1412	0.1569
Other	0.3160	1.49%	0.3068	0.3253
Total Regular	0.4651	1.07%	0.4553	0.4749
Nonprofit Standard A				
Enhanced Carrier Route	0.0122	13.33%	0.0090	0.0155
Other	0.0403	4.01%	0.0371	0.0434
Total Nonprofit	0.0525	4.25%	0.0481	0.0569
TOTAL STANDARD A	0.5180	0.97%	0.5081	0.5279
STANDARD B MAIL:				
Parcel Post	0.0003	25.10%	0.0002	0.0005
Bound Printed Matter	0.0076	9.01%	0.0062	0.0089
Special Standard	0.0008	13.55%	0.0006	0.0010
Library Rate	0.0003	21.26%	0.0002	0.0005
TOTAL STANDARD B	0.0089	7.82%	0.0076	0.0103
U.S. POSTAL SERVICE	0.0004	27.73%	0.0002	0.0006
FREE for BLIND & HNDCPD	0.0001	31.96%	0.0000	0.0002
INTERNATIONAL MAIL	0.0034	8.77%	0.0028	0.0040
TOTAL MAIL	1.0000			

¹ Coefficient of variation = 100% X (Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 3: Fiscal Year 1998 Proportions Of Parcel Shaped Mail Volume and Associated Confidence Limits -- Single Delivery Residential Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.1247	2.86%	0.1177	0.1317
Presort Letters & Parcels	0.0085	13.43%	0.0062	0.0107
Private Mailing Cards				
Presort Private Cards				
TOTAL FIRST-CLASS	0.1332	2.77%	0.1259	0.1404
PRIORITY MAIL	0.1928	2.15%	0.1846	0.2010
EXPRESS MAIL	0.0011	28.48%	0.0005	0.0016
MAILGRAMS				
PERIODICALS	0.0480	8.05%	0.0404	0.0556
STANDARD A MAIL				
Single-Piece Rate	0.0054	12.62%	0.0040	0.0067
Regular Standard A				
Enhanced Carrier Route	0.0232	14.74%	0.0165	0.0299
Other	0.2930	1.77%	0.2828	0.3033
Total Regular	0.3162	1.79%	0.3051	0.3274
Nonprofit Standard A				
Enhanced Carrier Route	0.0002	70.74%	0.0000	0.0004
Other	0.0150	8.17%	0.0126	0.0174
Total Nonprofit	0.0152	8.12%	0.0128	0.0176
TOTAL STANDARD A	0.3368	1.71%	0.3255	0.3481
STANDARD B MAIL:				
Parcel Post	0.1255	2.72%	0.1188	0.1322
Bound Printed Matter	0.0979	3.14%	0.0919	0.1040
Special Standard	0.0457	4.52%	0.0417	0.0498
Library Rate	0.0060	14.26%	0.0043	0.0077
TOTAL STANDARD B	0.2752	1.80%	0.2654	0.2849
U.S. POSTAL SERVICE	0.0003	50.03%	0.0000	0.0006
FREE for BLIND & HNDCPD	0.0074	16.18%	0.0051	0.0098
INTERNATIONAL MAIL	0.0053	12.81%	0.0040	0.0066
TOTAL MAIL	1.0000			

¹ Coefficient of variation = 100% X (Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 3: (CONTINUED)
Multiple Delivery Residential Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.1198	4.89%	0.1082	0.1313
Presort Letters & Parcels	0.0077	26.53%	0.0037	0.0117
Private Mailing Cards				
Presort Private Cards				
TOTAL FIRST-CLASS	0.1274	4.85%	0.1153	0.1396
PRIORITY MAIL	0.2007	4.13%	0.1844	0.2170
EXPRESS MAIL	0.0032	27.39%	0.0015	0.0049
MAILGRAMS				
PERIODICALS	0.0392	13.59%	0.0287	0.0498
STANDARD A MAIL				
Single-Piece Rate	0.0055	24.35%	0.0029	0.0081
Regular Standard A				
Enhanced Carrier Route	0.0303	33.01%	0.0106	0.0500
Other	0.2898	3.36%	0.2706	0.3089
Total Regular	0.3200	3.62%	0.2972	0.3429
Nonprofit Standard A				
Enhanced Carrier Route	0.0002	99.78%	0.0000	0.0006
Other	0.0146	18.36%	0.0093	0.0199
Total Nonprofit	0.0148	18.35%	0.0094	0.0201
TOTAL STANDARD A	0.3403	3.40%	0.3175	0.3631
STANDARD B MAIL:				
Parcel Post	0.1165	5.40%	0.1041	0.1289
Bound Printed Matter	0.0913	5.97%	0.0805	0.1020
Special Standard	0.0548	8.06%	0.0461	0.0635
Library Rate	0.0058	23.96%	0.0030	0.0085
TOTAL STANDARD B	0.2683	3.70%	0.2488	0.2879
U.S. POSTAL SERVICE	0.0009	61.21%	0.0000	0.0019
FREE for BLIND & HND CPD	0.0102	27.87%	0.0046	0.0157
INTERNATIONAL MAIL	0.0098	15.85%	0.0067	0.0128
TOTAL MAIL	1.0000			

¹ Coefficient of variation = 100% X (Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 3: (Continued)
Business And Mixed Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.1870	4.37%	0.1709	0.2031
Presort Letters & Parcels	0.0070	36.37%	0.0020	0.0119
Private Mailing Cards				
Presort Private Cards				
TOTAL FIRST-CLASS	0.1939	4.30%	0.1775	0.2103
PRIORITY MAIL	0.3356	3.45%	0.3128	0.3585
EXPRESS MAIL	0.0030	28.96%	0.0013	0.0048
MAILGRAMS				
PERIODICALS	0.0573	11.63%	0.0441	0.0704
STANDARD A MAIL				
Single-Piece Rate	0.0015	36.39%	0.0004	0.0026
Regular Standard A				
Enhanced Carrier Route	0.0100	34.24%	0.0032	0.0167
Other	0.1213	5.63%	0.1078	0.1347
Total Regular	0.1313	5.71%	0.1165	0.1460
Nonprofit Standard A				
Enhanced Carrier Route	0.0001	100.00%	0.0000	0.0003
Other	0.0065	20.15%	0.0039	0.0091
Total Nonprofit	0.0067	19.89%	0.0040	0.0093
TOTAL STANDARD A	0.1394	5.54%	0.1242	0.1547
STANDARD B MAIL:				
Parcel Post	0.0928	6.27%	0.0813	0.1043
Bound Printed Matter	0.1172	6.15%	0.1030	0.1314
Special Standard	0.0367	9.63%	0.0298	0.0437
Library Rate	0.0114	29.63%	0.0047	0.0180
TOTAL STANDARD B	0.2581	3.89%	0.2384	0.2779
U.S. POSTAL SERVICE	0.0020	50.93%	0.0000	0.0041
FREE for BLIND & HNDCPD	0.0028	41.65%	0.0005	0.0051
INTERNATIONAL MAIL	0.0077	18.90%	0.0049	0.0106
TOTAL MAIL	1.0000			

¹ Coefficient of variation = 100% X (Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 4: Fiscal Year 1998 Proportions Of All Shapes Mail Volume
And Associated Confidence Limits -- Single Delivery Residential Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.1604	0.69%	0.1582	0.1626
Presort Letters & Parcels	0.2359	0.59%	0.2331	0.2386
Private Mailing Cards	0.0162	1.45%	0.0157	0.0167
Presort Private Cards	0.0137	2.23%	0.0131	0.0143
TOTAL FIRST-CLASS	0.4262	0.42%	0.4227	0.4298
PRIORITY MAIL	0.0046	2.22%	0.0044	0.0048
EXPRESS MAIL	0.0002	13.27%	0.0001	0.0003
MAILGRAMS	0.0001	11.71%	0.0001	0.0001
PERIODICALS	0.0587	0.87%	0.0577	0.0597
STANDARD A MAIL				
Single-Piece Rate	0.0003	8.83%	0.0002	0.0003
Regular Standard A				
Enhanced Carrier Route	0.2350	0.86%	0.2310	0.2390
Other	0.1941	0.57%	0.1919	0.1963
Total Regular	0.4291	0.44%	0.4254	0.4328
Nonprofit Standard A				
Enhanced Carrier Route	0.0123	3.55%	0.0114	0.0131
Other	0.0609	0.89%	0.0599	0.0620
Total Nonprofit	0.0732	0.93%	0.0719	0.0745
TOTAL STANDARD A	0.5026	0.37%	0.4989	0.5063
STANDARD B MAIL:				
Parcel Post	0.0016	2.94%	0.0015	0.0016
Bound Printed Matter	0.0017	3.14%	0.0016	0.0018
Special Standard	0.0007	4.28%	0.0006	0.0007
Library Rate	0.0001	12.44%	0.0001	0.0001
TOTAL STANDARD B	0.0041	2.06%	0.0039	0.0042
U.S. POSTAL SERVICE	0.0010	9.55%	0.0008	0.0012
FREE for BLIND & HNDCPD	0.0003	8.43%	0.0002	0.0003
INTERNATIONAL MAIL	0.0023	2.70%	0.0021	0.0024
TOTAL MAIL	1.0000			

¹ Coefficient of variation = 100% X (Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 4: (Continued)
Multiple Delivery Residential Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.1647	1.27%	0.1606	0.1689
Presort Letters & Parcels	0.2517	1.04%	0.2465	0.2568
Private Mailing Cards	0.0149	2.40%	0.0142	0.0156
Presort Private Cards	0.0117	3.34%	0.0109	0.0124
TOTAL FIRST-CLASS	0.4430	0.82%	0.4358	0.4501
PRIORITY MAIL	0.0050	4.08%	0.0046	0.0054
EXPRESS MAIL	0.0002	14.78%	0.0002	0.0003
MAILGRAMS	0.0000	29.33%	0.0000	0.0001
PERIODICALS	0.0517	1.72%	0.0499	0.0534
STANDARD A MAIL				
Single-Piece Rate	0.0002	14.29%	0.0001	0.0003
Regular Standard A				
Enhanced Carrier Route	0.2623	1.75%	0.2532	0.2713
Other	0.1690	1.14%	0.1652	0.1728
Total Regular	0.4312	0.94%	0.4233	0.4392
Nonprofit Standard A				
Enhanced Carrier Route	0.0114	6.87%	0.0099	0.0130
Other	0.0481	1.96%	0.0463	0.0500
Total Nonprofit	0.0596	2.10%	0.0571	0.0620
TOTAL STANDARD A	0.4910	0.79%	0.4834	0.4986
STANDARD B MAIL:				
Parcel Post	0.0014	5.92%	0.0013	0.0016
Bound Printed Matter	0.0016	5.63%	0.0014	0.0018
Special Standard	0.0008	7.99%	0.0006	0.0009
Library Rate	0.0001	18.04%	0.0001	0.0002
TOTAL STANDARD B	0.0039	4.22%	0.0036	0.0042
U.S. POSTAL SERVICE	0.0010	12.37%	0.0008	0.0013
FREE for BLIND & HND CPD	0.0003	16.43%	0.0002	0.0004
INTERNATIONAL MAIL	0.0038	4.09%	0.0035	0.0041
TOTAL MAIL	1.0000			

¹ Coefficient of variation = 100% X (Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 4: (Continued)
Business And Mixed Stops

Mail Class	Proportion of Total	C.V. ¹ of Proportion	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
FIRST-CLASS MAIL				
Letters & Parcels	0.4252	0.84%	0.4182	0.4323
Presort Letters & Parcels	0.1873	1.34%	0.1824	0.1923
Private Mailing Cards	0.0162	2.80%	0.0153	0.0171
Presort Private Cards	0.0079	4.37%	0.0072	0.0086
TOTAL FIRST-CLASS	0.6367	0.54%	0.6299	0.6435
PRIORITY MAIL	0.0118	2.96%	0.0111	0.0125
EXPRESS MAIL	0.0004	15.69%	0.0003	0.0006
MAILGRAMS	0.0001	24.10%	0.0000	0.0001
PERIODICALS	0.0560	1.79%	0.0540	0.0579
STANDARD A MAIL				
Single-Piece Rate	0.0002	14.46%	0.0002	0.0003
Regular Standard A				
Enhanced Carrier Route	0.0591	2.62%	0.0561	0.0622
Other	0.1774	1.24%	0.1731	0.1818
Total Regular	0.2366	1.15%	0.2312	0.2419
Nonprofit Standard A				
Enhanced Carrier Route	0.0067	16.46%	0.0045	0.0089
Other	0.0404	2.16%	0.0387	0.0421
Total Nonprofit	0.0471	2.93%	0.0444	0.0498
TOTAL STANDARD A	0.2839	1.12%	0.2776	0.2901
STANDARD B MAIL:				
Parcel Post	0.0014	6.34%	0.0012	0.0016
Bound Printed Matter	0.0035	5.76%	0.0031	0.0039
Special Standard	0.0007	8.08%	0.0006	0.0008
Library Rate	0.0002	20.81%	0.0001	0.0003
TOTAL STANDARD B	0.0058	4.13%	0.0053	0.0063
U.S. POSTAL SERVICE	0.0016	10.89%	0.0013	0.0019
FREE for BLIND & HNDCPD	0.0001	22.73%	0.0001	0.0002
INTERNATIONAL MAIL	0.0036	5.01%	0.0032	0.0040
TOTAL MAIL	1.0000			

¹ Coefficient of variation = 100% X (Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

TABLE 5: LETTERS - RURAL CARRIER STREET COST - FY 1998
PROPORTIONS OF MAIL VOLUME USED FOR COST DISTRIBUTIONS

Mail Class	Proportion of Total	C.V. of ¹ Proportion (Percent)	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
First-Class Mail:				
Letters & Parcels	0.2728	0.98	0.2676	0.2781
Presort Letters & pcl	0.3524	0.6	0.3482	0.3566
Private mailing cards	0.0256	1.48	0.0249	0.0264
Presort private cards	0.0211	2.53	0.0201	0.0222
Total First-Class	0.6720	0.35	0.6674	0.6766
Priority Mail	0.0005	9.75	0.0004	0.0006
Mailgrams	0.0002	18.99	0.0001	0.0003
Periodicals	0.0078	2.95	0.0074	0.0083
Standard A Mail:				
Single-Piece rate	0.0002	13.91	0.0001	0.0002
Regular Standard A				
Enhanced Carrier Route	0.0798	1.74	0.0770	0.0825
Other	0.1695	0.9	0.1665	0.1724
Total regular	0.2492	0.82	0.2452	0.2532
Nonprofit Standard A				
Enhanced Carrier Route	0.0059	4.66	0.0054	0.0065
Other	0.0608	1.19	0.0594	0.0622
Total Nonprofit	0.0667	1.16	0.0652	0.0682
Total Standard A	0.3161	0.73	0.3115	0.3206
Standard B Mail:				
Parcels Post	0.0001	22.91	0.0000	0.0001
Special Standard	0.0000	31.61	0.0000	0.0000
Library Rate	0.0000	48.99	0.0000	0.0000
Bound Printed Matter	0.0000	30.5	0.0000	0.0001
Total Standard B	0.0002	15.74	0.0001	0.0002
U.S. Postal Service	0.0011	9.74	0.0009	0.0013
Free for Blind & hndcapd	0.0002	23.36	0.0001	0.0002
International Mail	0.0020	8.75	0.0017	0.0024
Total Mail	1			

¹ Coefficient of variation = 100%X(Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)

³ Less than 0.00005

TABLE 6: FLATS - RURAL CARRIER STREET COST - FY 1998
PROPORTIONS OF MAIL VOLUME USED FOR COST DISTRIBUTIONS

Mail Class	Proportion of Mail	C.V. of ¹ Proportion (Percent)	Lower 95% Confidence Limit ²	Upper 95% Confidence Limit ²
First-Class Mail:				
Letters & Parcels	0.0671	1.73	0.0648	0.0694
Presort Letters & pcl	0.0331	2.77	0.0312	0.0349
Private mailing cards				
Presort private cards				
Total First-Class	0.1002	1.64	0.0969	0.1034
Priority Mail	0.0087	4.43	0.0079	0.0095
Mailgrams				
Periodicals	0.2533	0.99	0.2209	0.2297
Standard A Mail:				
Single-Piece rate	0.0005	14.76	0.0004	0.0007
Regular Standard A				
Enhanced Carrier Rt	0.2947	1.14	0.2880	0.3013
Other	0.3107	0.79	0.3059	0.3156
Total Regular	0.6054	0.45	0.6000	0.6108
Nonprofit Standard A				
Enhanced Carrier Rt	0.0100	6.42	0.0088	0.0113
Other	0.0435	1.76	0.0420	0.0450
Total Nonprofit	0.0535	1.90	0.0515	0.0555
Total Standard A	0.6594	0.39	0.6543	0.6645
Standard B Mail:				
Parcel Post	0.0008	10.9	0.0006	0.0010
Special Standard	0.0007	14.7	0.0005	0.0009
Library Rate	0.0001	22.8	0.0001	0.0002
Bound Printed Matter	0.0034	6.9	0.0029	0.0039
Total Standard B	0.0050	5.65	0.0045	0.0056
U.S. Postal Service	0.0003	19.32	0.0002	0.0004
Free for Blind & hndcp	0.0003	24.74	0.0001	0.0004
International Mail	0.0008	11.07	0.0006	0.0010
Total Mail	1			

¹ Coefficient of variation = 100%X(Est. Std. Dev./Est. Proportion)

² Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)