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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

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

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DIRECT TESTIMONY  
OF  
THOMAS W. HARAUSH

AUTOBIOGRAPHICAL SKETCH

9 My name is Thomas W. Harahush. I am a Mathematical Statistician in Cost  
10 Analysis, Finance. I have been employed by the Postal Service since 1985.  
11 During that time I have worked on a number of statistical issues in the areas of  
12 cost and service performance, and have worked on the Computerized On-site  
13 Data Entry System (CODES). I have provided technical support for rate case  
14 witnesses in a number of cases since R90-1.

15  
16 Prior to my employment with the Postal Service I was a Mathematical Statistician  
17 with the Bureau of the Census for twelve years. There I worked on sample  
18 design, field work, and processing issues on the 1980 Decennial Census and a  
19 number of ongoing demographic surveys, including the Annual Housing Survey,  
20 Consumer Expenditures Survey and the Survey of Disabled Adults. Prior to my  
21 work with the Bureau of the Census, I was a Statistician at the Bureau of Mines.

22  
23 I received a Bachelor of Science Degree in Mathematics from Pennsylvania  
24 State University in 1972. My graduate studies in mathematical statistics and  
25 survey sampling were conducted at George Washington University.

26

3.

- 1 I am currently a member of the American Statistical Association and the
- 2 Washington Statistical Society.



## 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.

### City Carrier System

10  
11  
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

1 volume by shape (letter, flat, and parcel), and within shape, by category of mail.  
2 The number of actual and potential deliveries are also estimated for both single-  
3 delivery and multi-delivery residential stops.

4

5 A description of the statistical design of the City Carrier System is contained in  
6 Library Reference H-89. Data collection instructions and CODES software  
7 documentation are contained in Library References H-25 and H-71. Fiscal Year  
8 1996 estimates of major items with associated confidence intervals are shown in  
9 Tables 1 - 4.

10

11

## 12 Rural Carrier System

13

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

21

22 From the sample data described above, estimates are developed of the volume

1 of each category of mail collected and delivered on rural routes. Estimates are  
2 developed for accountable mail by fee category. For non-accountable mail,  
3 estimates are developed by category of mail within each of four shape  
4 categories: (1) letters, (2) flats, (3) parcels, and (4) letters and flats prepared as  
5 boxholder deliveries.

6

7 A description of the statistical design of the Rural Carrier System is contained in  
8 Library Reference H-89. Data collection instructions and CODES software  
9 documentation are contained in Library References H-25 and H-71. Fiscal Year  
10 1996 estimates of major items with associated confidence intervals are shown in  
11 Tables 5 and 6.

12



TABLE 1: Fiscal Year 1996 Proportions Of Letter Shaped Mail Volume And Associated Confidence Limits - Single Delivery Residential Stops

Mail Class	Proportion of Total	C.V. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.22152	1.09%	0.21678	0.22626
Presort Letters & Parcels	0.32438	1.11%	0.31729	0.33147
Postal Cards	0.00124	12.19%	0.00094	0.00154
Private Postcards	0.02119	2.50%	0.02015	0.02223
Presort Private Postcards	0.01526	8.27%	0.01277	0.01775
TOTAL FIRST CLASS	0.58359	0.76%	0.57491	0.59227
PRIORITY MAIL	0.00014	27.33%	0.00006	0.00022
EXPRESS MAIL	0.00002	31.60%	0.00001	0.00003
MAILGRAMS	0.00004	45.82%	0.00000	0.00008
SCM PUBS	0.01623	5.07%	0.01461	0.01785
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00014	16.80%	0.00009	0.00019
Bulk Rate - Regular				
Carrier Route Presort	0.16019	2.42%	0.15257	0.16781
Other	0.15097	1.25%	0.14724	0.15470
TOTAL REGULAR	0.31116	1.31%	0.30314	0.31918
Bulk Rate Nonprofit				
Carrier Route Presort	0.01466	5.01%	0.01321	0.01611
Other	0.06837	1.72%	0.06606	0.07068
TOTAL NONPROFIT	0.08303	1.66%	0.08031	0.08575
TOTAL THIRD	0.39433	1.09%	0.38585	0.40281
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.00008	25.46%	0.00004	0.00012
Bound Printed Matter	0.00006	20.09%	0.00004	0.00008
Special Fourth Class Rate	0.00003	28.24%	0.00001	0.00005
Library Rate	0.00011	31.99%	0.00004	0.00018
TOTAL FOURTH	0.00028	16.65%	0.00019	0.00037
U.S. POSTAL SERVICE	0.00174	11.61%	0.00134	0.00214
FREE MAIL	0.00016	15.05%	0.00011	0.00021
INTERNATIONAL MAIL	0.00348	4.23%	0.00319	0.00377
TOTAL ALL MAIL	1.00000			

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

<sup>2</sup> 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. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.22361	2.35%	0.21324	0.23398
Presort Letters & Parcels	0.34996	1.61%	0.33889	0.36103
Postal Cards	0.00222	28.32%	0.00098	0.00346
Private Postcards	0.01948	3.67%	0.01807	0.02089
Presort Private Postcards	0.01309	4.97%	0.01181	0.01437
TOTAL FIRST CLASS	0.60835	1.41%	0.59149	0.62521
PRIORITY MAIL	0.00007	47.24%	0.00000	0.00014
EXPRESS MAIL	0.00001	58.92%	0.00000	0.00002
MAILGRAMS	0.00004	41.96%	0.00001	0.00007
SCM PUBS	0.01087	8.28%	0.00910	0.01264
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00007	25.59%	0.00003	0.00011
Bulk Rate - Regular				
Carrier Route Presort	0.16821	5.30%	0.15065	0.18577
Other	0.13627	2.15%	0.13049	0.14205
TOTAL REGULAR	0.30447	2.94%	0.28684	0.32210
Bulk Rate Nonprofit				
Carrier Route Presort	0.01478	11.53%	0.01142	0.01814
Other	0.05268	3.72%	0.04882	0.05654
TOTAL NONPROFIT	0.06746	4.04%	0.06209	0.07283
TOTAL THIRD	0.37200	2.36%	0.35473	0.38927
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.00011	50.91%	0.00000	0.00022
Bound Printed Matter	0.00005	54.40%	0.00000	0.00010
Special Fourth Class Rate	0.00001	57.18%	0.00000	0.00002
Library Rate	0.00003	46.77%	0.00000	0.00006
TOTAL FOURTH	0.00020	33.21%	0.00007	0.00033
U.S. POSTAL SERVICE	0.00222	21.85%	0.00126	0.00318
FREE MAIL	0.00015	20.74%	0.00009	0.00021
TOTAL INTERNATIONAL	0.00609	8.71%	0.00505	0.00713
TOTAL ALL MAIL	1.00000			

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

<sup>2</sup> 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. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.51352	1.35%	0.49989	0.52715
Presort Letters & Parcels	0.24528	2.37%	0.23382	0.25674
Postal Cards	0.00136	14.84%	0.00096	0.00176
Private Postcards	0.02108	5.55%	0.01878	0.02338
Presort Private Postcards	0.00854	8.28%	0.00715	0.00993
TOTAL FIRST CLASS	0.78977	0.63%	0.77991	0.79963
PRIORITY MAIL	0.00012	25.91%	0.00006	0.00018
EXPRESS MAIL	0.00001	58.90%	0.00000	0.00002
MAILGRAMS	0.00005	36.30%	0.00001	0.00009
SCM PUBS	0.00493	7.04%	0.00425	0.00561
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00008	42.91%	0.00001	0.00015
Bulk Rate - Regular				
Carrier Route Presort	0.02717	6.32%	0.02379	0.03055
Other	0.12318	2.34%	0.11750	0.12886
TOTAL REGULAR	0.15035	2.28%	0.14359	0.15711
Bulk Rate Nonprofit				
Carrier Route Presort	0.00833	12.77%	0.00624	0.01042
Other	0.04015	5.77%	0.03559	0.04471
TOTAL NONPROFIT	0.04848	5.50%	0.04323	0.05373
TOTAL THIRD	0.19891	2.46%	0.18928	0.20854
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.00007	47.62%	0.00000	0.00014
Bound Printed Matter	0.00003	65.45%	0.00000	0.00007
Special Fourth Class Rate	0.00001	99.50%	0.00000	0.00003
Library Rate	0.00000			
TOTAL FOURTH	0.00011	41.41%	0.00002	0.00020
U.S. POSTAL SERVICE	0.00205	13.19%	0.00152	0.00258
FREE MAIL	0.00011	39.57%	0.00002	0.00020
TOTAL INTERNATIONAL	0.00395	12.74%	0.00296	0.00494
	1.00000			

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

<sup>2</sup> Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

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

TABLE 2: Fiscal Year 1996 Proportions Of Flat Shaped Mail Volume  
And Associated Confidence Limits -- Single Delivery Residential Stops

Mail Class	Proportion of Total	C.V. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.04588	2.77%	0.04338	0.04838
Presort Letters & Parcels	0.01175	7.86%	0.00993	0.01357
Postal Cards	0			
Private Postcards	0			
Presort Private Postcards	0			
TOTAL FIRST CLASS	0.05763	2.88%	0.05436	0.06090
PRIORITY MAIL	0.00397	5.98%	0.00350	0.00444
EXPRESS MAIL	0.00020	16.02%	0.00014	0.00026
MAILGRAMS	0			
SCM PUBS	0.21616	1.83%	0.20837	0.22395
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00036	35.62%	0.00011	0.00061
Bulk Rate - Regular				
Carrier Route Presort	0.44508	1.74%	0.42987	0.46029
Other	0.22143	1.93%	0.21299	0.22987
TOTAL REGULAR	0.66652	0.80%	0.65599	0.67705
Bulk Rate Nonprofit				
Carrier Route Presort	0.01304	9.42%	0.01062	0.01546
Other	0.03698	2.85%	0.03490	0.03906
TOTAL NONPROFIT	0.05002	3.41%	0.04666	0.05338
TOTAL THIRD	0.71690	0.68%	0.70735	0.72645
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.00027	17.26%	0.00018	0.00036
Bound Printed Matter	0.00215	19.95%	0.00130	0.00300
Special Fourth Class Rate	0.00047	10.52%	0.00037	0.00057
Library Rate	0.00068	32.85%	0.00024	0.00112
TOTAL FOURTH	0.00356	13.98%	0.00258	0.00454
U.S. POSTAL SERVICE	0.00040	27.90%	0.00018	0.00062
FREE MAIL	0.00027	19.36%	0.00017	0.00037
INTERNATIONAL MAIL	0.00091	10.24%	0.00073	0.00109
TOTAL ALL MAIL	1.00000			

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

<sup>2</sup> 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. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.04943	6.47%	0.04313	0.05573
Presort Letters & Parcels	0.01237	10.60%	0.00979	0.01495
Postal Cards	0			
Private Postcards	0			
Presort Private Postcards	0			
<b>TOTAL FIRST CLASS</b>	<b>0.06180</b>	<b>6.63%</b>	<b>0.05373</b>	<b>0.06987</b>
<b>PRIORITY MAIL</b>	<b>0.00461</b>	<b>11.93%</b>	<b>0.00353</b>	<b>0.00569</b>
<b>EXPRESS MAIL</b>	<b>0.00025</b>	<b>44.57%</b>	<b>0.00003</b>	<b>0.00047</b>
<b>MAILGRAMS</b>	<b>0</b>			
<b>SCM PUBS</b>	<b>0.18600</b>	<b>4.49%</b>	<b>0.16954</b>	<b>0.20246</b>
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00020	43.02%	0.00003	0.00037
Bulk Rate - Regular				
Carrier Route Presort	0.49355	3.85%	0.45616	0.53094
Other	0.20109	4.68%	0.18254	0.21964
<b>TOTAL REGULAR</b>	<b>0.69464</b>	<b>1.83%</b>	<b>0.66961</b>	<b>0.71967</b>
Bulk Rate Nonprofit				
Carrier Route Presort	0.01705	12.94%	0.01270	0.02140
Other	0.03035	6.79%	0.02629	0.03441
<b>TOTAL NONPROFIT</b>	<b>0.04740</b>	<b>6.32%</b>	<b>0.04150</b>	<b>0.05330</b>
<b>TOTAL THIRD</b>	<b>0.74224</b>	<b>1.52%</b>	<b>0.72000</b>	<b>0.76448</b>
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.00011	33.16%	0.00004	0.00018
Bound Printed Matter	0.00166	11.97%	0.00127	0.00205
Special Fourth Class Rate	0.00058	16.38%	0.00039	0.00077
Library Rate	0.00025	29.23%	0.00011	0.00039
<b>TOTAL FOURTH</b>	<b>0.00261</b>	<b>9.20%</b>	<b>0.00214</b>	<b>0.00308</b>
<b>U.S. POSTAL SERVICE</b>	<b>0.00067</b>	<b>34.21%</b>	<b>0.00022</b>	<b>0.00112</b>
<b>FREE MAIL</b>	<b>0.00052</b>	<b>31.78%</b>	<b>0.00019</b>	<b>0.00085</b>
<b>TOTAL INTERNATIONAL</b>	<b>0.00129</b>	<b>16.49%</b>	<b>0.00087</b>	<b>0.00171</b>
<b>TOTAL ALL MAIL</b>	<b>1.00000</b>			

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

<sup>2</sup> 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. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.22193	3.28%	0.20761	0.23625
Presort Letters & Parcels	0.02724	7.11%	0.02342	0.03106
Postal Cards	0			
Private Postcards	0			
Presort Private Postcards	0			
<b>TOTAL FIRST CLASS</b>	<b>0.24917</b>	<b>3.08%</b>	<b>0.23404</b>	<b>0.26430</b>
<b>PRIORITY MAIL</b>	<b>0.02420</b>	<b>5.77%</b>	<b>0.02145</b>	<b>0.02695</b>
<b>EXPRESS MAIL</b>	<b>0.00073</b>	<b>15.67%</b>	<b>0.00050</b>	<b>0.00096</b>
<b>MAILGRAMS</b>	<b>0</b>			
<b>SCM PUBS</b>	<b>0.22728</b>	<b>2.52%</b>	<b>0.21600</b>	<b>0.23856</b>
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00029	22.93%	0.00016	0.00042
Bulk Rate - Regular				
Carrier Route Presort	0.13102	4.67%	0.11897	0.14307
Other	0.31126	2.21%	0.29771	0.32481
<b>TOTAL REGULAR</b>	<b>0.44228</b>	<b>1.92%</b>	<b>0.42559</b>	<b>0.45897</b>
Bulk Rate Nonprofit				
Carrier Route Presort	0.00595	14.36%	0.00427	0.00763
Other	0.03824	4.73%	0.03468	0.04180
<b>TOTAL NONPROFIT</b>	<b>0.04419</b>	<b>4.55%</b>	<b>0.04023</b>	<b>0.04815</b>
<b>TOTAL THIRD</b>	<b>0.48676</b>	<b>1.80%</b>	<b>0.46955</b>	<b>0.50397</b>
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.00072	18.66%	0.00046	0.00098
Bound Printed Matter	0.00604	12.14%	0.00460	0.00748
Special Fourth Class Rate	0.00149	13.27%	0.00110	0.00188
Library Rate	0.00032	27.48%	0.00015	0.00049
<b>TOTAL FOURTH</b>	<b>0.00857</b>	<b>9.39%</b>	<b>0.00698</b>	<b>0.01016</b>
<b>U.S. POSTAL SERVICE</b>	<b>0.00051</b>	<b>24.18%</b>	<b>0.00027</b>	<b>0.00075</b>
<b>FREE MAIL</b>	<b>0.00012</b>	<b>39.97%</b>	<b>0.00003</b>	<b>0.00021</b>
<b>TOTAL INTERNATIONAL</b>	<b>0.00265</b>	<b>13.74%</b>	<b>0.00193</b>	<b>0.00337</b>
	1.00000			

<sup>1</sup> Coefficient of variation = 100%(Est. Std. Dev./Est. Proportion)

<sup>2</sup> Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

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

TABLE 3: Fiscal Year 1996 Proportions Of Parcel Shaped Mail Volume and Associated Confidence Limits -- Single Delivery Residential Stops

Mail Class	Proportion of Total	C.V. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.11572	3.85%	0.10694	0.12450
Presort Letters & Parcels	0.00868	25.66%	0.00429	0.01307
Postal Cards	0			
Private Postcards	0			
Presort Private Postcards	0			
<b>TOTAL FIRST CLASS</b>	<b>0.12440</b>	<b>3.97%</b>	<b>0.11468</b>	<b>0.13412</b>
<b>PRIORITY MAIL</b>	<b>0.12430</b>	<b>3.73%</b>	<b>0.11516</b>	<b>0.13344</b>
<b>EXPRESS MAIL</b>	<b>0.00080</b>	<b>35.43%</b>	<b>0.00024</b>	<b>0.00136</b>
<b>MAILGRAMS</b>	<b>0</b>			<b>0.00000</b>
<b>SCM PUBS</b>	<b>0.03739</b>	<b>22.95%</b>	<b>0.02049</b>	<b>0.05429</b>
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00804	15.85%	0.00553	0.01055
Bulk Rate - Regular				
Carrier Route Presort	0.04037	11.41%	0.03129	0.04945
Other	0.31585	2.45%	0.30059	0.33111
<b>TOTAL REGULAR</b>	<b>0.35622</b>	<b>2.36%</b>	<b>0.33966</b>	<b>0.37278</b>
Bulk Rate Nonprofit				
Carrier Route Presort	0.00452	62.01%	0.00000	0.01004
Other	0.04923	11.30%	0.03827	0.06019
<b>TOTAL NONPROFIT</b>	<b>0.05376</b>	<b>13.69%</b>	<b>0.03926</b>	<b>0.06826</b>
<b>TOTAL THIRD</b>	<b>0.41801</b>	<b>2.25%</b>	<b>0.39949</b>	<b>0.43653</b>
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.11685	4.20%	0.10718	0.12652
Bound Printed Matter	0.10180	3.89%	0.09399	0.10961
Special Fourth Class Rate	0.05400	6.32%	0.04728	0.06072
Library Rate	0.00962	13.05%	0.00715	0.01209
<b>TOTAL FOURTH</b>	<b>0.28228</b>	<b>2.68%</b>	<b>0.26740</b>	<b>0.29716</b>
<b>U.S. POSTAL SERVICE</b>	<b>0.00031</b>	<b>49.68%</b>	<b>0.00001</b>	<b>0.00061</b>
<b>FREE MAIL</b>	<b>0.00678</b>	<b>21.80%</b>	<b>0.00387</b>	<b>0.00969</b>
<b>INTERNATIONAL MAIL</b>	<b>0.00572</b>	<b>15.02%</b>	<b>0.00403</b>	<b>0.00741</b>
<b>TOTAL ALL MAIL</b>	<b>1.00000</b>			

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

<sup>2</sup> 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. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.11783	14.65%	0.08382	0.15184
Presort Letters & Parcels	0.00717	38.88%	0.00168	0.01266
Postal Cards	0			
Private Postcards	0			
Presort Private Postcards	0			
<b>TOTAL FIRST CLASS</b>	<b>0.12501</b>	<b>14.03%</b>	<b>0.09045</b>	<b>0.15957</b>
<b>PRIORITY MAIL</b>	<b>0.13793</b>	<b>9.09%</b>	<b>0.11323</b>	<b>0.16263</b>
<b>EXPRESS MAIL</b>	<b>0.00095</b>	<b>57.95%</b>	<b>0.00000</b>	<b>0.00203</b>
<b>MAILGRAMS</b>	<b>0</b>			
<b>SCM PUBS</b>	<b>0.02893</b>	<b>27.97%</b>	<b>0.01299</b>	<b>0.04487</b>
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00563	24.82%	0.00288	0.00838
Bulk Rate - Regular				
Carrier Route Presort	0.03993	34.96%	0.01243	0.06743
Other	0.30592	5.44%	0.27317	0.33867
<b>TOTAL REGULAR</b>	<b>0.34585</b>	<b>6.51%</b>	<b>0.30148</b>	<b>0.39022</b>
Bulk Rate Nonprofit				
Carrier Route Presort	0.01059	51.60%	0.00000	0.02135
Other	0.01431	18.77%	0.00902	0.01960
<b>TOTAL NONPROFIT</b>	<b>0.02490</b>	<b>26.85%</b>	<b>0.01173</b>	<b>0.03807</b>
<b>TOTAL THIRD</b>	<b>0.37637</b>	<b>6.22%</b>	<b>0.33029</b>	<b>0.42245</b>
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.11768	8.61%	0.09772	0.13764
Bound Printed Matter	0.10110	9.58%	0.08202	0.12018
Special Fourth Class Rate	0.08680	10.24%	0.06929	0.10431
Library Rate	0.00657	26.22%	0.00318	0.00996
<b>TOTAL FOURTH</b>	<b>0.31215</b>	<b>5.12%</b>	<b>0.28066</b>	<b>0.34364</b>
<b>U.S. POSTAL SERVICE</b>	<b>0.00030</b>	<b>98.94%</b>	<b>0.00000</b>	<b>0.00088</b>
<b>FREE MAIL</b>	<b>0.01244</b>	<b>31.13%</b>	<b>0.00481</b>	<b>0.02007</b>
<b>TOTAL INTERNATIONAL</b>	<b>0.00591</b>	<b>40.29%</b>	<b>0.00122</b>	<b>0.01060</b>
<b>TOTAL ALL MAIL</b>	<b>1.00000</b>			

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

<sup>2</sup> 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. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.21726	7.29%	0.18608	0.24844
Presort Letters & Parcels	0.00871	41.52%	0.00159	0.01583
Postal Cards	0			
Private Postcards	0			
Presort Private Postcards	0			
<b>TOTAL FIRST CLASS</b>	<b>0.22597</b>	<b>7.11%</b>	<b>0.19431</b>	<b>0.25763</b>
<b>PRIORITY MAIL</b>	<b>0.29093</b>	<b>6.02%</b>	<b>0.25641</b>	<b>0.32545</b>
<b>EXPRESS MAIL</b>	<b>0.00235</b>	<b>40.94%</b>	<b>0.00045</b>	<b>0.00425</b>
<b>MAILGRAMS</b>	<b>0</b>			
<b>SCM PUBS</b>	<b>0.04743</b>	<b>13.97%</b>	<b>0.03438</b>	<b>0.06048</b>
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00493	45.27%	0.00053	0.00933
Bulk Rate - Regular				
Carrier Route Presort	0.00774	30.84%	0.00304	0.01244
Other	0.14347	7.53%	0.12220	0.16474
<b>TOTAL REGULAR</b>	<b>0.15121</b>	<b>7.29%</b>	<b>0.12949</b>	<b>0.17293</b>
Bulk Rate Nonprofit				
Carrier Route Presort	0.00031	100.00%	0.00000	0.00092
Other	0.01181	33.16%	0.00409	0.01953
<b>TOTAL NONPROFIT</b>	<b>0.01211</b>	<b>32.49%</b>	<b>0.00436</b>	<b>0.01986</b>
<b>TOTAL THIRD</b>	<b>0.16826</b>	<b>7.20%</b>	<b>0.14439</b>	<b>0.19213</b>
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.08494	9.11%	0.06969	0.10019
Bound Printed Matter	0.10602	8.25%	0.08879	0.12325
Special Fourth Class Rate	0.04542	11.88%	0.03479	0.05605
Library Rate	0.01571	20.93%	0.00923	0.02219
<b>TOTAL FOURTH</b>	<b>0.25209</b>	<b>5.32%</b>	<b>0.22566</b>	<b>0.27852</b>
<b>U.S. POSTAL SERVICE</b>	<b>0.00112</b>	<b>60.60%</b>	<b>0.00000</b>	<b>0.00246</b>
<b>FREE MAIL</b>	<b>0.00314</b>	<b>50.17%</b>	<b>0.00004</b>	<b>0.00624</b>
<b>TOTAL INTERNATIONAL</b>	<b>0.00871</b>	<b>28.70%</b>	<b>0.00379</b>	<b>0.01363</b>
	1.00000			

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

<sup>2</sup> Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

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

TABLE 4: Fiscal Year 1996 Proportions Of All Shapes Mail Volume  
And Associated Confidence Limits -- Single Delivery Residential Stops

Mail Class	Proportion of Total	C.V. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.17758	1.11%	0.17369	0.18147
Presort Letters & Parcels	0.24462	1.30%	0.23836	0.25088
Postal Cards	0.00092	12.17%	0.00070	0.00114
Private Postcards	0.01579	2.54%	0.01500	0.01658
Presort Private Postcards	0.01137	8.31%	0.00951	0.01323
TOTAL FIRST CLASS	0.45028	0.92%	0.44209	0.45847
PRIORITY MAIL	0.00258	3.67%	0.00239	0.00277
EXPRESS MAIL	0.00007	14.17%	0.00005	0.00009
MAILGRAMS	0.00003	45.82%	0.00000	0.00006
SCM PUBS	0.06504	1.74%	0.06281	0.06727
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00029	17.57%	0.00019	0.00039
Bulk Rate - Regular				
Carrier Route Presort	0.22793	2.01%	0.21893	0.23693
Other	0.17009	1.12%	0.16634	0.17384
TOTAL REGULAR	0.39801	1.07%	0.38962	0.40640
Bulk Rate Nonprofit				
Carrier Route Presort	0.01414	5.02%	0.01274	0.01554
Other	0.06051	1.63%	0.05857	0.06245
TOTAL NONPROFIT	0.07466	1.65%	0.07223	0.07709
TOTAL THIRD	0.47296	0.90%	0.46462	0.48130
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.00154	4.62%	0.00140	0.00168
Bound Printed Matter	0.00180	6.90%	0.00156	0.00204
Special Fourth Class Rate	0.00080	5.62%	0.00071	0.00089
Library Rate	0.00036	20.95%	0.00021	0.00051
TOTAL FOURTH	0.00450	3.88%	0.00416	0.00484
U.S. POSTAL SERVICE	0.00139	11.18%	0.00108	0.00170
FREE MAIL	0.00026	10.73%	0.00021	0.00031
INTERNATIONAL MAIL	0.00289	4.10%	0.00266	0.00312
TOTAL ALL MAIL	1.00000			

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

<sup>2</sup> 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. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.17894	2.63%	0.16966	0.18822
Presort Letters & Parcels	0.26192	2.04%	0.25142	0.27242
Postal Cards	0.00164	28.29%	0.00073	0.00255
Private Postcards	0.01440	3.82%	0.01332	0.01548
Presort Private Postcards	0.00968	5.11%	0.00871	0.01065
TOTAL FIRST CLASS	0.46658	1.89%	0.44923	0.48393
PRIORITY MAIL	0.00266	9.31%	0.00217	0.00315
EXPRESS MAIL	0.00008	35.76%	0.00002	0.00014
MAILGRAMS	0.00003	41.96%	0.00001	0.00005
SCM PUBS	0.05485	3.36%	0.05122	0.05848
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00016	18.26%	0.00010	0.00022
Bulk Rate - Regular				
Carrier Route Presort	0.24820	4.72%	0.22514	0.27126
Other	0.15427	2.26%	0.14740	0.16114
TOTAL REGULAR	0.40247	2.59%	0.38196	0.42298
Bulk Rate Nonprofit				
Carrier Route Presort	0.01530	9.63%	0.01240	0.01820
Other	0.04669	3.74%	0.04325	0.05013
TOTAL NONPROFIT	0.06199	3.88%	0.05725	0.06673
TOTAL THIRD	0.46463	2.10%	0.44544	0.48382
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.00135	10.55%	0.00107	0.00163
Bound Printed Matter	0.00152	9.32%	0.00124	0.00180
Special Fourth Class Rate	0.00107	9.51%	0.00087	0.00127
Library Rate	0.00015	20.41%	0.00009	0.00021
TOTAL FOURTH	0.00410	6.81%	0.00355	0.00465
U.S. POSTAL SERVICE	0.00182	20.53%	0.00108	0.00256
FREE MAIL	0.00037	17.21%	0.00024	0.00050
TOTAL INTERNATIONAL	0.00489	8.51%	0.00407	0.00571
TOTAL ALL MAIL	1.00000			

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

<sup>2</sup> 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. <sup>1</sup> of Proportion	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
<b>FIRST CLASS MAIL</b>				
Letters & Parcels	0.44353	1.42%	0.43114	0.45592
Presort Letters & Parcels	0.19277	2.45%	0.18347	0.20207
Postal Cards	0.00104	14.88%	0.00074	0.00134
Private Postcards	0.01602	5.49%	0.01429	0.01775
Presort Private Postcards	0.00649	8.26%	0.00543	0.00755
TOTAL FIRST CLASS	0.65985	0.84%	0.64892	0.67078
PRIORITY MAIL	0.00895	5.50%	0.00798	0.00992
EXPRESS MAIL	0.00020	15.42%	0.00014	0.00026
MAILGRAMS	0.00004	36.27%	0.00001	0.00007
SCM PUBS	0.05620	2.59%	0.05333	0.05907
<b>THIRD CLASS MAIL</b>				
Single Piece Rate	0.00018	24.02%	0.00009	0.00027
Bulk Rate - Regular				
Carrier Route Presort	0.05067	4.55%	0.04613	0.05521
Other	0.16637	1.91%	0.16012	0.17262
TOTAL REGULAR	0.21703	1.88%	0.20901	0.22505
Bulk Rate Nonprofit				
Carrier Route Presort	0.00769	10.75%	0.00606	0.00932
Other	0.03939	4.87%	0.03561	0.04317
TOTAL NONPROFIT	0.04708	4.58%	0.04283	0.05133
TOTAL THIRD	0.26430	1.89%	0.25444	0.27416
<b>FOURTH CLASS MAIL:</b>				
Zone Rate	0.00119	9.07%	0.00098	0.00140
Bound Printed Matter	0.00262	7.85%	0.00221	0.00303
Special Fourth Class Rate	0.00087	9.76%	0.00070	0.00104
Library Rate	0.00025	17.51%	0.00016	0.00034
TOTAL FOURTH	0.00492	5.76%	0.00436	0.00548
U.S. POSTAL SERVICE	0.00169	12.80%	0.00126	0.00212
FREE MAIL	0.00015	26.77%	0.00007	0.00023
TOTAL INTERNATIONAL	0.00371	11.84%	0.00284	0.00458
	1.00000			

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

<sup>2</sup> 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 1996  
PROPORTIONS OF MAIL VOLUME USED FOR COST DISTRIBUTIONS

Mail Class	Proportion of Total	C.V. of <sup>1</sup> Proportion (Percent)	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
First-Class Mail:				
Letters & Parcels	0.2858	1.04	0.2800	0.2917
Presort Letters & pcl	0.3228	0.72	0.3182	0.3274
Carrier Presort ltrs	0.0157	4.88	0.0142	0.0172
Postal Cards	0.0019	7.27	0.0016	0.0022
Private mailing cards	0.0277	10.00	0.0222	0.0332
Presort private cards	0.0159	3.36	0.0149	0.0170
Carrier Presort cards	0.0018	10.43	0.0014	0.0022
Total First-Class	0.6716	0.43	0.6660	0.6744
Priority Mail	0.0001	20.75	0.0001	0.0002
Express Mail	0.0000	0.00	0.0000	0.0000
Mailgrams	0.0000 <sup>3</sup>	41.77	0.0000	0.0000
Second-class Mail	0.0134	9.64	0.0109	0.0160
Third-Class mail:				
Single-Piece rate	0.0001	21.09	0.0001	0.0002
Bulk rate - regular				
Carrier presort	0.0822	2.52	0.0781	0.0863
Other	0.1606	0.99	0.1574	0.1637
Total regular	0.2428	1.04	0.2378	0.2477
Bulk rate - nonprofit				
Carrier presort	0.0089	4.48	0.0082	0.0097
Other	0.0586	1.23	0.0572	0.0600
Total nonprofit	0.0675	1.27	0.0659	0.0692
Total third-class	0.3105	0.88	0.3050	0.3158
Fourth-class mail:				
Parcels (zone rate)	0.0001	26.88	0.0001	0.0002
Bound printed matter	0.0001	45.40	0.0000	0.0002
Special fourth-class	0.0000 <sup>3</sup>	44.52	0.0000	0.0000
Library rate	0.0001	53.18	0.0000	0.0003
Total fourth-class	0.0004	28.39	0.0002	0.0006
U.S. Postal Service	0.0013	8.80	0.0011	0.0016
Free for blnd & hndcp	0.0002	23.96	0.0001	0.0003
International Mail	0.0024	4.13	0.0022	0.0026
Total Mail	1.0000			

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

<sup>2</sup> Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)

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

<sup>3</sup> Less than 0.00005

TABLE 6: FLATS - RURAL CARRIER STREET COST - FY 1996  
PROPORTIONS OF MAIL VOLUME USED FOR COST DISTRIBUTIONS

Mail Class	Proportion of Mail	C.V. of <sup>1</sup> Proportion (Percent)	Lower 95% Confidence Limit <sup>2</sup>	Upper 95% Confidence Limit <sup>2</sup>
First-Class Mail:				
Letters & Parcels	0.0745	1.93	0.0717	0.0774
Presort Letters & pcl	0.0333	4.04	0.0306	0.0359
Carrier Presort ltrs	0.0021	15.24	0.0014	0.0027
Postal Cards	0.0000	0.00	0.0000	0.0000
Private mailing cards	0.0000	0.00	0.0000	0.0000
Presort private cards	0.0000	0.00	0.0000	0.0000
Carrier Presort cards	0.0000	0.00	0.0000	0.0000
Total First-Class	0.1098	2.15	0.1052	0.1145
Priority Mail	0.0036	4.91	0.0032	0.0039
Express Mail	0.0000	0.00	0.0000	0.0000
Mailgrams	0.0000	0.00	0.0000	0.0000
Second-class Mail				
Third-Class mail:	0.2533	1.10	0.2478	0.2588
Single-Piece rate	0.0005	32.11	0.0002	0.0007
Bulk rate - regular				
Carrier presort	0.2786	1.34	0.2713	0.2860
Other	0.2893	0.92	0.2840	0.2945
Total regular	0.5680	0.58	0.5614	0.5744
Bulk rate - nonprofit				
Carrier presort	0.0115	6.47	0.0100	0.0130
Other	0.0466	1.83	0.0450	0.0483
Total nonprofit	0.0581	1.98	0.0559	0.0604
Total third-class	0.6265	0.51	0.6202	0.6328
Fourth-class mail:				
Parcels (zone rate)	0.0011	12.20	0.0008	0.0013
Bound printed matter	0.0028	8.23	0.0023	0.0032
Special fourth-class	0.0008	10.87	0.0007	0.0010
Library rate	0.0003	33.22	0.0001	0.0005
Total fourth-class	0.0050	6.17	0.0044	0.0056
U.S. Postal Service	0.0006	18.91	0.0003	0.0008
Free for blind & hndcp	0.0004	20.58	0.0003	0.0006
International Mail	0.0009	13.20	0.0006	0.0011
Total Mail	1.0000			

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

<sup>2</sup> Lower Limit = Est. Proportion - (1.97 X Est. Std. Deviation)  
Upper Limit = Est. Proportion + (1.97 X Est. Std. Deviation)