# TRENDS IN FIRST-CLASS MAIL VOLUMES WITH EMPHASIS ON BILL/PAYMENT AND ADVERTISING MAIL<sup>1</sup>

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#### HIGHLIGHTS AT A GLANCE

#### Household and Business Mail

- The share of First-Class Mail sent by businesses is increasing while the share sent by households is decreasing.
- The Postal system is increasingly becoming a medium for business transactions rather than personal exchange.

## **Bill/Payment Mail**

- Household bill/payment mail has started losing volume; but the number of pieces lost, so far, is too small to have any material impact on First-Class volume.
- Payments are declining faster than bills; households are now making less than one payment by mail for every two bills received in the mail.
- The loss of household bill/payment mail is having more impact on First-Class single-piece than presort mail.

## **Advertising Mail**

- First-Class household advertising mail is growing fast.
- First-Class advertising mail growth could offset some of the loss in bill/payment mail.
- Standard A mail is also growing fast.
- In 1998, the Postal Service delivered at least 1.5 billion more pieces of advertising than non-advertising mail.

#### **HIGHLIGHTS**

## **Household and Business Mail**

- The volume of First-Class personal (HH-to-HH) mail continues to decline. Between 1990 and 1997, it decreased at a rate of 1.7 percent annually. Its share of total First-Class Mail has dropped from 8.1 in 1990 to 6.4 percent in 1997. One of the factors cited for the decline in personal mail volume is falling long distance telephone rates which have made telephone communication more affordable and fostered substitution of telephone calls for personal mail.
- Business (NHH-to-NHH) mail is the only sector of First-Class mailstream that has
  experienced healthy growth in the 90s. Between 1990 and 1997, its volume grew
  at a rate of 4.8 percent annually, 3.0 times higher than total First-Class Mail. Its
  share increased from 34.4 percent in 1990 to 42.7 percent in 1997. The prevailing
  view is that the high growth of business mail reflects the healthy growth of the U.S.
  economy.
- The share of First-Class Mail sent by businesses (i.e., NHH-to-HH and NHH-to-NHH mail) is increasing while the share sent by households is decreasing. In 1997, businesses originated 84 percent of First-Class Mail, up from 77 percent in 1990.
- The above trends support the observation that the Postal system is increasingly becoming a medium for business transactions rather than personal exchange.

## **Bill/Payment Mail**

- Household bill/payment mail, as defined in this analysis, includes both the
  household payment mail (i.e., First-Class Mail used by households to pay their
  bills) and the household bill mail (i.e., First-Class Mail used by businesses to send
  bills to households). The volume of business bill/payment mail (i.e., mail used by
  businesses to pay their bills and send bills to other businesses) is unknown and is
  not covered in this analysis.
- In 1997, household bill/payment mail totaled 24.8 billion pieces or 24.9 percent of First-Class Mail. Of those, 7.5 billion pieces were payments and 17.3 billion pieces were bills.
- Household bill/payment mail is now declining. Its annual growth has dropped from 8.0 percent in 1987-90 to 0.3 percent in 1990-93 and further to <u>negative</u> 1.3 percent in 1993-97.

- So far, however, the number of bill/payment pieces lost is too small to have any
  material impact on First-Class volume. Payment mail is declining fast while bill
  mail is still increasing, though at a falling rate. Between 1990 and 1997, the
  number of payments made by households declined by 2.5 billion pieces but the
  number of bills received increased by 1.4 billion pieces. As a result, the total
  bill/payment mail decreased by only 1.1 billion pieces in seven years.
- So far, it seems that households are converting from paying by mail to other
  methods of payment at a faster rate than businesses are converting their methods
  of sending bills. Consequently, the ratio of payments made by mail to bills
  received in the mail has dropped from 62.7 percent in 1990 to 43.1 percent in
  1997. On average, households are making less than one payment by mail for
  every two bills received in the mail.
- Payment mail is all First-Class single-piece non-presorted letters, while bill mail
  consists mostly of presorted letters. So far, the former has been more vulnerable
  to diversion than the latter. Thus, the diversion of bill-paying by mail to other
  methods of bill-paying is having more impact on First-Class single-piece than
  presort mail.

## **Advertising Mail**

- Household advertising mail, as used in this analysis, includes only First-Class stand-alone advertising mail that is sent by businesses to households. It does not include advertising stuffers (i.e., advertising mail sent enclosed with other items such as bills). Moreover, the volume of business advertising mail (i.e., advertising mail sent by businesses to other businesses) is unknown and, thus, it is not addressed in this analysis.
- In 1997, First-Class household advertising mail amounted to 9.9 billion pieces or 9.9 percent of First-Class Mail.
- First-Class household advertising mail is growing fast. Between 1987 and 1997, it grew at a rate of 6.6 percent annually. Its volume almost doubled in ten years. It grew from 5.2 billion pieces in 1987 to 9.9 billion pieces in 1997. If this trend continues, First-Class advertising mail growth may offset the loss in bill/payment mail, allowing First-Class Mail to maintain its current growth.
- If we subtract the 9.9 billion pieces of First-Class household advertising mail, reported for 1997, from 1998 First-Class volume and add them to Standard A mail volume, we obtain the following figures for 1998: (a) 91.3 billion pieces of non-advertising mail; and (b) 92.8 billion pieces of advertising mail. Thus, in 1998, the Postal Service delivered at least 1.5 billion more pieces of advertising than non-advertising mail. (Because of lack of data for 1998, we have assumed that First-Class advertising mail volume stayed constant between 1997 and 1998).

- The high growth rates of both First-Class advertising and Standard A mail have contributed to shifting the balance in favor of more advertising than nonadvertising mail in the Postal Service mailstream. In the last two years, 1997 and 1998, Standard A mail grew at a rate of 7.5 percent annually, five times higher than First-Class Mail.
- With First-Class household advertising and Standard A mail growing at high rates, it is expected that the trend of more advertising than non-advertising mail in the Postal Service mailstream will continue for the years to come. This may have serious political implications for the legal protection of the Postal Service monopoly on letter mail. The public and the Congress may question such protection when they learn that the Postal Service is increasingly becoming an advertising medium.

#### **ANALYSIS**

## Introduction

The focus of this paper is First-Class Mail. First, we identify the sectors or flows of First-Class Mail and evaluate their volume growth. Then, we turn our attention to First-Class household mail and evaluate the growth of two of its uses: bill-paying and advertising. As far as I know, this is the first time the growth rates of First-Class Mail sectors and uses have been analyzed.

For the purpose of this analysis, bill/payment mail is broadly defined as First-Class Mail used by households to pay their bills as well as First-Class Mail used by non-households to send bills to households. On the other hand, advertising mail is narrowly defined as First-Class stand-alone advertising mail, i.e., First-Class Mail used exclusively for advertising. Because of their importance, we will revisit these definitions later during the review of bill/payment and advertising mail data.

# **Household Diary Study**

All data used in this analysis come from a market research study called the Household Diary Study (HDS). Thus, before we turn to the data, I would like to review some highlights related to this study.

HDS is financed by the Postal Service and is conducted annually by Chilton Research Services, a market research firm located in Radnor, Pennsylvania. The study was first conducted in 1987. The last data report available to us is for 1997. Thus, we have household diary data for ten years, which we use for this analysis.<sup>2</sup>

HDS collects data on mail either sent or received by households. The analysis of these data provides a detailed description of the household portion of the Postal Service mailstream. HDS does not collect any information on mail sent from non-households to other non-households. Thus, the non-household or business portion of the mailstream is not analyzed by the study.

The data are collected on a fiscal year basis. HDS is designed so that data collected in a given year can be compared with data collected in preceding or subsequent years. This allows us to make inter-temporal data comparisons and develop volume growth rates. The Postal Service and the Commission have been using HDS data for volume forecasting and ratemaking purposes during rate cases. Additionally, the Postal Service uses the data for planning and marketing purposes.

<sup>&</sup>lt;sup>2</sup> In 1977, the Survey Research Center of the University of Michigan conducted two studies on behalf of the Postal Service: the Household Mailstream Study (HMS) which, like HDS, analyzed the household mail; and the Non-household Mailstream Study (NMS), which analyzed the business portion of the mailstream. These studies were, however, conducted only once. Thus, we do not have data for the years between 1977 and 1987 for annual comparisons.

HDS collects information on household mail by surveying a random sample of 5,300 households per year. Each household is surveyed for a randomly selected week. During the first 14 and final four high volume weeks of the postal fiscal year, 200 households are surveyed per week; for the remainder of the year, 50 households are surveyed weekly.

After an entry interview and training, selected members of the household are asked to keep a diary of every mail piece sent or received by the household during the sample week. The entry interview provides mainly information on household demographics, like the size and income of the household, and the education and employment of the head of the household. The interviewer also collects information about the household's attitudes and responsiveness regarding mail.<sup>3</sup>

The data used in this analysis are mostly collected by the week-long diary of household mail. The diary mainly collects information on: the class and subclass of mail sent or received by households, the sector or flow of this mail, the content or use of it, and the industry source of household mail originating in non-households.

## Sectors or Flows of First-Class Mail

Table 1 shows the breakdown of First-Class Mail by sector or flow for FYs 1987, 1990, 1993 and 1997. The first row of the table identifies the First-Class Mail in the HH-to-HH (Household-to-Household) sector. This mail, also called personal mail, is sent by households to other households and includes mainly holiday greeting cards like Christmas cards, other cards, letters, and invitations like a wedding invitation. This sector does not include bill/payment or advertising mail.

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<sup>&</sup>lt;sup>3</sup> A subject that is discussed during the entry interview is the household's reaction to advertising mail. The respondents are asked, among other things, if they read advertising mail and if they find it useful. Surprisingly, in 1997, 69 percent of the respondents said that they read or look at advertising mail, and 60 percent said that they find it useful or interesting.

TABLE 1
FIRST-CLASS MAIL BY SECTOR (Pieces in Millions)

	FY 1987		FY 1990		Annual	FY	FY 1993		FY 1997		Annual	
Sector		Share of		Share of	Growth		Share of	Growth		Share of	Growth	
or Flow	Volume	Total	Volume	Total	(1987-90)	Volume	Total	(1990-93)	Volume	Total	(1993-97)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
HH-to-HH \1	7,076	9.0%	7,212	8.1%	0.6%	6,908	7.5%	-1.4%	6,376	6.4%	-2.0%	
HH-to-NHH \2	9,653	12.2%	12,821	14.4%	9.9%	12,200	13.2%	-1.6%	9,224	9.3%	-6.8%	
NHH-to-HH \3	31,438	39.9%	38,236	42.8%	6.7%	40,479	43.9%	1.9%	40,827	41.0%	0.2%	
Subtotal \4	48,168	61.1%	58,269	65.3%	6.6%	59,588	64.7%	0.7%	56,427	56.6%	-1.4%	
NHH-to-NHH \5	28,793	36.5%	30,718	34.4%	2.2%	32,296	35.0%	1.7%	42,562	42.7%	7.1%	
Unknown	1,908	2.4%	283	0.3%		285	0.3%		671	0.7%		
Total	78,869	100.0%	89,270	100.0%	4.2%	92,169	100.0%	1.1%	99,660	100.0%	2.0%	

<sup>1/</sup> Personal Mail: First-Class Mail sent by households to other households (e.g. holiday greeting cards, other cards, letters, and invitations). This sector does not include bill/payment or advertising mail.

<sup>2/</sup> First-Class Mail sent by households to non-households (e.g. payments made to utility and credit card companies; and orders placed or payments made in response to advertising). About 81 percent of HH-to-NHH mail contains some type of payment and is classified as bill/payment mail. This sector does not contain any advertising mail.

<sup>3/</sup> First-Class Mail sent by non-households to households (e.g. utility, credit card, insurance and medical bills as well as advertisements from credit card companies, publishers, leisure services and banks). This sector is the only source of advertising mail shown in Table 2.

<sup>4/</sup> Household Mail: First-Class Mail either sent or received by households.

<sup>5/</sup> Business Mail: First-Class Mail sent by non-households to other non-households. This mail is not subject to HDS.

The second row of the table is devoted to First-Class Mail in HH-to-NHH (Household-to-Non-household) sector. This mail is sent by households to non-households and includes mainly payments made to utility and credit card companies as well as orders placed or payments made in response to advertising. About 81 percent of this mail contains some type of payment and is classified as bill/payment mail. This sector does not contain advertising mail.

The third row shows the First-Class Mail in the NHH-to-HH (Non-household-to-Household) sector. This mail is sent by non-households to households and includes utility, credit card, insurance and medical bills as well as advertisements from credit card companies, publishers, leisure services and banks.

The fourth row, labeled "Subtotal" shows the First-Class household mail as the sum of mail in the above three sectors. This is the First-Class Mail either sent or received by all households and is subject to analysis by HDS.

The fifth row is devoted to First-Class Mail in NHH-to-NHH (Non-household-to-Non-household) sector. This mail, also called business mail, is sent by non-households to other non-households. HDS does not survey this mail, and thus, we practically know nothing about its uses. More importantly, we do not know how much of business mail is used for bill-paying or advertising. Thus, the First-Class bill/payment and advertising mail volumes presented in this analysis do not include the business bill/payment and advertising mail.

The sixth row, labeled "Unknown" shows some First-Class Mail that cannot be identified with any of the aforementioned four sectors. This mail is insignificant, except for FY 1987, the first year the study was conducted. Finally, the last row, labeled "Total" is devoted to total First-Class Mail.

Now let us turn to columns in Table 1. Columns (1), (3), (6), and (9), labeled "Volume" show, in millions, the total First-Class Mail pieces broken-down by sector for FYs 1987, 1990, 1993 and 1997, respectively. For example, the first number in Column (9) shows that in FY 1997 the HH-to-HH or Personal Mail volume was 6.4 billion pieces. Similarly, the last number in Column (9) shows that the total First-Class volume was 99.7 billion pieces in FY 1997.

Columns (2), (4), (7), and (10), labeled "Share of Total" show the volume share of each sector in total First-Class Mail for the aforementioned fiscal years. For example, the first number in Column (10) shows that in FY 1997, the volume of mail sent by households to other households represented 6.6 percent of total First-Class volume.

Finally, Columns (5), (8), and (11), labeled "Annual Growth" show the annual volume growth rates of all sectors and total First-Class Mail for the time periods 1987-90, 1990-93 and 1993-97, respectively. For example, the first number in Column (11) shows

that, between 1993 and 1997, personal mail volume declined by 2.0 percent annually. Similarly, the last number in Column (11) shows that for, the same time period, total First-Class Mail volume increased by 2.0 percent annually. It should be noted that the numbers in Columns (5), (8), and (11) are average annual growth rates. If someone wants to estimate the cumulative volume growth for a period, she has to multiply the annual growth rates in Columns (5), (8), and (11) by the number of years in the period.

Now let us evaluate the historical volume data in Table 1. In the 90s (1990-97), only NHH-to-NHH (business) mail has experienced healthy volume growth. All other sectors and total household mail have suffered either volume decline or anemic growth rates.

HH-to-HH (personal) mail is the smallest sector of First-Class Mail. Its annual growth rate fell from 0.6 percent in 1987-90 to <u>negative</u> 1.4 percent in 1990-93 and further to <u>negative</u> 2.0 percent in 1993-97. Its volume declined from 7.2 billion pieces in 1990 to 6.4 billion pieces in 1997. Finally, its share of total First-Class Mail dropped from 8.1 percent in 1990 to 6.4 percent in 1997. One of the factors cited for the decline in personal mail volume is falling long distance telephone rates which have made telephone communication more affordable and fostered substitution of telephone calls for personal mail.

The HH-to-NHH sector, which consists mainly of payment mail, has experienced a steeper volume decline than personal mail in the 90s. Its average annual growth rate fell from 9.9 percent in 1987-90 to <u>negative</u> 1.6 percent in 1990-93 and further to <u>negative</u> 6.8 percent in 1993-97. Its volume declined from 12.8 billion pieces in 1990 to 9.3 billion pieces in 1997, a drop in volume of 3.6 billion pieces. Finally, its share of total First-Class Mail dropped from 14.4 percent in 1990 to 9.3 percent in 1997. As we will see in Table 3, the decline in HH-to-NHH volume is mostly attributed to the decline of this sector's household payment mail.

In the 90s, the volume of NHH-to-HH sector has increased, but its annual growth rate has been falling. Its volume increased from 38.2 billion pieces in 1990 to 40.8 billion pieces in 1997. Its annual growth rate, however, fell from 6.7 percent in 1987-90 to 1.9 percent in 1990-93 and further to 0.2 percent in 1993-97. NHH-to-HH mail is now the second largest sector of First-Class Mail. Its share of total First-Class Mail has declined from 42.8 percent in 1990 to 41.0 percent in 1997. The NHH-to-HH sector includes both bill and advertising mail. As we will see later, the volumes of both bill and advertising mail, included in this sector, have increased in the 90s. However, the annual growth rate of bill mail is declining, whereas the annual growth rate of advertising mail is increasing fast.

Household mail is defined as the sum of mail in the above three sectors and is shown as "Subtotal" in Table 1. Its annual growth rate fell from 6.6 percent in 1987-90 to 0.7 in 1990-93 and further to <u>negative</u> 1.4 percent in 1993-97. Its volume declined by 1.9 billion pieces between 1990 and 1997; and its share of total First-Class Mail decreased from 65.3 percent in 1990 to 56.6 percent in 1997.

NHH-to-NHH (business mail) is the only sector of First-Class Mail that has experienced healthy growth in the 90s. Its annual growth rates were as follows: 2.2 percent in 1987-90; 1.7 percent in 1990-93; and 7.1 percent in 1993-97. Its volume grew from 30.7

billion pieces in 1990 to 42.6 billion pieces in 1996, an increase in volume of 11.9 billion pieces. Finally, its share of total First-Class Mail increased from 34.4 percent in 1990 to 42.7 percent in 1997. The prevailing view is that the high growth of business mail reflects the healthy growth of the U.S. economy. In Docket No. R97-1, referring to period 1977-95, Postal Service volume witness Tolley first observed that "the general trend has been a decrease in the share of First-Class letters sent by households and an increase in the share sent by non-households." He then testified that the increase in non-household originated mail "reflects the importance of mail as an input in the production of goods and services in the economy, with mail volume being associated importantly with growth in output of goods and services in the economy and in demands for communication in production."

## **Bill/Payment and Advertising Mail**

Table 2 has the same format as Table 1 and shows the breakdown of First-Class Mail by use. The first row labeled "Personal Mail" and the sixth row labeled "Business Mail" are identical to first and fifth rows in Table 1, respectively. The second, third, and fourth rows labeled "Bill/Payment," "Advertising," and "Other HH Mail" identify the uses of HH-to-NHH and NHH-to-HH mail reported in second and third rows of Table 1.

Bill/payment mail includes both the household payment mail (i.e., First-Class Mail used by households to pay their bills) and the household bill mail (i.e., First-Class Mail used by non-households to send bills to households). On the other hand, advertising mail includes only First-Class stand-alone advertising mail (i.e., First-Class Mail used exclusively for advertising) that is sent by non-households to households. Advertising mail does not include advertising stuffers, i.e., advertising mail sent enclosed with other items such as bills. Neither does it include the mail sent in response to advertising. A large portion of response-to-advertising mail involves a payment and is included in bill/payment mail. If the response-to-advertising mail were also added to advertising mail it would have resulted in double counting.

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<sup>&</sup>lt;sup>4</sup> The volume of letters sent by households or household originated mail can be obtained from Table 1 by adding the volumes of HH-to-HH and HH-to-NHH mail. In 1997, households originated only 16 percent of First-Class mail, down from 23 percent in 1990. The volume of letters sent by non-households or non-household originated mail can also be calculated from Table 1 by adding NHH-to-HH and NHH-to-NHH volumes. In 1997, non-households sent 84 percent of First-Class Mail, up from 77 percent in 1990.

TABLE 2
USES OF FIRST-CLASS MAIL
BILL/PAYMENT AND ADVERTISING MAIL
(Pieces in Millions)

FY 198		1987 FY		1990	Annual	FY	Annual	FY 1997		Annual	
		Share of		Share of	Growth		Share of	Growth		Share of	Growth
Mail Uses	Volume	Total	Volume	Total	(1987-90)	Volume	Total	(1990-93)	Volume	Total	(1993-97)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Personal Mail	7,076	9.0%	7,212	8.1%	0.6%	6,908	7.5%	-1.4%	6,376	6.4%	-2.0%
Bill/Payment Mail \1	20,582	26.1%	25,947	29.1%	8.0%	26,162	28.4%	0.3%	24,812	24.9%	-1.3%
Advertising Mail \2	5,179	6.6%	7,935	8.9%	15.3%	8,668	9.4%	3.0%	9,853	9.9%	3.3%
Other HH Mail \3	15,331	19.4%	17,176	19.2%	3.9%	17,850	19.4%	1.3%	15,385	15.4%	-3.6%
Subtotal	48,168	61.1%	58,269	65.3%	6.6%	59,588	64.7%	0.7%	56,427	56.6%	-1.4%
Business Mail	28,793	36.5%	30,718	34.4%	2.2%	32,296	35.0%	1.7%	42,562	42.7%	7.1%
Unknown	1,908	2.4%	283	0.3%		285	0.3%		671	0.7%	
Total	78,869	100.0%	39,270	100.0%	4.2%	92,169	100.0%	1.1%	99,660	100.0%	2.0%

<sup>1/</sup> Bill/payment mail includes both the household payment mail (i.e., First-Class Mail used by households to pay their bills) and the household bill mail (i.e., First-Class Mail used by non-households to send bills to households). The volume of business bill/payment mail (i.e., mail used by non-households to pay their bills and send bills to other non-households) is unknown and is not included in bill/payment mail.

<sup>2/</sup> Advertising mail only includes First-Class stand-alone advertising mail that is sent by businesses to households. It does not include advertising stuffers (i.e., advertising mail sent enclosed with other items such as bills). Moreover, the volume of business advertising mail (i.e., advertising mail sent by non-households to other non-households) is not known and, thus, it is not included in advertising mail. Finally, it does not include the mail sent by both households and non-households in response to advertising.

<sup>3/</sup> Other HH mail is the residual household First-Class Mail with the following major uses: financial statements, announcements/meetings, notices of order, request for and confirmation of donations, tax forms, education acceptances, and insurance policies.

It should be noted that the figures of bill/payment and advertising mail presented in Table 2 account only for the First-Class household mail and, thus, represent the lower bound of First-Class bill/payment and advertising mail volumes. The volume of business bill/payment mail (i.e., mail used by non-households to pay their bills and send bills to other non-households) is unknown and, thus, it is not included in bill/payment mail figures presented in this table. Likewise, the volume of business advertising mail (i.e., advertising mail sent by non-households to other households) is not known and, thus, it has not been added to advertising mail.

In 1997, household bill/payment mail amounted to 24.8 billion pieces or 24.9 percent of First-Class Mail; and First-Class household advertising mail amounted to 9.9 billion pieces or 9.9 percent of First-Class Mail.

The growth of bill/payment mail has slowed down significantly in the 90s. Its average annual growth rate dropped from 8.0 percent in 1987-90 to 0.3 percent in 1990-93 and further to <u>negative</u> 1.3 percent in 1993-97. Its share dropped from 29.1 percent in 1990 to 24.9 percent in 1997. So far, however, the number of mail pieces lost to alternative bill-paying methods is too small to have any material impact on First-Class volume. Between 1990 and 1997, bill/payment volume declined by only 1.1 billion pieces. These represent an average loss of 160 million pieces or less than 0.2 percent of First-Class Mail annually.

Advertising mail has experienced high growth rates in all periods. In 1987-90, it enjoyed a very high growth rate of 15.3 percent annually; in 1990-93, its growth slowed down to a healthy 3.0 percent annually; and in 1993-97, it grew by 3.3 percent annually. Its volume almost doubled in nine years. It grew from 5.2 billion pieces in 1987 to 9.9 billion pieces in 1997.

In 1997, the volume of total First-Class Mail was 99.7 billion pieces and the volume of Standard A mail (which is mainly advertising mail) was 77.3 billion pieces. If we subtract the 9.9 billion pieces of First-Class advertising mail from First-Class volume and add them to Standard A mail volume, we obtain the following figures: (a) 89.8 billion pieces of non-advertising mail; and (b) 87.1 billion pieces of advertising mail. Thus, in 1996, the Postal Service delivered 2.6 billion fewer pieces of advertising than non-advertising mail.

Now, if we perform the same exercise using the actual FY 1998 First-Class and Standard A volume figures of 101.2 billion and 82.9 billion pieces respectively, and assuming that First-Class advertising mail volume has not changed between 1997 and 1998, we obtain the following figures for FY 1998: (a) 91.3 billion pieces of non-advertising mail; and (b) 92.8 billion pieces of advertising mail. Thus, in 1998, the Postal Service delivered 1.5 billion more pieces of advertising than non-advertising mail.

It should be pointed out that high growth rates of both First-Class advertising and Standard A mail have contributed to shifting the balance in favor of more advertising than non-advertising mail in the Postal Service mailstream. In the last two Fiscal Years, 1997

and 1998, Standard A mail grew at an average annual rate of 7.5 percent, five times higher than First-Class Mail.<sup>5</sup>

With First-Class advertising and Standard A mail growing at high rates, it is expected that the trend of more advertising than non-advertising mail in the Postal Service mailstream will continue for the years to come. This may have serious political implications for the legal protection of the Postal Service monopoly on letter mail. The public and the Congress may question such protection when it becomes common knowledge that the Postal Service delivers more "junk" than other letter mail.

# **Sources of Bill/Payment Mail**

Bill/payment mail can originate either in households or non-households and its source can be anyone of the following three sectors: HH-to-NHH, NHH-to-HH, and NHH-to-NHH. Table 3, which has the same format as the previous two tables, shows the sources of total First-Class bill/payment mail reported in Table 2.

The first row shows the bill/payment mail that comes from the HH-to-NHH (Household-to-Non-household) sector. This is the payment mail, i.e., mail used by households to pay their bills. In 1997 payment mail was 7.5 billion pieces or 30.1 percent of bill/payment mail. The total household bill/payment mail, which was first presented in the second row of Table 2, is now reported in the fourth row of this table. In 1997 its volume was 24.8 billion pieces.

The second row shows the bill/payment mail that comes from the NHH-to-HH (Non-household-to-Household) sector. This is the bill mail, i.e., mail used by non-households to send bills to households. Bill mail was 17.3 billion pieces or 69.9 percent of bill/payment mail in 1997.

The third row is devoted to bill/payment mail that is part of the NHH-to-NHH (Non-household-to-Non-household) sector. This is the business bill/payment mail (i.e.,

<sup>5</sup> In FY 1997 and FY 1998, Standard A mail grew 7.8 percent and 7.3 percent respectively. First-Class Mail grew 1.5 percent in both years.

TABLE 3
FIRST-CLASS MAIL
BILL/PAYMENT MAIL BY SECTOR

(Pieces in Millions)

	FY '	FY 1987		FY 1990		FY 1993		Annual	FY 1997		Annual
Sector		Share of		Share of	Growth		Share of	Growth		Share of	Growth
or Flow	Volume	Total	Volume	Total	(1987-90)	Volume	Total	(1990-93)	Volume	Total	(1993-97)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
HH-to-NHH											
Bill/Payment Mail \1	7,529	36.6%	10,001	38.5%	9.9%	9,516	36.4%	-1.6%	7,471	30.1%	-5.9%
NHH-to-HH											
Bill/Payment Mail \2	13,053	63.4%	15,946	61.5%	6.9%	16,646	63.6%	1.4%	17,341	69.9%	1.0%
NHH-to-NHH											
Bill/Payment Mail \3	-	-	-	-	-	-	-	-	-	-	-
Total	20,582	100.0%	25,947	100.0%	8.0%	26,162	100.0%	0.3%	24,812	100.0%	-1.3%

<sup>1/</sup> First-Class household payment mail (i.e., First-Class Mail used by households to pay their bills).

<sup>2/</sup> First-Class household bill mail (i.e., First-Class Mail used by non-households to send bills to households).

<sup>3/</sup> First-Class business bill/payment mail (i.e., mail used by non-households to pay their bills and send bills to other non-households). The volume of business bill/payment mail is unknown. HDS does not study the NHH-to-NHH sector of the mailstream.

mail used by non-households to send and pay bills to other non-households). No figures are reported on this row because the volume of business bill/payment mail is not known to the Commission<sup>6</sup>.

Household payment mail has been declining. Its annual growth rate dropped from positive 9.9 percent in 1987-90 to negative 1.6 percent in 1990-93 and further to negative 5.9 percent in 1993-97. Its volume declined from 10.0 billion pieces in 1990 to 7.5 billion pieces in 1997, a drop of 2.5 billion pieces. This drop in payment mail volume accounts for 69 percent of the decline in the volume of HH-to-NHH sector, amounted to 3.6 billion pieces between 1990 and 1997 (see Table 1).

The growth rate of household bill mail is also declining but its volume has increased in the 90s. Its annual growth rate dropped from 6.9 percent in 1987-90 to 1.4 percent in 1990-93 and further to 1.0 percent in 1993-97; but its volume increased by 1.4 billion pieces between 1990 and 1997. This increase in the volume of bill mail offsets more than half of the decline in the volume of payment mail allowing bill/payment mail to decline by only 1.1 billion pieces between 1990 and 1996. As said before, the decline in household bill/payment volume, so far, amounts to a very small portion of First-Class volume.

There is another observation that can be made based on household bill/payment volume figures reported in Table 3. Although both payments and bills seem to have been affected by the diversion from payment by mail to other methods of payment, the effect of diversion is more pronounced on payment mail. As a result, the ratio of the number of payments made by mail to the number of bills received in the mail has dropped from 62.7 percent in 1990 to 43.1 percent in 1997. Thus, in 1997, on average, households made less than one payment by mail for every two bills received in the mail.

Finally, payment mail is all First-Class single-piece non-presorted letters, while bill mail is mostly presorted letters. So far, the former has been more vulnerable to diversion than the later. Thus, the diversion of bill-paying by mail to other methods of bill-paying is having more impact on single-piece than presort First-Class Mail.

#### First-Class Per-Household Volumes

One of the factors affecting the demand for mail services is the number of households. Households send and receive mail and their number is expected to affect the demand for mail services in a positive way. An increase in the number of households is expected to cause an increase in mail volume.

<sup>&</sup>lt;sup>6</sup> For building "H.R. 22" Model, the Postal Service has assumed that in 1998 business bill/payment mail was about 20.0 percent of First-Class Mail or 20 billion pieces. If the 20 percent figure were also true for 1997, then 46.8 percent of business mail would have qualified as bill/payment mail in that year and total (i.e., household plus business) bill/payment mail would have been 44.7 billion pieces or 44.9 percent of First-Class Mail. The Postal Service did not tell the Commission where this 20 percent figure comes from.

As we have seen, Tables 1, 2, and 3 show the breakdown of total demand for First-Class Mail by sectors and uses for FYs 1987, 1990, 1993, and 1997. Now, if we assume that the volume of all sectors and uses in Tables 1, 2, and 3 have an elasticity of one with respect to the number of households (i.e., every one percent increase in the number of households has yielded exactly a one percent increase in all annual mail volumes and for all years in Tables 1, 2, and 3), we can, then, divide the annual volume figures by the number of households in the respective year to obtain annual volume figures per household. This process eliminates the effect of household growth on mail volume and allows an analysis of the volume behavior at the household level. However, when we analyze the per-household volume figures, we have to remember that, for the purpose of developing those figures, we made the aforementioned assumption about the relationship of mail volume and number of households and this assumption may not hold true for some or all sectors (or uses) and for some or all years in Tables 1, 2 and 3.

Tables 4, 5 and 6 display First-Class per-household annual volumes. They are identical to Tables 1, 2 and 3 respectively, except that the total annual volumes in Tables 1, 2 and 3 have been replaced with per-household annual volumes in Tables 4, 5 and 6. A comparison of figures in Tables 4, 5, and 6 with the corresponding figures in Tables 1, 2 and 3, respectively, shows that the replacement of total by per-household volume figures leaves the shares of sectors and uses in total First-Class Mail volume unchanged. However, because the number of households has been increasing every year, the replacement of total by per-household volume figures produces annual growth rates which are lower than those shown in Tables 1, 2 and 3. That is, the positive annual growth rates in Tables 1, 2 and 3 shrink in Tables 4, 5 and 6 and the negative rates augment in absolute terms.

For example, if we compare the annual growth rates of mail volume for period 1993-97 shown in Column (11) of Tables 1 and 4 we can see that: (a) the 2.0 percent annual decrease of total HH-to-HH volume in Table 1 has been augmented to a 3.3 percent annual decrease of per-household volume in Table 4; (b) the 6.8 percent annual decrease of total HH-to-NHH volume in Table 1 has been augmented to a 8.0 percent annual decrease of per-household volume in Table 4; (c) the 0.2 percent annual increase of total NHH-to-HH volume in Table 1 has shrunk to a 1.2 percent annual decrease of per-household volume in Table 4; and (d) the 7.1 percent annual increase of total NHH-to-NHH volume in Table 1 has shrunk to a 5.7 percent annual increase of per-household volume in Table 4.

Similarly, a comparison of annual growth rates for the same period in Table 2 with those in Table 5 reveals the following: (a) the 2.0 percent annual decrease of bill/payment volume in Table 2 has been augmented to a 3.3 percent annual decrease of perhousehold volume in Table 5; and (b) the 3.3 percent annual increase of total advertising mail volume in Table 2 has shrunk to a 1.8 percent annual increase of perhousehold volume in Table 5.

Finally, a comparison of annual growth rates for 1993-97 in Table 3 with those in Table 6 shows the following: (a) the 5.9 percent annual decrease of the total number of payments in Table 3 has been augmented to a 7.2 percent annual decrease of the

number of payments per household in Table 6; and (b) the 1.0 percent annual increase of total number of bills in Table 3 has shrunk to a 0.3 percent annual decrease of the number of bills per household in Table 6.

TABLE 4
FIRST-CLASS MAIL BY SECTOR
(Pieces per Household)

FY 1987		FY 1990		Annual	FY <sup>2</sup>	1993	Annual	FY 1997		Annual	
Sector		Share of		Share of	Growth		Share of	Growth		Share of	Growth
or Flow	Volume	Total	Volume	Total	(1987-90)	Volume	Total	(1990-93)	Volume	Total	(1993-97)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
HH-to-HH \1	81	9.0%	78	8.1%	-1.2%	72	7.5%	-2.3%	63	6.4%	-3.3%
HH-to-NHH \2	110	12.2%	138	14.4%	7.9%	128	13.2%	-2.5%	91	9.3%	-8.0%
NHH-to-HH \3	358	39.9%	411	42.8%	4.8%	423	43.9%	1.0%	404	41.0%	-1.2%
Subtotal \4	548	61.1%	627	65.3%	4.6%	623	64.7%	-0.2%	559	56.6%	-2.7%
NHH-to-NHH \5	328	36.5%	330	34.4%	0.3%	338	35.0%	0.8%	421	42.7%	5.7%
Unknown	22	2.4%	3	0.3%		3	0.3%		7	0.7%	
Total	897	100.0%	960	100.0%	2.3%	964	100.0%	0.1%	987	100.0%	0.6%

<sup>1/</sup> Personal Mail: First-Class Mail sent by households to other households (e.g. holiday greeting cards, other cards, letters, and invitations). This sector does not include bill/payment or advertising mail.

<sup>2/</sup> First-Class Mail sent by households to non-households (e.g. payments made to utility and credit card companies; and orders placed or payments made in response to advertising). About 81 percent of HH-to-NHH mail contains some type of payment and is classified as bill/payment mail. This sector does not contain any advertising mail.

<sup>3/</sup> First-Class Mail sent by non-households to households (e.g. utility, credit card, insurance and medical bills as well as advertisements from credit card companies, publishers, leisure services and banks). This sector is the only source of advertising mail shown in Table 2.

<sup>4/</sup> Household Mail: First-Class Mail either sent or received by households.

<sup>5/</sup> Business Mail: First-Class Mail sent by non-households to other non-households. This mail is not subject to HDS.

TABLE 5
USES OF FIRST-CLASS MAIL
BILL/PAYMENT AND ADVERTISING MAIL
(Pieces per Household)

	FY 1987		FY 1990		Annual FY 1993		1993	Annual	FY 1997		Annual
		Share of		Share of	Growth		Share of	Growth		Share of	Growth
Mail Uses	Volume	Total	Volume	Total	(1987-90)	Volume	Total	(1990-93)	Volume	Total	(1993-97)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Personal Mail	81	9.0%	78	8.1%	-1.2%	72	7.5%	-2.3%	63	6.4%	-3.3%
Bill/Payment Mail \1	234	26.1%	279	29.1%	6.0%	274	28.4%	-0.6%	246	24.9%	-2.7%
Advertising Mail \2	59	6.6%	85	8.9%	13.1%	91	9.4%	2.0%	98	9.9%	1.8%
Other HH Mail \3	174	19.4%	185	19.2%	1.9%	187	19.4%	0.4%	152	15.4%	-5.0%
Subtotal	548	61.1%	627	65.3%	4.6%	623	64.7%	-0.2%	559	56.6%	-2.7%
<b>Business Mail</b>	328	36.5%	330	34.4%	0.3%	338	35.0%	0.8%	421	42.7%	5.7%
Unknown	22	2.4%	3	0.3%		3	0.3%		7	0.7%	
Total	897	100.0%	960	100.0%	2.3%	964	100.0%	0.1%	987	100.0%	0.6%

<sup>1/</sup> Bill/payment mail includes both the household payment mail (i.e., First-Class Mail used by households to pay their bills) and the household bill mail (i.e., First-Class Mail used by non-households to send bills to households). The volume of business bill/payment mail (i.e., mail used by non-households to pay their bills and send bills to other non-households) is unknown and is not included in bill/payment mail.

<sup>2/</sup> Advertising mail only includes First-Class stand-alone advertising mail that is sent by businesses to households. It does not include advertising stuffers (i.e., advertising mail sent enclosed with other items such as bills). Moreover, the volume of business advertising mail (i.e., advertising mail sent by non-households to other non-households) is not known and, thus, it is not included in advertising mail. Finally, it does not include the mail sent by both households and non-households in response to advertising.

<sup>3/</sup> Other HH mail is the residual household First-Class Mail with the following major uses: financial statements, announcements/ meetings, notices of order, request for and confirmation of donations, tax forms, education acceptances, and insurance policies.

TABLE 6
FIRST-CLASS MAIL
BILL/PAYMENT MAIL BY SECTOR
(Pieces per Household)

	FY 1987		FY 1990		Annual FY 199		1993 Annual		FY 1997		Annual
Sector		Share of		Share of	Growth		Share of	Growth		Share of	Growth
or Flow	Volume	Total	Volume	Total	(1987-90)	Volume	Total	(1990-93)	Volume	Total	(1993-97)
•	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
HH-to-NHH											
Bill/Payment Mail \1	86	36.6%	108	38.5%	7.9%	100	36.4%	-2.5%	74	30.1%	-7.2%
NHH-to-HH											
Bill/Payment Mail \2	148	63.4%	171	61.5%	4.9%	174	63.6%	0.5%	172	69.9%	-0.3%
NHH-to-NHH Bill/Payment Mail \3	_		_	_	_	_		_	_	_	_
Bill/Fayillelit Mail 13					-			-			-
Total	234	100.0%	279	100.0%	6.0%	274	100.0%	-0.6%	246	100.0%	-2.7%

<sup>1/</sup> First-Class household payment mail (i.e., First-Class Mail used by households to pay their bills).

<sup>2/</sup> First-Class household bill mail (i.e., First-Class Mail used by non-households to send bills to households).

<sup>3/</sup> First-Class business bill/payment mail (i.e., mail used by non-households to pay their bills and send bills to other non-households). The volume of business bill/payment mail is unknown. HDS does not study the NHH-to-NHH sector of the mailstream.