

# The Household Diary Study

## Mail Use & Attitudes FY 2022



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# Table of Contents

|  |                        |
|--|------------------------|
| Executive Summary                                | 1                      |
| Chapter 1: Introduction – Volumes & Trends       | 4                      |
| Chapter 2: Profile of Mail Usage                 | 9                      |
| Chapter 3: Correspondence                        | 16                     |
| Chapter 4: Transactions                          | 25                     |
| Chapter 5: Advertising Mail                      | 38                     |
| Chapter 6: Periodicals                           | 48                     |
| Chapter 7: Packages                              | 56                     |
| Appendix A: Annual Trends                        | 61                     |
| Appendix B: Methodology                          | 78                     |
| Appendix C: Recruitment and Diary questionnaires | Available upon request |

# Executive Summary

This report documents the findings of the United States Postal Service’s Household Diary Study (HDS) for Fiscal Year (FY) 2022. The main objectives of the study are to:

- Measure the types and volumes of mail sent and received by U.S. households,
- Track trends in mail usage over time, and
- Compare mail usage by household demographic characteristics.

The report examines these trends in the context of changes and developments in the wider markets for communications and package delivery.

## Background

The Household Diary Study survey, fielded continuously since 1987, aims to collect information about households’ use of the mail and how that use changes over time. The information collected includes household demographics, lifestyle, attitudes toward mail and advertising, bill payment behavior, and use of the Internet and other information technologies.

The FY 2022 report covers Government Fiscal Year 2022, with comparisons to 2021, 2020, and other years, as appropriate.

## Overview

As seen in Table E.1, in 2022, U.S. households received 102.1 billion pieces of mail and sent 6.4 billion pieces. In total, mail sent and received by households accounted for 83% of all U.S. mail. Mail received consisted mostly of Marketing Mail (55%) and First-Class Mail (32%). The rest consisted of packages and periodicals. Most mail sent by households was addressed to non-households. Only 2.5% of household mail (2.6 billion pieces) was sent between households.

**Table E.1:**  
Mail Received and Sent by Households  
(Millions of Pieces)

| Mail Classification                          | Received     | Sent       |
|--|--------------|------------|
| First-Class Mail                             | 33.5         | 5.7        |
| Marketing Mail-Regular                       | 46.8         | —          |
| Marketing Mail Nonprofit                     | 11.8         | —          |
| Periodicals                                  | 3.3          | —          |
| Package & Shipping Services                  | 6.7          | 0.7        |
| <b>Total</b>                                 | <b>102.1</b> | <b>6.4</b> |
| Household to Household                       | 2.6          |            |
| Total Mail Received and Sent by Households * | 105.9        |            |
| FY 2021 RPW Total                            | 127.3        |            |
| Non-household to Non-household               | 21.4         |            |
| Unaddressed                                  | 1.3          | —          |

Source: HDS Diary Sample, FY 2022.

Note: Totals may not sum due to rounding.

\* Total (105.9) is less than received (102.1) plus sent (6.4) because household to household mail (2.6) is included in both categories.

**Households sent and received 83% of all U.S. mail.**

## Mail Markets

The Household Diary Study examines mail by the markets it serves. This design cuts across classes to provide a foundation for understanding mail flows and the marketplace changes that affect them. Table E.2 shows household mail volumes by market for 2020, 2021, and 2022.

**Table E.2:**  
Household Mail Volume Received and Sent by Market Served  
(Billions of Pieces)

| Market         | 2020         | 2021         | 2022         |
|----------------|--------------|--------------|--------------|
| Correspondence | 15.0         | 14.9         | 14.5         |
| Transactions   | 19.7         | 18.5         | 17.2         |
| Advertising    | 61.2         | 65.2         | 65.3         |
| Periodicals    | 3.9          | 3.7          | 3.3          |
| Packages       | 6.3          | 6.8          | 7.3          |
| Unclassified   | 1.7          | 1.5          | 1.1          |
| <b>Total</b>   | <b>104.8</b> | <b>107.6</b> | <b>105.9</b> |

Source: HDS Diary Sample, FY 2020, 2021, and 2022.

Notes:

1. Correspondence and packages exclude double-counted pieces reported as both sent and received by households.
2. Advertising includes 2.8 billion pieces of First-Class advertising-enclosed mail but excluded from total.
3. Package volumes include 0.1 billion pieces of CD/DVD rental reported in First-Class Mail letters in Tables E.1, 1.5, and 1.6.

In 2022, correspondence mail totaled 14.5 billion pieces, accounting for 14% of all mail sent and received by households. Correspondence fell continuously since the early 2000's, driven by the growing migration of letters and cards to emails, text, and social media on the Internet. Over the last five-years, total household correspondence fell 11%, reflecting steep reductions in personal (-14%) and social (-26%) correspondence, accompanied by a more gradual decline in business and government correspondence (-6%). Businesses and government agencies were often limited in their ability to correspond via emails or texts due to legal, security, or other business protocols requiring them to communicate or transfer documents by mail.

**In 2022, 81% of payments and 44% of bills were sent electronically**

As in the case of correspondence, transaction mail was influenced by the emergence of electronic alternatives in the Internet. In 2022, transaction mail totaled 17.5 billion pieces, accounting for 17% of household mail. The major types of transaction conducted by mail were bills, statements, and payments.

Bill payments were the first transactions to migrate to the Internet, as banks and businesses were able to quickly develop free and convenient electronic alternatives to mail payments. After migration started in 2004, it accelerated quickly and, by 2010, the number of mail payments was already lower than electronic ones.

As Table E.3 indicates, from 2012 to 2022, the share of mail payments plummeted from 40% to 17%, payments, respectively, offset by a surge in the share of electronic payments which rose from 55% to 81% over the same period .

**Table E.3:**  
Bill Payment Methods

| Shares                  | 2012        | 2022        |
|-------------------------|-------------|-------------|
| By Mail                 | 40%         | 17%         |
| Electronically          | 55%         | 81%         |
| In Person               | 5%          | 2%          |
| <b>Total Bills Paid</b> | <b>100%</b> | <b>100%</b> |

Bills and statements (also referred to as presentments) started migrating to the Internet gradually at first, but the pace accelerated significantly after 2015, as increasingly large volumes of mail presentments were transferred online. Billers were often able to accelerate the transition to electronic presentments by offering incentives (or imposing penalties) to encourage the transfer of accounts to the Internet. Over the last ten years, the share of electronic bills almost doubled from 26% in 2012 to 44% in 2022, leaving only a slim majority of the volume (56%) in the mail-stream (see Table E.3 b).

**Table E.3 b:**  
Bill Received by Method

| Shares                      | 2012        | 2022        |
|-----------------------------|-------------|-------------|
| By Mail                     | 74%         | 56%         |
| Electronically              | 26%         | 44%         |
| <b>Total Bills Received</b> | <b>100%</b> | <b>100%</b> |

Advertising mail, the largest mail category, accounted for 62% of all mail sent and received by households. As Table E.4 illustrates, 90% of advertising mail received by households consisted of Marketing Mail (58.6 billion commercial and non-profit pieces). Another 10% (6.7 billion pieces) consisted of First-Class Mail ads, either stand-alone advertising (3.9 billion pieces) or advertising-enclosed (2.8 billion pieces). The latter is not included in the total volume count of advertising mail as the primary piece (be it a bill, statement, or correspondence) is already accounted for in the corresponding First-Class Mail category. The increase in total advertising mail from 2020 to 2022 (shown in Table E.2) was in large part due to a strong post-pandemic recovery in Marketing Mail ads.

**Table E.4:**  
Advertising by Mail Class

| Mail Classification           | Volume (Billions) | Percent of Total Advertising |
|-------------------------------|-------------------|------------------------------|
| First-Class Advertising       | 6.7               | 10%                          |
| Marketing Mail-Commercial     | 46.8              | 72%                          |
| Marketing Mail Nonprofit      | 11.8              | 18%                          |
| <b>Total Advertising Mail</b> | <b>65.3</b>       | <b>100%</b>                  |

Source: HDS Diary Sample, FY 2022.

Note: First-Class Advertising includes 2.8 billion pieces of advertising-enclosed pieces.

Total packages sent and received by households increased 7%, growing from 6.8 billion pieces in 2021 to 7.3 billion pieces in 2022 (see Table E-2). Households received 6.7 billion packages and sent 0.7

According to Table E.2, households received 3.3 billion periodicals by mail in 2022, a 15% decline from 3.9 billion pieces in 2020. As seen in Table E.5, magazines totaled 2.2 billion pieces, accounting for 66% of periodicals, followed by newspapers, with 800 million pieces and 26% of the volume.

With the emergence of the Internet, readership and circulation of printed materials fell sharply. This drove the volume of periodicals delivered by the Postal Service down by more than 50% from 2006 to 2022. Principally, however, the decline was driven by the successful substitution of hard-copy periodicals with electronic publications, which were easy to access and often cheaper or free.

**Table E.5:**  
Periodical Type Received

| Mail Classification      | Volume (Billions) | Percent of Total Periodicals |
|--------------------------|-------------------|------------------------------|
| Magazines                | 2.2               | 66%                          |
| Newspaper                | 0.8               | 26%                          |
| Newsletters              | 0.2               | 6%                           |
| Unclassified             | 0.1               | 3%                           |
| <b>Total Periodicals</b> | <b>3.3</b>        | <b>100%</b>                  |

Source: Household Diary Study, FY 2022.

Note: Totals may not sum due to rounding.

billion (Table E.6). Packages received increased 5% from 2021 to 2022 and packages sent increased 13%.

**Table E.6**  
Packages Received and Sent via the U.S. Postal Service  
(Millions of Pieces)

| Mail Classification         | 2022         |             |            |             |
|-----------------------------|--------------|-------------|------------|-------------|
|                             | Received     |             | Sent       |             |
|                             | Number       | Percent     | Number     | Percent     |
| First-Class Mail            | 2,010        | 30%         | 341        | 46%         |
| Expedited                   | 854          | 13%         | 261        | 35%         |
| Ground Parcels and Packages | 3,770        | 56%         | 142        | 19%         |
| Unclassified                | 59           | 1%          | 2          | 0%          |
| <b>Total Packages</b>       | <b>6,693</b> | <b>100%</b> | <b>746</b> | <b>100%</b> |

Source: HDS Diary Sample, FY 2022.

Notes: Totals may not sum due to rounding.

Expedited includes Priority Mail and Express Mail.

# Chapter 1: Introduction – Volumes & Trends

The United States Postal Service Household Diary Study (HDS) Report documents the findings of the Fiscal Year (FY) 2022 study. The HDS measures the mail sent and received by U.S. households, tracks household mail trends, and compares mail use between different types of households.

## The Survey

The Household Diary Study survey, fielded continuously since 1987, aims to collect information on household's use of the mail and how usage changes over time. The survey collects household information on:

- Volumes and types of mail sent and received,
- Demographics of mail users,
- Attitudes toward mail and advertising,
- Bill payment behavior, and
- Use of the Internet and other information technologies and its impact on mail usage.

Findings are used for market research, forecasting, and strategic planning within the Postal Service and can be viewed on the Postal Rate Commission website.

### The Survey Consists of Two Parts:

- 1) An **entry, or recruitment interview**, conducted by phone or Web, collects demographic and attitudinal information from about 8,500 households.
- 2) These households then receive a **mail diary**, which collects information on the mail the household sends and receives in a one-week period. Annually, about 5,200 households complete the diary.

The data generated by these two instruments are the basis of the analysis in this report. The FY 2022 HDS report covers the period from October 2021 through September 2022, equivalent to the Government Fiscal Year (GFY) used by the Postal Service. Data from FY 2020 and FY 2021 are also reported on a GFY basis.

## U.S. Postal Service Volumes

*(This section reviews all mail volumes processed by the Postal Service, as reported in RPW reports. They include mail to/from households as well as business- to- business mail. All other sections of the report will focus exclusively on household mail.)*

**The Household Diary Study survey collects information on the volumes, types, and uses of mail sent and received by households.**

In 2022, the Postal Service delivered 127.2 billion pieces of mail, a 1.2% decline from 128.8 billion pieces in 2021 (see Table 1.1). For the most part, the lower volume reflected declines of 3.4% and 5.7% in First-Class Mail (FCM) and Competitive Mail, respectively, partly offset by a 1.4% increase in Marketing Mail.

The decline in FCM was mostly the result of a continuing migration of bill payments, bills, statements, and correspondence to their respective electronic substitutes on the Internet.

Marketing Mail, consisting mostly of advertising materials, increased 1.4% in 2022 as it continued to recover from steep volume losses sustained during the pandemic.

Competitive mail volume (mostly package products) fell 5.7% in 2022, as the pandemic-driven surge in e-commerce activity and its favorable impact on package volumes partially receded.

The Postal Service publishes the revenues, volumes, and weight of mail pieces going through the postal network in the Revenue, Pieces, and Weight (RPW) Reports. Table 1.1 presents the RPW volumes for FY 2022, including FY 2021 and 2020.

Letters, flats, and parcels are defined as follows:

- **Letters** refer to pieces that are less than 11.5 inches wide by 6.125 inches tall and less than .25 inches thick.

- **Flats** consist of pieces that are greater than 11.5 inches wide, 6.125 inches tall, or .25 inches thick, but less than 12 by 15 by .75 inches.
- **Parcels** are pieces that are larger than 12 by 15 inches, or thicker than 0.75 inches.

Because of the difficulty involved in recording mail-piece characteristics in the Household Diary, these categories do not correspond precisely to the shape categories used in RPW reports.

**Table 1.1:**  
Total Mail Volume: FY 2020, 2021, and 2022  
(Billions of Pieces)

|                                 | 2020         | 2021         | 2022         |
|---------------------------------|--------------|--------------|--------------|
| <b>Market Dominant Mail:</b>    |              |              |              |
| <b>First-Class Mail:</b>        |              |              |              |
| <b>Single-Piece</b>             | 15.2         | 13.9         | 12.8         |
| <b>Presort</b>                  | 36.2         | 35.6         | 35.0         |
| <b>Other</b>                    | 1.5          | 1.4          | 1.3          |
| <b>Total First-Class Mail</b>   | <b>52.9</b>  | <b>50.9</b>  | <b>49.1</b>  |
|                                 |              |              |              |
| <b>Marketing Mail:</b>          |              |              |              |
| <b>Letters</b>                  | 44.9         | 47.8         | 49.7         |
| <b>Flats</b>                    | 18.5         | 17.9         | 16.8         |
| <b>Parcels &amp; Other</b>      | 0.6          | 0.6          | 0.5          |
| <b>Total Marketing Mail</b>     | <b>64.0</b>  | <b>66.2</b>  | <b>67.1</b>  |
|                                 |              |              |              |
| <b>Periodicals</b>              | <b>4.0</b>   | <b>3.7</b>   | <b>3.4</b>   |
|                                 |              |              |              |
| <b>USPS and Free Mail</b>       | 0.5          | 0.3          | 0.3          |
| <b>Package Services Mail</b>    | 0.6          | 0.5          | 0.5          |
| <b>Tot Market Dominant Mail</b> | <b>121.9</b> | <b>121.6</b> | <b>120.4</b> |
|                                 |              |              |              |
| <b>Total Competitive Mail</b>   | <b>7.1</b>   | <b>7.3</b>   | <b>7.3</b>   |
| <b>Total All Mail</b>           | <b>129.2</b> | <b>128.8</b> | <b>127.2</b> |

Source: RPW Reports.

Note: Totals may not sum due to rounding.

## Mail Flows

Mail volume can be broken into four basic flows, based on origin and destination. These flows are:

- 1) Household to household,
- 2) Household to non-household,
- 3) Non-household to household, and
- 4) Non-household to non-household, which is calculated as the residual of total RPW volumes less mail sent and received by households, as determined from HDS surveys.

Tables 1.2 and 1.3 show total volumes for each type of mail flow. Table 1.4 shows pieces per household per week for each flow.

**Table 1.2:**  
Total Domestic Mail Flows  
(Billions of Pieces)

| Sent By:                 | Received By: |               |                   |
|--------------------------|--------------|---------------|-------------------|
|                          | Household    | Non-household | Total Originating |
| Household                | 2.6          | 3.8           | 6.4               |
| Non-household            | 99.5         | 21.4          | 120.8             |
| <b>Total Destinating</b> | 102.1        | 25.2          | 127.3             |

Source: HDS Diary Sample, FY 2022.

Note: Totals may not sum due to rounding.

**Table 1.3:**  
Total Domestic Mail Flows

| Mail Flows                     | Billions of Pieces | Percent of Total Mail |
|--------------------------------|--------------------|-----------------------|
| Sent by Household              | 6.4                | 6%                    |
| Received by Household          | 102.1              | 80%                   |
| <b>Total Household Mail*</b>   | <b>105.9</b>       | <b>83%</b>            |
| Non-Household to Non-Household | 21.4               | 17%                   |
| <b>Total Mail</b>              | <b>127.3</b>       | <b>100%</b>           |

\*Excludes 2.6 billion pieces sent from household to household

**Table 1.4:**  
Domestic Mail Flows per Household per Week

| Sent By:      | Received By: |               |
|---------------|--------------|---------------|
|               | Household    | Non-household |
| Household     | 0.4          | 0.6           |
| Non-household | 15.0         | N/A           |

Source: Household Diary Study, FY 2022.

## Household Mail

As shown in Table 1.3 above, domestic mail to and from households accounted for 86% of total USPS mail volume in 2022, equating to 105.9 billion pieces sent and received by U.S. households. Table 1.5 shows that households received 102.1 billion pieces of mail and sent 6.4 billion. Both totals include 2.6 billion pieces of mail that households sent to each other. After subtracting the 2.6-billion-piece double-count, total mail sent and received by households was 105.9 billion pieces. Since RPW includes all USPS mail (household and non-household to non-household mail), subtracting 105.9 billion pieces of household mail from a total of 127.3 billion pieces in RPW, leaves a residual of 21.4 billion pieces of non-household to non-household mail.

**Table 1.5:**  
Mail Received and Sent by Households  
(Billions of Pieces)

| Mail Classification                        | Received | Sent |
|--|----------|------|
| First-Class Mail                           | 33.5     | 5.7  |
| Marketing Mail Regular                     | 46.8     | —    |
| Marketing Mail Nonprofit                   | 11.8     | —    |
| Periodicals                                | 3.3      | —    |
| Packages & Shipping Services               | 6.7      | 0.7  |
| <b>Total</b>                               | 102.1    | 6.4  |
| Household to Household                     | 2.6      |      |
| Total Mail Received and Sent by Households | 105.9    |      |
| FY 2021 RPW Total                          | 127.3    |      |
| Non-household to Non-household (Residual)  | 21.4     |      |
| Unaddressed                                | 1.3      | —    |

Source: HDS Diary Sample, FY 2022.

Note: Totals may not sum due to rounding.



Table 1.6 presents these data in two other forms, annual volumes per household and pieces per household per week. Many of the subsequent results in this report are presented in terms of pieces per household per week.

**Table 1.6:**  
Pieces Received and Sent per Household

| Classification               | Annual Pieces per Household | Pieces per Household per Week |
|------------------------------|-----------------------------|-------------------------------|
| <b>Mail Received</b>         |                             |                               |
| First-Class Mail             | 264                         | 5.1                           |
| Marketing Mail Regular       | 368                         | 7.1                           |
| Marketing Mail Nonprofit     | 93                          | 1.8                           |
| Periodicals                  | 26                          | 0.5                           |
| Packages & Shipping Services | 53                          | 1.0                           |
| <b>Total Mail Received</b>   | <b>802</b>                  | <b>15.4</b>                   |
| <b>Mail Sent</b>             |                             |                               |
| First-Class Mail:            | 45                          | 0.9                           |
| Packages & Shipping Services | 6                           | 0.1                           |
| <b>Total Mail Sent</b>       | <b>50</b>                   | <b>1.0</b>                    |
| Unaddressed                  | 10                          | 0.2                           |

Source: HDS Diary Sample, FY 2022.

Note: Totals may not sum due to rounding.

## Classes and Markets

- **First-Class Mail** is used to send transactional mail, correspondence, and advertising. Because it is limited to pieces weighing thirteen ounces or less, it primarily includes letters and cards.
- **Marketing Mail** is advertising mail. For the most part, Marketing Mail comprises letters and flats, although it contains a few postcards and packages as well.
- **Periodicals** are magazines, newspapers, and newsletters and are predominantly flat-shaped.
- **Package and Shipping Services** is used to deliver merchandise, books, catalogs, and media. Most of this mail is parcel-shaped.

**In 2022, The average household received 802 pieces of mail and sent 15.**

Table 1.7 crosswalks between classes of mail and the markets they serve.

**Table 1.7:**  
Mail Received and Sent by Households

| Class   | Market (Billions of Pieces) |              |             |             |          |              |       |
|---|-----------------------------|--------------|-------------|-------------|----------|--------------|-------|
|   | Correspondence              | Transactions | Advertising | Periodicals | Packages | Unclassified | Total |
| First-Class Mail                                  | 14.5                        | 17.2         | 6.7         | —           | 0.1      | 1.0          | 36.9  |
| Marketing Mail                                    | —                           | —            | 58.6        | —           | 0.1      |              | 58.7  |
| Periodicals                                       | —                           | —            | —           | 3.3         | —        |              | 3.3   |
| Packages & Shipping Services                      | —                           | —            | —           | —           | 7.0      | 0.1          | 7.1   |
| <b>Total Mail Received and Sent by Households</b> | 14.5                        | 17.2         | 65.3        | 3.3         | 7.3      | 1.1          | 105.9 |

Source: Household Diary Study, FY 2022

1. Correspondence and Packages exclude double-counted pieces when reported separately as both sent and received by households.

2. Advertising includes 2.8 billion pieces of First-Class advertising-enclosed mail but excluded from total

Note: Totals may not sum due to rounding

## Report Organization

The rest of the Household Diary Study report is organized around the markets the mail serves. Each chapter contains an analysis of the trends in the HDS data, as well as a discussion of how those trends affect and are affected by changes in the broader market. The following provides an overview of each chapter.

**Chapter 2: Profile of Mail Usage** gives an analysis of household demographics. This chapter examines demographic trends over time and their impact on the mail, and discusses attributing factors, such as access to technology and changing attitudes.

**Chapter 3: Correspondence** examines mail that is used solely or primarily to deliver (non-sales-related) communications, such as letters and greeting cards. This chapter includes analysis of both personal and business correspondence.

**Chapter 4: Transactions** reviews financial transactions in the mail and the impact of new technologies on that market. It analyzes household bill payment trends with a focus on technological and demographic change.

**Chapter 5: Advertising Mail** presents the trends in mail used to deliver sales-related messages. It contains information on household attitudes towards advertising by various media, treatment of advertising mail, and demographic determinants of advertising mail receipt.

**Chapter 6: Periodicals** examines magazines and newspapers delivered in the mail. It looks at how changing demographics are affecting the market for periodicals, and what the implications are for future volume.

**Chapter 7: Packages** analyzes household use of various types of packages.

In addition, there are two appendices to the report:

**Appendix A** contains a set of trend tables for major classes and types of mail

**Appendix B** documents the study methodology and discusses how the data were collected, weighted, and adjusted, and compares demographic data in the sample to that of the population as a whole.

A copy of the instruments used to administer the survey is available upon request.

# Chapter 2: Profile of Mail Usage

## Introduction

This chapter provides an overview of demographic trends and other factors affecting mail volume and a helpful tool when attempting to assess changes in mail volume. The breakouts introduced provide the framework for much of the analyses in subsequent chapters.

The first section looks at growth in mail volume, population, households, and delivery points over recent decades. The next section examines the demographic characteristics of mail users, contrasting higher-mail-volume households with lower-volume households. The third section details emerging demographic and technological trends that will affect the future of mail. The last section examines some of the factors affecting the use of post offices and mailboxes.

## Mail Volume and Demographics

Total U.S. mail volume grew to 127.2 billion in 2022, up 16% from 110 billion pieces in 1981, reflecting growth in both population and household formation. Over those four decades, however, the growth in the demographic measures was much faster than in mail volumes, with population and household formation increasing 46% and 59%, respectively. Furthermore, the number of places to which the Postal Service delivered grew even faster, soaring 66% between 1981 and 2022. The divergence in trends led to fewer mail pieces being delivered to more delivery points which, in turn, reduced revenues, increased costs, and led to significant financial losses for Postal Service.

Table 2.1 breaks down the period from 1981 to 2022 into four separate decades (using 11 years for the period of 2011 to 2022) to illustrate the progression in mail growth relative to demographic changes. As shown, total mail started declining in the 2001-2010 period, continuing through the next decade, averaging a 2.3% annual decline over that 21-year-period. Conversely, all major factors driving the number of mail deliveries (delivery points, population, and household formation)

continued to increase, averaging approximately 1% in annual growth over the two decades.

**The last decade saw declining mail volumes as both delivery points and household formation continued to rise.**

Referring to growth rates shown in Table 2.1, the 1980s were a time of extraordinary mail volume growth, driven by significant technological innovations. Advances in computerized data management and techniques for sorting large amounts of data created a fertile climate for Marketing Mail. Additionally, computerization of financial systems encouraged billing and payments through First-Class Mail. These innovations, in turn, led to the expansion of postal rate discounts. The Postal Service introduced work-sharing discounts, encouraging mailers to prepare the mail in ways that reduced total system costs for creating and delivering mail. Mailers could take advantage of these discounts by sorting their mail by Zip code in advance.

The 1990's (especially the latter half) saw a rapid growth in mail volumes, spurred by a strong economy and postal rates that increased by less than inflation. Importantly, also in this decade, the U.S. economy rapidly embraced information technology and integrated the Internet into its business processes. Those events led to the significant outflow of mail volume to the Internet that took place in the next decades.

**Table 2.1:**  
Mail Volume and Demographics  
Annual Growth, 1981-2021

|                   | 1981-1990 | 1991-2000 | 2001-2010 | 2011-2022 |
|-------------------|-----------|-----------|-----------|-----------|
| Total Mail Volume | 4.6%      | 2.3%      | -2.1%     | -2.5%     |
| Delivery Points   | 1.7%      | 1.5%      | 1.0%      | 0.7%      |
| Adult Population  | 1.5%      | 1.3%      | 1.2%      | 0.9%      |
| Households        | 1.4%      | 0.9%      | 1.2%      | 0.9%      |

Source: U.S. Postal Service, U.S. Census Bureau.

The 2001-2010 decade saw the start of significant losses in mail volumes, brought by the ubiquity of the Internet and significant economic downturns. After the 2001 economic recession and the terrorist attacks on the World Trade Center led to significant volume losses for the USPS, a strong economic recovery spurred a rebound in Marketing Mail volume that reached new highs and, in 2005, surpassed First-Class Mail volume for the first time. First-Class Mail, however, continued to decline as the migration of bill payments, bills, and statements to the Internet intensified. Later, the 2008 recession proved to have a severe impact on mail usage, causing total mail to plunge 12.8 percent by mid-2009 - the largest volume decline since the Great Depression. When the recession was over, it was followed by a long but slow recovery that eventually culminated in 2020.

From 2011 to 2022, total mail volume fell 2.5% annually while U.S. population, household formation, and delivery points each grew approximately 1% annually. The decrease in volume over this period was primarily driven by the continuing migration of mail to the Internet and, in 2020, by the COVID-19 pandemic,

which returned the economy into recession and further reduced Marketing Mail and First-Class Mail volumes.

## Characteristics of Higher- and Lower-Volume Households

Tables 2.2 and 2.3 illustrate how some households' demographic characteristics can drive mail usage more than others. For example, while the volume of mail received appears to be strongly correlated to income, it does not seem to be influenced by educational attainment.

As Table 2.2 illustrates, households earning the lowest annual income (median of \$51,269) received less than 12 pieces of mail per week, while households earning more than double the income (median of \$107,668) received 45 or more pieces of mail. In Table 2.3 we see that college graduates received a much greater share of the mail regardless of the number of pieces received weekly. This relationship, however, was not consistent at lower levels of education.

**Table 2.2:**  
Characteristics of Higher- and Lower-Mail-Volume Households

| Mail Received<br>(Pieces per Household per week) | Households<br>(Millions) | Median Annual Household Income | Households w/ Internet Access<br>(Percent) | Total Bills Paid<br>(Pieces per Household per week) | Bills Paid by Internet<br>(Pieces per Household per week) | Mail Sent<br>(Pieces per Household per week) |
|--|--------------------------|--------------------------------|--|---|---|--|
| 45 or more                                       | 2.8                      | \$107,668                      | 97%  | 3.4   | 1.4   | 3.3  |
| 36-44  | 3.6                      | \$97,975                       | 99%  | 3.3   | 1.5   | 2.4  |
| 30-35  | 6.5                      | \$112,115                      | 97%  | 3.2   | 1.6   | 2.0  |
| 24-29  | 13.4                     | \$98,960                       | 99%  | 3.6   | 1.7   | 1.5  |
| 18-23  | 21.2                     | \$89,192                       | 98%  | 2.9   | 1.4   | 1.2  |
| 12-17  | 30.1                     | \$72,363                       | 98%  | 2.6   | 1.4   | 0.9  |
| Less than 12                                     | 53.6                     | \$51,269                       | 97%  | 2.2   | 1.2   | 0.5  |
| <b>Total</b>                                     | <b>131.2</b>             | <b>\$69,490</b>                | <b>98%</b>                                 | <b>2.7</b>  | <b>1.3</b>  | <b>1.0</b>                                   |

Source: HDS Diary Sample, FY 2022.

Note: Mail received includes USPS and Non-USPS mail.

**Table 2.3:**  
Education of Higher- and Lower-Mail-Volume Households

| Mail Received<br>(Pieces per Household per week) | Households<br>(Millions) | Educational Attainment of Head of Household |                      |                                  |                  |
|--|--------------------------|---|----------------------|----------------------------------|------------------|
|  |                          | Less than High School                       | High School Graduate | Some College or Technical School | College Graduate |
| 45 or more                                       | 2.8                      | 0%  | 29%                  | 15%                              | 55%              |
| 36-44  | 3.6                      | 3%  | 16%                  | 14%                              | 67%              |
| 30-35  | 6.5                      | 4%  | 26%                  | 16%                              | 52%              |
| 24-29  | 13.4                     | 8%  | 24%                  | 20%                              | 46%              |
| 18-23  | 21.2                     | 7%  | 23%                  | 20%                              | 49%              |
| 12-17  | 30.1                     | 10%   | 27%                  | 22%                              | 40%              |
| Less than 12                                     | 53.6                     | 9%  | 28%                  | 21%                              | 41%              |
| <b>Total</b>                                     | <b>131.2</b>             | <b>8%</b>                                   | <b>26%</b>           | <b>21%</b>                       | <b>44%</b>       |

Source: HDS Diary Sample, FY 2022.

Note: Percentages may not total 100 percent due to heads of households who did not answer the educational attainment question. Percentages in this table are row percentages.

Excludes households not receiving any mail delivery at their home address (using mailbox only).

## Demographic Characteristics of U.S. Households

This section presents breakouts of households by demographic categories that can influence the volume of mail sent and received. It looks at both traditional and newly emerging factors. The following chapters will show how mail volume varies with these household characteristics.

### Income, Education, and Age

Historically, mail usage has been determined by household income, education, and age. As Table 2.4 shows, in 2022 the relationship between income and education was fairly consistent at each level of income. At the lower end of the income scale (under \$35K), a greater percentage of households (53%) were either HS graduates or had less than HS education. At the highest level of income (over \$100K) the majority of households (65%) were college graduates.

The relationship between income and age (shown in Table 2.5) is somewhat more complicated. In general, household income and age were closely related. That is, at every income level the share of households increased with age. However, at incomes over \$100K, the majority of household were between 35 and 54 years old and the share of those over 55 fell second. In general, this finding is reflective of lifestyle changes that occur for those over 55, as they approach retirement and typically earn less than \$100K. However, it is also true that, by that point, mail behavior is pretty well set and older households continue to receive similar amounts of advertising and periodicals. They also continue to pay a similar number of bills, even though their incomes decline.

**Table 2.4:**  
Households by Income and Education  
(Percent of Households)

| Household Income<br>(Thousands) | Educational Attainment of Head of Household |                      |                                  |                  | Total       |
|---------------------------------|---|----------------------|----------------------------------|------------------|-------------|
|                                 | Less than High School                       | High School Graduate | Some College or Technical School | College Graduate |             |
| Under \$35                      | 14%   | 39%                  | 27%                              | 20%              | 19%         |
| \$35 to \$65                    | 11%   | 27%                  | 24%                              | 38%              | 20%         |
| \$65 to \$100                   | 5%  | 32%                  | 19%                              | 44%              | 19%         |
| Over \$100                      | 5%  | 14%                  | 16%                              | 65%              | 26%         |
| Don't know/<br>Refused          | 7%  | 24%                  | 17%                              | 46%              | 16%         |
| <b>Total</b>                    | <b>8%</b>                                   | <b>26%</b>           | <b>21%</b>                       | <b>44%</b>       | <b>100%</b> |

Source: HDS Diary Sample, FY 2022.

Notes:

Totals may not sum due to rounding.

Percentages may not total 100 percent due to heads of households who did not answer the educational attainment question.

**Table 2.5:**  
Households by Income and Age  
(Percent of Households)

| Household Income<br>(Thousands) | Age of Head of Household |            |            |                        | Total       |
|---------------------------------|--------------------------|------------|------------|------------------------|-------------|
|                                 | Under 35                 | 35 to 54   | Over 55    | Don't Know/<br>Refused |             |
| Under \$35                      | 29%                      | 28%        | 43%        | 0%                     | 19%         |
| \$35 to \$65                    | 25%                      | 27%        | 49%        | 0%                     | 20%         |
| \$65 to \$100                   | 24%                      | 31%        | 45%        | 0%                     | 19%         |
| Over \$100                      | 15%                      | 48%        | 37%        | 0%                     | 26%         |
| Don't know/<br>Refused          | 12%                      | 27%        | 55%        | 7%                     | 16%         |
| <b>Total</b>                    | <b>21%</b>               | <b>33%</b> | <b>45%</b> | <b>1%</b>              | <b>100%</b> |

Source: HDS Diary Sample, FY 2022.

Note: Totals may not sum due to rounding.

## Household Size

The changing composition of households is an important determinant of the volumes and types of mail they send and receive. For example, family structure can influence the number of bills and the types of advertising materials households receive in the mail.

In 2022 most U.S. households included either one or two adults. Households with three or more adults made up only 15% of the total (Table 2.6). When all household members are included (adults and children), households with three or more members made up 35% of all households (Table 2.7).

**Table 2.6:**  
Households by Number of Adults  
(Millions of Households)

| Number of Adults        |              |
|-------------------------|--------------|
| One                     | 35.7         |
| Two                     | 75.8         |
| Three or more           | 19.7         |
| <b>Total Households</b> | <b>131.2</b> |

Source: HDS Diary Sample, FY 2022.

Note: Totals may not sum due to rounding.

**Table 2.7:**  
Households by Size  
(Millions of Households)

| Household Size          |              |
|-------------------------|--------------|
| One person              | 31.3         |
| Two                     | 54.3         |
| Three                   | 19.7         |
| Four                    | 15.6         |
| Five or more            | 10.3         |
| <b>Total Households</b> | <b>131.2</b> |

Source: HDS Diary Sample, FY 2022.

Note: Total may not sum due to rounding.

## Internet Access

Access to the Internet has a strong influence on mail usage. Bills, statements and, to a lesser extent, bill payments represent a significant component of mail sent and received by households. However, online activity in this area is diverting mail once used for these purposes. On the positive side, though, online shopping

adds a growing number of package deliveries to the Postal Service mail stream.

Table 2.8 shows that, in 2022, 96% of US households had Internet access and almost all had Broadband access. The highest levels of Internet and Broadband access are now in almost all households with incomes over \$100,000 (99% and 98%, respectively), as seen in Figure 2.1a. By comparison, a slightly smaller percentage of households with incomes below \$35,000 have access to the Internet and Broadband (91% and 88%, respectively).

**Table 2.8:**  
Households by Type of Internet Access  
(Millions of Households)

| Type of Internet Access |              |
|-------------------------|--------------|
| Broadband               | 125.3        |
| Dial-up                 | 0.4          |
| None                    | 3.0          |
| Others                  | 2.4          |
| <b>Total Households</b> | <b>131.2</b> |

Source: HDS Diary Sample, FY 2022.

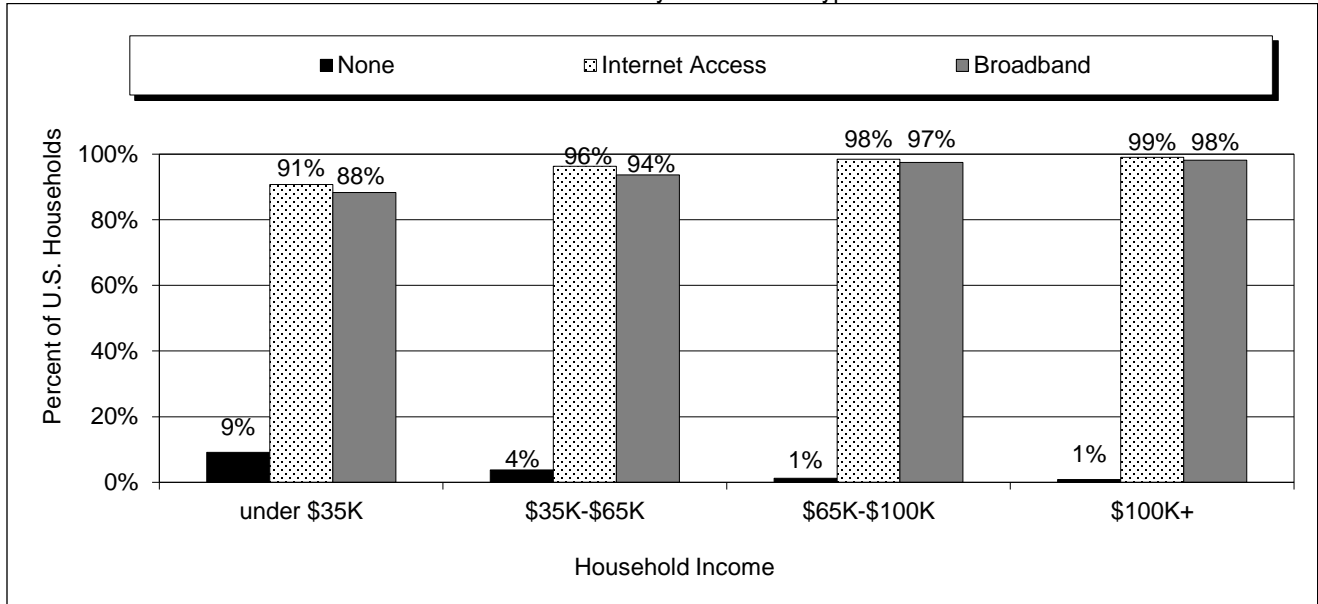
Note: Totals may not sum due to rounding.

Other includes respondents with access who did not specify the type.

While almost all households have access to the Internet, Figure 2.1b shows that the age of heads of households continues to have some impact. Almost all younger heads of households (younger than 35 years old) have access to both the Internet and Broadband (98% and 96% respectively). Older heads of household (over 55), however, are slightly less connected to the Internet and Broadband (93% and 91%, respectively).

Figure 2.2 shows that, while the growth in the number of Broadband subscribers slowed after the 2008 recession, it did continue to increase steadily, reaching 111 million subscribers by 2022. In just the last five years, from 2017 to 2022, the number of subscribers increased 16%. Broadband's speed and ubiquity were key factors driving the rapid increase in the number of activities that can be conducted online, including several of the functions that were exclusive to the mail. Given that most households are now using Broadband, we can expect that, for the foreseeable future, bill payments, bills, periodicals, and advertising mail, will continue to be diverted from the mail-stream to other electronic channel.

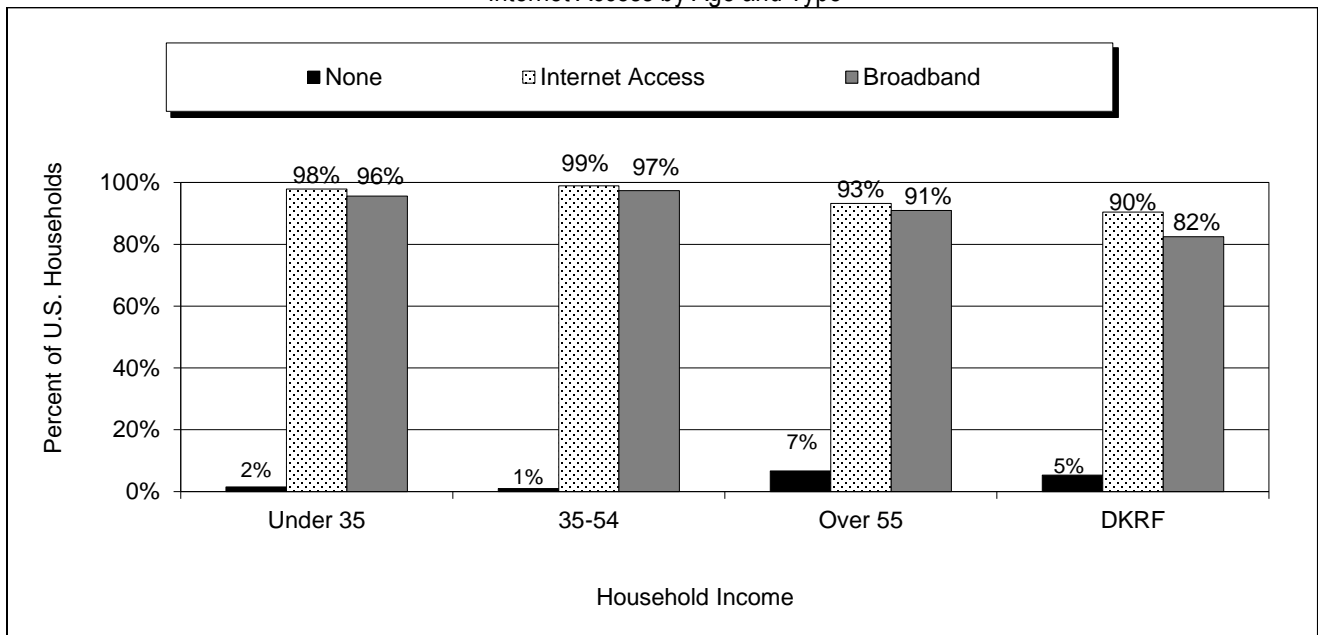
**Figure 2.1a:**  
Internet Access by Income and Type



Source: HDS Recruitment Data, FY 2022.

Note: Sum of Internet Access and None does not equal 100 percent due to missing responses and access outside the home only.

**Figure 2.1b:**  
Internet Access by Age and Type

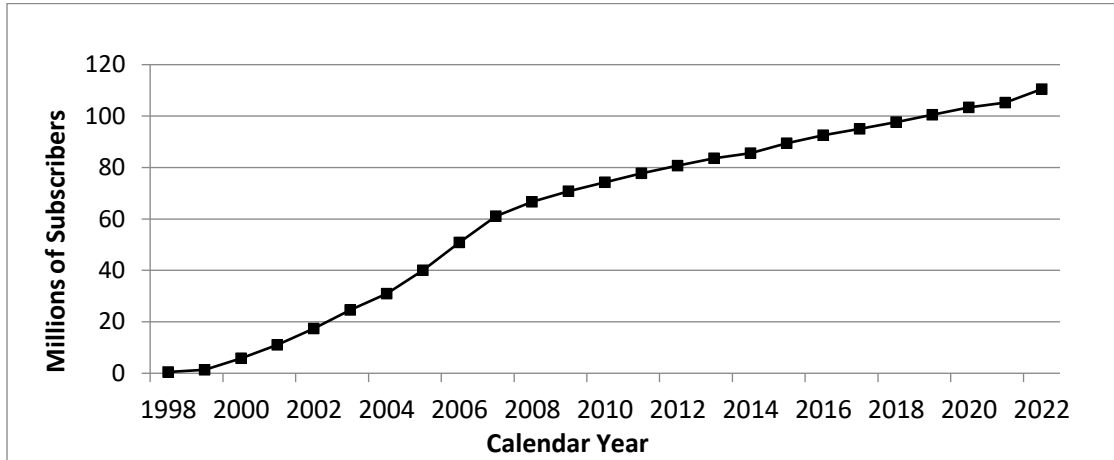


Source: HDS Recruitment Data, FY 2022.

Note: Sum of Internet Access and None does not equal 100 percent due to missing responses and access outside the home only.



**Figure 2.2:**  
Broadband Subscribers



Source: Leichtman Research Group.

## Use of the Post Office

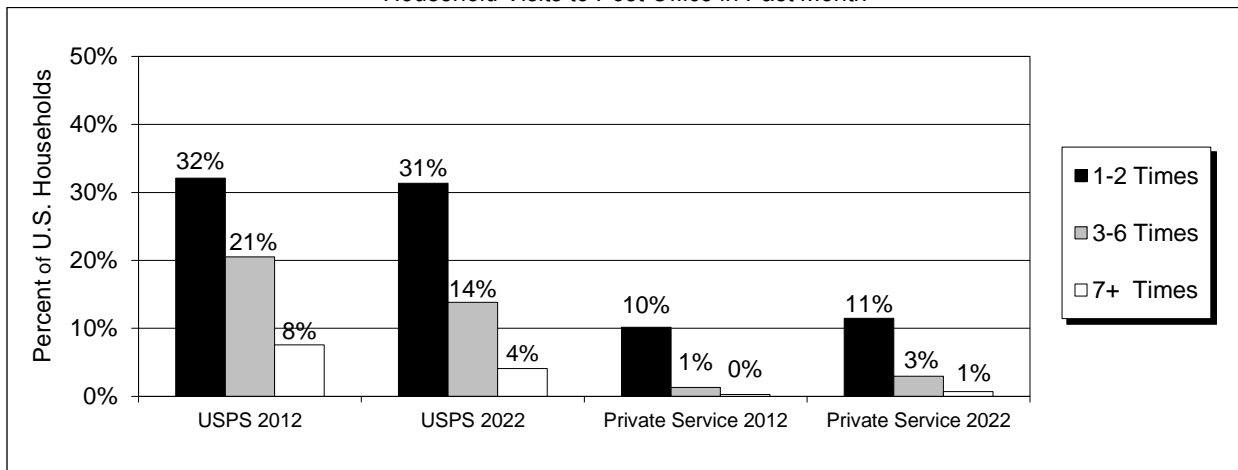
The Postal Service currently owns and operates 33,641 post office locations (including branches) throughout the U.S.

Figure 2.3 shows that, despite a declining frequency of visits over the last ten years, the use of post offices for mailing services continues to dominate the mail service industry. Forty-nine percent of all U.S. households patronized a post office at least once monthly in 2022, while only 15% visited a private mailing company. Furthermore, more than 18% of households visited the post office three or more times a month.

Even with the growing availability of electronic alternatives to mail products and services, in-person visits to postal facilities remain strong.

A rented mailbox is one alternative that households use to manage their mail. In 2022, 3.3% of U.S. households rented mailboxes from the Postal Service, compared to 1.0% renting a box from a private company. Post office box use, however, declined sharply since early 2000, when 10% of U.S. households rented a post office box.

**Figure 2.3:**  
Household Visits to Post Office in Past Month



Source: HDS Recruitment Data, FY 2012 and 2022

# Chapter 3: Correspondence

## Introduction

This chapter examines correspondence mail among households and between households and businesses, including letters, greeting cards, invitations, and announcements. In several cases, this chapter, and several following it, examines comparisons in data between 2020, 2021, and 2022, providing an illustration of mail trends over time.

## Correspondence Mail Volume

Correspondence mail declined steadily since the early 2000's, when large volumes of personal and business communications started to migrate to the Internet. Advancements in communication technologies enabled households to easily replace mail correspondence with faster and more convenient electronic alternatives, such as emails, texts, and social media. Over time, those developments completely changed the marketplace and continue to have a strong influence on the use of correspondence today. For instance, while personal correspondence fell 37%

between 2001 and 2022, 10% of that decline occurred just over the last five years, from 2017 to 2022.

As Table 3.1 shows, total correspondence mail fell 2.2% from 2021 to 2022. Looking at volumes by sector, we see that correspondence from households to households (personal correspondence) and from households to non-households (mostly business correspondence) fell 3.0% and 8.1% respectively, more rapidly than correspondence from non-households (mostly businesses and government) to households, which fell at a more gradual rate of 1.5%. These results were consistent with historical trends showing a much faster migration of personal correspondence to the Internet compared to business and government correspondence. The latter are often limited in their ability to correspond via emails or texts due to legal, security, or other business protocols that may require them to communicate or transfer documents by mail.

The impact of these trends on 2022 volumes is reflected in lower section of Table 3.1, which shows that the 75.1% of correspondence was from non-households to households and only 18.8% remained between households, the lowest percentage to-date.

**Table 3.1:**  
First-Class Mail Correspondence Sent and Received by Sector

| Sector                     | Volume (Millions of Pieces)   |               |               | Change, 2021-2022   |
|----------------------------|-------------------------------|---------------|---------------|---------------------|
|                            | 2020                          | 2021          | 2022          |                     |
| Household to household     | 2,840                         | 2,780         | 2,698         | -3.0%               |
| Non-household to household | 11,315                        | 11,075        | 10,914        | -1.5%               |
| Household to non-household | 946                           | 980           | 901           | -8.1%               |
| <b>Total</b>               | <b>15,102</b>                 | <b>14,835</b> | <b>14,513</b> | <b>-2.2%</b>        |
| Sector                     | Pieces per Household per Week |               |               | Share of 2022 Total |
|                            | 2020                          | 2021          | 2022          |                     |
| Household to household     | 0.4                           | 0.4           | 0.4           | 18.8%               |
| Non-household to household | 1.7                           | 1.6           | 1.6           | 75.1%               |
| Household to non-household | 0.1                           | 0.1           | 0.1           | 6.2%                |
| <b>Total</b>               | <b>2.2</b>                    | <b>2.2</b>    | <b>2.1</b>    | <b>100%</b>         |

Source: HDS Diary Sample, FY 2020, 2021 and 2022.

Notes: Totals may not sum due to rounding.

## Correspondence Mail and Household Characteristics

The following tables categorize correspondence mail sent and received by households according to the demographic characteristics developed in Chapter 2.

## Income, Education, and Age

Tables 3.2 and 3.3 show that household income and, to a lesser extent, educational attainment have a strong influence on the volume of correspondence sent and received by households. In most cases, households with higher incomes received and sent significantly more correspondence mail than those at the other end of the scale. As noted, these relationships are more evident when measured against household income than against educational levels.

**Table 3.2:**  
Correspondence Mail Received by Income and Education  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Educational Attainment of Head of Household |                      |                                  |                  | Average    |
|---------------------------------|---|----------------------|----------------------------------|------------------|------------|
|                                 | Less than High School                       | High School Graduate | Some College or Technical School | College Graduate |            |
| Under \$35                      | 1.8   | 1.3                  | 1.3                              | 1.5              | 1.4        |
| \$35 to \$65                    | 2.1   | 2.2                  | 1.8                              | 1.9              | 2.0        |
| \$65 to \$100                   | 1.8   | 1.8                  | 2.1                              | 2.1              | 2.0        |
| Over \$100                      | 6.2   | 2.4                  | 2.0                              | 2.3              | 2.5        |
| <b>Average</b>                  | <b>2.5</b>                                  | <b>1.8</b>           | <b>1.8</b>                       | <b>2.1</b>       | <b>2.0</b> |

**Table 3.3:**  
Correspondence Mail Sent by Income and Education  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Educational Attainment of Head of Household |                      |                                  |                  | Average    |
|---------------------------------|---|----------------------|----------------------------------|------------------|------------|
|                                 | Less than High School                       | High School Graduate | Some College or Technical School | College Graduate |            |
| Under \$35                      | 0.3   | 0.3                  | 0.3                              | 0.4              | <b>0.3</b> |
| \$35 to \$65                    | 0.5   | 0.8                  | 0.4                              | 0.5              | <b>0.6</b> |
| \$65 to \$100                   | 0.3   | 0.5                  | 0.6                              | 0.7              | <b>0.6</b> |
| Over \$100                      | 0.5   | 0.5                  | 0.5                              | 0.7              | <b>0.6</b> |
| <b>Average</b>                  | <b>0.4</b>                                  | <b>0.5</b>           | <b>0.4</b>                       | <b>0.6</b>       | <b>0.5</b> |

Source: HDS Diary Sample, FY 2022.  
Note: Excludes Don't Know/Refused.

As Tables 3.4 and 3.5 illustrate, age is another determinant of household correspondence volumes. Irrespective of their income, younger heads of household received and sent fewer pieces of correspondence mail. Young adults have traditionally sent and received less mail than older adults; the

Internet apparently widened the gap between age groups even further. The survey found that heads of household over 55 received and sent 77% and 100% more pieces of correspondence, respectively, than heads of household under 35.

**Table 3.4:**  
Correspondence Mail Received by Income and Age  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Age of Head of Household |            |            | Average    |
|---------------------------------|--------------------------|------------|------------|------------|
|                                 | Under 34                 | 35 to 54   | Over 55    |            |
| Under \$35                      | 1.2                      | 1.2        | 1.7        | <b>1.4</b> |
| \$35 to \$65                    | 1.2                      | 1.9        | 2.4        | <b>2.0</b> |
| \$65 to \$100                   | 1.2                      | 1.9        | 2.4        | <b>2.0</b> |
| Over \$100                      | 1.6                      | 2.6        | 2.6        | <b>2.5</b> |
| <b>Average</b>                  | <b>1.3</b>               | <b>2.0</b> | <b>2.3</b> | <b>2.0</b> |

Source: HDS Diary Sample, FY 2022.

**Table 3.5:**  
Correspondence Mail Sent by Income and Age  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Age of Head of Household |            |            | Average    |
|---------------------------------|--------------------------|------------|------------|------------|
|                                 | Under 34                 | 35 to 54   | Over 55    |            |
| Under \$35                      | 0.1                      | 0.3        | 0.5        | <b>0.3</b> |
| \$35 to \$65                    | 0.3                      | 0.5        | 0.7        | <b>0.6</b> |
| \$65 to \$100                   | 0.4                      | 0.5        | 0.8        | <b>0.6</b> |
| Over \$100                      | 0.6                      | 0.6        | 0.6        | <b>0.6</b> |
| <b>Average</b>                  | <b>0.3</b>               | <b>0.5</b> | <b>0.6</b> | <b>0.5</b> |

Source: HDS Diary Sample, FY 2022.

## Household Size

As would be expected, household size had a positive effect on the volume of correspondence mail sent and received by households. In Tables 3.6 and 3.7, the step from one to two person households was associated with a considerable increase in correspondence mail use. Further increases, however, had no discernible (and at times opposite) impact. In Table 3.7, however, we do see that increases in correspondence related to household size were generally driven by the presence of additional adults in the household.

**Table 3.6:**  
Correspondence Mail Received and Sent  
by Household Size  
(Pieces per Household per Week)

| Household Size | Received   | Sent       |
|----------------|------------|------------|
| One person     | 1.3        | 0.4        |
| Two            | 2.2        | 0.6        |
| Three          | 2.0        | 0.6        |
| Four           | 2.3        | 0.5        |
| Five or more   | 2.1        | 0.5        |
| <b>Total</b>   | <b>2.0</b> | <b>0.5</b> |

Source: HDS Diary Sample, FY 2022.

**Table 3.7:**  
Correspondence Mail Received and Sent  
by Number of Adults in Household  
(Pieces per Household per Week)

| Number of Adults | Received   | Sent       |
|------------------|------------|------------|
| One              | 1.4        | 0.4        |
| Two              | 2.2        | 0.6        |
| Three or more    | 2.4        | 0.6        |
| <b>Average</b>   | <b>2.0</b> | <b>0.5</b> |

Source: HDS Diary Sample, FY 2022.

## Internet Access

As illustrated in Table 3.8, households with Internet access received significantly more correspondence than households without the service. The explanation for this result lies in the strong relationship that both income and educational attainment have with the presence of an Internet connection in the home. In Table 3.9, households with Internet access have substantially more income and education than those without a connection. Those two factors are highly correlated with the volume of correspondence received.

With respect to correspondence mail sent by households, Table 3.8 does not indicate a clear impact of Internet access on volumes.

**Table 3.8:**  
Correspondence Mail Received and Sent by Type of Internet  
Access  
(Pieces per Household per Week)

| Type of Internet Access | Received   | Sent       |
|-------------------------|------------|------------|
| Broadband               | 2.0        | 0.5        |
| None                    | 1.6        | 0.5        |
| Others                  | 2.1        | 0.8        |
| <b>Average</b>          | <b>2.0</b> | <b>0.5</b> |

Source: HDS Diary Sample, FY 2022.

**Table 3.9:**  
Income and Education by Type of Internet Access

| Type of Internet Access | Median Income | % w/ College Degree |
|-------------------------|---------------|---------------------|
| Broadband               | 70,941        | 45%                 |
| None                    | 31,416        | 24%                 |
| Others                  | 36,284        | 30%                 |

Source: HDS Diary Sample, FY 2022.

## Personal Correspondence

In FY 2022 households sent and received 2.7 billion pieces of personal correspondence, a decline of 3.0% from 2021. Table 3.10 details volumes by type of correspondence and shows that most types of personal correspondence were down compared to 2021. Non-

Holiday greeting cards experienced a slight rebound, partly offsetting the declines in other categories. The decrease in letters and greeting cards was in large part driven by the continuing migration of most personal communications to emails, text, and social networks on the Internet.

**Table 3.10:**  
Personal Correspondence Sent and Received

| Correspondence Type         | Volume (Millions of Pieces)   |              |              | Change: 2021–2022   |
|-----------------------------|-------------------------------|--------------|--------------|---------------------|
|                             | 2020                          | 2021         | 2022         |                     |
| Personal Letters            | 499                           | 470          | 427          | -9.0%               |
| Holiday Greeting Cards      | 1,129                         | 1,116        | 1,101        | -1.3%               |
| Non-Holiday Greeting Cards  | 925                           | 856          | 864          | 0.9%                |
| Invitations/Announcements   | 238                           | 281          | 274          | -2.5%               |
| Other Personal              | 50                            | 58           | 32           | -45.2%              |
| <b>Total</b>                | <b>2,840</b>                  | <b>2,780</b> | <b>2,698</b> | <b>-3.0%</b>        |
| Correspondence Type         | Pieces per Household per Week |              |              | Share of 2022 Total |
|                             | 2020                          | 2021         | 2022         |                     |
| Personal Letters            | 0.1                           | 0.1          | 0.1          | 15.7%               |
| Holiday Greeting Cards      | 0.1                           | 0.2          | 0.2          | 41.5%               |
| Non-Holiday Greeting Cards  | 0.1                           | 0.1          | 0.1          | 31.7%               |
| Invitations / Announcements | 0.0                           | 0.0          | 0.0          | 10.1%               |
| Other Personal              | 0.0                           | 0.0          | 0.0          | 1.2%                |
| <b>Total</b>                | <b>0.4</b>                    | <b>0.4</b>   | <b>0.4</b>   | <b>100.0%</b>       |

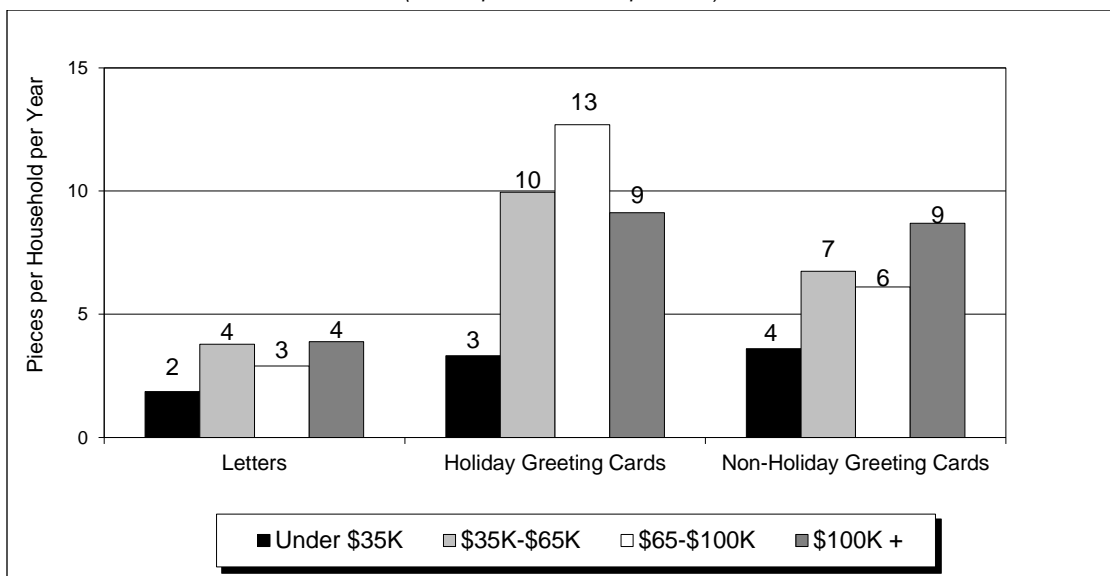
Source: HDS Diary Sample, FY 2020, 2021 and 2022.

Note: Totals may not sum due to rounding

Figure 3.1 illustrates how the main categories of personal correspondence were impacted by households' income. Holiday greeting cards sent by households showed a strong positive correlation with incomes up to \$100K. Households with incomes over \$100K may be greater users of the Internet for this purpose and sent significantly fewer Holiday greeting cards than households with lower incomes. The income relationship with letters and non-Holiday greeting cards seemed less evident.

The disparity between the number of Holiday greeting cards sent by households earning less than \$35K (3 pieces per year) and all other income groups was the most significant. However, the difference between the \$35K-\$64K and the \$65K-\$100K income groups was also substantial, with the latter sending 30% more cards per year than the former (10 and 13 cards, respectively).

**Figure 3.1:**  
Personal Correspondence Sent by Income Group  
(Pieces per Household per Year)

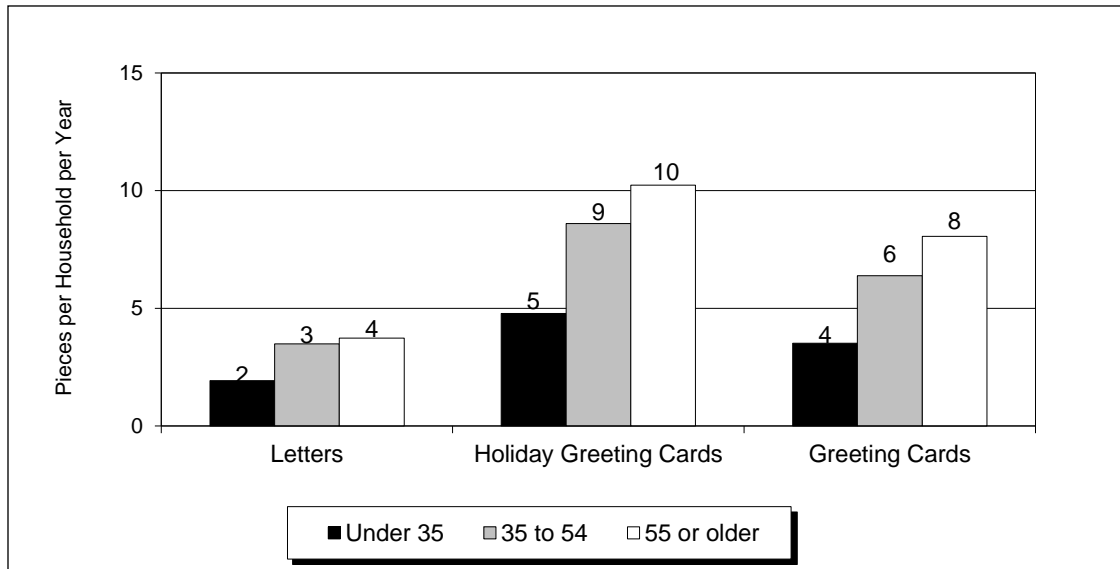


Source: HDS Diary Sample, FY 2022.

According to Figure 3.2, the number of greeting cards and letters sent by households was strongly correlated to the age of heads of household. The disparity between heads of household under 35 and those over 55 was the

most significant. For each type of personal correspondence, older persons sent two times as many cards as younger ones.

**Figure 3.2:**  
 Personal Correspondence Sent by Age Cohort  
*(Pieces per Household per Year)*



Source: HDS Diary Sample, FY 2022.

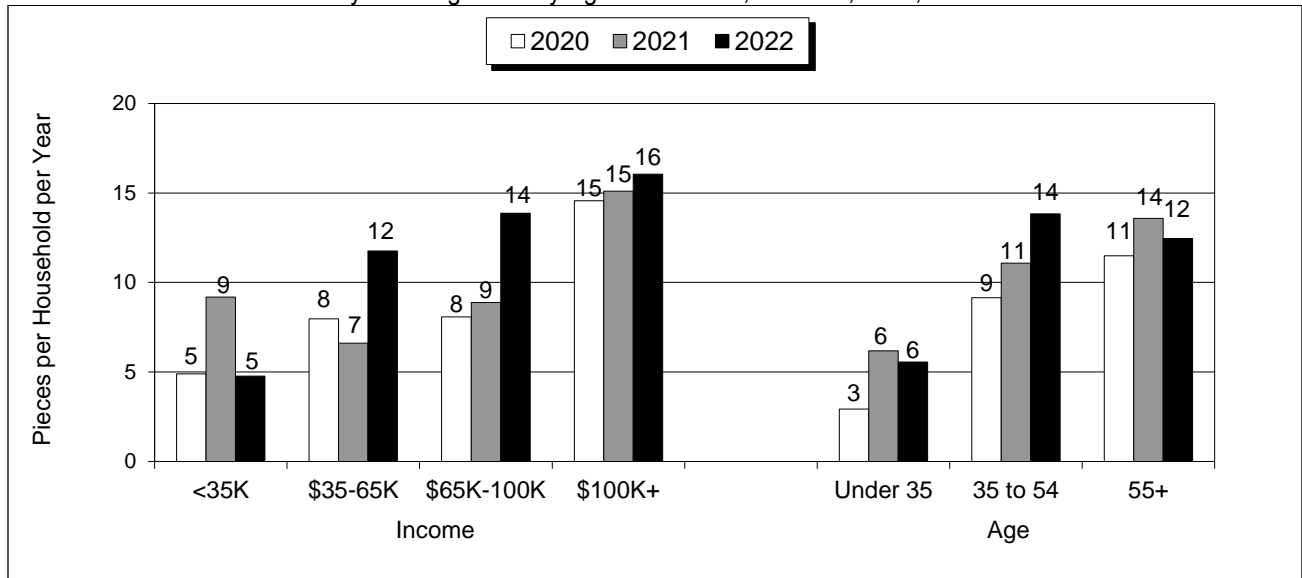
Figure 3.3 shows trends in the number of Holiday greeting cards sent by households from 2020 to 2022, grouped by income and by age. In each of the three years, heads of household earning over \$100K sent a greater number of greeting cards than those earning lower incomes. They also showed a modest but continuous increase in the number of cards sent over the three years. Heads of households with incomes between \$35K and \$100K, on the other hand, experienced a much more significant increase in the number of Holiday greeting cards sent between 2021 and 2022. Specifically, the number of cards sent in 2022 by

persons earning between \$35k and \$65K increased 71% (from 7 cards to 12) and the number sent by persons earning between \$65K and \$100K increased 55%.

When examined by age, heads of household in the 35- to 54-year-old cohort sent 27% more Holiday greeting cards in 2022 than in 2021. They also sent more cards than other age cohorts (this was the first time that they sent more cards than the over 55 cohort). Both the younger and the older cohorts sent fewer cards in 2022 than in 2021. As would be expected, younger heads of household mailed the least number of cards in each of the three years.



**Figure 3.3:**  
Holiday Greetings Sent by Age and Income, FY 2020, 2021, and 2022



Source: HDS Diary data, Diary Sample only, FY 2020, 2021, and 2022.

Typically, households with Internet access are more likely to communicate with friends and family via emails or social networks than sending letters or greeting cards. In 2022, contrary to expectations, households with Internet access sent significantly more Holiday greeting cards than those without access (0.17 vs 0.03 pieces per week, respectively). They did, however, send fewer pieces of both letters and non-Holiday greeting cards.

**Table 3.11:**  
Personal Correspondence by Type of Internet Access  
(Pieces per Household per Week)

| Correspondence Type        | No Internet Access | Internet Access |
|----------------------------|--------------------|-----------------|
| Personal Letters           | 0.09               | 0.06            |
| Holiday Greeting Cards     | 0.03               | 0.17            |
| Non-Holiday Greeting Cards | 0.16               | 0.13            |
| <b>Total</b>               | <b>0.28</b>        | <b>0.36</b>     |

Source: HDS Diary Sample FY 2022

## Business Correspondence

This section examines the use and types of correspondence mailed between households and non-households (primarily businesses but also government and social organizations). In addition to correspondence, households and businesses also exchange bills, payments, and advertising materials. These topics are discussed in detail in Chapters 4 (for transactions mail) and Chapter 5 (for advertising mail).

As shown in Table 3.1 above, correspondence received from the non-household sector was the

largest component of correspondence sent and received by households in 2022, accounting for over 75% of total volume. Table 3.12 presents business correspondence by type and by sector, for the 2021 to 2022 period. In 2022, business and government correspondence received by households fell 0.8%, a more moderate rate of decline than most other components of First-class Mail. Social correspondence (mostly non-profit and political mail) fell more significantly, with a 9.6% decline from 2021.

Business correspondence sent by households fell 8.1% from 2021 to 2022, driven entirely by a 41.2% decline in social correspondence sent, more than

offsetting a small, 0.2% increase in correspondence sent to businesses and government.

**Table 3.12:**  
Business Correspondence Sent and Received by type and Sector  
(Millions of Pieces)

| Business Correspondence Type  | 2020          | 2021          | 2022          | Change,<br>2021-2022 |
|---|---------------|---------------|---------------|----------------------|
| <b>Business/Government/Social Received by Households</b>                  |               |               |               |                      |
| Invitation/Announcement   | 4,492         | 4,309         | 4,259         | -1.2%                |
| Insurance Related (EOBs, etc.)  | 2,222         | 2,286         | 2,204         | -3.6%                |
| Tax Related   | 1,221         | 1,314         | 1,247         | -5.0%                |
| Other Business/Government   | 2,366         | 2,328         | 2,445         | 5.0%                 |
| <b>Total Business/Government Received</b>                                 | <b>10,301</b> | <b>10,236</b> | <b>10,156</b> | <b>-0.8%</b>         |
| Announcement  | 436           | 363           | 364           | 0.3%                 |
| Other Social  | 579           | 475           | 394           | -17.2%               |
| <b>Total Social Received</b>  | <b>1,014</b>  | <b>839</b>    | <b>758</b>    | <b>-9.6%</b>         |
| <b>Total Business Correspondence Received</b>                             | <b>11,315</b> | <b>11,075</b> | <b>10,914</b> | <b>-1.5%</b>         |
| <b>Business/Government/Social Sent by Households</b>                      |               |               |               |                      |
| Tax-Related   | 109           | 184           | 119           | -35.0%               |
| Surveys/Sweepstakes   | 145           | 161           | 188           | 16.4%                |
| Greeting Cards/Letters/Invitations  | 118           | 146           | 172           | 17.4%                |
| Other Business/Government   | 410           | 293           | 306           | 4.7%                 |
| <b>Total Business/Government Sent</b>                                     | <b>782</b>    | <b>784</b>    | <b>785</b>    | <b>0.2%</b>          |
| Letters/Surveys/Election Materials  | 123           | 76            | 80            | 4.5%                 |
| Other Social  | 42            | 120           | 36            | -70.2%               |
| <b>Total Social Sent</b> (Social includes social, political & nonprofit.) | <b>165</b>    | <b>196</b>    | <b>115</b>    | <b>-41.2%</b>        |
| <b>Total Business Correspondence Sent</b>                                 | <b>946</b>    | <b>980</b>    | <b>901</b>    | <b>-8.1%</b>         |

Source: HDS Diary Sample, FY 2020, 2021 and 2022.

Notes: Totals may not sum due to rounding

# Chapter 4: Transactions

## *Introduction*

This chapter examines the volumes and types of transaction mail sent and received by households. Transaction categories include bills, statements, payments, donations, rebates, and other minor categories.

## *Transaction Mail*

Transaction mail sent and received by households is a major and important component of the mail-stream. In 2022, it accounted for 47% of all First-Class Mail sent and received by households and 16% of all household mail (see Table E.2).

As Table 4.1 illustrates, total transaction mail sent and received by households fell 6.8% from 2021 to 2022. Most categories contributed to the decline, driven in large part by the continuing migration of several types of transactions to online alternatives, as they proved to be convenient and inexpensive ways to conduct transactions previously performed only by mail or in person.

Bills and statements (also referred to as presentments) have long represented the main categories of transaction mail but, over the last several years, volumes were increasingly impacted by competing electronic alternatives and began to shrink significantly. Initially, households were reluctant to switch to electronic bills and statements because they preferred maintaining hard copies of their financial records. There were also significant concerns about the security and privacy

associated with electronic transactions. Nonetheless, as those concerns eased over time, presentments by mail embarked on a path of steady decline, losing 36% of the volume over the ten years from 2012 to 2022.

Bill payments, the third main category of transaction mail, started migrating to the Internet in the early 2000's, shortly after the emergence of the Internet, as households were quickly influenced by the advantages and benefits offered by online payments. During the survey, respondents cited convenience, ease of use, and lower costs as the main reasons for switching to online payments. By 2010, payments by mail had already plummeted 45%, falling from 10.1 billion pieces in 2003 to 5.6 billion in just seven years. After 2010, payments continued to decline at a rapid pace through 2022, when they were fell an additional 65%, to less than 2 billion pieces.

Table 4.1 provides a breakdown of all transaction types and their volumes from 2020 to 2022. It shows that, from 2021 to 2022 bills and statements fell 5.8% and 3.7%, respectively. Bill payments, on the other hand, plummeted almost 20%, driven by a relentless migration of mail pieces to their electronic counterparts.

Comparing the volumes of bills received to bills paid in 2022, Table 4.1 shows that households paid only about one-fifth of the bills they received by mail (2 billion pieces versus 9 billion, respectively). The other four-fifths were mostly paid electronically.

**Table 4.1:**  
Transactions Mail Sent and Received

| Transaction Type               | Volume (Millions of Pieces) |               |               | Change,<br>2021–2022 |
|--------------------------------|-----------------------------|---------------|---------------|----------------------|
|                                | 2020                        | 2021          | 2022          |                      |
| <b>Business</b>                |                             |               |               |                      |
| Bills                          | 10,535                      | 9,658         | 9,095         | -5.8%                |
| Bill Payments                  | 2,467                       | 2,415         | 1,946         | -19.4%               |
| Statements                     | 3,871                       | 3,577         | 3,445         | -3.7%                |
| Payments (to households)       | 807                         | 881           | 725           | -17.7%               |
| Orders                         | 169                         | 134           | 145           | 7.8%                 |
| Rebates                        | 124                         | 103           | 98            | -5.3%                |
| Other Transactions             | 660                         | 699           | 656           | -6.2%                |
| <b>Total Business</b>          | <b>18,633</b>               | <b>17,468</b> | <b>16,109</b> | <b>-7.8%</b>         |
| <b>Social/Charitable</b>       |                             |               |               |                      |
| Request for Donation           | 515                         | 536           | 632           | 18.1%                |
| Donations                      | 304                         | 272           | 267           | -1.9%                |
| Bills                          | 58                          | 42            | 58            | 40.7%                |
| Confirmations                  | 159                         | 212           | 197           | -7.2%                |
| <b>Total Social/Charitable</b> | <b>1,036</b>                | <b>1,061</b>  | <b>1,155</b>  | <b>8.8%</b>          |
| <b>Total Transactions</b>      | <b>19,669</b>               | <b>18,530</b> | <b>17,263</b> | <b>-6.8%</b>         |

**Table 4.1:**  
Transactions Mail Sent and Received (cont.)

| Transaction Type               | Pieces per Household per Week |            |            | Share 2022    |
|--------------------------------|-------------------------------|------------|------------|---------------|
|                                | 2020                          | 2021       | 2022       |               |
| <b>Business</b>                |                               |            |            |               |
| Bills                          | 1.6                           | 1.4        | 1.3        | 52.7%         |
| Bill Payments                  | 0.4                           | 0.4        | 0.3        | 11.3%         |
| Statements                     | 0.6                           | 0.5        | 0.5        | 20.0%         |
| Payments (to HH)               | 0.1                           | 0.1        | 0.1        | 4.2%          |
| Orders                         | 0.03                          | 0.02       | 0.02       | 0.8%          |
| Rebates                        | 0.02                          | 0.02       | 0.01       | 0.6%          |
| Other Transactions             | 0.1                           | 0.1        | 0.1        | 3.8%          |
| <b>Total Business</b>          | <b>2.8</b>                    | <b>2.6</b> | <b>2.4</b> | <b>93.3%</b>  |
| <b>Social/Charitable</b>       |                               |            |            |               |
| Request for Donation           | 0.1                           | 0.1        | 0.1        | 3.7%          |
| Donations                      | 0.0                           | 0.04       | 0.04       | 1.5%          |
| Bills                          | 0.01                          | 0.01       | 0.01       | 0.3%          |
| Confirmations                  | 0.02                          | 0.03       | 0.03       | 1.1%          |
| <b>Total Social/Charitable</b> | <b>0.2</b>                    | <b>0.2</b> | <b>0.2</b> | <b>6.7%</b>   |
| <b>Total Transactions</b>      | <b>2.9</b>                    | <b>2.8</b> | <b>2.5</b> | <b>100.0%</b> |

Source: HDS Diary Sample, FY 2020, 2021 and 2022.

## Transaction Mail and Household Characteristics

The following tables examine transactions mail sent and received by households, based on the demographic characteristics outlined in Chapter 2.

### Income, Education, and Age

Tables 4.2 and 4.3 show that transaction mail sent and received by households in 2022 was positively correlated to their income. Educational attainment, however, had no discernible effect on the volume received.

The reason why household income can influence the volume of transaction mail received is that, while higher-income households tend to be Internet users and are more likely to receive bills electronically,

they also have more financial accounts. The latter generate more bills and statements and create more transaction mail than lower income households.

In Table 4.3, we see that neither income nor education had a measurable impact on the volume of transaction mail sent by households. Although higher income households are inclined to have more financial accounts and more bills to pay, they are also likely to have greater access to the Internet and pay at least a portion of their bills online. In net, the positive impact of higher income and the negative impact of electronic payments tend to offset each other, leaving the volume of payments by mail relatively unaffected.

**Heads of household younger than 35 received 61% fewer pieces of transaction mail than those over 55**

**Table 4.2:**  
Transactions Mail Received by Income and Education  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Educational Attainment of Head of Household |                      |                                  |                  | Average    |
|---------------------------------|---|----------------------|----------------------------------|------------------|------------|
|                                 | Less than High School                       | High School Graduate | Some College or Technical School | College Graduate |            |
| Under \$35                      | 2.3   | 1.6                  | 1.5                              | 1.4              | <b>1.6</b> |
| \$35 to \$65                    | 2.2   | 2.4                  | 2.0                              | 1.6              | <b>2.0</b> |
| \$65 to \$100                   | 4.2   | 2.1                  | 2.3                              | 2.2              | <b>2.3</b> |
| Over \$100                      | 2.4   | 2.7                  | 2.6                              | 2.4              | <b>2.5</b> |
| <b>Average</b>                  | <b>2.4</b>                                  | <b>2.2</b>           | <b>2.1</b>                       | <b>2.2</b>       | <b>2.2</b> |

Source: HDS Diary Sample, FY 2022.

**Table 4.3:**  
Transactions Mail Sent by Income and Education  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Educational Attainment of Head of Household |                      |                                  |                  | Average    |
|---------------------------------|---|----------------------|----------------------------------|------------------|------------|
|                                 | Less than High School                       | High School Graduate | Some College or Technical School | College Graduate |            |
| Under \$35                      | 0.5   | 0.2                  | 0.2                              | 0.2              | <b>0.2</b> |
| \$35 to \$65                    | 0.2   | 0.6                  | 0.3                              | 0.2              | <b>0.3</b> |
| \$65 to \$100                   | 1.2   | 0.4                  | 0.4                              | 0.4              | <b>0.4</b> |
| Over \$100                      | 0.2   | 0.5                  | 0.4                              | 0.3              | <b>0.3</b> |
| <b>Average</b>                  | <b>0.4</b>                                  | <b>0.4</b>           | <b>0.3</b>                       | <b>0.3</b>       | <b>0.3</b> |

Source: HDS Diary Sample, FY 2022.

Tables 4.4 and 4.5 show that age has a strong influence on the volumes of transaction mail sent and received by households. Across all income categories, younger heads of household sent and received fewer transaction mail pieces. In part, this was because younger individuals are less likely to own a home and typically have fewer insurance policies, investments, and the

like. However, it is also the case that younger heads of household are more active users of electronic alternatives to traditionally mail-based transactions. This is particularly evident with transactions mail received by heads of household under 35 years old, who received 61% fewer transaction mail pieces than head of households over 55.

**Table 4.4:**  
Transactions Mail Received by Income and Age  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Age of Head of Household |            |            | Average    |
|---------------------------------|--------------------------|------------|------------|------------|
|                                 | Under 35                 | 35 to 54   | Over 55    |            |
| Under \$35                      | 1.0                      | 1.5        | 2.2        | <b>1.6</b> |
| \$35 to \$65                    | 1.0                      | 1.7        | 2.6        | <b>2.0</b> |
| \$65 to \$100                   | 1.2                      | 1.9        | 3.2        | <b>2.3</b> |
| Over \$100                      | 1.2                      | 2.2        | 3.3        | <b>2.5</b> |
| <b>Average</b>                  | <b>1.1</b>               | <b>2.0</b> | <b>2.8</b> | <b>2.2</b> |

Source: HDS Diary Sample, FY 2022.

**Table 4.5:**  
Transactions Mail Sent by Income and Age  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Age of Head of Household |            |            | Average    |
|---------------------------------|--------------------------|------------|------------|------------|
|                                 | Under 35                 | 35 to 54   | Over 55    |            |
| Under \$35                      | 0.0                      | 0.1        | 0.5        | <b>0.2</b> |
| \$35 to \$65                    | 0.1                      | 0.1        | 0.6        | <b>0.3</b> |
| \$65 to \$100                   | 0.0                      | 0.2        | 0.8        | <b>0.4</b> |
| Over \$100                      | 0.2                      | 0.2        | 0.5        | <b>0.3</b> |
| <b>Average</b>                  | <b>0.1</b>               | <b>0.2</b> | <b>0.6</b> | <b>0.3</b> |

Source: HDS Diary Sample, FY 2022.

## Household Size

In terms of household size, Table 4.6 shows that an increase from a one-person household to two-person household adds 60% more transaction mail pieces received weekly and 67% more transaction mail pieces sent. In most cases, larger household sizes increase the number of pieces received (more bills to pay) but have no clear impact on the number of pieces sent.

With respect to transactions mail received, Table 4.7 shows that each additional adult adds 44% more transaction mail received weekly. Additional adults, on average, generate 26% additional pieces of mail sent.

**Table 4.6:**  
Transactions Mail Received and Sent by Household Size  
(Pieces per Household per Week)

| Household Size | Received   | Sent       |
|----------------|------------|------------|
| One person     | 1.5        | 0.3        |
| Two            | 2.4        | 0.5        |
| Three          | 2.2        | 0.3        |
| Four           | 2.4        | 0.2        |
| Five or more   | 2.6        | 0.2        |
| <b>Average</b> | <b>2.2</b> | <b>0.3</b> |

Source: HDS Diary Sample, FY 2022.

**Table 4.7:**  
Transactions Mail Received and Sent  
by Number of Adults in Household  
(Pieces per Household per Week)

| Number of Adults in Household | Received   | Sent      |
|-------------------------------|------------|-----------|
| One                           | 1.6        | .3        |
| Two                           | 2.3        | .4        |
| Three or more                 | 2.9        | .3        |
| <b>Average</b>                | <b>2.2</b> | <b>.3</b> |

Source: HDS Diary Sample, FY 2022.

## Internet Access

As shown in Table 4.8, households with Internet access received significantly more transaction mail than households without a connection. This, in part, is because households with access tend to have higher incomes, are more likely to own a home, and have more bills to pay (see Table 4.9). In contrast, household with Internet access sent fewer pieces of transaction mail than those without access, as the former are likely to pay some portion of their bills online rather than by mail.

**Table 4.8:**  
Transactions Mail Received and Sent by Internet Access  
(Pieces per Household per Week)

| Type of Internet Access | Received   | Sent      |
|-------------------------|------------|-----------|
| Broadband               | 2.2        | .3        |
| None                    | 1.7        | .5        |
| Others                  | 1.8        | .3        |
| <b>Average</b>          | <b>1.9</b> | <b>.3</b> |

Source: HDS Diary Sample, FY 2022

**Table 4.9:**  
Income and Education by Type of Internet Access

| Type of Internet Access | Median Income | % w/ College Degree |
|-------------------------|---------------|---------------------|
| Broadband               | 70,941        | 45%                 |
| Dial-up                 | 49,051        | 14%                 |
| None                    | 31,416        | 24%                 |
| Others                  | 36,284        | 30%                 |

Source: HDS Diary Sample, FY 2022.

## Bill Payments

The Internet and other technologies have created a significant number of alternatives to payments by mail. Over the last two decades, households' use of electronic payments increased exponentially and quickly became the predominant method for paying bills. Electronic methods include payments by PC, mobile phones, automatic deductions from bank and credit card accounts, and landline phones.

**In 2022, households paid 81% of their bills electronically, compared to 66% in 2017.**

The Household Diary Study gathers data to measure the volume of payments made for each of the main methods. Table 4.10 provides the average number of bills paid monthly in 2022 and 2017 by each method. Comparing totals between 2017 and 2022, Table 4.10 shows a significant increase in the total number of monthly household payments in just those five years. From 2017 to 2022, total payments increased 18%, growing from 11.1 payments per month in 2017 to 13.1 payments in 2022. As the table also illustrates, the increase was mostly due to a 40% increase in Internet payments, partly offset by a 33% decrease in payments by mail.

In general, the 5-year increase in total household payments was partly related to the number of the increase in consumer spending and the additional bills generated by economic growth.



As Table 4.10 shows, only 17% of bills received in 2022 were paid by mail, down by almost half compared to 30% received in 2017. Another 81% of 2022 bills were paid electronically, an increase from 66% paid in 2017. Electronic payments include online payments, automatic deductions, credit card charge, and telephone payments. Internet payments were by far the most frequent electronic method used, representing 62% of all electronic payments.

Table 4.10 also shows that, in 2022, only 50% of households reported making at least one payment by mail, a decrease from 63% in 2017. It is also notable that this finding suggests that, in 2022, 50% of households did not make any payments by mail. By contrast, almost all households (94%) reported making at least one payment electronically, an increase from 85% in 2017.

**Table 4.10:**  
Bill Payment by Method, FY 2017 vs. 2022

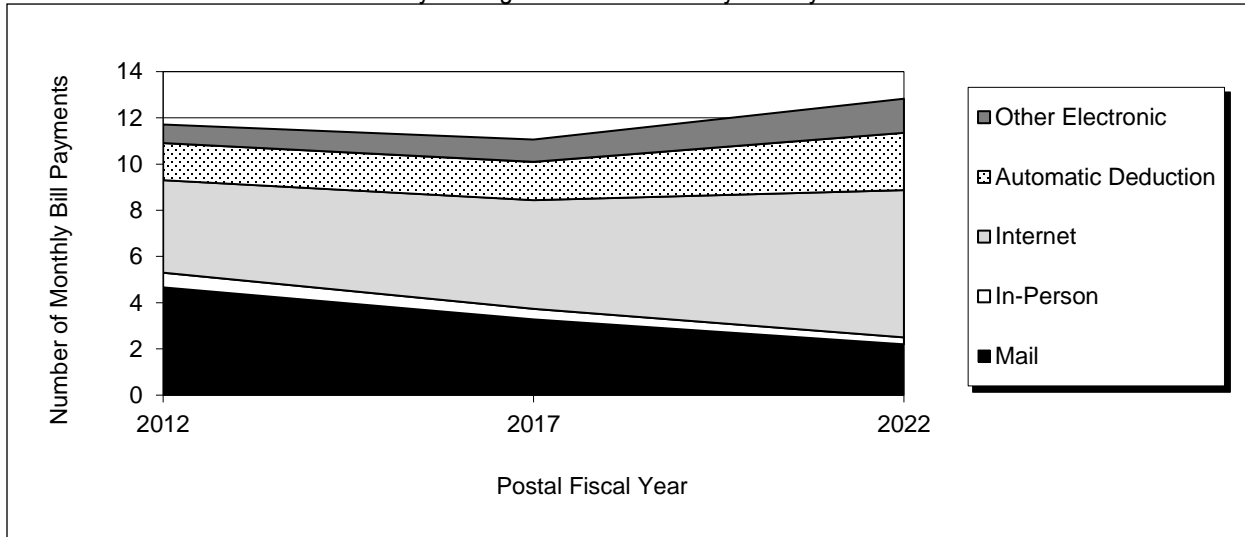
| Bill Payment Method     | 2017                                   |                     |  | 2022                                   |                     |  |
|-------------------------|--|---------------------|--|--|---------------------|--|
|                         | Average Number of Bills Paid per Month | Share of Bills Paid | Percent of Households Making at Least One Payment Using Method | Average Number of Bills Paid per Month | Share of Bills Paid | Percent of Households Making at Least One Payment Using Method |
| Mail                    | 3.3                                    | 30%                 | 63%  | 2.2                                    | 17%                 | 50%  |
| Using Internet          | 4.7                                    | 43%                 | 66%  | 6.6                                    | 51%                 | 82%  |
| Automatic Deduction     | 1.7                                    | 15%                 | 52%  | 2.5                                    | 19%                 | 67%  |
| Credit Card             | 0.5                                    | 5%                  | 23%  | 1.1                                    | 9%                  | 40%  |
| Telephone               | 0.4                                    | 4%                  | 18%  | 0.3                                    | 3%                  | 15%  |
| In-person               | 0.5                                    | 4%                  | 22%  | 0.3                                    | 2%                  | 16%  |
| <b>Total</b>            | <b>11.1</b>                            | <b>100%</b>         | —  | <b>13.1</b>                            | <b>100.0%</b>       | —  |
| <b>Total Electronic</b> | 7.3                                    | 66%                 | 85%  | 10.6                                   | 81%                 | 94%  |

Source: HDS Recruitment Sample, FY 2017 and 2022.

Figure 4.1 illustrates how the shares of payments methods changed over the last ten years. As shown, electronic payments accounted for a rapidly growing share of household payments. Survey data show that the average number of bills paid electronically increased

61% from 2012 to 2022 (from 6.4 to 10.3 bills per month per household), mostly at the expense of payments by mail, which declined 53% over the same period (from 4.7 to 2.2 bills per month per household).

**Figure 4.1:**  
Monthly Average Household Bill Payment by Method



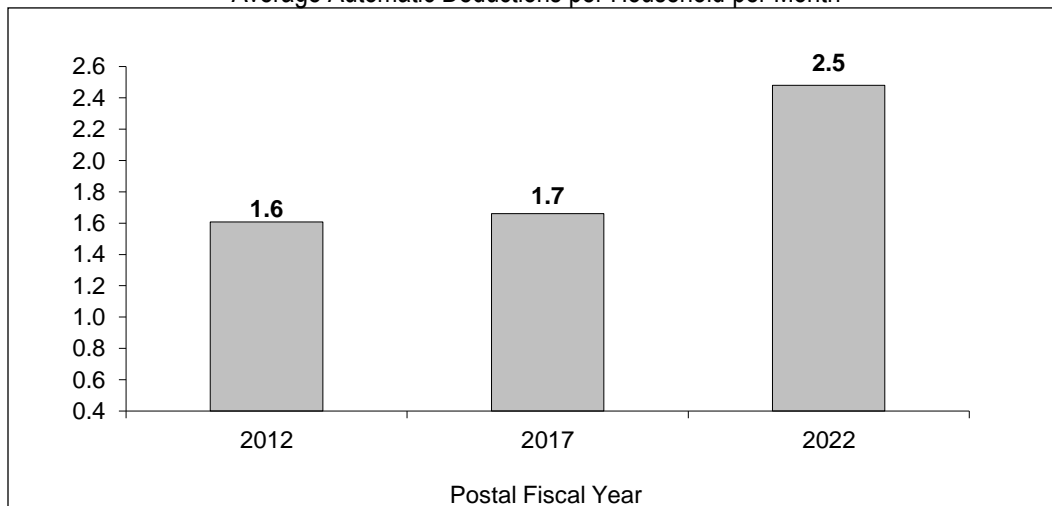
Source: HDS Recruitment Sample, FY 2012-2022.

Note: Other Electronic includes telephone.

Figure 4.2 shows that, while automatic deductions from bank accounts increased continuously since the early 2000's, they grew 68% just in the last five years, rising from 1.7 monthly deductions per household in 2017 to 2.5 monthly deductions in 2022. Interestingly, despite the growing popularity of online

payments, the percentage of bills paid by automated deductions continued to grow and, in 2022, they ranked second to the former, accounting for 19% of household payments, up from third place in 2017, after payments by mail, when their share was 15% (see Table 4.10).

**Figure 4.2:**  
Average Automatic Deductions per Household per Month



Source: HDS Recruitment Sample, FY 2007-2022.

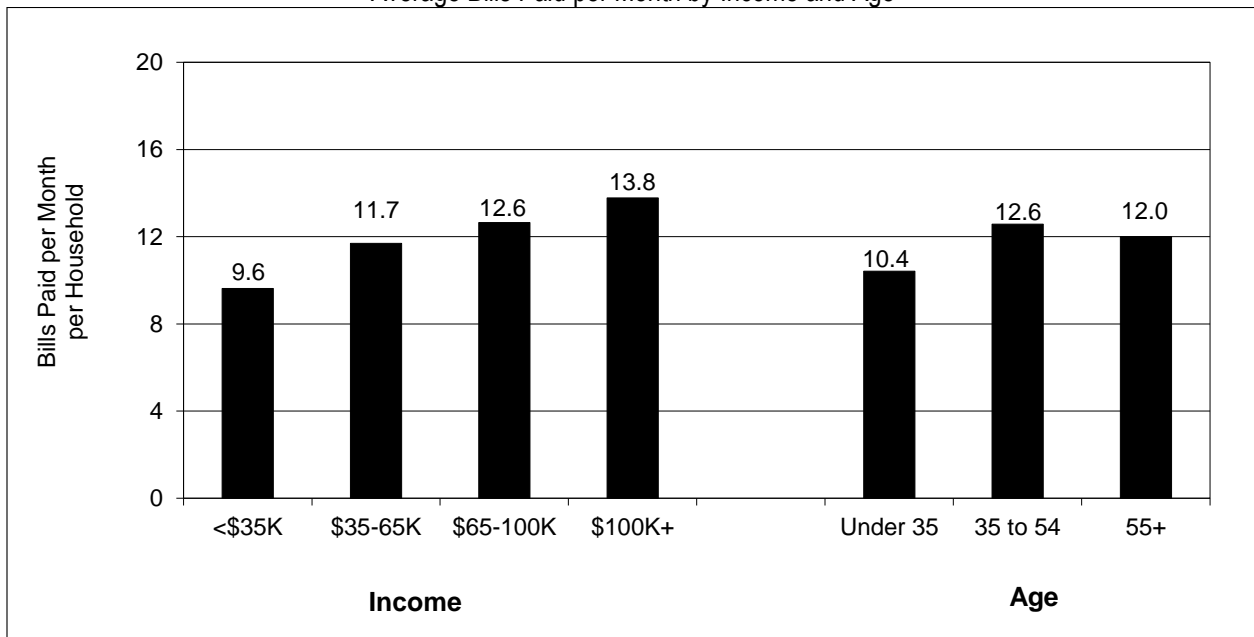
As noted earlier in the report, the Household Diary Study has consistently found that the number of bills paid by mail is directly correlated to both the age and income of the head of household. Figure 4.3 illustrates these relationship in terms of the number of bills paid per month.

On the left side, the chart shows the number of bills paid per month for each major income category. In 2022, households earning over \$100K paid an average of 13.8 bills per month, 44% more than the 9.6 payments made by households earning less than \$35,000. Bills paid by

mail showed only a partial correlation with age. Heads of household between 35 and 54 years old paid 12.6 bills per month, 21% more than 10.4 payments made by heads of household younger than 35.

However, heads of household over 55 paid 12.0 bills monthly, 5% fewer than the number paid by households in the 35-54 cohort. One explanation for this apparent inconsistency is that, as persons over-55 approach retirement age (generally over 67 years old), they tend to moderate their spending habits and are left with fewer bills to pay.

**Figure 4.3:**  
Average Bills Paid per Month by Income and Age

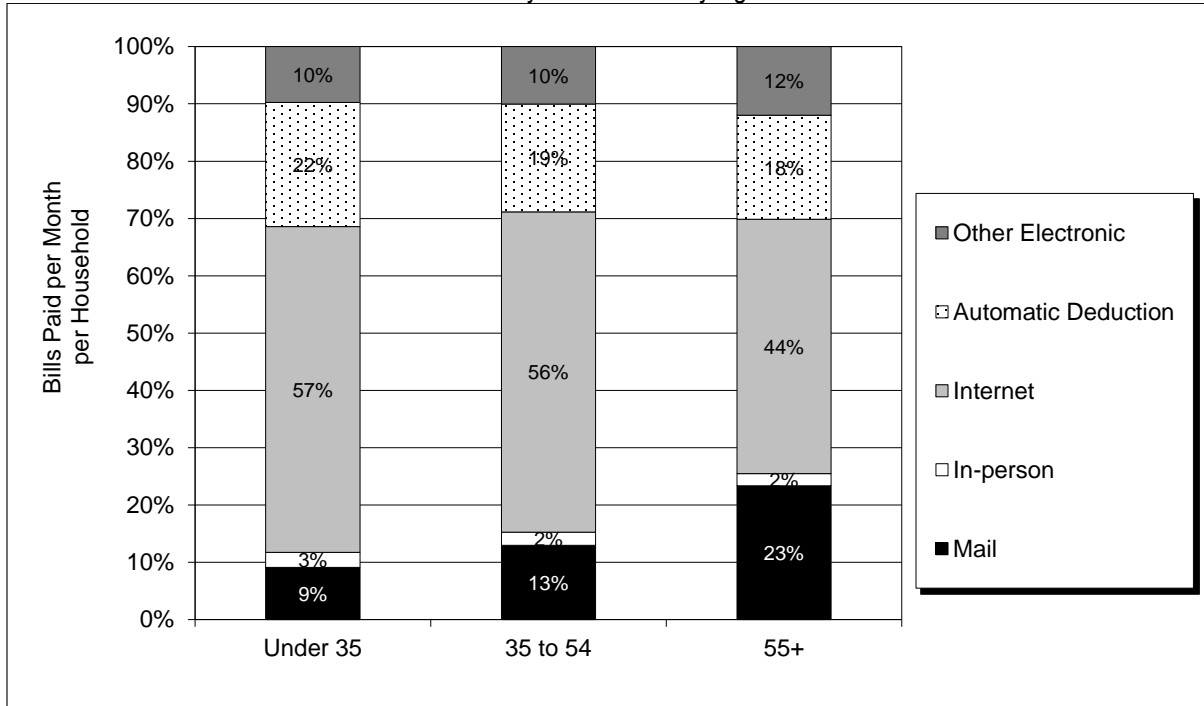


Source: HDS Recruitment Sample, FY 2022.

Figure 4.4 shows how the age of heads of household influenced the payment methods used. In 2022, heads of household younger than 35 paid only 9% of their bills by mail. The majority of their bills (89%) were paid electronically, either online, by automatic deductions, or other electronic methods. Internet payments were mostly made online and represented 57% of their payments. For heads of household over-55, the share of bills paid electronically increased significantly

compared to prior periods. In 2022, they paid close to three-quarters of their bills (74%) electronically, including 44% paid online. Nonetheless, they did pay almost one-quarter (23%) of their bills by mail, a percentage significantly higher than the one paid by younger age groups.

**Figure 4.4:**  
Bill Payment Method by Age



Source: HDS Recruitment Sample, FY 2022.  
Note: Other Electronic includes telephone.

## Bills and Statements Received by Households

Table 4.11 shows an industry breakdown of bills and statements received by households. In 2022, households received a total of 12.6 billion pieces of bills and statements by mail, accounting for 38% of all First-Class Mail received. Bills totaled 9.2 billion pieces, originating primarily from the financial and the Service industries, each representing 48% and 45% of total household bills, respectively. Credit card companies were the largest mailers of financial bills, sending 57% of the industry volume. Utility companies and medical/other professional businesses were the two main mailers of bills from service companies, sending 42% and 32% of total industry volume, respectively.

The volume of statements received by households totaled 3.5 billion pieces. They originated primarily from the financial industry, which mailed 89% of the industry volume. Banks, S&Ls, and credit unions were the largest mailers of financial statements, representing 54% of industry volume.

**Table 4.11:**  
Bill and Statement Volumes by Industry

| Industry                       | Volumes             |                          |
|--------------------------------|---------------------|--------------------------|
|                                | Bills<br>(Millions) | Statements<br>(Millions) |
| <b>Financial</b>               |                     |                          |
| Bank, S&L, Credit Union        | 528                 | 1,660                    |
| Credit Card                    | 2,516               | 36                       |
| Insurance Company              | 1,103               | 219                      |
| Real Estate/Mortgage           | 197                 | 75                       |
| Other Financial                | 41                  | 1,072                    |
| <b>Total Financial</b>         | <b>4,385</b>        | <b>3,062</b>             |
| <b>Merchants</b>               |                     |                          |
| Department Store               | 18                  | 13                       |
| Publisher                      | 64                  | 2                        |
| Mail Order Company             | 15                  | 7                        |
| Other Merchants                | 56                  | 14                       |
| <b>Total Merchants</b>         | <b>154</b>          | <b>36</b>                |
| <b>Service</b>                 |                     |                          |
| Telephone/Cable Company        | 806                 | 16                       |
| Utility Company                | 1,703               | 19                       |
| Medical and Other Professional | 1,322               | 132                      |
| Other Service                  | 238                 | 21                       |
| <b>Total Service</b>           | <b>4,069</b>        | <b>188</b>               |
| Manufacturers                  | 16                  | 11                       |
| Government                     | 438                 | 116                      |
| Social/Nonprofit               | 58                  | 25                       |
| Other/Don't Know/Refused       | 34                  | 7                        |
| <b>Total - All Industries</b>  | <b>9,153</b>        | <b>3,445</b>             |

Source: HDS Diary Sample, FY 2022.

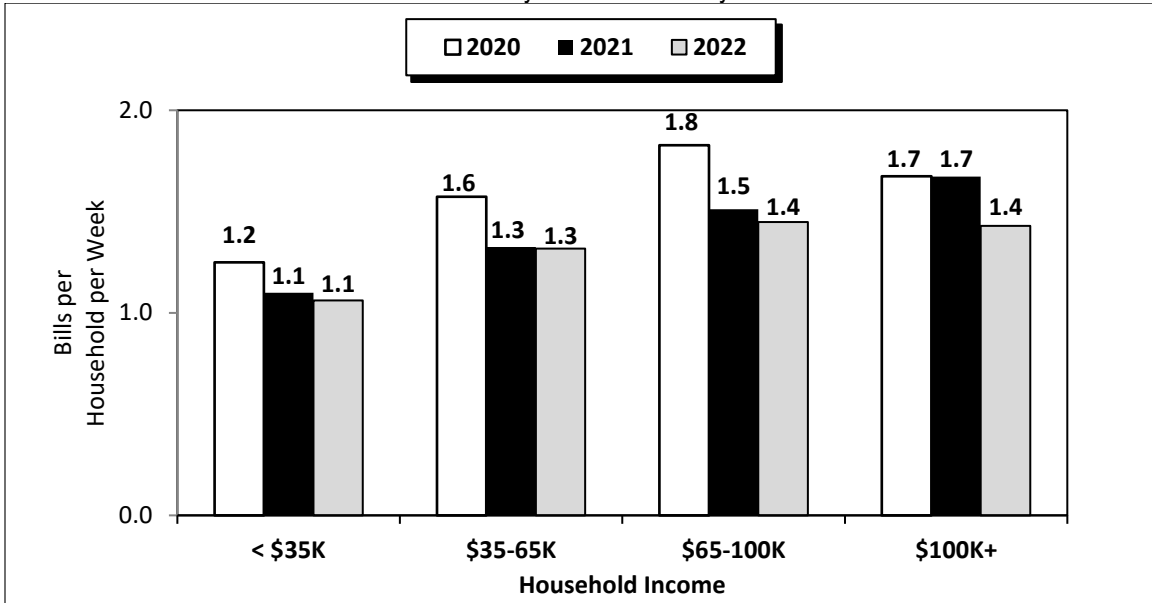
Note: Social/Nonprofit bill and statement volumes were not collected separately.

Figures 4.5a and 4.5b, show trends in the volume of bills and statements received weekly over the last three-year period, by household income. As shown, in 2022 and prior years, higher income households received consistently more bills and statements than households with lower incomes. This was consistent with other findings showing that higher income households typically had more financial accounts and, therefore, received more

bills and statements associated with those accounts.

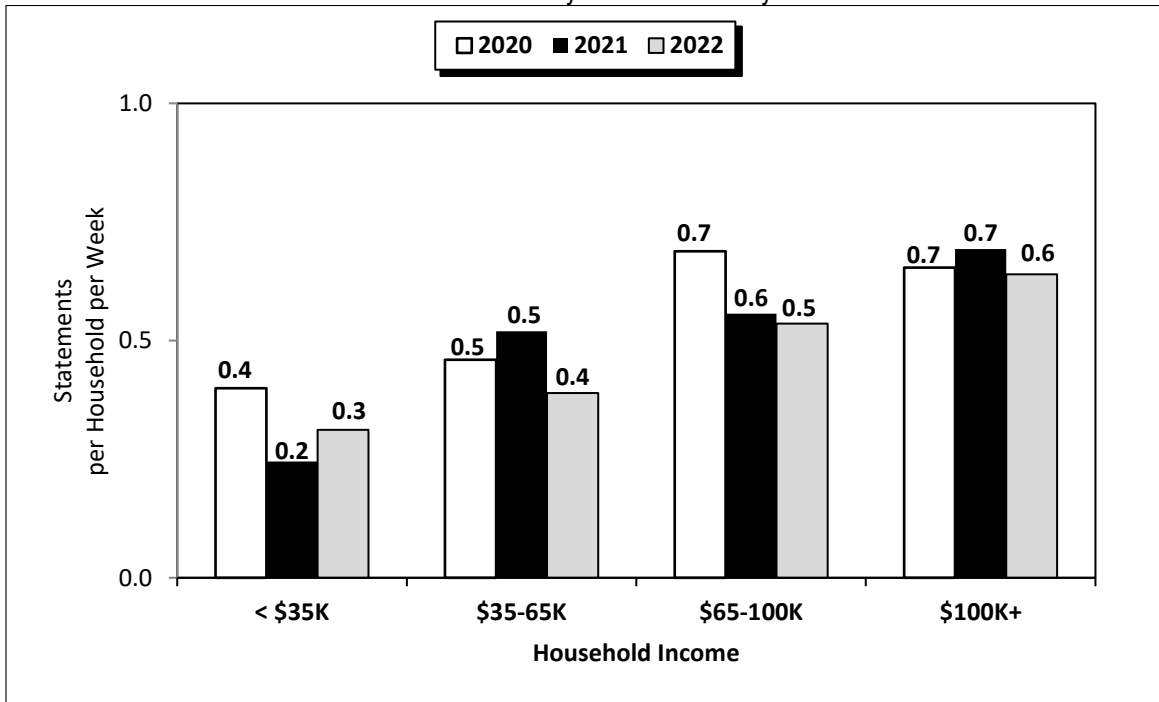
It is also notable that, in 2022, the number of bills received by higher income households declined faster than the ones received by lower income households, reflecting a greater propensity to migrate to electronic billing by the former.

**Figure 4.5a:**  
Bills Received by Mail Per Week by Income



Source: HDS Diary Sample, FY 2020, 2021 and 2022. Amounts are rounded.

**Figure 4.5b:**  
Statements Received by Mail Per Week by Income



Source: HDS Diary Sample, FY 2020, 2021 and 2022. Amounts are rounded.

Table 4.12 shows the number of bills received per month by mail and online from 2020 through 2022. Although the majority of bills received in 2022 were still delivered through the mail, the volume was 16%

lower than in 2020. Conversely, bills received online were up 16% from 2020, as their share of total bills rose from 31% in 2020 to 39% in 2022.

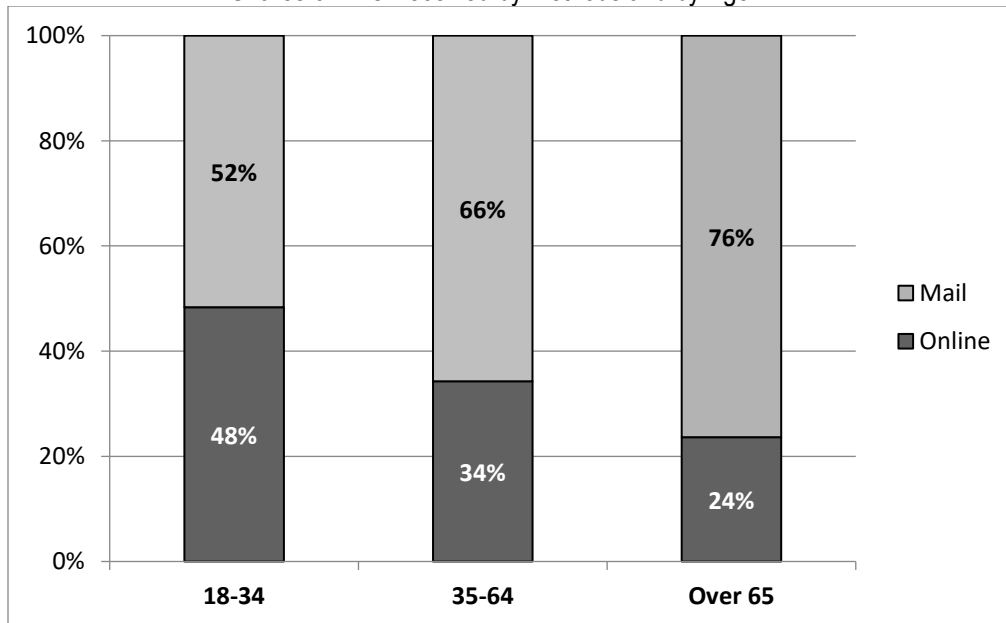
**Table 4.12:**  
Average Monthly Bills Received by Method

| Method                       | 2020 | 2021 | 2022 |
|------------------------------|------|------|------|
| Mail                         | 6.9  | 6.3  | 5.8  |
| Internet                     | 3.2  | 3.4  | 3.7  |
| <b>Total</b>                 | 10.0 | 9.7  | 9.5  |
| <b>Share Received Online</b> | 31%  | 36%  | 39%  |

Figure 4.6 shows the percentage of bills received by method and by age cohort. Because younger heads of household (18-34 years old) are more active users of the

Internet, they received almost half (48%) of their bills online. By comparison, heads of household over 65 relied more on paper billing and received only about one-quarter of their bills online.

**Figure 4.6:**  
Shares of Bills Received by Methods and by Age



Source: HDS Recruitment Sample, FY 2022

# Chapter 5: Advertising Mail

## Introduction

This chapter examines advertising mail, which consists of any advertising, promotional, or sales material sent via the Postal Service. Advertising mail can be sent as First-Class or Marketing Mail.

## The Advertising Market

According to GroupM, in 2022, American businesses spent approximately \$333 billion advertising their products and services, an increase of 9.7% from 2021 that followed a 22.5% increase in 2022 (Table 5.1). Of this total advertising spending, 4.3% was spent on direct mail, the fourth largest spending medium after the Internet (58.2%), TV (20.3%), and radio (4.4%).

As Table 5.1 illustrates, direct mail spending declined 2.1% in 2022, following a 22.7% increase in 2021 that stemmed from a post-pandemic surge in ecommerce activity. Internet ad spending slowed to a still strong 10.8% increase, after soaring 41% in 2021. The strength in Internet advertising absorbed funds otherwise available for spending on direct mail and other advertising media.

**Table 5.1:**

U.S. Advertising Spending Growth by Medium, 2020-2022  
(Percent Growth from Prior Year)

| Medium       | 2020         | 2021         | 2022        |
|--------------|--------------|--------------|-------------|
| Direct Mail  | -24.7%       | 22.7%        | -2.1%       |
| TV           | -8.5%        | 12.9%        | -0.3%       |
| Radio        | -27.3%       | 21.8%        | 0.9%        |
| Newspapers   | -27.6%       | 5.9%         | -7.4%       |
| Magazines    | -20.5%       | 5.8%         | -5.5%       |
| Internet     | 10.4%        | 41.0%        | 10.8%       |
| Other        | 57.0%        | -46.1%       | 112.5%      |
| <b>Total</b> | <b>-0.5%</b> | <b>22.5%</b> | <b>9.7%</b> |

Source: GroupM—estimates.

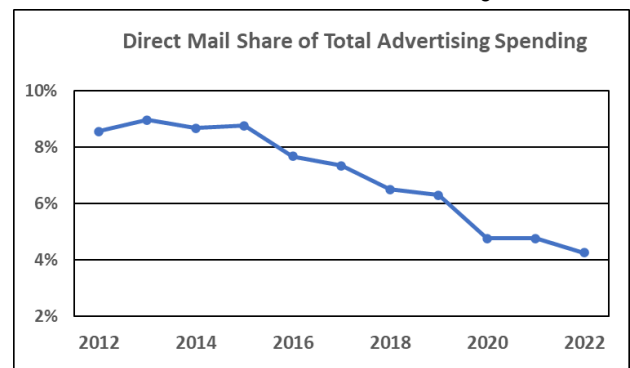
Note: Totals may not sum due to rounding.

\*Other fluctuations are due to political/Olympic advertising

The large fluctuations from one year to the next in the “Other” category of spending (Table 5.1) are the result of seasonality associated with spending on election and Olympic campaigns.

According to GroupM’s estimates, direct mail’s share of total advertising spending started to decline in 2015, continuing through 2022 and falling from 9% to 4%, respectively (Fig 5.1).

**Figure 5.1:**  
Direct Mail as a Share of Total Advertising, 2012-2022



Source: U.S. Postal Service calculations based on GroupM data.

Despite the decrease in advertising dollars, direct mail continues to be a popular choice for businesses because of its effectiveness and versatility. Direct mail can be targeted to the interests of individual customers and used to both locate new customers and maintain relationships with existing customers. Direct mail allows for a variety of different types of advertising, such as letters, postcards, catalogs, and free samples. It can be sent as First-Class or Marketing Mail, allowing advertisers to trade off expeditious, personalized First-Class mailings against cost-savings from Marketing Mail.

Importantly, the effectiveness of direct mail is readily measurable, more so than most other media. Businesses can track the response rate to a mailing far more precisely than a television commercial or magazine advertisement. This feature alone gives advertising mail a key advantage over other media.



## Advertising Mail Volume

As mentioned, direct mail advertising can be mailed via either First-Class Mail or Marketing Mail. In 2022, households received 65.4 billion total pieces of direct mail (Table 5.2), a slight 0.2% increase from 2021, accounting for 62% of all household mail. The strong increase from 2020 to 2021 (+6.5%) was driven by the economic recovery that followed the 2020 pandemic-driven economic downturn.

Marketing Mail volume totaled 58.6 billion pieces, almost unchanged from 2021 and representing 90% of total advertising mail received by households. Regular and ECR Marketing Mail increased 1.1% but it was mostly offset by a 3.6% decline in non-profit mail. In part, the small increase in Marketing Mail was driven by significant gains in political and election mail in 2021 - related to the 2020 general election season which took place in the 2021 fiscal year.

First-Class Mail advertising totaled 6.7 billion pieces, up 1.6% from 2021, representing 10% of total ads received by households. Of this volume, 3.9 billion pieces contained only advertising materials (also referred to as advertising-only mail) while the remaining 2.8 billion pieces were secondary advertising. The latter (also referred to as advertising-enclosed mail), is not included in the total volume count of advertising mail, as the primary piece (be it a bill, statement, or correspondence mailing) is already accounted for in the corresponding First-Class Mail category.

Advertising-only mail grew 8.4%, while ads-enclosed fell 6.6%. Ads-only have increased gradually since 2015. Ads-enclosed, on the other hand, returned to a pre-pandemic downward trend that had persisted for over 10 years.

**Table 5.2:**  
Advertising Mail Received by Households by Mail Classification  
(Volume in Billions of Pieces)

| Mail Classification                 | Volume (Billions of Pieces) |             |             | Change<br>2021–2022 |
|-------------------------------------|-----------------------------|-------------|-------------|---------------------|
|                                     | 2020                        | 2021        | 2022        |                     |
| <b>First-Class Mail Advertising</b> | <b>6.3</b>                  | <b>6.6</b>  | <b>6.7</b>  | <b>1.6%</b>         |
| Advertising-Only                    | 3.5                         | 3.6         | 3.9         | 8.4%                |
| Secondary Advertising               | 2.8                         | 3.0         | 2.8         | -6.6%               |
| <b>Marketing Mail Advertising</b>   | <b>54.9</b>                 | <b>58.5</b> | <b>58.6</b> | <b>0.1%</b>         |
| Regular and ECR                     | 43.6                        | 46.3        | 46.8        | 1.1%                |
| Nonprofit                           | 11.2                        | 12.2        | 11.8        | -3.6%               |
| <b>Unsolicited Packages</b>         | <b>0.04</b>                 | <b>0.03</b> | <b>0.05</b> | <b>44.2%</b>        |
| <b>Total Advertising</b>            | <b>61.2</b>                 | <b>65.2</b> | <b>65.4</b> | <b>0.2%</b>         |
| Unaddressed Mail                    | 0.9                         | 0.8         | 1.3         | 51.6%               |

Source: HDS Diary Sample, FY 2020, 2021, and 2022.

Notes: Totals may not sum due to rounding. Unaddressed Mail is not included in totals.

Minor changes to historical data reflect changes to sample expansion factors related to revised Census population estimates.

**Table 5.3:**  
Advertising Mail by Mail Classification  
(Pieces per Household per Week)

| Mail Classification              | Pieces per HH per Week |            |            | Share of Total |
|----------------------------------|------------------------|------------|------------|----------------|
|                                  | 2020                   | 2021       | 2022       |                |
| First-Class Advertising          | <b>0.9</b>             | <b>1.0</b> | <b>1.0</b> | <b>10.3%</b>   |
| Advertising Only                 | 0.5                    | 0.5        | 0.6        | 6.0%           |
| Secondary Advertising            | 0.4                    | 0.4        | 0.4        | 4.3%           |
| Marketing Mail                   | <b>8.2</b>             | <b>8.7</b> | <b>8.6</b> | <b>89.6%</b>   |
| Regular and ECR                  | 6.5                    | 6.9        | 6.9        | 71.6%          |
| Nonprofit                        | 1.7                    | 1.8        | 1.7        | 18.0%          |
| Unsolicited Periodicals/Packages | 0.01                   | 0.00       | 0.01       | 0.1%           |
| Total Advertising                | <b>9.2</b>             | <b>9.7</b> | <b>9.6</b> | <b>100.0%</b>  |
| Unaddressed Mail                 | 0.1                    | 0.1        | 0.2        | 1.9%           |

Source: HDS Diary Sample, FY 2020, 2021, and 2022.

Note: Totals may not sum due to rounding. Unaddressed Mail is not included in totals.

## Advertising Mail and Household Characteristics

### Income, Education, and Age

Given that advertising mail is used to sell goods and services, it is not surprising that the volume of ad mail received by households is closely tied to their income and education.

As Table 5.4 illustrates, the relationship between advertising mail and household income is quite strong. In 2022, heads of households with incomes of \$100,000 or more received almost twice as many pieces as households earning less than \$35,000 (12.2 vs. 6.3 ads weekly, respectively).

Table 5.4 shows that education also played a key role in the volume of advertising mail received. For example,

households headed by someone without a high school degree received an average of 7.8 ad pieces weekly, while households headed by a college graduate received 10.3 pieces weekly. At higher income levels, we see that households with lower education levels may receive more pieces than those with higher education. This may reflect the impact of successful entrepreneurs who received large volumes of business-related ad mail.

The role that education plays in advertising mail is two-fold. First, direct mail is a written type of communication, and education may play some role in its relative effectiveness compared to television or radio advertising. Second, education is not only tied to current household income, but also to future household income. A college graduate who currently has a relatively low income may, in a few years, earn a much higher income.

**Table 5.4:**  
Advertising Mail Received by Income and Education  
(Pieces per Household per Week)

| Household Income (Thousands) | Education of Head of Household |                      |                                  |                  | Average     |
|------------------------------|--------------------------------|----------------------|----------------------------------|------------------|-------------|
|                              | Less than High School          | High School graduate | Some College or Technical School | College graduate |             |
| Under \$35                   | 7.4                            | 6.0                  | 6.3                              | 6.0              | <b>6.3</b>  |
| \$35 to \$65                 | 6.2                            | 11.0                 | 8.3                              | 8.6              | <b>8.9</b>  |
| \$65 to \$100                | 8.6                            | 8.3                  | 10.0                             | 9.8              | <b>9.3</b>  |
| Over \$100                   | 11.7                           | 12.7                 | 12.0                             | 12.1             | <b>12.2</b> |
| <b>Average</b>               | <b>7.8</b>                     | <b>9.1</b>           | <b>9.1</b>                       | <b>10.3</b>      | <b>9.6</b>  |

Source: HDS Diary Sample, FY 2022.

As Table 5.5 illustrates, advertising mail received is also positively correlated to age. At every level of income, households headed by an older person received significantly more advertising mail than their younger counterparts.

In part, this occurred because age is correlated to other characteristics such as marriage, home ownership, and the presence of children in the household. Moreover, the older a person is, the longer his or her buying history and the more businesses with which the person has relationships that advertising mail can help maintain.

The number of ads received weekly is maximized when older age is combined with high household income. In Table 5.5 we see that, heads of household older than 55 with incomes over \$100,000 received 15.3 ad pieces per week, more than any other demographic combination.

**The amount of advertising mail received is strongly correlated to income, age, and education.**

**Table 5.5:**  
Advertising Mail Received by Income and Age  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Age of Head of Household |            |             | Average     |
|---------------------------------|--------------------------|------------|-------------|-------------|
|                                 | Under 34                 | 35 to 54   | Over 55     |             |
| Under \$35                      | 3.8                      | 4.5        | 9.0         | <b>6.3</b>  |
| \$35 to \$65                    | 4.9                      | 6.9        | 12.1        | <b>8.9</b>  |
| \$65 to \$100                   | 5.2                      | 7.9        | 12.5        | <b>9.3</b>  |
| Over \$100                      | 7.6                      | 11.1       | 15.3        | <b>12.2</b> |
| <b>Average</b>                  | <b>5.2</b>               | <b>8.5</b> | <b>12.3</b> | <b>9.6</b>  |

Source: HDS Diary Sample, FY 2022.

## Household Size

Tables 5.6 and 5.7 show that advertising mail received increased with the size and number of adults in the household. In Table 5.6 we see that, while this is evident when looking at changes in household sizes from one to two household members (a 49% increase), additional members over two did not increase, and may in fact have reduced the number of advertising pieces received.

When looking at changes in the number of adults in the household, the number of advertising pieces received did increase with each additional household adult.

**Table 5.6:**  
Advertising Mail Received by Size of Household  
(Pieces per Household per Week)

| Household Size |            |
|----------------|------------|
| One person     | 7.3        |
| Two            | 10.9       |
| Three          | 9.3        |
| Four           | 10.2       |
| Five or more   | 9.3        |
| <b>Average</b> | <b>9.6</b> |

Source: HDS Diary Sample, FY 2022.

In Table 5.7 we see that households with two adults received 33% more ad pieces than those with only one adult. When three or more adults were present, ad mail increased another 20%. The strong positive correlation between ads received and number of adults results from circumstances where households with more than one adult are also two-income (or more) households.

**Table 5.7:**  
Advertising Mail Received by Number of Adults  
(Pieces per Household per Week)

| Number of Adults |            |
|------------------|------------|
| One              | 7.1        |
| Two              | 10.2       |
| Three or more    | 11.5       |
| <b>Average</b>   | <b>9.6</b> |

Source: HDS Diary Sample, FY 2022.

## Internet Access

Table 5.8 shows that households without Internet access received slightly less ad pieces than the ones with Broadband service. In part, the reason for the small difference is that advertising mail is often sent even when Internet advertising is a viable alternative. One reason for doing so is when direct mail is used as a complement to Internet sales, by directing potential customers to specific company websites.

**Table 5.8:**  
Advertising Mail Received by Internet Access  
(Pieces per Household per Week)

| Type of Internet Access |            |
|-------------------------|------------|
| Broadband               | 9.6        |
| None                    | 9.3        |
| Others                  | 8.5        |
| <b>Average</b>          | <b>9.6</b> |

Source: HDS Diary Sample, FY 2022.

**Table 5.9:**  
Income and Education by Type of Internet Access

| Type of Internet Access | Median Income | % w/ College Degree |
|-------------------------|---------------|---------------------|
| Broadband               | 70,941        | 45%                 |
| None                    | 31,416        | 24%                 |
| Others                  | 36,284        | 30%                 |

Source: HDS Diary Sample, FY 2022.

## Senders of Advertising Mail

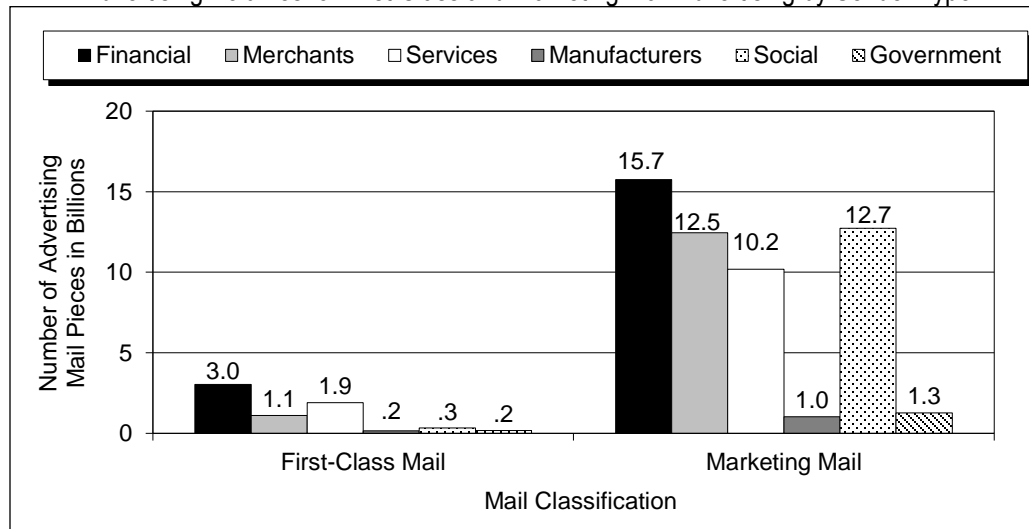
Figure 5.2 shows advertising mail volumes by major mailing industry. Historically, merchants have invariably been the largest mailers of advertising materials compared to other industries. However, with the rise of ecommerce activity merchants redirected large portions of their direct mail budgets towards online advertising. As a result, starting in 2007, Marketing Mail advertising from merchants began shrinking continuously, through 2022, with volumes falling from 30 billion pieces (or 36% of total Marketing Mail) in 2007 to 12.5 billion pieces (or 21% of the volume) in 2022.

In Figure 5.2 we see that, in 2022, financial companies represented the largest mailers of

Marketing Mail (overtaking merchants in 2021, for the first time), sending 15.7 billion pieces of advertising mail, accounting for 29% of the volume. Service companies were the second largest industry, mailing 12.7 billion pieces of Marketing Mail, accounting for 22% of the volume.

In 2022, the financial industry was also the largest mailer of First-Class Mail advertising, sending 3.0 billion ads, with a 45% share of total First-Class ad volume. Service companies were the second largest mailers of First-Class ads, sending 1.9 billion pieces, with a 28% share of the volume, followed by merchants, with 1.1 billion pieces and 16% of volume.

**Figure 5.2:**  
Advertising Volumes for First-Class and Marketing Mail Advertising by Sender Type



Source: HDS Diary Sample, FY 2022

Note: First-Class Mail advertising includes advertising-only and advertising enclosed volumes

## Attitudes toward Advertising

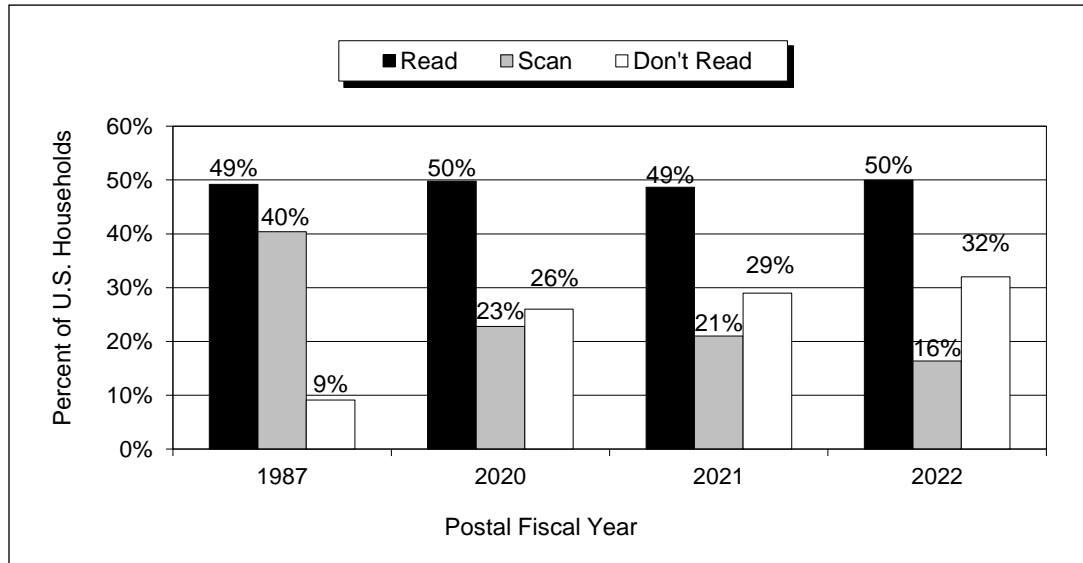
With \$333 billion spent on advertising in the US in 2022, few households would probably wish they received more.

Whether they wish to receive more or not, the household diary survey reveals that most households either read or scanned their advertising mail. In Figure 5.3 we see that 50% of households read their advertising mail - a percentage remarkably stable since 1987. An

additional 16% of households scanned the ads, a drop from recent trends and significantly fewer households compared to 1987, when 40% reported scanning their mail.

The decline in mail scanned resulted in a large and offsetting increase in the share of households who did not read any of the ads received (up from 9% in 1987 to 32% in 2022). Nonetheless, given the large increase in the volume of advertising mail received since 1987, it is clear that households read and scan more advertising mail now than in the past.

**Figure 5.3:**  
Advertising Mail Behavioral Trends, FY 1987, 2020, 2021, and 2022

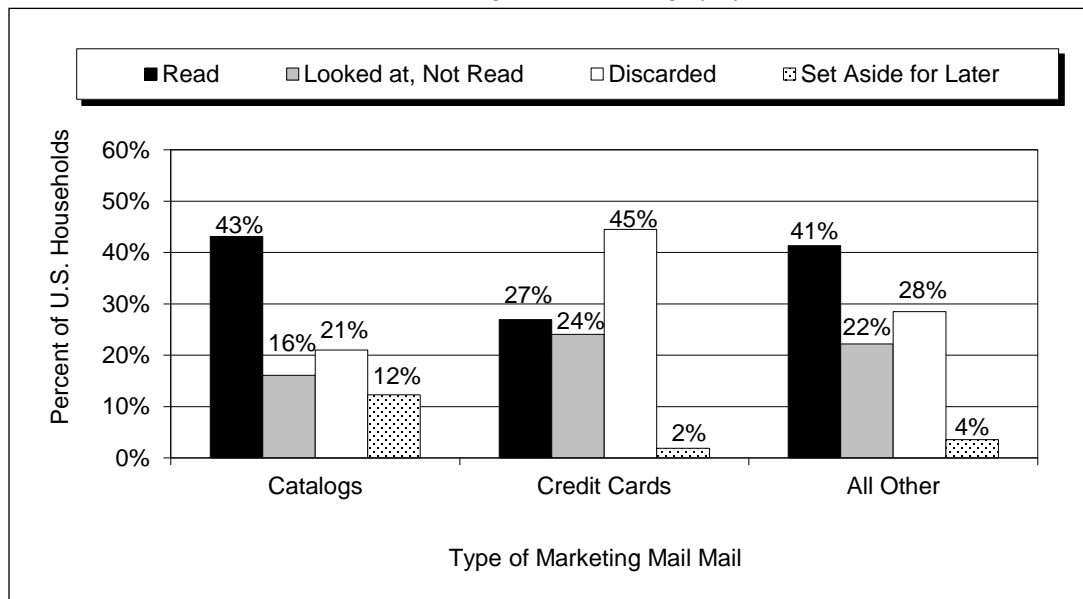


Source: HDS Recruitment Sample, FY 1987, 2020, 2021, and 2022.

Interestingly, not all advertising mail is treated equally. As Figure 5.4 illustrates, catalogs attract considerably more attention than credit card ads because they typically are more interesting to read. In 2022, 43% of households read catalogs, with only 21% discarding

them. In contrast, only 27% of households read credit card ads, with 45% discarding them. The reading rate for all other ads was similar to catalogs (41%) but the discard rate was higher (28%).

**Figure 5.4:**  
Treatment of Marketing Mail Advertising by Type



Source: HDS Diary Sample, FY 2022.

Figure 5.5 shows the effect of household demographics on advertising reading rates.

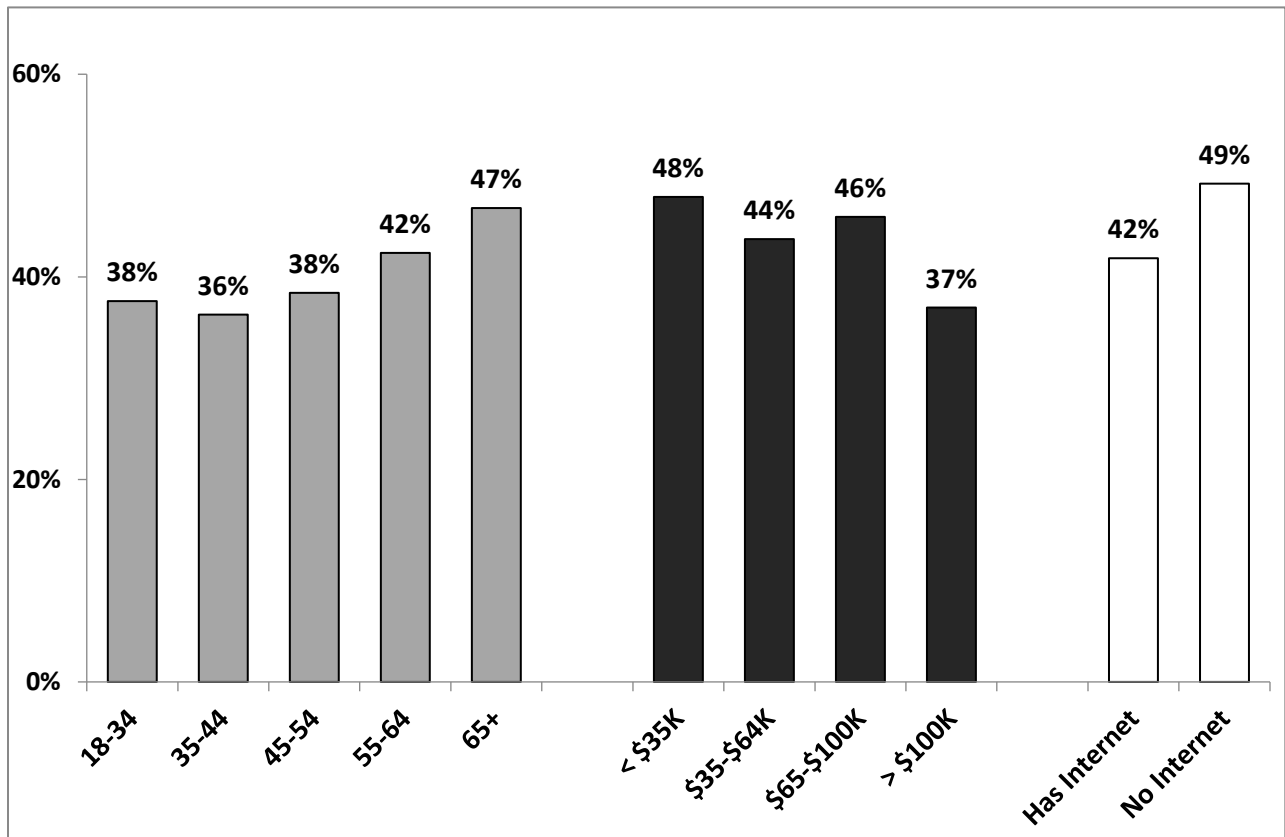
Low-income households reported reading more ad mail than high earners (likely due to the lower number of ad pieces that lower income households receive). In 2022, households earning less than \$35K read almost half of the ads received (48%) while households earning over \$100K read 37%.

Looking at reading rates by age cohort, we see that, just as older heads of households generally read more than

younger ones, they also tend to read more advertising mail. Table 5.6 shows that individuals over-65 read almost half (47%) of ads received, compared to an average of 37% read by all age groups under 55.

Finally, households with an Internet connection read less advertising mail than households without access, probably related to reading fatigue when exposed to both online and direct mail ads.

**Figure 5.5**  
Marketing Mail Reading Rates by Household Demographics



Source: HDS Diary Sample, FY 2022.

## Effectiveness of Advertising Mail

Ultimately, advertisers send direct mail because it works—household members read and respond to it. Table 5.10 presents the intended response rates to advertising mail. Households reported that they intended to respond to 10% of First-Class and 9% of Marketing Mail ads. While intended response rates are usually higher than actual response rates, the data demonstrate that direct mail can have a significant impact on household purchasing behavior. The table also shows that households “may” respond to an additional 10% of First-Class Mail ads and another 13% of Marketing Mail ads.

This is not to say that a similar mail piece may receive a higher response rate if mailed via Marketing Mail; it is more likely that this is due to the difference in the mix of ads received. For example, catalogs, which typically enjoy a high response rate (linked to the high read rate shown in Figure 5.4), are routinely mailed by Marketing Mail and only rarely by First-Class Mail. Credit card ads, on the other hand, have the lowest response rate (linked to the low read rate shown in Figure 5.4) and are often mailed First-Class.

**Table 5.10:**  
Intended Response to Advertising Mail by Class  
(Percentage of Pieces)

| Response  | First-Class | Marketing Mail |
|-----------|-------------|----------------|
| Yes       | 10%         | 9%             |
| Maybe     | 10%         | 13%            |
| No        | 68%         | 73%            |
| No Answer | 11%         | 5%             |

Source: HDS Diary Sample, FY 2022.

Table 5.11 illustrates how the existence of a past business relationship between the mailer and the household may have a strong impact on the effectiveness of advertising mail. Advertising mail sent by a business that has a past business relationship with the recipient (i.e., to existing customers), is more than twice as likely to be read and eight times more likely to get a response than mail sent by businesses with no past relationship (i.e., to prospects).

**Table 5.11:**  
Intended Response to Advertising Mail by Class  
(Percentage of Pieces)

| Past Business Relationship with Recipient | Reading Rate | Intended Response Rate |
|---|--------------|------------------------|
| Existing Customers                        | 59%          | 16%                    |
| Prospects                                 | 23%          | 2%                     |
| <b>All Recipients</b>                     | <b>42%</b>   | <b>10%</b>             |

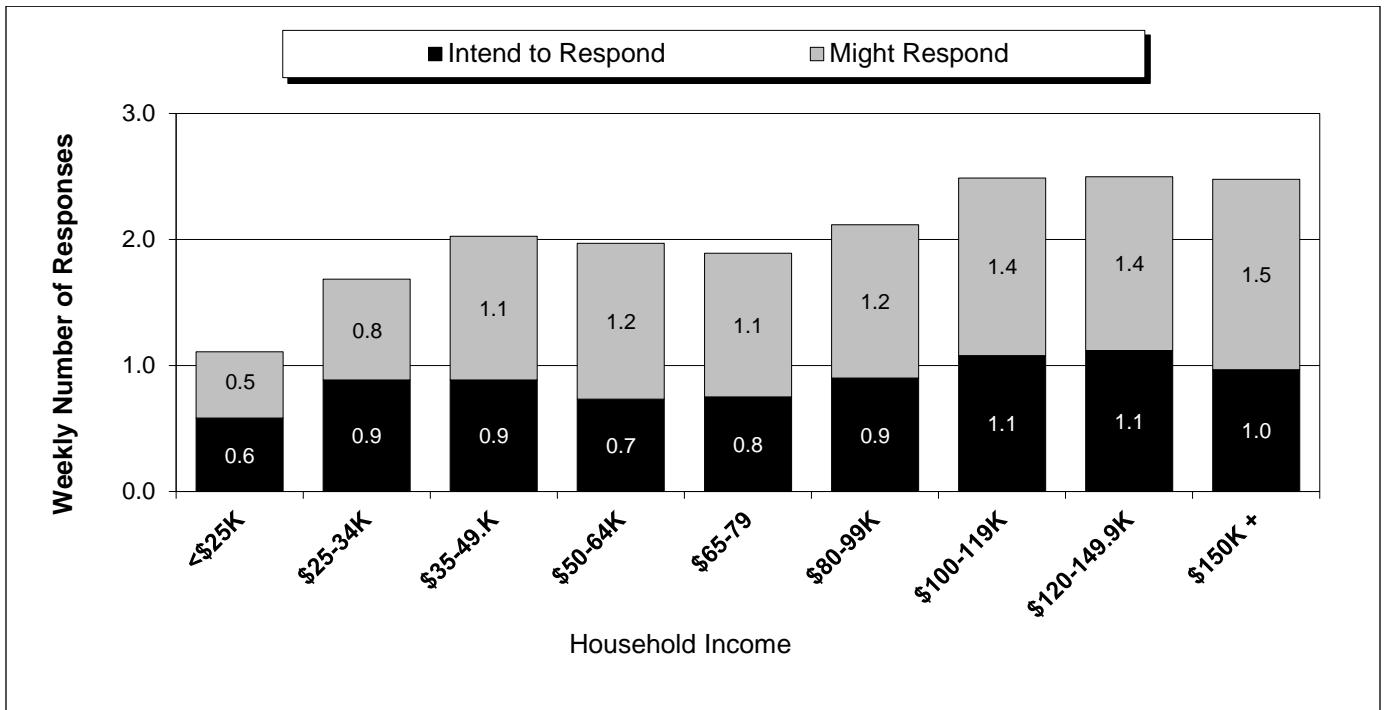
As illustrated earlier in Tables 5.4 and 5.5, high-income households received more advertising mail than those with lower incomes. Figure 5.6 combines the weekly volume of advertising mail received by each income group with the respective intended response rates reported in Table 5.10. The result is the average number of intended responses per week for each income level.

For example, households with incomes greater than \$150,000 reported they intended to respond to 1.0 pieces of advertising mail per week, and they may respond to another 1.5 pieces per week. Other high-income households also indicated they intended to respond to about one piece of advertising mail per week. Starting from households earning \$99,000 or less, both types of response rates started to decline.

While intended responses do not always lead to actual responses, the data presented in Table 5.10 and Figure 5.6 help explain why direct mail is a popular choice for advertisers in the U.S. Although there is no completely equivalent measure for intended response to Internet ads, the click-through rate (the percentage of online visitors who viewed an ad and clicked on it) is widely used as an indicator of consumers’ interest in online ads and, as such, it is somewhat comparable to the read rates for mail ads. Based on recently published reports, most click-through rates for online advertising fall between 0.05% and 0.5%, depending on formats, visuals, clarity, and the type of industry. Read rates and intended response rates for mail advertising, on the other hand, have been much higher, averaging about 50% (see Figure 5.3) and 10%, respectively.



**Figure 5.6:**  
Weekly Number of Intended Responses by Income



Source: HDS Diary Sample, FY 2022.

# Chapter 6: Periodicals

## Introduction

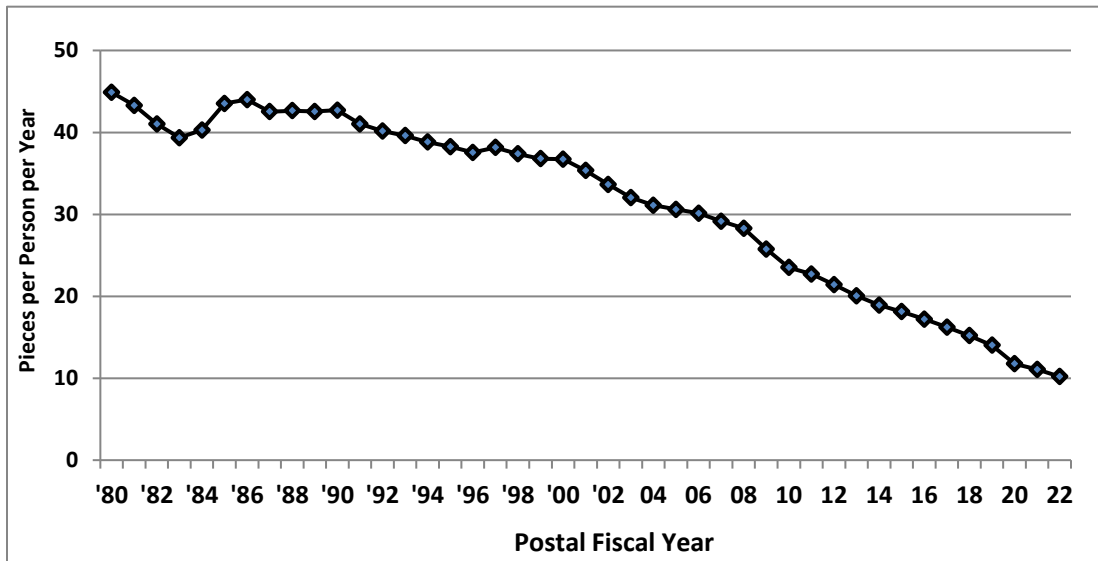
This chapter examines the volume and types of periodicals mailed to households. Periodical Mail consists of newspapers, magazines, and newsletters regularly sent to households, usually as part of a subscription. This chapter analyzes only periodicals delivered by the Postal Service to households. Newspapers or magazines delivered by a local carrier or purchased at a newsstand or store are not included in Household Diary Study data. Additionally, periodicals examined here are only a portion of the total volume, as some of periodicals are received by non-households, such as doctors' offices and other businesses.

## The Periodicals Market

As Fig. 6.1 illustrates, the volume of periodicals has fallen out of pace with population growth since the early nineties. After reaching an annual peak of 42.7 pieces annually per person in 1990, periodicals per person took a downturn that brought volumes down to just 10.2 periodicals annually per person by 2022.

The emergence of the Internet was the catalyst that accelerated an already sharp downturn in periodicals, by providing a vast selection of content at lower cost and more accessibility than hard copy publications. The recession of 2008 and, more recently, the pandemic and recession that started in 2020, provided additional incentives for individuals to switch to online subscriptions, further accelerating the decline in periodicals.

**Figure 6.1:**  
Number of Periodicals per Person, 1980-2022  
(Annual Pieces per Person)



Source: U.S. Postal Service RPW Reports, U.S. Census Bureau.

## Advertising's impact on Periodicals delivered by Mail

Advertising spending translates into advertising revenue, and the key determinant of periodicals' profitability is advertising revenue.

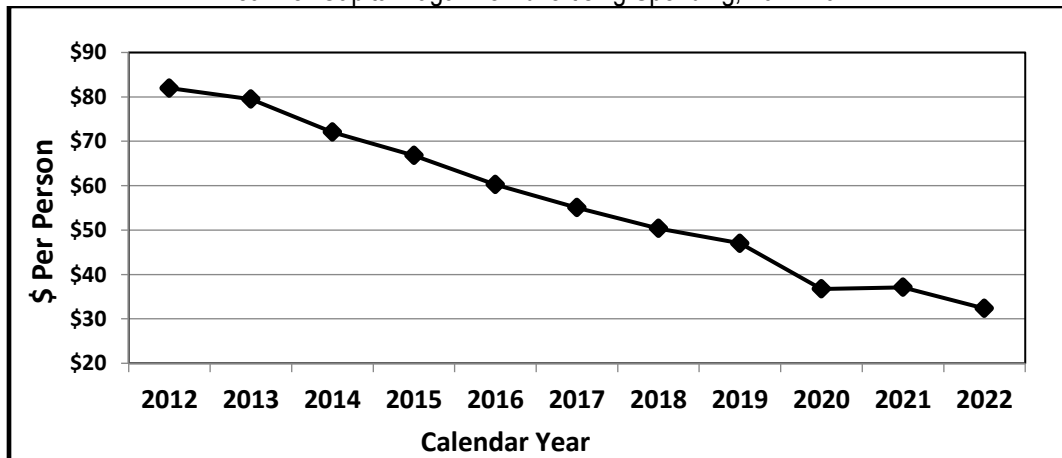
**Annual magazine ad spending fell from \$82 per person in 2012 to \$32 per person in 2022**

Advertising is a form of business investment and, as is the case with other investments, when the economy takes a turn for the worse, advertising tends to slow. In 2000, total ad spending as a percent of Gross Domestic Product (GDP) rose to historically high levels but quickly plummeted with the economic recession of 2001. In 2002, growth in ad spending resumed (though at a slower pace) and, after six years of economic expansion, it reached new record highs. However, during the 2008

recession, advertising spending suffered its sharpest decline in history, drastically shrinking the revenues and profitability of the magazine industry. After 2009, total advertising spending returned to growth (aided by a recovering economy), but spending on magazine advertising continued to fall, reaching its lowest point in 2022. As Figure 6.2 shows, in the last ten years annual magazine ad spending fell from \$82 per person in 2012 to \$32 in 2022, a 61% decline.

GroupM projects that as the economy grows, so will total advertising spending. Growth in advertising spending typically would bode well for magazines. In the past, more magazines in circulation translated into higher volumes for the Postal Service since the mail continues to be their primary distribution channel. The Internet, however, is expected to continue absorbing most advertising budgets, leaving fewer dollars for all other types of media, including periodicals. Furthermore, the convenience of the Internet and the variety of content available online will continue to weaken periodical sales and reduce postal volumes.

**Figure 6.2:**  
Real Per-Capita Magazine Advertising Spending, 2012-2022



Source: GroupM, U.S. Census Bureau

## Household Periodicals

As shown in Table E.2 of the Executive Summary, in 2022, periodicals accounted for 3.1% of total household mail with volumes declining 15% over the last three years, from 3.9 billion pieces in 2020 to 3.3 billion in 2022.

Table 6.1 provides a more detailed breakdown of periodicals, showing the annual number of pieces received by households for each publication type. In 2022, the average household received 16 magazines annually, 20% fewer pieces than in 2021, accounting for 64% of periodicals. For reference, from 1987 to 2022, magazine volume fell 69%. Also, in 1987, magazines accounted for 59% of periodicals and newspapers were still the predominant source of daily news. In 2022, monthly magazines continued to be the most popular type of subscription, with a 69% share of total magazines.

The number of newspapers received by mail remained unchanged from the previous two years, as the average

households received 6 papers every year from 2020 to 2022. In 2022, newspapers accounted for 24% of household periodicals, up from 20% in 2020, but down from 35% in 1987. Compared to 1987, the annual number of newspapers per household fell 81%, from 31 pieces in 1987 to just 6 pieces in 2022.

Although the long-term decline in newspapers mirrors reports of a similar trend in newspaper circulation, the latter was not the only reason for shrinking volumes. Current technology and the availability of alternate delivery systems have encouraged national newspapers to move a large percentage of their publications online. They also continue delivering a portion of their papers directly to prime urban and suburban household customers. Such delivery alternatives mean that those publications no longer move through the mail.

**Table 6.1:**  
Periodical Type by Year  
(Pieces per Household per year)

| Periodical Type          | 1987      | 2020      | 2021      | 2022      |
|--------------------------|-----------|-----------|-----------|-----------|
| <b>Magazines</b>         | <b>52</b> | <b>21</b> | <b>20</b> | <b>16</b> |
| Weekly                   | 16        | 3         | 3         | 2         |
| Monthly                  | 31        | 13        | 13        | 11        |
| Other                    | 5         | 5         | 4         | 4         |
| <b>Newspapers</b>        | <b>31</b> | <b>6</b>  | <b>6</b>  | <b>6</b>  |
| Daily                    | 10        | 2         | 2         | 2         |
| Weekly                   | 16        | 3         | 3         | 3         |
| Other                    | 5         | 1         | 1         | 1         |
| <b>Newsletters</b>       | <b>3</b>  | <b>2</b>  | <b>2</b>  | <b>1</b>  |
| <b>Unclassified</b>      | <b>2</b>  | <b>1</b>  | <b>1</b>  | <b>1</b>  |
| <b>Total Periodicals</b> | <b>88</b> | <b>30</b> | <b>28</b> | <b>25</b> |

Source: HDS Diary Sample, FY 1987, 2020, 2021 and 2022.

Note: Totals may not sum due to rounding.

# Periodicals Mail and Household Characteristics

## Income, Education, and Age

Table 6.2 illustrates that the number of periodicals received by households increased when earnings increased from less than \$35K to the \$35K-\$65K range and again when earnings were over \$100K. However, within the income range of \$35K to \$100K, the number of periodicals remained unchanged.

In some way, the relationship between education and periodicals received was similar to the one observed between income and periodicals. The number of periodicals increased only when education increased from less than High School to High School-graduate and from some college to college-graduate. There was a decline in the number of periodicals when education increased from High School-graduate and some college.

In Table 6.3 we see that age had a strong influence on the number of periodicals received by households. For example, heads of household younger than 35 received an average of only 0.1 periodical per week but those between 35 to 54 and those over 55 received an average of 0.4 and 0.7 pieces, respectively.

**Individuals older than 55 received seven times more periodicals than those younger than 35.**

**Table 6.2:**  
Periodicals by Income and Education  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Educational Attainment of Head of Household |                      |                                  |                  | Average    |
|---------------------------------|---|----------------------|----------------------------------|------------------|------------|
|                                 | Less than High School                       | High School Graduate | Some College or Technical School | College Graduate |            |
| Under \$35                      | 0.3   | 0.2                  | 0.2                              | 0.3              | <b>0.3</b> |
| \$35 to \$65                    | 0.7   | 0.5                  | 0.5                              | 0.4              | <b>0.5</b> |
| \$65 to \$100                   | 0.6   | 0.5                  | 0.4                              | 0.5              | <b>0.5</b> |
| Over \$100                      | 0.2   | 0.7                  | 0.5                              | 0.6              | <b>0.6</b> |
| <b>Average</b>                  | <b>0.4</b>                                  | <b>0.5</b>           | <b>0.4</b>                       | <b>0.5</b>       | <b>0.5</b> |

Source: HDS Diary Sample, FY 2022.

**Table 6.3:**  
Periodicals by Income and Age  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Age of Head of Household |            |            | Average    |
|---------------------------------|--------------------------|------------|------------|------------|
|                                 | Under 35                 | 35 to 54   | Over 55    |            |
| Under \$35                      | 0.0                      | 0.2        | 0.4        | <b>0.3</b> |
| \$35 to \$65                    | 0.1                      | 0.3        | 0.8        | <b>0.5</b> |
| \$65 to \$100                   | 0.2                      | 0.3        | 0.7        | <b>0.5</b> |
| Over \$100                      | 0.3                      | 0.4        | 0.9        | <b>0.6</b> |
| <b>Average</b>                  | <b>0.1</b>               | <b>0.4</b> | <b>0.7</b> | <b>0.5</b> |

Source: HDS Diary Sample, FY 2022.

## Household Size

Table 6.4 and Table 6.5 show that as households increased in size from one to two persons, the number of periodicals increased 50%. Households with more than two persons did not show a clear relationship with the number of periodicals.

In households with two adults, the number of periodicals increased 25% compared to one-adult households. The presence of additional adults beyond two had no distinguishable impact.

**Table 6.4:**  
Periodicals by Size of Household  
(Pieces per Household per Week)

| Household Size |           |
|----------------|-----------|
| One person     | .4        |
| Two            | .6        |
| Three          | .4        |
| Four           | .4        |
| Five or more   | .5        |
| <b>Average</b> | <b>.5</b> |

Source: HDS Diary Sample, FY 2022.

**Table 6.5:**  
Periodicals by Number of Adults in Household  
(Pieces per Household per Week)

| Number of Adults |           |
|------------------|-----------|
| One              | .4        |
| Two              | .5        |
| Three or more    | .5        |
| <b>Average</b>   | <b>.5</b> |

Source: HDS Diary Sample, FY 2022.

## Internet Access

In Table 6.6 we see that households with Internet access received 38% fewer periodicals through the mail than those without access. This can partly be explained by the large selection of content available on the Internet, which is often less expensive and more convenient to access than hard copy periodicals. In addition, the widespread use of e-readers, which require online access to download reading materials, likely contributed to the decline in periodicals.

**Table 6.6:**  
Periodicals by Type of Internet Access  
(Pieces per Household per Week)

| Type of Internet Access |    |
|-------------------------|----|
| Broadband               | .5 |
| None                    | .8 |
| Others                  | .5 |
| Average                 | .5 |

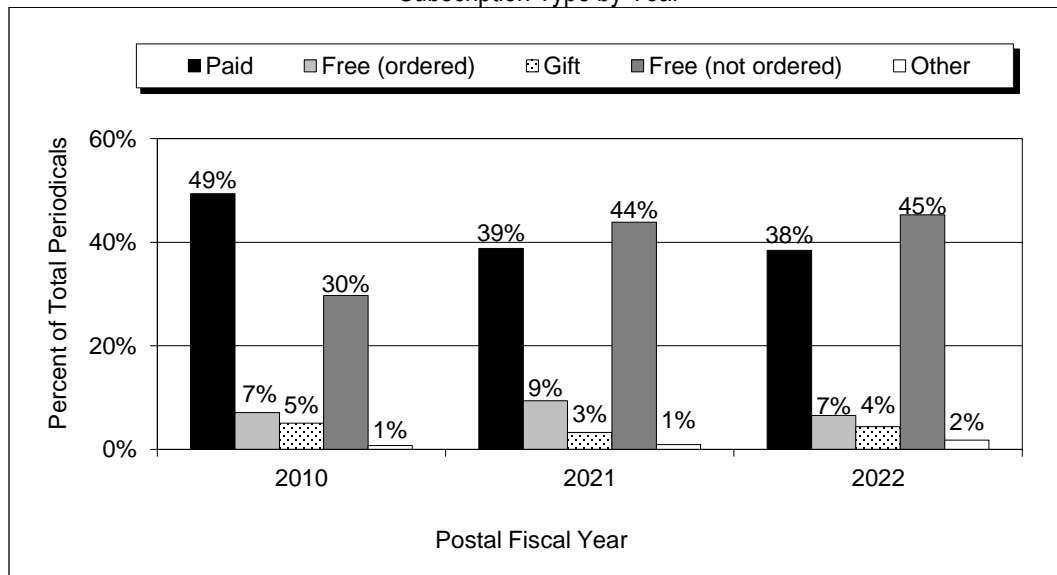
Source: HDS Diary Sample, FY 2022.

## Subscription Type

Figure 6.3 shows the types of subscriptions available and the shares of total periodicals they represented in 2022, 2021 and, for perspective, in 2010. As shown, percentages remained relatively stable between 2021 and 2022, but they changed significantly when compared to 2010. Between 2010 and 2022, we see that a significant decline in the share of paid subscriptions was more than offset by an increase in free periodicals.

This change was likely related to the migration of hard-copy subscriptions to online publications, which offered similar content, often at lower cost. In 2022, households ordered and paid for 38% of periodicals received. An additional 52% of periodicals were free - either ordered by the household or delivered without a freestanding order - such as a benefit of membership in a professional, fraternal, or religious organization.

**Figure 6.3:**  
Subscription Type by Year



Source: HDS Diary Sample, FY 2010, 2021, and 2022.

Note: Percentages do not add to 100 due to the exclusion of periodicals not classified by subscription type.

Examining the volume of periodicals by sender type, Table 6.7 shows that households received most periodicals (77%) from commercial organizations. The rest were received from several member organizations. Member organizations include professional affiliations,

charitable, religious, and veterans' organizations, educational groups, and unions. When combined, member organizations account for the remaining 23% of periodicals received in the mail.

**Table 6.7:**  
Periodicals by Sender Type

| Sender Type               | Annual Pieces per Household | Percent of Periodicals Received by HH |
|---------------------------|-----------------------------|---------------------------------------|
| Commercial Organization   | 19.2                        | 77%                                   |
| Professional Organization | 2.5                         | 10%                                   |
| Religious Organization    | .9                          | 4%                                    |
| Educational Organization  | 1.1                         | 5%                                    |
| Union                     | .4                          | 1%                                    |
| Charitable Organization   | .4                          | 1%                                    |
| Veterans' Organization    | .2                          | 1%                                    |
| Unclassified              | .2                          | 1%                                    |
| <b>Total</b>              | <b>24.8</b>                 | <b>100%</b>                           |

Source: HDS Diary Sample, FY 2022.

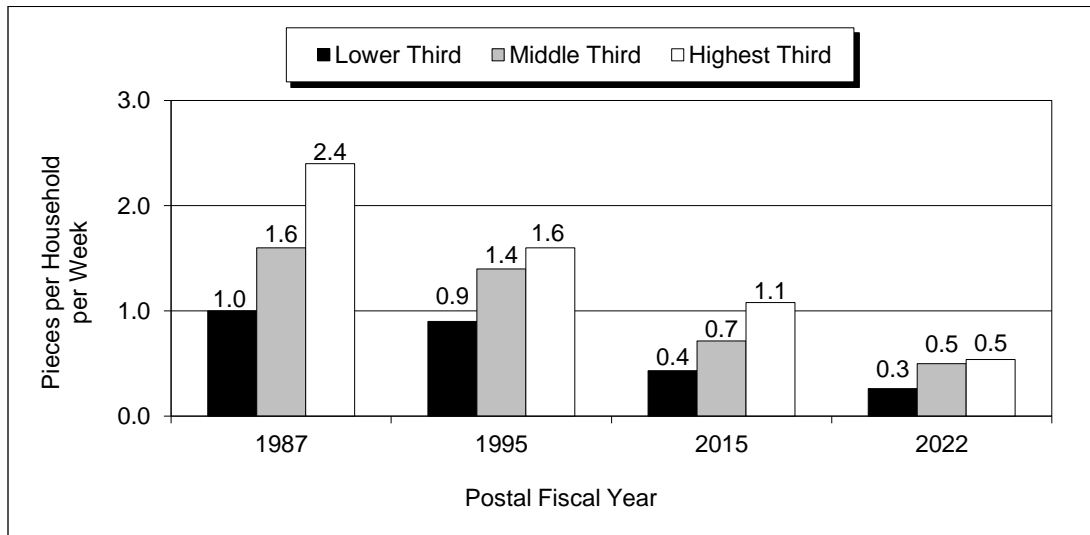
## Volume Drivers

Several factors influence the number of periodicals received by households. Some are demographic, while others are more behavioral in nature. Income seems to strongly influence volume because a large percentage of periodicals are received through a paid subscription. Accordingly, we would expect higher-income

households to subscribe to more magazines and newspapers than lower income earners. Figure 6.4 shows long-term trends in the relationship between households' income and the number of periodicals received. Although volumes of all income groups fell significantly compared to 1987, the distribution across income groups remained relatively unchanged.



**Figure 6.4:**  
Number of Periodicals Received per Week by Households by Income Group



Source: HDS Diary Sample, FY 1987, 1995, 2015, and 2022.

# Chapter 7: Packages

## Introduction

This chapter discusses packages sent and received by households. Packages can be mailed via the U.S. Postal Service at a variety of rates, such as Priority Mail, First-Class Mail, and Media Mail. Documents can be sent as First-Class Mail, Priority Mail, or Express Mail.

## The Package Market

The package delivery market is an important segment of the economy. There are three major components of the package market:

- Overnight air,
- Two- and three-day air, and
- Ground.

The U.S. Postal Service provides services in all segments: Priority Mail Express in the overnight segment, Priority and First-Class Mail in the two- and three-day segment, and Parcel Select and Package Services in the ground segment.

## Postal Service Package Volume

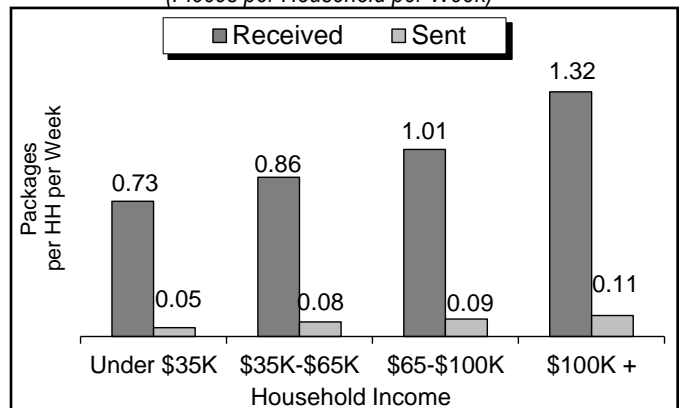
Compared to other types of mail, such as letters or ads, the number of packages captured in the Household Diary Study survey is small, as most households do not receive packages regularly on a daily or weekly basis as they do with the mail. The interpretation of the results should be conducted with this in mind.

## Packages and Household Characteristics

### Income, Education, and Age

Survey results indicate that high-income households received significantly more packages than their less affluent counterparts. According to Fig. 7.1, households in the highest income bracket received almost twice as many packages as those earning less than \$35,000. Packages sent were also positively correlated to income, with the highest income bracket again sending more than twice as many packages as the lowest bracket.

**Figure 7.1:**  
Packages Sent and Received by Household Income  
(Pieces per Household per Week)



Source: HDS Diary Sample, FY 2022.

Base: Packages Sent and Received by Households and Delivered by U.S. Postal Service.

The age of heads of households was another factor influencing the number of packages received. As shown in Table 7.1, heads of household between 35 and 54 years of age received more packages than both younger and older heads of household, likely related to the higher income earned by the 35 to 54 age cohort. Looking at Table 7.2, the number of packages sent was again the highest for households between 35 and 54.

**Table 7.1:**  
Postal Service Packages Received by Income and Age  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Age of Head of Household |             |             | Average     |
|---------------------------------|--------------------------|-------------|-------------|-------------|
|                                 | Under 35                 | 35 to 54    | Over 55     |             |
| Under \$35                      | 0.63                     | 0.78        | 0.77        | <b>0.73</b> |
| \$35 to \$65                    | 0.69                     | 1.01        | 0.87        | <b>0.86</b> |
| \$65 to \$100                   | 0.80                     | 1.27        | 0.95        | <b>1.01</b> |
| Over \$100                      | 1.22                     | 1.42        | 1.25        | <b>1.32</b> |
| <b>Average</b>                  | <b>0.81</b>              | <b>1.18</b> | <b>0.95</b> | <b>0.99</b> |

Source: HDS Diary Sample, FY 2022.

**Table 7.2:**  
Postal Service Packages Sent by Income and Age  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Age of head of Household |             |             | Average     |
|---------------------------------|--------------------------|-------------|-------------|-------------|
|                                 | Under 35                 | 35 to 54    | Over 55     |             |
| Under \$35                      | 0.02                     | 0.10        | 0.03        | <b>0.05</b> |
| \$35 to \$65                    | 0.09                     | 0.07        | 0.08        | <b>0.08</b> |
| \$65 to \$100                   | 0.04                     | 0.10        | 0.12        | <b>0.09</b> |
| Over \$100                      | 0.13                     | 0.14        | 0.07        | <b>0.11</b> |
| <b>Average</b>                  | <b>0.06</b>              | <b>0.11</b> | <b>0.08</b> | <b>0.08</b> |

Source: HDS Diary Sample, FY 2022.

Tables 7.3 and 7.4 illustrate the impact of education on the number of packages received and sent by households. Table 7.3 shows that education had a strong influence on the number of packages received, with college graduates receiving 24% more packages on average than High-School graduates. The survey found that, except for college graduates, the relationship between packages sent and education was similar to the

one observed for packages received (see Table 7.4). College graduates sent slightly fewer pieces than heads of household with some college, but more pieces compared to those with some High School or High-School graduates.

**Table 7.3:**  
Postal Service Packages Received by Income and Education  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Education of Head of Household |                      |                                  |                  | Average     |
|---------------------------------|--------------------------------|----------------------|----------------------------------|------------------|-------------|
|                                 | Less than High School          | High School Graduate | Some College or Technical School | College Graduate |             |
| Under \$35                      | 0.85                           | 0.67                 | 0.66                             | 0.85             | <b>0.73</b> |
| \$35 to \$65                    | 0.88                           | 0.93                 | 0.93                             | 0.77             | <b>0.86</b> |
| \$65 to \$100                   | 0.78                           | 0.77                 | 1.34                             | 1.06             | <b>1.01</b> |
| Over \$100                      | 0.86                           | 1.48                 | 1.39                             | 1.31             | <b>1.32</b> |
| <b>Average</b>                  | <b>0.87</b>                    | <b>0.87</b>          | <b>1.02</b>                      | <b>1.08</b>      | <b>0.99</b> |

Source: HDS Diary Sample, FY 2022.

**Table 7.4:**  
Postal Service Packages Sent by Income and Education  
(Pieces per Household per Week)

| Household Income<br>(Thousands) | Education of Head of Household |                      |                                  |                  | Average     |
|---------------------------------|--------------------------------|----------------------|----------------------------------|------------------|-------------|
|                                 | Less than High School          | High School Graduate | Some College or Technical School | College Graduate |             |
| Under \$35                      | 0.13                           | 0.02                 | 0.03                             | 0.06             | <b>0.05</b> |
| \$35 to \$65                    | 0.00                           | 0.12                 | 0.06                             | 0.09             | <b>0.08</b> |
| \$65 to \$100                   | 0.00                           | 0.08                 | 0.21                             | 0.07             | <b>0.09</b> |
| Over \$100                      | 0.00                           | 0.14                 | 0.12                             | 0.12             | <b>0.11</b> |
| <b>Average</b>                  | <b>0.06</b>                    | <b>0.07</b>          | <b>0.10</b>                      | <b>0.09</b>      | <b>0.08</b> |

Source: HDS Diary Sample, FY 2022.

## Household Size

As would be expected, Table 7.5 shows that two-person households received and sent significantly more packages than one-person households. It also shows that, in most cases, larger family households, with more than two members, received and sent more packages than households with fewer members. In Table 7.6 we also see that households with two or more adults received more packages than those with one adult. For packages sent, households with two adults sent almost twice as many packages as one-adult households; however, the strength of that relationship did not hold for households with three or more adults.

**Table 7.5:**  
Postal Service Packages Received and Sent  
by Size of Household  
(Pieces per Household per Week)

| Household Size | Received    | Sent        |
|----------------|-------------|-------------|
| One person     | 0.64        | 0.05        |
| Two            | 0.99        | 0.08        |
| Three          | 1.15        | 0.09        |
| Four           | 1.22        | 0.14        |
| Five or more   | 1.41        | 0.09        |
| <b>Average</b> | <b>0.99</b> | <b>0.08</b> |

Source: HDS Diary Sample, FY 2022.

**Table 7.6:**  
Postal Service Packages Received and Sent  
by Number of Adults in Household  
(Pieces per Household per Week)

| Number of Adults | Received    | Sent        |
|------------------|-------------|-------------|
| One              | 0.67        | 0.05        |
| Two              | 1.05        | 0.09        |
| Three or more    | 1.33        | 0.14        |
| <b>Average</b>   | <b>0.99</b> | <b>0.08</b> |

Source: HDS Diary Sample, FY 2022.

## Internet Access

The number of packages received by households in 2021 was found to be strongly influenced by the level of Internet access available. In Table 7.7, households with Broadband access received 33% more packages than households without access. However, households with access sent fewer pieces than those without access partly because, when online purchases are sent to a different address (gifts, etc.), they are often mailed directly by the seller. Relatedly, Table 7.8 shows that online-shoppers received and sent more than twice as many packages as not-online shoppers.

**Households with Internet access received 33% more packages than those without access.**

**Table 7.7:**  
Packages Received and Sent  
by Household Internet Access  
(Pieces per Household per Week)

| Type of Internet Access | Received    | Sent        |
|-------------------------|-------------|-------------|
| Broadband               | 1.00        | 0.08        |
| Dial-up                 | 0.63        | 0.05        |
| None                    | 0.75        | 0.11        |
| Others                  | 0.76        | 0.60        |
| <b>Average</b>          | <b>0.99</b> | <b>0.08</b> |

Source: HDS Diary Sample, FY 2022.

**Table 7.8:**  
Packages Received and Sent  
by Household Online Shopping Behavior  
(Pieces per Household per Week)

| Shopping Online? | Received | Sent |
|------------------|----------|------|
| Yes              | 1.04     | 0.08 |
| No               | 0.41     | 0.04 |

Source: HDS Diary Sample, FY 2022.

## Household Package Contents

As shown in Table 7.9, more than one-quarter (29%) of packages received by households contained clothing items. Pharmaceuticals and household products were the next most common content types, representing 16% and 12% of packages received, respectively.

Clothing items were also the most common content for packages sent by households, representing 30% of the volume. Other common types of contents included music videos (17%) and toys (12%). These items are often part of the high volume of packages sent during the holiday season.

**Table 7.9:**  
Contents of Postal Service Sent and Received Packages

| Contents                                    | Volume (Millions of Pieces) |              |            |              |            |              |
|---|-----------------------------|--------------|------------|--------------|------------|--------------|
|   | 2020                        |              | 2021       |              | 2022       |              |
|   | Sent                        | Received     | Sent       | Received     | Sent       | Received     |
| Clothing/Footwear/Shoes                     | 135                         | 1,666        | 154        | 1,806        | 171        | 1,947        |
| Health/Medical/Dental/Vision products       | 21                          | 762          | 9          | 806          | 18         | 1,058        |
| Household/Kitchen/Lawn and garden products  | 23                          | 814          | 60         | 868          | 29         | 803          |
| Book(s)                                     | 22                          | 432          | 5          | 407          | 45         | 427          |
| Cosmetics/Beauty products/Toiletries        | 12                          | 508          | 2          | 472          | 32         | 397          |
| Food Products                               | 1                           | 287          | 3          | 333          | 2          | 356          |
| Toys  | 56                          | 214          | 10         | 360          | 72         | 308          |
| Electronic equipment                        | 28                          | 333          | 23         | 275          | 25         | 270          |
| Computer hardware, software, or accessories | 4                           | 161          | 17         | 180          | 10         | 175          |
| Music/Video                                 | 85                          | 229          | 64         | 235          | 98         | 173          |
| Travel products or information              | 2                           | 34           | 2          | 53           | 0          | 49           |
| Photos/Film                                 | 1                           | 41           | 0          | 53           | 6          | 45           |
| Checkbooks                                  | 0                           | 19           | 1          | 14           | 2          | 19           |
| Other Contents                              | 109                         | 1,029        | 149        | 1,113        | 72         | 1,154        |
| <b>Total Packages</b>                       | <b>489</b>                  | <b>5,915</b> | <b>491</b> | <b>6,503</b> | <b>576</b> | <b>6,770</b> |

**Table 7.9:**  
Contents of Postal Service Sent and Received Packages (cont.)

| Contents                                    | Percent of Pieces |             |             |             |             |             |
|---|-------------------|-------------|-------------|-------------|-------------|-------------|
|   | 2019              |             | 2020        |             | 2021        |             |
|   | Sent              | Received    | Sent        | Received    | Sent        | Received    |
| Clothing/Footwear/Shoes                     | 28%               | 28%         | 31%         | 28%         | 30%         | 29%         |
| Health/Medical/Dental/Vision products       | 4%                | 13%         | 2%          | 12%         | 3%          | 16%         |
| Household/Kitchen/Lawn and garden products  | 5%                | 14%         | 12%         | 13%         | 5%          | 12%         |
| Book(s)                                     | 4%                | 7%          | 1%          | 6%          | 8%          | 6%          |
| Cosmetics/Beauty products/Toiletries        | 2%                | 9%          | 0%          | 7%          | 6%          | 6%          |
| Food Products                               | 0%                | 5%          | 1%          | 5%          | 0%          | 5%          |
| Toys  | 11%               | 4%          | 2%          | 6%          | 12%         | 5%          |
| Electronic equipment                        | 6%                | 6%          | 5%          | 4%          | 4%          | 4%          |
| Computer hardware, software, or accessories | 1%                | 3%          | 4%          | 3%          | 2%          | 3%          |
| Music/Video                                 | 17%               | 4%          | 13%         | 4%          | 17%         | 3%          |
| Travel products or information              | 0%                | 1%          | 0%          | 1%          | 0%          | 1%          |
| Photos/Film                                 | 0%                | 1%          | 0%          | 1%          | 1%          | 1%          |
| Checkbooks                                  | 0%                | 0%          | 0%          | 0%          | 0%          | 0%          |
| Other Contents                              | 22%               | 17%         | 30%         | 17%         | 12%         | 17%         |
| <b>Total Packages</b>                       | <b>100%</b>       | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |

Source: HDS Diary Sample, FY 2020, 2021, and 2022.

Notes:

Contents questions are multiple response; as such, total packages do not equal the sum for each column.

Does not include contents for which no answer was given (DK/RF).

Music/Video packages include 0.1 billion pieces of CD/DVDs sent and received, reported in First-Class Mail letters in Tables E.1, 1.5, and 1.6



# Appendix A: Annual Trends

**Table A8-1**  
**First Class Mail Received by Type**  
**Pieces in Millions**  
**Years 2010 - 2022 (Diary Data)**

|   | 2010          | 2011          | 2012          | 2013          | 2014          | 2015          | 2016          | 2017          | 2018          | 2019          | 2020          | 2021          | 2022          |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Correspondence</b>                     |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Personal                                  | 4,855         | 4,301         | 4,266         | 3,895         | 3,603         | 3,249         | 3,157         | 3,136         | 3,061         | 2,803         | 2,690         | 2,894         | 2,728         |
| Greeting Cards                            | 3,278         | 3,083         | 3,069         | 2,767         | 2,562         | 2,251         | 2,243         | 2,265         | 2,320         | 1,967         | 1,904         | 2,085         | 1,994         |
| Letter from Friend or Relative            | 837           | 701           | 693           | 652           | 592           | 588           | 493           | 515           | 436           | 464           | 499           | 470           | 427           |
| Other Personal                            | 740           | 517           | 505           | 477           | 449           | 410           | 421           | 356           | 305           | 372           | 288           | 339           | 306           |
| Business/Government                       | 9,234         | 10,586        | 10,691        | 10,243        | 10,644        | 10,650        | 10,889        | 10,866        | 10,735        | 10,297        | 10,301        | 10,236        | 10,156        |
| Notice/ Announcement/ Business Invitation | 4,297         | 4,403         | 4,748         | 4,518         | 4,905         | 5,116         | 5,051         | 5,049         | 4,767         | 4,546         | 4,492         | 4,309         | 4,259         |
| Tax-Related (Docs, information, forms)    | 526           | 1,001         | 991           | 998           | 1,062         | 983           | 1,174         | 1,093         | 1,156         | 1,159         | 1,221         | 1,314         | 1,247         |
| Insurance                                 | 2,001         | 2,602         | 2,443         | 2,426         | 2,571         | 2,401         | 2,353         | 2,442         | 2,509         | 2,565         | 2,222         | 2,286         | 2,204         |
| Other Bus/Gov                             | 2,410         | 2,580         | 2,509         | 2,301         | 2,106         | 2,150         | 2,310         | 2,282         | 2,302         | 2,026         | 2,366         | 2,328         | 2,445         |
| Social                                    | 1,905         | 1,394         | 1,355         | 1,359         | 1,161         | 1,105         | 1,098         | 1,012         | 979           | 1,003         | 1,014         | 839           | 758           |
| Notice/ Announcement/ Business Invitation | 1,351         | 752           | 773           | 723           | 645           | 608           | 535           | 486           | 512           | 511           | 436           | 363           | 364           |
| Other Social                              | 554           | 642           | 582           | 635           | 516           | 497           | 563           | 526           | 467           | 492           | 579           | 475           | 394           |
| <b>Total</b>                              | <b>15,995</b> | <b>16,281</b> | <b>16,311</b> | <b>15,497</b> | <b>15,408</b> | <b>15,004</b> | <b>15,144</b> | <b>15,015</b> | <b>14,775</b> | <b>14,103</b> | <b>14,005</b> | <b>13,969</b> | <b>13,641</b> |
| <b>Transactions</b>                       |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Bills                                     | 11,274        | 11,347        | 10,824        | 10,815        | 10,412        | 10,219        | 9,852         | 9,116         | 8,761         | 8,033         | 7,540         | 6,929         | 6,650         |
| Financial Statements                      | 5,418         | 4,655         | 4,744         | 4,285         | 4,514         | 4,204         | 3,994         | 4,051         | 3,931         | 3,741         | 3,871         | 3,577         | 3,445         |
| Credit Card Statement/Bill                | 4,091         | 3,834         | 4,023         | 3,454         | 3,690         | 3,623         | 3,742         | 3,514         | 3,765         | 3,334         | 3,053         | 2,770         | 2,503         |
| Request for donation                      | 660           | 755           | 687           | 652           | 609           | 596           | 524           | 500           | 547           | 482           | 515           | 536           | 632           |
| Payment/Check/Credit                      | 1,194         | 1,009         | 993           | 1,055         | 998           | 1,039         | 895           | 894           | 740           | 745           | 807           | 881           | 725           |
| Other                                     | 626           | 1,307         | 1,230         | 1,252         | 1,131         | 1,200         | 1,276         | 1,139         | 1,152         | 896           | 942           | 1,014         | 950           |
| <b>Total</b>                              | <b>23,263</b> | <b>22,906</b> | <b>22,501</b> | <b>21,512</b> | <b>21,355</b> | <b>20,881</b> | <b>20,283</b> | <b>19,214</b> | <b>18,896</b> | <b>17,231</b> | <b>16,728</b> | <b>15,708</b> | <b>14,906</b> |
| Advertising (Ads Only)                    | 6,115         | 5,448         | 5,021         | 4,240         | 3,925         | 3,593         | 3,826         | 3,712         | 3,504         | 3,973         | 3,470         | 3,642         | 3,947         |
| CD/DVD/Video Games <sup>1</sup>           | 942           | 1,040         | 543           | 466           | 374           | 312           | 217           | 212           | 170           | 134           | 102           | 100           | 77            |
| DK/RF <sup>2</sup>                        | 3,748         | 2,598         | 2,828         | 2,426         | 1,768         | 1,610         | 1,811         | 1,641         | 1,613         | 1,559         | 1,423         | 1,281         | 976           |
| <b>Total First-Class Received</b>         | <b>50,063</b> | <b>48,272</b> | <b>47,204</b> | <b>44,142</b> | <b>42,830</b> | <b>41,400</b> | <b>41,280</b> | <b>39,794</b> | <b>38,958</b> | <b>36,999</b> | <b>35,729</b> | <b>34,700</b> | <b>33,547</b> |

Note: Prior to 2011, historical data were reclassified to reflect movement of some categories between Transaction and Correspondence mail.

<sup>1</sup> CD/DVD/Video Games not collected as a separate category prior to 2007.

<sup>2</sup> Purpose of Correspondence and Transaction mail was not reported



**Table A8-2**  
**Shares of First Class Mail Received by Type**  
**Years 2010 - 2022 (Diary Data)**

|   | 2010        | 2011        | 2012        | 2013        | 2014        | 2015        | 2016        | 2017        | 2018        | 2019        | 2020        | 2021        | 2022        |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Correspondence</b>                     |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Personal                                  | 10%         | 9%          | 9%          | 9%          | 8%          | 8%          | 8%          | 8%          | 8%          | 8%          | 8%          | 8%          | 8%          |
| Greeting Cards                            | 7%          | 6%          | 7%          | 6%          | 6%          | 5%          | 5%          | 6%          | 6%          | 5%          | 5%          | 6%          | 6%          |
| Letter from Friend or Relative            | 2%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          |
| Other Personal                            | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          |
| Business/Government                       | 18%         | 22%         | 23%         | 23%         | 25%         | 26%         | 26%         | 27%         | 28%         | 28%         | 29%         | 29%         | 30%         |
| Notice/ Announcement/ Business Invitation | 9%          | 9%          | 10%         | 10%         | 11%         | 12%         | 12%         | 13%         | 12%         | 12%         | 13%         | 12%         | 13%         |
| Tax-Related (Docs, information, forms)    | 1%          | 2%          | 2%          | 2%          | 2%          | 2%          | 3%          | 3%          | 3%          | 3%          | 3%          | 4%          | 4%          |
| Insurance                                 | 4%          | 5%          | 5%          | 5%          | 6%          | 6%          | 6%          | 6%          | 6%          | 7%          | 6%          | 7%          | 7%          |
| Other Bus/Gov                             | 5%          | 5%          | 5%          | 5%          | 5%          | 5%          | 6%          | 6%          | 6%          | 5%          | 7%          | 7%          | 7%          |
| Social                                    | 4%          | 3%          | 3%          | 3%          | 3%          | 3%          | 3%          | 3%          | 3%          | 3%          | 3%          | 2%          | 2%          |
| Notice/ Announcement/ Business Invitation | 3%          | 2%          | 2%          | 2%          | 2%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          |
| Other Social                              | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 2%          | 1%          | 1%          |
| <b>Total</b>                              | <b>32%</b>  | <b>34%</b>  | <b>35%</b>  | <b>35%</b>  | <b>36%</b>  | <b>36%</b>  | <b>37%</b>  | <b>38%</b>  | <b>38%</b>  | <b>38%</b>  | <b>39%</b>  | <b>40%</b>  | <b>41%</b>  |
| <b>Transactions</b>                       |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Bills                                     | 23%         | 24%         | 23%         | 24%         | 24%         | 25%         | 24%         | 23%         | 22%         | 22%         | 21%         | 20%         | 20%         |
| Financial Statements                      | 11%         | 10%         | 10%         | 10%         | 11%         | 10%         | 10%         | 10%         | 10%         | 10%         | 11%         | 10%         | 10%         |
| Credit Card Statement/Bill                | 8%          | 8%          | 9%          | 8%          | 9%          | 9%          | 9%          | 9%          | 10%         | 9%          | 9%          | 8%          | 7%          |
| Request for donation                      | 1%          | 2%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 2%          | 2%          |
| Payment/Check/Credit                      | 2%          | 2%          | 2%          | 2%          | 2%          | 3%          | 2%          | 2%          | 2%          | 2%          | 2%          | 3%          | 2%          |
| Other                                     | 1%          | 3%          | 3%          | 3%          | 3%          | 3%          | 3%          | 3%          | 3%          | 2%          | 3%          | 3%          | 3%          |
| <b>Total</b>                              | <b>46%</b>  | <b>47%</b>  | <b>48%</b>  | <b>49%</b>  | <b>50%</b>  | <b>50%</b>  | <b>49%</b>  | <b>48%</b>  | <b>49%</b>  | <b>47%</b>  | <b>47%</b>  | <b>45%</b>  | <b>44%</b>  |
| Advertising (Ads Only)                    | 12%         | 11%         | 11%         | 10%         | 9%          | 9%          | 9%          | 9%          | 9%          | 11%         | 10%         | 10%         | 12%         |
| CD/DVD/Video Games <sup>1</sup>           | 2%          | 2%          | 1%          | 1%          | 1%          | 1%          | 1%          | 1%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| DK/RF <sup>2</sup>                        | 7%          | 5%          | 6%          | 5%          | 4%          | 4%          | 4%          | 4%          | 4%          | 4%          | 4%          | 4%          | 3%          |
| <b>Total First-Class Received</b>         | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |

Note: Prior to 2011, historical data were reclassified to reflect movement of some categories between Transaction and Correspondence mail.

<sup>1</sup> CD/DVD/Video Games not collected as a separate category prior to 2007.

**Table A8-3**  
**First Class Mail Sent by type**  
**Pieces in Millions**  
**Years 2010 - 2022 (Diary Data)**

|  | 2010   | 2011   | 2012   | 2013   | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  |
|--|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Correspondence   |        |        |        |        |       |       |       |       |       |       |       |       |       |
| Personal   | 4,234  | 3,547  | 3,631  | 3,647  | 3,160 | 3,274 | 2,810 | 2,471 | 2,540 | 2,346 | 2,400 | 2,460 | 2,314 |
| Greeting Cards   | 2,834  | 2,572  | 2,705  | 2,652  | 2,261 | 2,263 | 2,138 | 1,816 | 1,850 | 1,718 | 1,700 | 1,784 | 1,640 |
| Letter to Friend or Relative   | 798    | 636    | 667    | 675    | 561   | 678   | 461   | 409   | 468   | 423   | 575   | 408   | 493   |
| Other Personal   | 602    | 340    | 259    | 320    | 338   | 332   | 211   | 246   | 221   | 206   | 125   | 267   | 181   |
| Business/Government  | 1,094  | 1,209  | 1,195  | 1,106  | 1,067 | 1,185 | 1,080 | 963   | 771   | 816   | 782   | 784   | 785   |
| Social   | 263    | 209    | 183    | 163    | 176   | 148   | 157   | 121   | 130   | 158   | 165   | 196   | 115   |
| Total  | 5,591  | 4,965  | 5,009  | 4,916  | 4,403 | 4,607 | 4,047 | 3,555 | 3,441 | 3,319 | 3,346 | 3,439 | 3,215 |
| Transactions   |        |        |        |        |       |       |       |       |       |       |       |       |       |
| Bill Payment <sup>2</sup>  | 5,632  | 5,517  | 5,098  | 4,513  | 4,470 | 4,383 | 3,753 | 3,341 | 3,100 | 2,784 | 2,467 | 2,415 | 1,946 |
| Orders/Rebate request  | 279    | 359    | 321    | 247    | 249   | 224   | 189   | 190   | 157   | 143   | 169   | 134   | 145   |
| Donations  | 345    | 355    | 391    | 330    | 332   | 288   | 286   | 260   | 251   | 247   | 304   | 272   | 267   |
| Total  | 6,257  | 6,231  | 5,810  | 5,089  | 5,051 | 4,894 | 4,228 | 3,791 | 3,508 | 3,174 | 2,940 | 2,822 | 2,357 |
| CD/DVD/Video Games <sup>1</sup>  | 700    | 758    | 380    | 360    | 318   | 218   | 174   | 168   | 130   | 80    | 63    | 56    | 51    |
| DK/RF <sup>3</sup>   | 208    | 112    | 134    | 126    | 119   | 139   | 143   | 128   | 189   | 95    | 121   | 106   | 55    |
| Total First-Class Sent   | 12,755 | 12,066 | 11,333 | 10,492 | 9,891 | 9,859 | 8,592 | 7,641 | 7,268 | 6,668 | 6,470 | 6,423 | 5,679 |
| <sup>1</sup> CD/DVD/Video Games not collected as a separate category prior to 2007.<br><sup>2</sup> Payments were restated 2000-2009<br><sup>3</sup> Combination of Correspondence and Transactions (Purpose is unknown) |        |        |        |        |       |       |       |       |       |       |       |       |       |

**Table A8-4**  
**Shares of First Class Mail Sent by type**  
**Years 2010 - 2022 (Diary Data)**

|                                 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Correspondence                  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Personal                        | 33%  | 29%  | 32%  | 35%  | 32%  | 33%  | 33%  | 32%  | 35%  | 35%  | 37%  | 38%  | 41%  |
| Greeting Cards                  | 22%  | 21%  | 24%  | 25%  | 23%  | 23%  | 25%  | 24%  | 25%  | 26%  | 26%  | 28%  | 29%  |
| Letter to Friend or Relative    | 6%   | 5%   | 6%   | 6%   | 6%   | 7%   | 5%   | 5%   | 6%   | 6%   | 9%   | 6%   | 9%   |
| Other Personal                  | 5%   | 3%   | 2%   | 3%   | 3%   | 3%   | 2%   | 3%   | 3%   | 3%   | 2%   | 4%   | 3%   |
| Business/Government             | 9%   | 10%  | 11%  | 11%  | 11%  | 12%  | 13%  | 13%  | 11%  | 12%  | 12%  | 12%  | 14%  |
| Social                          | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 3%   | 3%   | 2%   |
| Total                           | 44%  | 41%  | 44%  | 47%  | 45%  | 47%  | 47%  | 47%  | 47%  | 50%  | 52%  | 54%  | 57%  |
| Transactions                    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Bill Payment <sup>2</sup>       | 44%  | 46%  | 45%  | 43%  | 45%  | 44%  | 44%  | 44%  | 43%  | 42%  | 38%  | 38%  | 34%  |
| Orders                          | 2%   | 3%   | 3%   | 2%   | 3%   | 2%   | 2%   | 2%   | 2%   | 2%   | 3%   | 2%   | 3%   |
| Donations                       | 3%   | 3%   | 3%   | 3%   | 3%   | 3%   | 3%   | 3%   | 3%   | 4%   | 5%   | 4%   | 5%   |
| Total                           | 49%  | 52%  | 51%  | 49%  | 51%  | 50%  | 49%  | 50%  | 48%  | 48%  | 45%  | 44%  | 42%  |
| CD/DVD/Video Games <sup>1</sup> | 5%   | 6%   | 3%   | 3%   | 3%   | 2%   | 2%   | 2%   | 2%   | 1%   | 1%   | 1%   | 1%   |
| DK/RF                           | 2%   | 1%   | 1%   | 1%   | 1%   | 1%   | 2%   | 2%   | 3%   | 1%   | 2%   | 2%   | 1%   |
| Total First-Class Sent          | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

<sup>1</sup> CD/DVD/Video Games not collected as a separate category prior to 2007.

<sup>2</sup> Payments were restated 2000-2009

**Table A8-5a**  
**Bills and Statements Received**  
**Pieces in Millions by Sender Type**  
**Years 2010 - 2022 (Diary Data)**

| Payee                          | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Financial</b>               |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Credit Card                    | 4,091  | 3,834  | 4,023  | 3,454  | 3,690  | 3,623  | 3,742  | 3,532  | 3,760  | 3,349  | 3,051  | 2,749  | 2,552  |
| Bank, S&L, Credit Union        | 4,216  | 3,703  | 3,517  | 3,474  | 3,531  | 3,264  | 3,015  | 2,960  | 2,821  | 2,596  | 2,537  | 2,323  | 2,188  |
| Insurance Company <sup>1</sup> | 2,459  | 1,668  | 1,661  | 1,725  | 1,719  | 1,740  | 1,667  | 1,704  | 1,498  | 1,362  | 1,437  | 1,294  | 1,322  |
| Real Estate/Mortgage           | 376    | 317    | 313    | 390    | 374    | 318    | 397    | 356    | 342    | 306    | 382    | 302    | 273    |
| Other Financial                | 1,578  | 1,543  | 1,654  | 1,331  | 1,401  | 1,426  | 1,353  | 1,280  | 1,253  | 1,273  | 1,282  | 1,139  | 1,112  |
| Total Financial                | 12,719 | 11,064 | 11,168 | 10,376 | 10,716 | 10,370 | 10,175 | 9,832  | 9,674  | 8,886  | 8,689  | 7,806  | 7,447  |
| <b>Merchants</b>               |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Department Store               | 129    | 32     | 63     | 59     | 54     | 49     | 38     | 62     | 34     | 18     | 9      | 38     | 31     |
| Publisher                      | 300    | 327    | 290    | 275    | 202    | 210    | 158    | 146    | 163    | 107    | 119    | 95     | 66     |
| Mail Order Company             | 139    | 101    | 88     | 71     | 77     | 94     | 65     | 49     | 34     | 16     | 10     | 46     | 22     |
| Other Merchants                | 221    | 163    | 171    | 164    | 148    | 136    | 164    | 141    | 164    | 145    | 89     | 105    | 70     |
| Total Merchants                | 790    | 623    | 612    | 569    | 482    | 488    | 424    | 399    | 395    | 287    | 227    | 284    | 189    |
| <b>Services</b>                |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Telephone /Cable Company       | 2,287  | 2,436  | 2,367  | 2,134  | 2,050  | 1,821  | 1,730  | 1,634  | 1,493  | 1,353  | 1,232  | 983    | 821    |
| Utility Company                | 2,444  | 2,494  | 2,329  | 2,416  | 2,304  | 2,433  | 2,335  | 2,384  | 2,268  | 2,141  | 2,082  | 1,795  | 1,722  |
| Medical and Other Professional | 2,299  | 2,069  | 1,936  | 1,947  | 2,026  | 1,846  | 1,953  | 1,575  | 1,692  | 1,561  | 1,318  | 1,448  | 1,455  |
| Other Service                  | 393    | 404    | 402    | 387    | 352    | 369    | 376    | 313    | 372    | 326    | 403    | 319    | 259    |
| Total Service                  | 7,423  | 7,403  | 7,035  | 6,884  | 6,731  | 6,469  | 6,395  | 5,906  | 5,826  | 5,381  | 5,035  | 4,545  | 4,257  |
| <b>Manufacturers</b>           |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Manufacturers                  | 59     | 51     | 26     | 21     | 47     | 46     | 27     | 26     | 18     | 24     | 28     | 60     | 27     |
| Government                     | 671    | 501    | 530    | 520    | 470    | 493    | 386    | 389    | 401    | 407    | 385    | 471    | 554    |
| Social                         | 173    | 159    | 191    | 159    | 127    | 136    | 149    | 100    | 113    | 87     | 80     | 76     | 84     |
| Other/Don't Know/Refused       | 38     | 35     | 29     | 25     | 45     | 43     | 32     | 29     | 31     | 38     | 21     | 35     | 41     |
| Total - All Industries         | 21,874 | 19,836 | 19,591 | 18,554 | 18,617 | 18,046 | 17,589 | 16,681 | 16,457 | 15,109 | 14,464 | 13,277 | 12,598 |

**Table A8-6**  
**Shares of Bills Paid by Method**  
**Years 2010 - 2022 (Recruitment Data)**

| Method                        | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Mail                          | 47%  | 44%  | 40%  | 37%  | 34%  | 31%  | 27%  | 30%  | 27%  | 23%  | 21%  | 19%  | 17%  |
| Internet using a Computer     | 29%  | 31%  | 31%  | 33%  | 35%  | 34%  | 34%  | 31%  | 31%  | 32%  | 30%  | 31%  | 30%  |
| Internet using Mobile Phone   | 0%   | 0%   | 2%   | 2%   | 3%   | 4%   | 7%   | 8%   | 10%  | 12%  | 14%  | 14%  | 17%  |
| Internet using Other Device   | 0%   | 0%   | 1%   | 2%   | 3%   | 6%   | 5%   | 3%   | 3%   | 3%   | 3%   | 3%   | 4%   |
| Auto Deduction from Bank      | 13%  | 13%  | 14%  | 14%  | 14%  | 14%  | 15%  | 15%  | 15%  | 17%  | 18%  | 19%  | 19%  |
| In Person                     | 5%   | 5%   | 5%   | 5%   | 4%   | 4%   | 4%   | 4%   | 4%   | 3%   | 3%   | 2%   | 2%   |
| Credit Card                   | 3%   | 3%   | 4%   | 4%   | 4%   | 4%   | 5%   | 5%   | 6%   | 6%   | 7%   | 8%   | 9%   |
| Telephone                     | 2%   | 3%   | 3%   | 3%   | 3%   | 3%   | 3%   | 4%   | 4%   | 4%   | 3%   | 3%   | 3%   |
| Total                         | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Total Electronic <sup>1</sup> | 48%  | 51%  | 55%  | 59%  | 62%  | 65%  | 69%  | 66%  | 69%  | 73%  | 76%  | 79%  | 81%  |

<sup>1</sup> Includes bills paid by Internet, Auto Deduction from Bank Account, Credit Card, and Telephone

**Table A8-7**  
**Shares of Households using Method of Paying Bills**  
**Years 2010 - 2022 (Recruitment Data)**

| Method                           | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Mail                             | 95%  | 94%  | 95%  | 95%  | 95%  | 94%  | 84%  | 79%  | 78%  | 74%  | 71%  | 69%  | 68%  | 63%  | 59%  | 56%  | 55%  | 51%  | 50%  |
| Internet using a Computer        | 4%   | 8%   | 12%  | 16%  | 23%  | 28%  | 51%  | 54%  | 55%  | 59%  | 61%  | 61%  | 63%  | 56%  | 55%  | 58%  | 58%  | 59%  | 63%  |
| Internet using Mobile Phone      | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | 7%   | 11%  | 11%  | 15%  | 23%  | 22%  | 26%  | 31%  | 35%  | 37%  | 44%  |
| Internet using Other Device      | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | 2%   | 5%   | 7%   | 12%  | 12%  | 8%   | 8%   | 8%   | 9%   | 9%   | 12%  |
| Auto Deduction from Bank Account | 34%  | 35%  | 43%  | 45%  | 51%  | 54%  | 52%  | 50%  | 55%  | 55%  | 54%  | 54%  | 61%  | 52%  | 54%  | 57%  | 60%  | 62%  | 67%  |
| In Person                        | 33%  | 29%  | 33%  | 34%  | 32%  | 31%  | 29%  | 28%  | 31%  | 27%  | 24%  | 24%  | 25%  | 22%  | 23%  | 19%  | 18%  | 14%  | 16%  |
| Credit Card                      | N/A  | N/A  | 15%  | 17%  | 19%  | 22%  | 19%  | 18%  | 21%  | 22%  | 20%  | 21%  | 27%  | 23%  | 25%  | 27%  | 30%  | 32%  | 40%  |
| Telephone                        | 4%   | 7%   | 9%   | 10%  | 11%  | 14%  | 13%  | 16%  | 18%  | 18%  | 16%  | 17%  | 19%  | 18%  | 18%  | 16%  | 16%  | 14%  | 15%  |

**Table A8-8**  
**Type of Payments made by Mail**  
**Pieces in Millions by Payee Type**  
**Years 2010 - 2022 (Diary Data)**

| Payee                           | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Financial</b>                |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Credit Card                     | 1,185 | 1,111 | 1,085 | 861   | 889   | 871   | 791   | 718   | 674   | 632   | 526   | 510   | 431   |
| Bank, S&L, Credit Union         | 399   | 376   | 333   | 236   | 271   | 319   | 257   | 180   | 198   | 170   | 114   | 130   | 90    |
| Insurance Company               | 486   | 478   | 407   | 389   | 410   | 383   | 343   | 304   | 291   | 259   | 252   | 237   | 161   |
| Real Estate/Mortgage            | 228   | 219   | 168   | 182   | 157   | 175   | 129   | 153   | 98    | 81    | 113   | 67    | 37    |
| Other Financial                 | 37    | 26    | 27    | 36    | 31    | 35    | 43    | 26    | 18    | 21    | 13    | 24    | 16    |
| Total Financial                 | 2,336 | 2,210 | 2,020 | 1,704 | 1,758 | 1,783 | 1,562 | 1,380 | 1,280 | 1,163 | 1,018 | 967   | 734   |
| <b>Merchants</b>                |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Department Store                | 105   | 66    | 67    | 57    | 59    | 59    | 55    | 50    | 12    | 22    | 13    | 21    | 10    |
| Publisher                       | 151   | 157   | 159   | 179   | 112   | 104   | 83    | 72    | 68    | 77    | 87    | 47    | 38    |
| Mail Order Company              | 82    | 52    | 50    | 52    | 52    | 47    | 53    | 47    | 35    | 12    | 10    | 19    | 11    |
| Other Merchants                 | 91    | 95    | 115   | 75    | 90    | 56    | 62    | 60    | 55    | 53    | 53    | 65    | 45    |
| Total Merchants                 | 429   | 369   | 391   | 362   | 313   | 266   | 253   | 229   | 170   | 164   | 162   | 152   | 103   |
| <b>Services</b>                 |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Telephone /Cable Company        | 880   | 884   | 777   | 653   | 593   | 544   | 470   | 401   | 393   | 316   | 322   | 240   | 158   |
| Utility Company                 | 952   | 920   | 912   | 818   | 780   | 785   | 633   | 627   | 539   | 520   | 421   | 449   | 365   |
| Medical and Other Professional  | 543   | 537   | 520   | 476   | 542   | 520   | 421   | 339   | 360   | 226   | 228   | 254   | 250   |
| Other Service                   | 203   | 247   | 212   | 192   | 189   | 190   | 171   | 156   | 163   | 166   | 140   | 145   | 153   |
| Total Service                   | 2,577 | 2,588 | 2,421 | 2,139 | 2,104 | 2,039 | 1,695 | 1,523 | 1,456 | 1,228 | 1,110 | 1,088 | 925   |
| <b>Manufacturers</b>            |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Manufacturers                   | 7     | 9     | 10    | 6     | 8     | 9     | 12    | 10    | 5     | 8     | 8     | 10    | 3     |
| <b>Government</b>               |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Government                      | 238   | 140   | 141   | 122   | 136   | 127   | 116   | 110   | 92    | 100   | 80    | 111   | 94    |
| <b>Social</b>                   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Social                          | 0     | 106   | 71    | 97    | 63    | 65    | 54    | 60    | 55    | 68    | 39    | 46    | 39    |
| <b>Other/Don't Know/Refused</b> |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Other/Don't Know/Refused        | 46    | 96    | 45    | 84    | 90    | 93    | 60    | 28    | 43    | 53    | 49    | 59    | 47    |
| <b>Total – All Industries</b>   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Total – All Industries          | 5,632 | 5,517 | 5,098 | 4,513 | 4,470 | 4,383 | 3,753 | 3,341 | 3,100 | 2,784 | 2,467 | 2,432 | 1,946 |

Note: Payments were restated 2000-2009.

**Table A8-9**  
**Type of Payments made by Mail**  
**Percent of Bill Payments by Payee Type**  
**Years 2010 - 2022 (Diary Data)**

| Payee                           | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Financial</b>                |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Credit Card                     | 21%  | 20%  | 21%  | 19%  | 20%  | 20%  | 21%  | 21%  | 22%  | 23%  | 21%  | 21%  | 22%  |
| Bank, S&L, Credit Union         | 7%   | 7%   | 7%   | 5%   | 6%   | 7%   | 7%   | 5%   | 6%   | 6%   | 5%   | 5%   | 5%   |
| Insurance Company               | 9%   | 9%   | 8%   | 9%   | 9%   | 9%   | 9%   | 9%   | 9%   | 9%   | 10%  | 10%  | 8%   |
| Real Estate/Mortgage            | 4%   | 4%   | 3%   | 4%   | 4%   | 4%   | 3%   | 5%   | 3%   | 3%   | 5%   | 3%   | 2%   |
| Other Financial                 | 1%   | 0%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   |
| Total Financial                 | 41%  | 40%  | 40%  | 38%  | 39%  | 41%  | 42%  | 41%  | 41%  | 42%  | 41%  | 40%  | 38%  |
| <b>Merchants</b>                |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Department Store                | 2%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 2%   | 0%   | 1%   | 1%   | 1%   | 1%   |
| Publisher                       | 3%   | 3%   | 3%   | 4%   | 3%   | 2%   | 2%   | 2%   | 2%   | 3%   | 4%   | 2%   | 2%   |
| Mail Order Company              | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 0%   | 0%   | 1%   | 1%   |
| Other Merchants                 | 2%   | 2%   | 2%   | 2%   | 2%   | 1%   | 2%   | 2%   | 2%   | 2%   | 2%   | 3%   | 2%   |
| Total Merchants                 | 8%   | 7%   | 8%   | 8%   | 7%   | 6%   | 7%   | 7%   | 5%   | 6%   | 7%   | 6%   | 5%   |
| <b>Services</b>                 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Telephone /Cable Company        | 16%  | 16%  | 15%  | 14%  | 13%  | 12%  | 13%  | 12%  | 13%  | 11%  | 13%  | 10%  | 8%   |
| Utility Company                 | 17%  | 17%  | 18%  | 18%  | 17%  | 18%  | 17%  | 19%  | 17%  | 19%  | 17%  | 18%  | 19%  |
| Medical and Other Professional  | 10%  | 10%  | 10%  | 11%  | 12%  | 12%  | 11%  | 10%  | 12%  | 8%   | 9%   | 10%  | 13%  |
| Other Service                   | 4%   | 4%   | 4%   | 4%   | 4%   | 4%   | 5%   | 5%   | 5%   | 6%   | 6%   | 6%   | 8%   |
| Total Service                   | 46%  | 47%  | 47%  | 47%  | 47%  | 47%  | 45%  | 46%  | 47%  | 44%  | 45%  | 45%  | 48%  |
| <b>Manufacturers</b>            |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Manufacturers                   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| <b>Government</b>               |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Government                      | 4%   | 3%   | 3%   | 3%   | 3%   | 3%   | 3%   | 3%   | 3%   | 4%   | 3%   | 5%   | 5%   |
| <b>Social</b>                   |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Social                          | 0%   | 2%   | 1%   | 2%   | 1%   | 1%   | 1%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   |
| <b>Other/Don't Know/Refused</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Other/Don't Know/Refused        | 1%   | 2%   | 1%   | 2%   | 2%   | 2%   | 2%   | 1%   | 1%   | 2%   | 2%   | 2%   | 2%   |
| <b>Total – All Industries</b>   |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Total – All Industries          | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |



**Table A8-10**  
**Share of Households by Internet Access type**  
**Years 2010 - 2022 (Recruitment Data)**

| Type of Access                    | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| None                              | 21%  | 18%  | 17%  | 13%  | 13%  | 11%  | 10%  | 10%  | 8%   | 7%   | 6%   | 5%   | 2%   |
| Total Internet Access             | 78%  | 81%  | 83%  | 86%  | 87%  | 88%  | 89%  | 89%  | 90%  | 93%  | 94%  | 95%  | 98%  |
| Dial-up                           | 6%   | 3%   | 3%   | 2%   | 1%   | 1%   | 1%   | 1%   | 1%   | 0%   | 1%   | 0%   | 0%   |
| Cable Modem                       | 34%  | 38%  | 41%  | 44%  | 85%  | 86%  | 88%  | 88%  | 89%  | 91%  | 92%  | 93%  | 96%  |
| Other Broadband                   | 10%  | 14%  | 14%  | 17%  |      |      |      |      |      |      |      |      |      |
| DSL                               | 25%  | 23%  | 23%  | 20%  |      |      |      |      |      |      |      |      |      |
| Other/ Did Not Specify Connection | 4%   | 3%   | 2%   | 3%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 2%   | 1%   | 2%   |
| DK/RF/Missing                     | 0%   | 1%   | 0%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 0%   | 0%   | 0%   | 0%   |
| Total                             | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Note: All types of Broadband services are combined beginning in 2014

**Table A8-11**  
**Number of Purchases Made over the Internet over the past month**  
**Percent of Households**  
**Years 2010 - 2022 (Recruitment Data)**

|                                   | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| All Households                    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| None                              | 52%  | 46%  | 45%  | 40%  | 37%  | 36%  | 34%  | 29%  | 24%  | 20%  | 17%  | 14%  | 10%  |
| 1                                 | 8%   | 8%   | 9%   | 9%   | 8%   | 8%   | 8%   | 6%   | 6%   | 6%   | 5%   | 3%   | 3%   |
| 2                                 | 10%  | 12%  | 10%  | 11%  | 11%  | 11%  | 11%  | 10%  | 10%  | 10%  | 8%   | 6%   | 7%   |
| 3-5                               | 17%  | 20%  | 20%  | 22%  | 25%  | 25%  | 24%  | 30%  | 27%  | 27%  | 27%  | 24%  | 26%  |
| 6-10                              | 8%   | 9%   | 10%  | 11%  | 12%  | 14%  | 14%  | 16%  | 20%  | 20%  | 23%  | 25%  | 27%  |
| More than 10                      | 5%   | 5%   | 6%   | 7%   | 7%   | 8%   | 9%   | 9%   | 14%  | 16%  | 21%  | 27%  | 27%  |
| Total                             | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Households that Made 1+ purchases |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1                                 | 16%  | 15%  | 16%  | 15%  | 13%  | 12%  | 12%  | 9%   | 8%   | 8%   | 6%   | 3%   | 4%   |
| 2                                 | 21%  | 22%  | 18%  | 18%  | 18%  | 17%  | 16%  | 14%  | 13%  | 12%  | 9%   | 7%   | 8%   |
| 3-5                               | 36%  | 37%  | 36%  | 37%  | 39%  | 38%  | 37%  | 42%  | 35%  | 34%  | 32%  | 28%  | 29%  |
| 6-10                              | 16%  | 16%  | 18%  | 18%  | 19%  | 21%  | 21%  | 23%  | 26%  | 25%  | 27%  | 29%  | 30%  |
| More than 10                      | 10%  | 10%  | 12%  | 12%  | 11%  | 12%  | 14%  | 13%  | 18%  | 20%  | 26%  | 32%  | 30%  |
| Total                             | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

**Table A8-12**  
**First Class and Marketing Mail Advertising**  
**Pieces in Millions**  
**Years 2010 - 2022 (Diary Data)**

|                                       | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   |
|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| First-Class Advertising               | 12,793 | 12,710 | 11,437 | 9,709  | 8,987  | 8,370  | 8,292  | 7,795  | 7,594  | 7,475  | 6,284  | 6,642  | 6,748  |
| Advertising Only                      | 6,115  | 5,448  | 5,021  | 4,240  | 3,925  | 3,593  | 3,826  | 3,712  | 3,504  | 3,973  | 3,470  | 3,642  | 3,947  |
| Secondary Advertising                 | 6,678  | 7,262  | 6,416  | 5,469  | 5,062  | 4,776  | 4,466  | 4,083  | 4,090  | 3,503  | 2,813  | 3,000  | 2,801  |
| Marketing Ads <sup>1</sup>            | 72,934 | 77,747 | 73,874 | 74,365 | 71,788 | 71,631 | 71,754 | 69,075 | 67,681 | 65,686 | 54,867 | 58,528 | 58,571 |
| Total Ads                             | 85,727 | 90,457 | 85,311 | 84,074 | 80,775 | 80,001 | 80,046 | 76,871 | 75,275 | 73,161 | 61,150 | 65,170 | 65,319 |
| First-Class Ads<br>Share of Total Ads | 15%    | 14%    | 13%    | 12%    | 11%    | 10%    | 10%    | 10%    | 10%    | 10%    | 10%    | 10%    | 10%    |

**Table A8-13A**  
**First Class and Marketing Mail Advertising By Sender Type**  
**Includes Ad Only and Secondary Advertisements**  
**Pieces in Millions**  
**Years 2010 - 2022 (Diary Data)**

|                                    | 2010          | 2011          | 2012          | 2013          | 2014          | 2015          | 2016          | 2017          | 2018          | 2019          | 2020          | 2021          | 2022          |
|------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>First-Class Ads<sup>1</sup></b> |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Financial                          | 4,632         | 4,651         | 4,231         | 3,366         | 3,394         | 3,378         | 3,214         | 3,146         | 3,174         | 3,086         | 2,675         | 2,827         | 3,028         |
| Merchants                          | 2,422         | 2,172         | 2,186         | 1,832         | 1,817         | 1,594         | 1,517         | 1,385         | 1,391         | 1,403         | 1,142         | 1,093         | 1,117         |
| Services                           | 4,472         | 4,767         | 4,068         | 3,496         | 2,931         | 2,668         | 2,712         | 2,579         | 2,271         | 2,196         | 1,723         | 1,806         | 1,896         |
| Manufacturers                      | 262           | 212           | 165           | 190           | 148           | 153           | 202           | 174           | 115           | 178           | 142           | 228           | 164           |
| Government                         | 296           | 289           | 219           | 264           | 210           | 138           | 169           | 145           | 161           | 157           | 195           | 210           | 168           |
| Social                             | 611           | 587           | 549           | 538           | 458           | 421           | 438           | 342           | 450           | 434           | 373           | 384           | 335           |
| Other                              | 98            | 31            | 20            | 24            | 28            | 17            | 41            | 25            | 32            | 22            | 34            | 93            | 40            |
| <b>Total</b>                       | <b>12,793</b> | <b>12,710</b> | <b>11,437</b> | <b>9,709</b>  | <b>8,987</b>  | <b>8,370</b>  | <b>8,292</b>  | <b>7,795</b>  | <b>7,594</b>  | <b>7,475</b>  | <b>6,284</b>  | <b>6,642</b>  | <b>6,748</b>  |
| <b>Standard Ads</b>                |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Financial                          | 14,809        | 18,472        | 15,404        | 15,775        | 15,437        | 15,687        | 17,177        | 16,567        | 16,269        | 16,658        | 12,651        | 14,174        | 15,742        |
| Merchants                          | 24,990        | 25,427        | 24,241        | 23,092        | 23,281        | 22,034        | 21,687        | 20,819        | 19,701        | 17,137        | 13,672        | 13,443        | 12,459        |
| Services                           | 10,798        | 11,324        | 10,813        | 11,641        | 11,365        | 11,874        | 11,902        | 11,391        | 11,107        | 11,011        | 8,899         | 10,035        | 10,178        |
| Manufacturers                      | 1,560         | 1,638         | 1,579         | 1,642         | 971           | 1,250         | 1,333         | 1,260         | 1,032         | 1,173         | 858           | 1,263         | 1,036         |
| Government                         | 1,046         | 976           | 1,068         | 992           | 892           | 921           | 951           | 908           | 1,018         | 1,089         | 1,428         | 1,336         | 1,277         |
| Social                             | 12,372        | 12,739        | 13,503        | 13,984        | 12,799        | 12,689        | 11,988        | 11,665        | 12,232        | 12,534        | 11,980        | 12,797        | 12,723        |
| From Multiple Organizations        | 6,484         | 6,678         | 6,704         | 6,591         | 6,590         | 6,815         | 6,183         | 6,100         | 5,839         | 5,638         | 4,997         | 4,919         | 4,842         |
| Other                              | 882           | 494           | 563           | 647           | 453           | 361           | 534           | 366           | 483           | 447           | 383           | 561           | 313           |
| <b>Total</b>                       | <b>72,941</b> | <b>77,747</b> | <b>73,874</b> | <b>74,365</b> | <b>71,788</b> | <b>71,631</b> | <b>71,754</b> | <b>69,075</b> | <b>67,681</b> | <b>65,686</b> | <b>54,867</b> | <b>58,528</b> | <b>58,571</b> |
| <b>Total Ads</b>                   |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Financial                          | 19,441        | 23,123        | 19,634        | 19,141        | 18,831        | 19,065        | 20,391        | 19,713        | 19,442        | 19,743        | 15,326        | 17,001        | 18,769        |
| Merchants                          | 27,411        | 27,599        | 26,427        | 24,924        | 25,098        | 23,628        | 23,203        | 22,204        | 21,093        | 18,539        | 14,814        | 14,536        | 13,577        |
| Services                           | 15,270        | 16,092        | 14,881        | 15,137        | 14,296        | 14,542        | 14,613        | 13,970        | 13,378        | 13,208        | 10,622        | 11,841        | 12,074        |
| Manufacturers                      | 1,822         | 1,850         | 1,744         | 1,832         | 1,119         | 1,403         | 1,535         | 1,434         | 1,146         | 1,351         | 1,000         | 1,492         | 1,200         |
| Government                         | 1,342         | 1,265         | 1,287         | 1,257         | 1,102         | 1,059         | 1,120         | 1,053         | 1,179         | 1,245         | 1,623         | 1,547         | 1,445         |
| Social                             | 12,983        | 13,325        | 14,051        | 14,522        | 13,258        | 13,110        | 12,426        | 12,007        | 12,682        | 12,968        | 12,353        | 13,181        | 13,057        |
| From Multiple Organizations        | 6,484         | 6,678         | 6,704         | 6,591         | 6,590         | 6,815         | 6,183         | 6,100         | 5,839         | 5,638         | 4,997         | 4,919         | 4,842         |
| Other                              | 980           | 525           | 583           | 671           | 481           | 378           | 574           | 391           | 514           | 470           | 416           | 654           | 353           |
| <b>Total</b>                       | <b>85,734</b> | <b>90,457</b> | <b>85,311</b> | <b>84,074</b> | <b>80,775</b> | <b>80,001</b> | <b>80,046</b> | <b>76,871</b> | <b>75,275</b> | <b>73,161</b> | <b>61,150</b> | <b>65,170</b> | <b>65,319</b> |

<sup>1</sup> Includes Secondary Advertising

**Table A8-13A2**  
**First Class Advertising and Marketing Mail By Sender Type**  
**Advertising Only – No Secondary**  
**Pieces in Millions**  
**Years 2010 - 2022 (Diary Data)**

|                                    | 2010          | 2011          | 2012          | 2013          | 2014          | 2015          | 2016          | 2017          | 2018          | 2019          | 2020          | 2021          | 2022          |
|------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>First-Class Ads<sup>1</sup></b> |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Financial                          | 1,655         | 1,517         | 1,411         | 1,160         | 1,121         | 1,163         | 1,195         | 1,311         | 1,222         | 1,534         | 1,394         | 1,555         | 1,713         |
| Merchants                          | 2,028         | 1,777         | 1,703         | 1,411         | 1,493         | 1,222         | 1,153         | 1,063         | 1,099         | 1,148         | 957           | 902           | 923           |
| Services                           | 1,966         | 1,601         | 1,503         | 1,204         | 988           | 951           | 1,078         | 1,068         | 915           | 996           | 825           | 759           | 978           |
| Manufacturers                      | 245           | 183           | 133           | 150           | 123           | 106           | 183           | 141           | 95            | 149           | 128           | 212           | 138           |
| Government                         | 172           | 138           | 64            | 150           | 56            | 26            | 51            | 36            | 39            | 33            | 55            | 46            | 66            |
| Social                             | 0             | 215           | 191           | 157           | 134           | 119           | 150           | 86            | 129           | 108           | 87            | 119           | 100           |
| Other                              | 48            | 17            | 15            | 8             | 9             | 7             | 17            | 7             | 4             | 5             | 23            | 48            | 29            |
| <b>Total</b>                       | <b>6,115</b>  | <b>5,448</b>  | <b>5,021</b>  | <b>4,240</b>  | <b>3,925</b>  | <b>3,593</b>  | <b>3,826</b>  | <b>3,712</b>  | <b>3,504</b>  | <b>3,973</b>  | <b>3,470</b>  | <b>3,642</b>  | <b>3,947</b>  |
| <b>Standard Ads</b>                |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Financial                          | 14,809        | 18,472        | 15,404        | 15,775        | 15,437        | 15,687        | 17,177        | 16,567        | 16,269        | 16,658        | 12,651        | 14,174        | 15,742        |
| Merchants                          | 24,990        | 25,427        | 24,241        | 23,092        | 23,281        | 22,034        | 21,687        | 20,819        | 19,701        | 17,137        | 13,672        | 13,443        | 12,459        |
| Services                           | 10,798        | 11,324        | 10,813        | 11,641        | 11,365        | 11,874        | 11,902        | 11,391        | 11,107        | 11,011        | 8,899         | 10,035        | 10,178        |
| Manufacturers                      | 1,560         | 1,638         | 1,579         | 1,642         | 971           | 1,250         | 1,333         | 1,260         | 1,032         | 1,173         | 858           | 1,263         | 1,036         |
| Government                         | 1,046         | 976           | 1,068         | 992           | 892           | 921           | 951           | 908           | 1,018         | 1,089         | 1,428         | 1,336         | 1,277         |
| Social                             | 12,372        | 12,739        | 13,503        | 13,984        | 12,799        | 12,689        | 11,988        | 11,665        | 12,232        | 12,534        | 11,980        | 12,797        | 12,723        |
| From Multiple Organizations        | 6,484         | 6,678         | 6,704         | 6,591         | 6,590         | 6,815         | 6,183         | 6,100         | 5,839         | 5,638         | 4,997         | 4,919         | 4,842         |
| Other                              | 882           | 494           | 563           | 647           | 453           | 361           | 534           | 366           | 483           | 447           | 383           | 561           | 313           |
| <b>Total</b>                       | <b>72,941</b> | <b>77,747</b> | <b>73,874</b> | <b>74,365</b> | <b>71,788</b> | <b>71,631</b> | <b>71,754</b> | <b>69,075</b> | <b>67,681</b> | <b>65,686</b> | <b>54,867</b> | <b>58,528</b> | <b>58,571</b> |
| <b>Total Ads</b>                   |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Financial                          | 16,464        | 19,989        | 16,815        | 16,935        | 16,558        | 16,849        | 18,371        | 17,877        | 17,491        | 18,192        | 14,045        | 15,730        | 17,455        |
| Merchants                          | 27,018        | 27,204        | 25,944        | 24,503        | 24,774        | 23,256        | 22,840        | 21,883        | 20,801        | 18,285        | 14,629        | 14,345        | 13,382        |
| Services                           | 12,765        | 12,925        | 12,316        | 12,845        | 12,353        | 12,825        | 12,980        | 12,459        | 12,022        | 12,007        | 9,724         | 10,795        | 11,157        |
| Manufacturers                      | 1,805         | 1,821         | 1,713         | 1,792         | 1,094         | 1,356         | 1,516         | 1,401         | 1,127         | 1,321         | 986           | 1,475         | 1,174         |
| Government                         | 1,219         | 1,114         | 1,132         | 1,143         | 948           | 948           | 1,002         | 944           | 1,057         | 1,122         | 1,483         | 1,382         | 1,343         |
| Social                             | 12,372        | 12,954        | 13,693        | 14,140        | 12,933        | 12,807        | 12,138        | 11,752        | 12,361        | 12,642        | 12,066        | 12,916        | 12,822        |
| From Multiple Organizations        | 6,484         | 6,678         | 6,704         | 6,591         | 6,590         | 6,815         | 6,183         | 6,100         | 5,839         | 5,638         | 4,997         | 4,919         | 4,842         |
| Other                              | 930           | 511           | 578           | 655           | 462           | 368           | 550           | 372           | 487           | 452           | 406           | 609           | 342           |
| <b>Total</b>                       | <b>79,056</b> | <b>83,195</b> | <b>78,895</b> | <b>78,605</b> | <b>75,713</b> | <b>75,225</b> | <b>75,580</b> | <b>72,788</b> | <b>71,185</b> | <b>69,659</b> | <b>58,337</b> | <b>62,170</b> | <b>62,518</b> |

<sup>1</sup> Excludes Secondary Advertising

**Table A8-14**  
**First Class and Marketing Mail Advertising By Sender Type**  
**Percent of Pieces**  
**Years 2010 - 2022 (Diary Data)**

|                                    | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>First-Class Ads<sup>1</sup></b> |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Financial                          | 36%  | 37%  | 37%  | 35%  | 38%  | 40%  | 39%  | 40%  | 42%  | 41%  | 43%  | 43%  | 45%  |
| Merchants                          | 19%  | 17%  | 19%  | 19%  | 20%  | 19%  | 18%  | 18%  | 18%  | 19%  | 18%  | 16%  | 17%  |
| Services                           | 35%  | 38%  | 36%  | 36%  | 33%  | 32%  | 33%  | 33%  | 30%  | 29%  | 27%  | 27%  | 28%  |
| Manufacturers                      | 2%   | 2%   | 1%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 3%   | 2%   |
| Government                         | 2%   | 2%   | 2%   | 3%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 3%   | 3%   | 2%   |
| Social                             | 5%   | 5%   | 5%   | 6%   | 5%   | 5%   | 5%   | 4%   | 6%   | 6%   | 6%   | 6%   | 5%   |
| Other                              | 1%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 1%   | 1%   | 1%   |
| Total                              | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| <b>Standard Ads</b>                |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Financial                          | 20%  | 24%  | 21%  | 21%  | 22%  | 22%  | 24%  | 24%  | 24%  | 25%  | 23%  | 24%  | 27%  |
| Merchants                          | 34%  | 33%  | 33%  | 31%  | 32%  | 31%  | 30%  | 30%  | 29%  | 26%  | 25%  | 23%  | 21%  |
| Services                           | 15%  | 15%  | 15%  | 16%  | 16%  | 17%  | 17%  | 16%  | 16%  | 17%  | 16%  | 17%  | 17%  |
| Manufacturers                      | 2%   | 2%   | 2%   | 2%   | 1%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   |
| Government                         | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 2%   | 2%   | 3%   | 2%   | 2%   |
| Social                             | 17%  | 16%  | 18%  | 19%  | 18%  | 18%  | 17%  | 17%  | 18%  | 19%  | 22%  | 22%  | 22%  |
| From Multiple Organizations        | 9%   | 9%   | 9%   | 9%   | 9%   | 10%  | 9%   | 9%   | 9%   | 9%   | 9%   | 8%   | 8%   |
| Other                              | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   |
| Total                              | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| <b>Total Ads</b>                   |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Financial                          | 23%  | 26%  | 23%  | 23%  | 23%  | 24%  | 25%  | 26%  | 26%  | 27%  | 25%  | 26%  | 29%  |
| Merchants                          | 32%  | 31%  | 31%  | 30%  | 31%  | 30%  | 29%  | 29%  | 28%  | 25%  | 24%  | 22%  | 21%  |
| Services                           | 18%  | 18%  | 17%  | 18%  | 18%  | 18%  | 18%  | 18%  | 18%  | 18%  | 17%  | 18%  | 18%  |
| Manufacturers                      | 2%   | 2%   | 2%   | 2%   | 1%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   | 2%   |
| Government                         | 2%   | 1%   | 2%   | 1%   | 1%   | 1%   | 1%   | 1%   | 2%   | 2%   | 3%   | 2%   | 2%   |
| Social                             | 15%  | 15%  | 16%  | 17%  | 16%  | 16%  | 16%  | 16%  | 17%  | 18%  | 20%  | 20%  | 20%  |
| From Multiple Organizations        | 8%   | 7%   | 8%   | 8%   | 8%   | 9%   | 8%   | 8%   | 8%   | 8%   | 8%   | 8%   | 7%   |
| Other                              | 1%   | 1%   | 1%   | 1%   | 1%   | 0%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   | 1%   |
| Total                              | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

<sup>1</sup> Includes Secondary Advertising

**Table A8-15**  
**Treatment Of Advertising Material By Household Income**  
**Percent of Households**  
**Years 2010 - 2022 (Recruitment Data)**

|                            | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Usually Read - Total       | 20%  | 22%  | 22%  | 20%  | 20%  | 19%  | 18%  | 16%  | 16%  | 14%  | 15%  | 14%  | 12%  |
| Under \$25K                | 44%  | 44%  | 42%  | 40%  | 42%  | 41%  | 41%  | 37%  | 32%  | 30%  | 24%  | 26%  | 26%  |
| \$25 - \$ 49.9             | 26%  | 22%  | 23%  | 24%  | 26%  | 26%  | 25%  | 31%  | 30%  | 31%  | 33%  | 31%  | 28%  |
| \$50 - \$64.9              | 11%  | 10%  | 12%  | 13%  | 10%  | 12%  | 10%  | 10%  | 11%  | 11%  | 11%  | 11%  | 10%  |
| \$65 +                     | 19%  | 24%  | 24%  | 23%  | 22%  | 21%  | 24%  | 22%  | 27%  | 27%  | 32%  | 32%  | 37%  |
| Usually Scan - Total       | 27%  | 26%  | 25%  | 21%  | 21%  | 22%  | 22%  | 22%  | 24%  | 22%  | 23%  | 22%  | 17%  |
| Under 25K                  | 26%  | 24%  | 22%  | 23%  | 22%  | 25%  | 23%  | 21%  | 18%  | 17%  | 14%  | 14%  | 11%  |
| \$25 - \$ 49.9             | 26%  | 21%  | 21%  | 24%  | 28%  | 23%  | 23%  | 22%  | 26%  | 24%  | 24%  | 25%  | 23%  |
| \$50 - \$64.9              | 14%  | 12%  | 13%  | 13%  | 14%  | 12%  | 13%  | 13%  | 11%  | 14%  | 11%  | 11%  | 11%  |
| \$65 +                     | 35%  | 43%  | 44%  | 40%  | 37%  | 40%  | 41%  | 44%  | 45%  | 44%  | 51%  | 50%  | 55%  |
| Read Some - Total          | 35%  | 32%  | 34%  | 36%  | 37%  | 36%  | 35%  | 36%  | 34%  | 37%  | 36%  | 35%  | 38%  |
| Under 25K                  | 24%  | 22%  | 22%  | 21%  | 17%  | 19%  | 18%  | 18%  | 14%  | 15%  | 14%  | 11%  | 12%  |
| \$25 - \$ 49.9             | 23%  | 21%  | 22%  | 23%  | 25%  | 23%  | 23%  | 22%  | 25%  | 22%  | 21%  | 22%  | 21%  |
| \$50 - \$64.9              | 14%  | 12%  | 14%  | 13%  | 14%  | 13%  | 13%  | 12%  | 13%  | 14%  | 14%  | 12%  | 12%  |
| \$65 +                     | 40%  | 46%  | 42%  | 43%  | 45%  | 45%  | 46%  | 48%  | 49%  | 49%  | 51%  | 55%  | 55%  |
| Usually Don't Read - Total | 18%  | 21%  | 20%  | 23%  | 21%  | 23%  | 25%  | 25%  | 27%  | 27%  | 26%  | 29%  | 33%  |
| Under 25K                  | 28%  | 25%  | 29%  | 25%  | 19%  | 21%  | 18%  | 19%  | 15%  | 14%  | 12%  | 12%  | 11%  |
| \$25 - \$ 49.9             | 20%  | 22%  | 19%  | 19%  | 20%  | 23%  | 20%  | 21%  | 23%  | 19%  | 19%  | 17%  | 19%  |
| \$50 - \$64.9              | 13%  | 13%  | 12%  | 10%  | 12%  | 12%  | 14%  | 10%  | 12%  | 13%  | 9%   | 11%  | 10%  |
| \$65 +                     | 39%  | 41%  | 41%  | 46%  | 48%  | 44%  | 49%  | 51%  | 49%  | 54%  | 60%  | 61%  | 60%  |

# Appendix B: Methodology

## Study Design and Methodology

The U.S. Postal Service Household Diary Study (HDS), conducted by NuStats on behalf of the Finance and Strategy group, is a continuously fielded study that measures household mail volumes, mail usage, and attitudes about the mail and advertising. The HDS uses a two-stage survey design: Stage 1 is an online and interviewer-mediated household recruitment interview. Stage 2 is a self-completion mail diary. The diary can be completed on paper or online. The HDS uses a multi-mode approach to minimize response bias, to improve data accuracy through efficient data checking and household re-contacts, and to provide immediate telephone assistance to participants during their diary week.

### Household Recruitment Interview

The **household recruitment interview** collects information on head of households' demographics, recall of mail sent and received, adoption and use of communications technologies, bill payment behavior, and attitudes towards advertising.

### Mail Diary

The **mail diary** covers a seven-day period (Monday to Sunday) and collects information on the number of mail pieces received and sent, industry source, mail characteristics, and attitudes regarding mail received.

## Sample Design

This section describes the household selection process for participation in the HDS. A sample is the representative subset of the survey population used to gain information about the entire population. The population of inference for the HDS is all U.S. households. The probability design ensures each household has an equal chance of selection.

The sample design allows projections of results to all U.S. households. The Postal Service provided an address sample that NuStats matched for known telephone listings. Invitation letters are mailed to all sampled households with information about how to participate. Generally, the study was conducted using

telephone and online sampling for household selection and screening, followed by diaries and/or instructional materials mailed to eligible households and completed by each household unit either by paper, or by internet. Households without telephones were contacted via U.S. Mail. The sample design involves a systematic sample stratified by strata (or urban/rural location) and Census regions, ensuring even coverage across the United States.

A master national sample was specified and drawn by in-house sampling statisticians. The Postal Service drew the household probability sample from the national address database following NuStats specifications. The master list, sorted by ZIP code, was used to draw a systematic stratified sample, which was then tagged with variables indicating each housing unit's geographic location in terms of Census region and stratum.

Sample was drawn for each of the four quarters based on known proportions of households within a Census region and urban or rural location. Census regions are defined by state. Urban and rural location is defined by county and metropolitan status as defined by the U.S. Census Bureau. The strata are defined by county as follows:

- **Stratum 1:** Counties that are part of the 30 largest metropolitan areas in the United States, as defined by the 2020 US Census.
- **Stratum 2:** Counties that are part of metropolitan areas but are not in Stratum 1.
- **Stratum 3:** Counties that are not part of a metropolitan area.

Quarterly sample frames were then derived based on the amount of sample needed for each quarter, and sample was allocated to region and strata cells based on known proportions as indicated by Census 2020 count of households.

The sample was continuously "fielded" throughout all 52 weeks of the year. Sample was released in a manner designed to recruit equal sample sizes for each diary week, resulting in a sample file of at least 5,200 households. Table B.1 shows the distribution of recruited and completed households.



Table B.1:  
Sample by Postal Quarter

| Quarter      | Required Sample | Recruited Households | Completed Households |
|--------------|-----------------|----------------------|----------------------|
| Quarter 1    | 1,300           | 2,143                | 1,130                |
| Quarter 2    | 1,300           | 2,301                | 1,263                |
| Quarter 3    | 1,300           | 2,408                | 1,541                |
| Quarter 4    | 1,300           | 2,334                | 1,347                |
| <b>Total</b> | <b>5,200</b>    | <b>9,186</b>         | <b>5,281</b>         |

## Data Collection Method

The study uses a two-stage design in which households are recruited to participate in the diary study by choosing to use a telephone interview or an online survey (Stage 1) and recruited households complete a seven-day diary of mail received and sent (Stage 2) either by paper or online.

### Stage 1: Household Recruitment Interview

The main function of the household recruitment interview is to recruit households to participate in the diary study. In addition, the interview collects information on household and person demographics, recall of mail sent and received, adoption and use of communication technologies, bill payment behavior, and attitudes towards advertising.

Households completed the recruitment interview via computer-assisted telephone interviewing (CATI) technology or by using an online survey. The FY 2022 household interview consisted of 8,643 online surveys and 543 phone interviews completed with an adult member (age 18 or older) in the household. Table B.2 below shows the distribution of recruited households by recruitment type.

Table B.2:  
Sample by Recruitment Type

| Recruitment Interview | Completed    | Sample Percent |
|-----------------------|--------------|----------------|
| Phone                 | 543          | 5.9%           |
| Web                   | 8,643        | 94.1%          |
| <b>Total</b>          | <b>9,186</b> | <b>100%</b>    |

These respondents represented a cross-section of U.S. households by geography. The household interview contained 130 data items and took an average of 28.7

minutes to administer. The flow of the interview included the following elements:

- **Introduction.** Each interview began with an introduction and purpose of the interview. The interviewer also verified the respondent's address.
- **Technology adoption and use.** Questions were asked about ownership and use of personal computers, Internet, and other electronic communication.
- **Mail volume recall.** The respondent was asked to summarize how many bills, statements, and packages all members of the household have sent in a particular time period.
- **Bills and Statements.** Volumes, methods, and timing were explored in depth.
- **Bill payments.** Bill payment volumes, methods, and timing were explored in depth.
- **Advertising.** Descriptions of advertising received by the household as well as attitudes about the advertising, and orders placed because of it, were elicited.
- **Periodicals.** A summary of magazine and newspaper volumes received by the household were collected.
- **Use of postal services.** The use of post offices, post office boxes, and private mailing services was explored.
- **Online shopping.** Respondents were asked about their online shopping habits, including questions about shipping methods.
- **Household and person demographics.** Demographic items included gender, age, marital status, employment status, educational attainment, race/ethnicity, household income, household wage earners, home ownership, residence tenure, and dwelling type.

The completion rate for the FY 2022 study (defined as the proportion of respondents who completed the diary portion relative to all recruited respondents) was 57.5 percent compared to 60.7 percent in FY 2021. Most recruitment refusals took place prior to hearing who NuStats was and why the firm was calling. Refusal households that were later re-contacted cited time constraints and privacy concerns as reasons for not participating.

## Stage 2: Mail Diary Package

Recruited households were mailed the website for the online diary, instructions, and a toll-free “help” telephone number. If they chose the diary on paper, they were sent seven mail diaries..

The diary package contains a Certificate of Appreciation, Instruction Booklet, and a photo-based “Quick Start” sheet. The Instruction Booklet provided information about the study, answers to frequently asked questions, instructions for filling out the diary, guidelines for sorting mail, and examples of mail markings. The paper diary instrument was composed of two parts:

- **The Question sheets.** The Question sheets are color-coded by mail classification (First-Class Mail received, First-Class Mail sent, Marketing Mail, Nonprofit, etc.). Information collected about each mail classification included: type of mail piece (i.e., envelope, postcard, catalog, etc.), mail classification, mail type, sender type, information about advertising enclosed, and receiver reaction or responses to the mail piece.
- **Seven answer booklets,** each specific to a day of the week. Each booklet was arranged by mail classification and color-coded to correspond to the question sheets.

The online diary guided Respondents through the questions and easily recorded each day’s mail all in one website. Respondents participating by mail were instructed to enclose pertinent information from the envelopes of each mail piece received to enable NuStats editors to verify or clarify quantity and classes of mail recorded in the diaries. Respondents participating online were instructed to upload photographs of the envelopes. NuStats used a three-stage editing process to check the accuracy of information recorded on paper diaries. First, returned diary packages were culled for those that represented a reasonable attempt to complete the diary. Second, the diary information recorded for each day was checked to ensure that answers were complete and logical, as well as to verify recorded information against the mail markings returned in the package. The diaries were then scanned using Optical Character Recognition (OCR) software. In stage three, a verifier re-checked the diary information recorded in the OCR software for each day. This second edit functions as a quality control check to ensure data accuracy.

Overall, about one percent of returned diaries did not pass the edit checking process.

Of the 9,186 households recruited to receive a diary package 5,281 actually returned acceptable completed diaries (defined as containing data suitable for analysis) to NuStats, for a completion rate of 57.5 percent.

## *Data Management*

Data management entails processing the information resulting from the Household Interview and Mail Diaries, making it available for analysis, storing it, and documenting it. Household interviews were conducted using both web and CATI technology. Questionnaire and relevant data checks were programmed into a master questionnaire that was used in the web and phone survey. Recorded data was extracted from the web and CATI software into a database management file.

Diary information was recorded through the web and paper. Returned paper diary information was recorded (entered) through optical scanning technology. The diary data, once scanned using Teleform software, was captured in a database management file. Similarly, web diary information was stored in a web server and later captured in a database management file.

After completion of data collection, editing and entry tasks, the survey data were contained in nine data files. One data file contained the Household Interview data and another eight contained Mail Diary—one for each mail classification (First-Class Mail received, First-Class Mail sent, etc.). These files were all developed in SAS-PC.

The file variables were identified by variable name. For each file variable, the File Information contains:

- Label, which is a brief description of the variable.
- Measurement level, which specifies the level of measurement as scale (numeric data on an interval or ratio scale), ordinal, or nominal. Nominal and ordinal data can be either string (alphanumeric) or numeric.
- Value formats, which identify the response codes.
- Column width and alignment.

Several SAS programming operations were necessary to put the Mail Diary data in the desired form for analysis. The structure for these programs was contained in a separate File Information document that accompanied the data delivery.

Various edit routines were used to check the consistency of the reported data and to identify reporting or entry errors. Routine edit checks were conducted to examine questionnaire responses for reasonableness and consistency across items. Routine checks included such items as:

- Response code range checks.
- Checks for proper data skips and patterns of answering questions consistent with prior answers.
- Checks for realistic responses (e.g., number of online purchases possible in one month).
- Checks for high frequency of item non-response (missing data from question refusals).

When conducting these checks, data were compared against the actual survey forms. NuStats identified extreme values that were impossible or unlikely, and corrected inconsistent data when possible.

Some extreme/inconsistent data values unable to be corrected or verified were edited to missing values.

In addition, NuStats performed in-depth customized data checks to ensure data within each record of the Household Interview were logically consistent. For example, a respondent should have reported paying bills online only if he/she also reported having Internet access.

Raw variables, derived variables, and analytical programs were documented in a data documentation binder that accompanied the data delivery. Any information that could be directly or indirectly used to identify individual respondents, such as respondent names, addresses, or telephone numbers, were removed to protect respondent confidentiality and privacy. Such information is stored in a locked archival file.

## Sample Demographic Profile (All Counts Unweighted), Government Fiscal Year 2022

Table B.3:  
Annual Household Income by Recruitment/Retrieval Status

| Annual Household Income | Recruited Households |               | Total        | Sample Percent | Population Percent |
|-------------------------|----------------------|---------------|--------------|----------------|--------------------|
|                         | Retrieved            | Not Retrieved |              |                |                    |
| \$0 - \$24,999          | 276                  | 310           | 586          | 5.2%           | 17.4%              |
| \$25,000 - \$34,999     | 306                  | 235           | 541          | 5.8%           | 7.8%               |
| \$35,000 - \$49,999     | 449                  | 329           | 778          | 8.5%           | 10.9%              |
| \$50,000 - \$64,999     | 453                  | 284           | 737          | 8.6%           | 10.4%              |
| \$65,000 - \$79,999     | 534                  | 325           | 859          | 10.1%          | 8.5%               |
| \$80,000 - \$99,999     | 485                  | 347           | 832          | 9.2%           | 9.1%               |
| \$100,000 or more       | 1,789                | 1,229         | 3,018        | 33.9%          | 35.8%              |
| Don't Know              | 91                   | 117           | 208          | 1.7%           | N/A                |
| Refused                 | 898                  | 729           | 1,627        | 17.0%          | N/A                |
| <b>Total</b>            | <b>5,281</b>         | <b>3,905</b>  | <b>9,186</b> | <b>100.0%</b>  | <b>100.0%</b>      |

Notes:

Sample Percent based only on retrieved households that provided a response to the Household Income question.

Population percent based on U.S. Census Bureau, Current Population Survey Annual Demographic File (March 2022).

**Table B.4:**  
Number of Adults in Household by Recruitment/Retrieval Status

| Number of Adults in Household | Recruited Households |               | Total        | Sample Percent | Population Percent |
|-------------------------------|----------------------|---------------|--------------|----------------|--------------------|
|                               | Retrieved            | Not Retrieved |              |                |                    |
| One                           | 1,186                | 1,006         | 2,192        | 22.5%          | 33.4%              |
| Two                           | 2,446                | 1,499         | 3,945        | 46.3%          | 50.5%              |
| Three                         | 702                  | 560           | 1,262        | 13.3%          | 11.0%              |
| Four                          | 613                  | 510           | 1,123        | 11.6%          | 3.8%               |
| Five or More                  | 334                  | 330           | 664          | 6.3%           | 1.3%               |
| <b>Total</b>                  | <b>5,281</b>         | <b>3,905</b>  | <b>9,186</b> | <b>100.0%</b>  | <b>100.0%</b>      |

Notes:

Sample Percent based only on retrieved households.

Population percent based on U.S. Census Bureau, Current Population Survey Annual Demographic File (March 2022).

**Table B.5:**  
Geographic Region by Recruitment/Retrieval Status

| Geographic Region | Recruited Households |               | Total        | Sample Percent | Population Percent |
|-------------------|----------------------|---------------|--------------|----------------|--------------------|
|                   | Retrieved            | Not Retrieved |              |                |                    |
| Northeast         | 882                  | 656           | 1,538        | 16.7%          | 17.6%              |
| Midwest           | 1,210                | 766           | 1,976        | 22.9%          | 21.7%              |
| South             | 1,964                | 1,522         | 3,486        | 37.2%          | 38.3%              |
| West              | 1,225                | 961           | 2,186        | 23.2%          | 22.3%              |
| <b>Total</b>      | <b>5,281</b>         | <b>3,905</b>  | <b>9,186</b> | <b>100.0%</b>  | <b>100.0%</b>      |

Notes:

Sample Percent based only on retrieved households.

Population percent based on 2020 Decennial Census P.L. 94-171 Redistricting Data Summary Files

**Table B.6:**  
Urban/Rural Location by Recruitment/Retrieval Status

| Urban/Rural Location   | Recruited Households |               | Total        | Sample Percent | Population Percent |
|------------------------|----------------------|---------------|--------------|----------------|--------------------|
|                        | Retrieved            | Not Retrieved |              |                |                    |
| 30 Largest Metro Areas | 2,312                | 1,886         | 4,198        | 43.8%          | 44.3%              |
| Other Metro Areas      | 2,286                | 1,544         | 3,830        | 43.3%          | 41.4%              |
| Non-Metropolitan Areas | 683                  | 475           | 1,158        | 12.9%          | 14.3%              |
| <b>Total</b>           | <b>5,281</b>         | <b>3,905</b>  | <b>9,186</b> | <b>100.0%</b>  | <b>100.0%</b>      |

Notes:

Sample Percent based only on retrieved households.

Population percent based on 2020 Decennial Census P.L. 94-171 Redistricting Data Summary Files

**Table B.7:**  
Age of Head of Household by Recruitment/Retrieval Status

| Age of Head of Household | Recruited Households |               | Total        | Sample Percent | Population Percent |
|--------------------------|----------------------|---------------|--------------|----------------|--------------------|
|                          | Retrieved            | Not Retrieved |              |                |                    |
| 18 - 24                  | 62                   | 73            | 135          | 1.2%           | 4.5%               |
| 25 - 44                  | 1,164                | 1,237         | 2,401        | 22.0%          | 33.3%              |
| 45 - 64                  | 1,902                | 1,309         | 3,211        | 36.0%          | 34.9%              |
| 65+                      | 2,053                | 1,186         | 3,239        | 38.9%          | 27.3%              |
| Refused                  | 100                  | 100           | 200          | 1.9%           | N/A                |
| <b>Total</b>             | <b>5,281</b>         | <b>3,905</b>  | <b>9,186</b> | <b>100.0%</b>  | <b>100.0%</b>      |

Notes:

Sample Percent based only on retrieved households that provided a valid response.

Population percent based on U.S. Census Bureau, Current Population Survey Annual Demographic File (March 2022).

**Table B.8:**  
Educational Attainment of Head of Household by Recruitment/Retrieval Status

| Educational Attainment of Head of Household | Recruited Households |               | Total        | Sample Percent | Population Percent |
|---|----------------------|---------------|--------------|----------------|--------------------|
|   | Retrieved            | Not Retrieved |              |                |                    |
| 8th grade or less                           | 33                   | 44            | 77           | 0.6%           | 2.8%               |
| Some high school                            | 67                   | 87            | 154          | 1.3%           | 5.2%               |
| High school graduate                        | 640                  | 570           | 1,210        | 12.1%          | 26.2%              |
| Some college                                | 888                  | 743           | 1,631        | 16.8%          | 16.6%              |
| Technical school graduate                   | 336                  | 257           | 593          | 6.4%           | 4.6%               |
| College graduate                            | 1,722                | 1,184         | 2,906        | 32.6%          | 29.9%              |
| Postgraduate work                           | 1,490                | 879           | 2,369        | 28.2%          | 14.8%              |
| Refused                                     | 105                  | 141           | 246          | 2.0%           | N/A                |
| <b>Total</b>                                | <b>5,281</b>         | <b>3,905</b>  | <b>9,186</b> | <b>100.0%</b>  | <b>100.0%</b>      |

Notes:

Sample Percent based only on retrieved households that provided a valid response.

Population percent based on U.S. Census Bureau, Current Population Survey Annual Demographic File (March 2022).

## Data Weighting and Expansion

This section explains the methodology used for creating sampling and expansion weights for the FY 2022 Household Diary Study.

The FY 2022 HDS uses both weighting and expansion factors to 1) adjust the sample data to match population parameters and 2) expand mail volumes exhibited in the diary sample to all U.S. households.

### Weighting Procedures, FY 2022 Recruitment Data

Sampling weights were produced separately for the households that participated in the recruitment phase of the FY 2022 HDS, and those that completed and returned a diary. There were four main weighting variables: Geography, Education, Age, and Homeownership. FY 2022 recruitment geographic weights were derived from sample households' strata and region:

**Strata:** As mentioned previously, there are three strata. A household was classified within strata as residing in the top 30 metropolitan areas nationwide, any other metropolitan area, or a non-metropolitan area.<sup>1</sup> Table B.9 provides unweighted sample counts from FY 2022 recruitment data for strata:

Table B.9:

HDS 2022 Recruitment Data: Urban/Rural Location

| Urban/<br>Rural Location  | Household    | Percent | Cumulative<br>Percent |
|---------------------------|--------------|---------|-----------------------|
| 30 Largest<br>Metro Areas | 4,198        | 45.7%   | 45.7%                 |
| Other Metro Areas         | 3,830        | 41.7%   | 87.4%                 |
| Non-Metro<br>Counties     | 1,158        | 12.6%   | 100.0%                |
| <b>Total</b>              | <b>9,186</b> | 100.0%  |                       |

**Strata/Regions:** Table B.11 indicates the distribution of households from the FY 2022 recruitment sample within strata and regions.

Population parameters for the intersection of the three strata and four regions were based on 2020 Census counts of households by county. As Table B.12 shows, each county was grouped according to its location within these

**Regions:** Table B.10 provides unweighted sample counts from FY 2022 recruitment data for region. Households were classified by state. There are four mutually exclusive regions as defined by the U.S. Census Bureau (along with respective states):

#### Four Census Regions:

**Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

**South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

**West:** Arizona, Alaska, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Table B.10:

HDS 2022 Recruitment Data: Geographic Region

| Geographic<br>Region | Households   | Percent | Cumulative<br>Percent |
|----------------------|--------------|---------|-----------------------|
| Northeast            | 1,538        | 16.7%   | 16.7%                 |
| Midwest              | 1,976        | 21.5%   | 38.3%                 |
| South                | 3,486        | 37.9%   | 76.2%                 |
| West                 | 2,186        | 23.8%   | 100.0%                |
| <b>Total</b>         | <b>9,186</b> | 100.0%  |                       |

12 mutually exclusive and collectively exhaustive geographic categories.

To calculate the weight for each strata/region interval, the population percentage was divided by the sample percentage. Geography weights appear in the last column to the right in Table B.12.

<sup>1</sup> Core-Based Statistical Area (CBSA) is defined within the sample according to the official definition used by the U.S. Census Bureau. CBSAs refer collectively to both metropolitan and micropolitan statistical areas. Non-

metropolitan areas are counties that do not belong to a metropolitan area. Each sample county was assigned to a stratum according to its metropolitan status.

**Table B.11:**  
Distribution of Households within Strata and Region

| Geographic Region | Stratum ( <i>Urban/Rural Location</i> ) |                   |                 | Total        |
|-------------------|---|-------------------|-----------------|--------------|
|                   | 30 Largest Metro Areas                  | Other Metro Areas | Non-Metro Areas |              |
| Northeast         | 848                                     | 580               | 110             | <b>1,538</b> |
| Midwest           | 714                                     | 894               | 368             | <b>1,976</b> |
| South             | 1,365                                   | 1,635             | 486             | <b>3,486</b> |
| West              | 1,271                                   | 721               | 194             | <b>2,186</b> |
| <b>Total</b>      | <b>4,198</b>                            | <b>3,830</b>      | <b>1,158</b>    | <b>9,186</b> |

**Table B.12:**  
HDS 2022 Recruitment Data: Construction of Geographic Weight

| Stratum                | Geographic Region | Households ( <i>Population</i> ) | Percent       | Households ( <i>Sample</i> ) | Percent       | Weight |
|------------------------|-------------------|----------------------------------|---------------|------------------------------|---------------|--------|
| 30 Largest Metro Areas | Northeast         | 12,929,185                       | 9.85%         | 848                          | 9.2%          | 1.07   |
|                        | Midwest           | 9,033,868                        | 6.89%         | 714                          | 7.8%          | .89    |
|                        | South             | 19,548,618                       | 14.90%        | 1,365                        | 14.9%         | 1.00   |
|                        | West              | 16,599,117                       | 12.65%        | 1,271                        | 13.8%         | .91    |
| Other Metro Areas      | Northeast         | 8,285,156                        | 6.31%         | 580                          | 6.3%          | 1.00   |
|                        | Midwest           | 13,241,283                       | 10.09%        | 894                          | 9.7%          | 1.04   |
|                        | South             | 22,940,021                       | 17.48%        | 1,635                        | 17.8%         | .98    |
|                        | West              | 9,906,481                        | 7.55%         | 721                          | 7.8%          | .96    |
| Non-Metro Areas        | Northeast         | 1,930,220                        | 1.47%         | 110                          | 1.2%          | 1.23   |
|                        | Midwest           | 6,242,143                        | 4.76%         | 368                          | 4.0%          | 1.19   |
|                        | South             | 7,805,411                        | 5.95%         | 486                          | 5.3%          | 1.12   |
|                        | West              | 2,740,544                        | 2.09%         | 194                          | 2.1%          | .99    |
| <b>Totals</b>          |                   | <b>131,202,045</b>               | <b>100.0%</b> | 9,186                        | <b>100.0%</b> | 1.00   |

Source: Household Population Estimates based on U.S. Census Bureau, 2022 Census.

**Education:** In addition to weighting for differences in geography between the sample and the population, an additional weight was created based on differences in the educational attainment of the head of household. For those households in which either more than one person was identified as the head of household or no individual was identified as the head of household, one was chosen based on the following sequence of criteria: 1) oldest male or 2) oldest female (if no male exists). For cases in which two candidates for the head of the household were of the same age, the respondent on the phone was chosen.

Known population parameters were based on weighted proportions derived from the U.S. Census Bureau's Current Population Survey annual demographic file for March 2022. For cases in which the head of household refused to provide his/her education level, an educational level was imputed based on the average educational level of like cases. There were 242 such cases in 2022; mean levels of educational attainment were based on geography (strata and regions), as well as age and income level, if provided.

**Table B.13:**  
HDS 2022 Recruitment Data: Construction of Educational Attainment Weight

| Educational Attainment        | Households<br>(Population) | Percent | Households<br>(Sample) | Percent | Weight |
|-------------------------------|----------------------------|---------|------------------------|---------|--------|
| Less than high school diploma | 10,446,550                 | 8.0%    | 231                    | 2.5%    | 3.17   |
| High school graduate          | 34,360,899                 | 26.2%   | 1,210                  | 13.2%   | 1.99   |
| Some college                  | 21,717,395                 | 16.6%   | 1,633                  | 17.8%   | 0.93   |
| Technical school graduate     | 6,015,375                  | 4.6%    | 733                    | 8.0%    | 0.57   |
| College graduate              | 39,288,495                 | 29.9%   | 3,010                  | 32.8%   | 0.91   |
| Postgraduate work             | 19,373,332                 | 14.8%   | 2,369                  | 25.8%   | 0.57   |
| <b>Totals</b>                 | 131,202,045                | 100.0%  | 9,186                  | 100.0%  | 1.00   |

Note: Education responses include imputed Don't Know/Refused answers.

**Age:** Additional weight was also created based on differences in the age of the head of household. Known population parameters were based on weighted proportions derived from the U.S. Census Bureau's Current Population Survey annual demographic file for

March 2022. For cases in which the head of household refused to provide his/her age, an age level was imputed based on the average age level of like cases. There were 246 such cases in 2022; mean levels of age were based on geography (strata and regions), as well as education level, if provided.

**Table B.14:**  
HDS 2022 Recruitment Data: Construction of Age Weight

| Educational Attainment | Households<br>(Population) | Percent | Households<br>(Sample) | Percent | Weight |
|------------------------|----------------------------|---------|------------------------|---------|--------|
| 18-24                  | 5,944,953                  | 4.5%    | 135                    | 1.5%    | 3.08   |
| 25-34                  | 21,012,758                 | 16.0%   | 927                    | 10.1%   | 1.59   |
| 35-44                  | 22,619,075                 | 17.2%   | 1,476                  | 16.1%   | 1.07   |
| 45-54                  | 21,675,327                 | 16.5%   | 1,463                  | 15.9%   | 1.04   |
| 55-64                  | 24,088,099                 | 18.4%   | 1,920                  | 20.9%   | 0.88   |
| 65-74                  | 20,982,586                 | 16.0%   | 2,162                  | 23.5%   | 0.68   |
| 75+                    | 14,879,248                 | 11.3%   | 1,103                  | 12.0%   | 0.94   |
| <b>Total</b>           | 131,202,045                | 100.0%  | 9,186                  | 100.0%  | 1.00   |

Note: Age responses include imputed Don't Know/Refused answers.

**Homeownership:** In addition to weighing for differences in income, education and geography between the sample and the population, data were weighed to account for homeownership rates for U.S. households. For those households in which homeownership was unknown, one was imputed based

on the average income level and geography of like cases. There were 269 such cases in 2022; mean levels of income attainment were based on geography (strata and regions). Known population parameters were based on weighted proportions derived from the U.S. Census Bureau's Current Population Survey Quarterly Housing



Vacancies and Homeownership file for November 2022. The average Homeownership rate in 2022 is 65.7 percent.

## Weighting Procedures, FY 2022 Diary Data

As mentioned above, 9,186 households participated in the recruitment phase of the FY 2022 HDS, and 5,281 households completed usable diaries. Balancing weights for the FY 2022 HDS diary data were developed by applying the same approach used for recruitment data. An additional age weight was derived based on the age of the head of household using the following categories: 18–24, 25–34, 35–44, 45–54, 55–64, 65–74, and over 75 years old.

All component weights were multiplied together and normalized to ensure that the total number of weighted cases equals the number of unweighted cases.

A final adjustment in the form of expansion factors was made to expand the sample to the level of total households in the United States at the time of data collection, which was 131.2 million. The number of

households in the United States was divided into the number of households that participated in the diary portion of the survey. The resultant factor was applied to each household in the survey. The expansion factor was multiplied by the sampling weight and then multiplied by 52 (the number of calendar weeks in one year) to derive nationwide annual volume estimates from the sample data.

Expansion Factor  
 $131202045.25 / 5,281 = 24,844.2$

Component Weight:

$$\omega = \frac{Ps / Pt}{Ss / St} ,$$

Where Ps = population count in cohort and  
Pt = total population count  
Ss = sample count in cohort  
St = total sample count