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HISTORY

The mail service of the United States has played a very significant and historic role in the growth and development of this country. It is, and has been a very useful tool in communicating, especially over large distances. The first mail delivery system that was organized in the United States was started in 1639. Its main focus was to serve the colonies that were starting to cover more North American land and were growing more populated. These colonies also used this first mail system to correspond with England, Sweden, and the Netherlands because of the family and friends that were left there.

Before Post Offices were built, often times stores and taverns were designated mail storage facilities. The first one of these was in Boston, Massachusetts. Benjamin Franklin was appointed to be one of two joint Postmasters in 1753. He was appointed by the British who had ownership rights of the postal system at that time. Franklin immediately set out to improve the system by inspecting most of the post offices and routes in the colonies. He created routes for riders to travel through the night and shortened many delivery routes, both to improve delivery time. Soon after 1774, when the British-owned colonial post disassembled, William Goddard formed a new “intercolonial mail service.” The revenues that were created from the new service were built through subscriptions. After a short period of using Goddard’s system the country started utilizing a new Constitution Post. Benjamin Franklin was the first Postmaster of the new Postal System, and its use was not primarily for correspondence of citizens, but to enable Congress and the colonial army to communicate. This Constitution Post was critical to the effort against the British during the American Revolution. Franklin served as the Postmaster until November of 1776, and the postal system we have in use today

stems directly from the original one that Franklin designed. During the Revolution, mail routes to Europe were disturbed, and in the mid to late 1780's, the postal service reestablished those routes and also added routes to locations farther west, such as Pittsburgh. In 1782, the federal government was given a monopoly of mail delivery after Congress passed an Act stating it. After the Constitution was ratified, Samuel Osgood was the first man to be Postmaster General. He was appointed by George Washington. In 1800 the Post Office was moved to Washington, D.C. from Philadelphia using nothing but "two horse-drawn carriages". Between 1789 and 1861, the U.S. grew to include land all the way to the Pacific Coast and the "population grew from 3.9 million in 1790 to 31.4 million in 1860. Because of this rapid expansion, the postal service was forced to grow extremely quickly to continue to provide service to the whole country. There were 75 Post Offices in 1790, and then 28,498 in 1860. Because of the new territories and states that were claimed and inhabited, there wasn't only an increase in the number of Post Offices, but also in the number of routes that were used to transport mail, and the number of roads that were used for routes. "By 1822, it took only 11 days to move mail between Washington, D.C., and Nashville, Tennessee." The Department of the Post Office was a member of the executive branch, and when it became the largest employer in that branch in 1828, it was obvious that the department had a significant amount of power. Because of this power, a year later, the Postmaster General was admitted to the President's cabinet. By 1831 the size of the Post Office was even more significant. ". . . Postal employees accounted for 76 percent of the civilian federal workforce." The number of soldiers serving the country also was about 2,500 people short of the number of postmasters serving (approximately 6,300 to 8,700). In 1863, a new Act was passed by

Congress; it affected the Post Office in significant ways. The first thing that the new act created was a universal postage rate. Regardless of where the letter was being mailed to, the postage necessary to mail a letter would be the same, and the only price differences were based solely on the weight of what was being shipped. This was a new concept to the Post Office, but offered the advantage of offering every customer the same service, regardless of where that customer resided. The other major change from the new Act was the creation of mail classes. A class was created for letters, periodicals, and all other mailables. These classes were first, second, and third respectively.

In the early 1800's one of the main problems that the Post Office faced was moving mail faster. The country was starting to expand quickly, and the Post Office was forced to respond in order to reach each customer. In 1811, steamboats were used to move mail, and later, trains. The steamboats didn't exceed 10 mph often, if ever at all, but they did provide a means to ship a lot of mail, at a steady pace. The area of the country that suffered most from the inability of the post office to keep up with expansion was California. To mail a letter between California and Washington would take the unreasonable time of five to six weeks. One attempt to speed up that specific delivery route was the Pony Express. It was created for an express route from "St. Joseph, Missouri – the westernmost point reached by the railroad" to Salt Lake City and on to California. The first time the Pony Express was tried, the mail took only 10 days to reach Sacramento traveling from St. Joseph. The Pony Express was not necessary after the completion of the transcontinental telegraph line, so it was ended. It was only used for a short period of time in 1861, between July 1 and October 26. Even though the Pony Express was used for such a short time, it remains a legend that many people have heard.

Another technology that the Post Office used to increase the speed of mail delivery was trains. Trains offered a huge advantage because of the speed they traveled, up to 30 mph, and the amount of mail that they could carry, especially in relation to a rider on horseback. Years later, in 1913, the Post Office offered a parcel delivery service. The train's benefits proved to be so useful that the number of trains carrying mail continuously increased. "In 1930, more than 10,000 trains moved mail." The first major problem with using trains came in 1958, when Congress passed a law allowing passenger trains losing money, to discontinue service. Many of the trains that carried mail regularly were discontinued, and the Post Office started to use trains as a secondary means of transporting mail. The last train run was in 1977, but then in the 1980's, train routes were reestablished because of the number and weight of catalogs and similar items that were so frequently being mailed.

Also in the mid-1800's the Post Office started a campaign to increase revenues. One of the major changes that was made was the offer of free home delivery in major cities in 1863. The idea was to make the service easy to use, so it would be taken advantage of more often. At the beginning of free home delivery in cities, letter carriers worked very strenuously to deliver the mail to each customer. "Carriers walked as many as 22 miles a day, carrying up to 50 pounds of mail at a time." The carriers also delivered to their routes multiple times a day because the means of transportation used to bring mail to the post office caused mail to arrive at all times of the day. This meant that carriers would deliver to residential customers twice daily, and businesses "up to four times a day". "The second residential delivery was discontinued on April 17, 1950, in most cities." It took a few more decades for the Post Office to gradually discontinue

multiple deliveries to business, but they were eventually not necessary because the majority of the mail was available for “first-trip delivery” with improved transportation.

Another attempt to reach every customer was made in 1899. This is when the postal service started to experiment with free delivery in rural areas. After some success, “Rural Free Delivery” was made permanent in 1902. And later, “the word ‘Free’ was dropped in 1906, since it was understood.” The main goal that the Post Office had when starting free rural delivery was to reach more customers and increase revenue, so rural carriers provided more services than just delivering mail. “Rural carriers sold stamps and money orders, registered letters, and in short, they served as traveling Post Offices.”

When parcel post was started, it was very successful. After only six months of service, there had been over 300 million parcels shipped. Soon after, companies focusing primarily on mail-order business brought in more revenue for the Post Office.

Another means to speed up delivery was with the use of airplanes. Airmail was experimented with as early as 1911 and it was used regularly starting in 1918. After the first trip that airplanes were used to deliver mail to New York from San Francisco, Congress was impressed so much that it appropriated one and a quarter million dollars to research and expand the use of airplanes for the use of delivering mail. In 1925, commercial airlines became authorized to carry mail. Soon after that, the amount of mail that was being carried under contract continued to increase until in 1927, the Post Office didn’t use their own planes and contracted all of the airmail service to commercial airlines. Between the times that airmail was first used to when it was contracted to commercial airlines, the Post Office made significant contributions to aeronautics and all

the aviation equipment, structure, and other assets were given to the government after the postal system no longer used them.

Beginning in the 1930's, the amount of mail and number of customers was increasing very quickly. Many people thought that a coding system might help to sort mail faster. During World War II, a lot of Postal employees left to fight, so a one or two digit code was used to help people with less familiarity with the system, sort mail. Twenty years later 80 percent of all the mail being sent in the country was business mail. Because of the massive amounts of mail, the Post Office started to create a new coding system based on zones. The new system implemented in 1963 was the Zoning Improvement Plan (ZIP). By July of 1963, "a five-digit code had been assigned to every address throughout the country." The way the ZIP code works is by splitting the country into similar sized zones and numbering each one with a five-digit code. The first number is used to split the whole country into ten parts. The number "0" represents the northeast section of the country and the number "9" represents the West Coast. The second and third numbers are used to pinpoint concentrations of people and areas that are most easily accessible to transporting mail. The last two numbers were used to designate small post offices or if in a large city, to distinguish a postal zone. By 1967 second and third class mail was required to be presorted by ZIP code.

After many years of disorganization in the post office, wage rate conflicts, and a lack of control of equipment and management efficiency, on March 12, 1970, the House Post Office and Civil Service Committee compromised with a bill to try to solve some disputes and reorganize the system. "The bill included a 5.4 percent retroactive pay raise and a system that would allow employees to reach the top of their pay grade in 8 rather

than 21 years. Postal employees called it too little too late.” After a work stoppage, and after the army was required to deliver mail, unions and government agencies met and settled on a larger raise. On August 12, 1970, President Nixon signed The Postal Reorganization Act.” At this time, the Post Office Department was transformed into the United States Postal Service, and one year later the Postmaster General “ceased to be a member of the President’s cabinet.” The Postal Reorganization Act transformed the Post Office Department in many ways. It affected the finance and rates, personnel, and pay rates. The effects it had on finance and rates were major. It established a new Postal Rates Commission. It was comprised of five members appointed by the president and required the approval of the Senate. It also authorized the reimbursement of the U.S.P.S. for carrying mail that Congress reduced the rates on, or even made free, such as non-profit organization mail which is discounted. The Act also established a Postal Career Service which is a framework for employment conditions to be set through collective bargaining. Pay rates were officially set to be comparable to the wages that people in similar positions in the private sector were paid.

Another way to increase productivity within the postal system was to develop new technologies to use the processing plants to mechanicalize the plants and not rely solely on humans. In 1959 the Post Office Department order 75 Mark II facer-cancellers. “In 1984, more than 1,000 Mark II and M-36 facer-cancellers were in operation.” Another technology that was developed in 1965 was the high-speed optical character reader (OCR). Advanced facer-cancellers (AFCS) were replacing the outdated machines that were being used prior to 1992. “The AFCS processed more than 30,000 pieces of mail per hour, twice as fast as the M-36 facer-cancellers.” The AFCSs were able to identify

mail and separate it into three categories, prebarcoded, handwritten, and machine-imprinted. An expanded ZIP code was a priority in 1978 and development was started to decrease the number of times that a piece of mail is handled. With this new ZIP code, new machinery was required. In 1982, the first single line OCR that was computer driven was installed in Los Angeles. “At the destination Post Office, a less expensive bar code sorter (BCS) sorted the mail by reading its barcode.” 252 OCRs were being used for processing mail by 1984, processing at an average of 6,200 pieces per hour. The new ZIP code was developed, and practiced for a while, and then in 1983, it was officially used. With the new ZIP code, the main goal was to just expand the system already being used, so the five number code that was required prior to 1983 remained the same, and there were four more numbers added to the end. The sixth and seventh numbers designated a delivery sector. It could be a couple of city blocks, a group of streets, or a high-rise office building. The last two numbers split that delivery sector into a delivery segment. This could be a floor in an office building, or one side of a street. Later in 1983, “the Governors of the Postal Service approved price incentives for First-Class Mail bearing the ZIP + 4 code.”

With the automation age increasing productivity all across the country, the United States Postal Service were not left out. Facer-cancellers systems were performing multiple tasks including facing, canceling, and sorting mail. “Multiline optical character readers (MLOCs) read the entire address on an envelope, then sort it at a speed of nine or more envelopes per second.” With the new cameras that are used, barcodes can be located and read regardless of where on the envelope they are printed because of the wide view that they have. Even with all of this new technology, there are some letters, which

during automation, can not be read by the machines. In this case, the machines transfer the image to a remote encoding center so that a person can see an image of the letter on a computer screen, and manually input the information so that the machine can sort the letter. “Improved technology can process more than 86 percent of all addresses.” Because of an even further developed ZIP code using 11-digits representing each individual delivery point, machinery can almost eliminate the need for the carrier to case the mail, because the carrier will receive it in delivery order. In the 1990’s, the major development in the retail section, was the integrated retail terminal (IRT). It is a piece of computer driven machinery with an electronic scale.

In the late 1990’s and early 2000’s, the postal service offered many new services to send mail with. In 1999, Delivery Confirmation was first offered. It tracked the exact time of delivery, and was easily accessible through a toll-free phone call, or by going online. In 2001, Signature Confirmation gave the sender an opportunity to get a copy of the receiver’s signature as proof of delivery.

Slower economic growth and an increase in competition in the 1990’s slowed the growth of the postal service. Electronic communications offered a new means to transfer messages, payments, and statements. This led to a decrease in the volume of first class mail. There were also several private companies that fought for a more dominant piece of the parcel delivery service market. To combat these forces, the postal service started an intense evaluation of the service that they provided, and tried to improve it. “By the end of 2002, the Postal Service delivered 22 billion more pieces of mail to 12 million more addresses that it did in 1995 with the same number of employees.” There was a Transformation Plan that was submitted to Congress in April 2002. In the plan there

were views on steps to take for short and long term. The main goal of these strategies is to increase the postal service's growth rate by increasing value, improving efficiency, and enhancing a performance-based culture. In December of 2002, President George W. Bush created a commission for the Postal Service. The commission's goal was "to identify the operational, structural, and financial challenges facing the Postal Service."

Thousands were killed on September 11, 2001 by terrorists attacking the United States. Despite the tragedy and the limitations on air travel, the Postal Service worked extremely hard to keep the mail moving to keep all means of communication available. During October of the same year, the Postal Service started to work in cooperation with other government agencies on terrorism because of mail being shipped with anthrax. "All told, at least five deaths and several cases of anthrax poisoning are known." Even after biological attacks through the mail system, the United States Postal Service continued to provide their service to everyone in the country, and have added increasing mail security to the long list of tasks that the service has provided for so many years.

ONLINE BILL PAYMENTS AND BANKING

One major influence on the volume of first-class mail is the opportunity to pay bills online. For several years, it has been standard procedure to "send the check in the mail." It has been an efficient means of shipping money. The Postal Service offered a new option to the practice of taking cash out of the bank, to pay bills directly. It offered more people the opportunity to work with companies across the country. It was also more convenient.

The new developments that have started to replace these transactions are taking place through internet websites. Many of the reasons that the internet has grown in popularity for paying bills are the same as that which originally made the Post Office so appealing. The convenience of paying bills online is revolutionary. No longer do people have to write a check, pay for a stamp, and make sure to ship it on time. With the current online systems, it is possible to simply electronically enter the amount you wish to credit the account, and the transaction will take place within twenty-four hours, if not instantly.

Other advantages that working with financial institutions through websites are electronic statements, more information about accounts is accessible, the convenience of transferring funds, and the customer service they can offer. Most companies offer a free online service to customers. Working online with your account allows the customer instant access to periodic statements, as opposed to several days after the period closes, due to printing, mailing, and shipping delays. Another advantage to accessing account information online is that you can view it during the period. The hard copies of statements arrive periodically providing the customer with a summary of account activity, but working online allows customers to see account activity in the middle of the cycle, to provide the opportunity to catch discrepancies early, and to continuously evaluate financial situations.

Working with financial accounts through the internet also provides a quicker and more suitable format for transferring funds between accounts. Through the use of a computer, large amounts of money can be moved without ever taking a trip to a bank. There are also many customer service options that are available to account holders that

work online. There are systems that can address frequent problems, but also direct questions to the proper employees to service specific accounts.

Because of the numerous advantages of working with a bank or creditor online, hard copies of statements and the reciprocated bill payments have started to decline. These mailings have constituted a major portion of the first class mail volume, and their decline will have a major impact on the revenue that the Postal Service generates.

MAIL ORDER BUSINESS

A major contributor to the changes in mail volume is the increased use of mail order businesses. Business of this sort, use a variety of systems to sell and ship items. The most popular means to run a mail order business in the past was through catalogs. Many companies choose not to use any retail space to save on overhead and depend on mail order shoppers. Often large department stores complimented their retail stores with hard copy catalogs. From the catalogs it is possible to see pictures of items, and purchase them, without ever leaving the home. The first catalogs created a great demand on the parcel delivery service, and did increase the Postal Service's revenue. The convenience of being able to shop at home is a value to many customers, especially to those who are elderly, handicapped, or simply cannot drive to a retail store.

The success that some companies have had with these types of businesses has been so great, that many more companies have started to put catalogs and flyers together in an attempt to add in the selling of their products. This will have a positive effect on the Postal Service in two ways. First, the Post Office will increase its third class mail volume while shipping these flyers and ads to several customers. The other increase that

the Postal Service will experience is in its parcel shipping services. With an increase in the number of catalogs and ads shipped, there will be an increase in the number of items that customers purchase, and to deliver these products, many companies will use the Post Office to ship their orders.

With the internet, the convenience of shopping at home has further increased. With catalogs, there was a relatively small limit on the number of different products a company could offer the consumer, and there was also a limit on the number of catalogs they could ship and how often they would do so. Internet websites have addressed and improved upon many of the limitations that catalog mail order businesses faced. Through use of the internet, companies can offer many more products because there is no physical space limit like when laying out a flyer. There is also a decrease in the amount that needs to be spent to print and ship the catalogs. By replacing an ad driven business with the internet, there is no necessity to print anything. At the same time, if the company is not printing any catalogs, the shipping cost will be reduced to zero. Online websites are also available to consumers any day, and at all hours of the day. This is a major improvement from the periodic shipping of a hard copy product list.

The internet has also been continuously gaining popularity which makes it a better place to be for businesses. With the increase in consumers using the internet, without a website, companies may lose a large portion of the business that they should otherwise have.

This increase in business online, and the growing convenience and trust of purchasing products through the internet has one of the largest impacts on the Post Office. As more and more items are bought from locations outside of retail stores, and

have to be shipped to the consumer, the Postal Service's parcel service will grow more popular.

GROWING POPULATION AND NUMBER OF DELIVERIES

One of the several factors that contribute to the means and volume of mail being delivered each day is the population of the country. It does so in many ways. The first is that it increases the number of people that receive mail. Assuming that each person receives a given amount of mail, an increase in population will result in an overall increase in mail volume. Several area postmasters said that they believed that the increase in population was one of the main factors that contribute to combat the negative effects of the internet. Several believe that the population increase over the last ten years has been very beneficial to the Postal Service, but at the same time, it has not been enough to completely offset the losses in mail volumes. In addition to the internet offering new communications technologies, the mail volumes have also been declining because of the increase in competition, and because of the economic situations.

The other main way that the population of the country effects mail delivery is the increased deliveries. The increasing population may increase total mail volume, but with it, one problem that arises, is the increase in number of customers that the Post Office must deliver to. There has been a large increase, especially in southern states, in the number of both residential and commercial deliveries that are made daily. Because the total volume hasn't increased proportionally with the population due to the expansion of the internet, the increase in deliveries has only forced Post Offices to expand existing routes. Without additional income for additional deliveries, existing routes and

employees are required to add more customers to routes that already exist and, often times, are at their maximum capacity. This means that the effects that should create a positive influence on the Postal Service's bottom line are not only increasing the revenue of the Service, but also the expenses.

The greatest effect that the growing population has is the expanding use of the Bulk Business Mail service. Because of the greater number of possible consumers that these advertisements target, the Postal Service delivers more bulk mail. The problem with this service, is that the increase in bulk mail does not have a strong effect on the profits of the Postal Service due to the low costs that are incurred by companies that look to use the service, and the high costs of handling, in and out of the office, the large amounts of bulk mail that are shipped.

CUSTOMER SERVICE

The internet has not only affected the amount of business that the Post Office conducts, but in many ways, it has affected the means in which it does so, especially in the sector of customer service. The number of ways that the post office works with customers through the internet, specifically their website (www.usps.com), has expanded tremendously to provide more options and information to everyone that uses their service.

While shipping a piece of mail, the shipping costs are not often common knowledge. There are several different ways to ship each piece of mail, from large parcels to letters. There are also many services that can be added to the normal shipping of packages which would vary the total shipping price. This was a common question

among people looking to work with the Postal Service, and it is addressed through their website. It is possible to learn about new shipping services, and different ways to ship mail depending on the amount you are willing to spend, and the length of time you are willing to allow for its arrival. After choosing the shipping plan that is most convenient, with the knowledge of the weight of the item, it is possible to calculate the exact shipping costs.

Another feature that the Post Office offers, is selling postage online. This service can be used by anyone. It is especially convenient for the elderly and handicapped unable to purchase stamps, but is also very valuable to businesses that don't have employees available to buy postage. After receiving payment for the stamps, they are delivered to your home or office by the regular mail carrier.

In addition to buying and calculating postage rates, through the Postal Service, it is possible to print out standard shipping labels. There is no fee to printing out the labels, but they are useful to shorten the amount of time spent in the Post Office, and also to ensure that the shipping address is legible and in the proper format.

After the customer has calculated, and purchased the postage for shipping, and printed out the shipping label, through the USPS website, the customer can arrange for the pick up of the package by a postal employee, and have it shipped. Because the Post Office offers all of these convenient services, it is possible to ship a package, without every going to the Post Office. As was mentioned earlier, a series of options that can be used by the elderly and handicapped, which allows them to ship packages while remaining at home, is an example of how far the Postal Service has developed its customer service relations through the internet.

The USPS also offers several more advantages to customers by working with them through the internet. In addition to making shipping more convenient, the Postal website allows customers to make changes to their home delivery process. One change that postal employees have to respond to constantly is the relocation of customers on the mail route. One way that has allowed for better reaction to new mail forwards is the ability of the customer to use the postal website to make the necessary corrections and provide a new address. A similar customer service advantage available through the internet is the ability to hold mail. Customers can alert mail carriers through the internet of deliver days that the customer will be unable to pick up the mail, and the customer provides their return date to receive the held mail. These services have always been provided by the Post Office, but a hard copy information card was required, and may have made the process difficult for some customers.

Another mail delivery service that the Post Office offers to customers is the ability to request the redelivery of pieces of mail. Many important letters and packages require a signature before they can be delivered, and if the customer is not present during the time of delivery, a notice is left to alert them to the fact that the letter carrier has received the piece of mail but requires a signature. Through the internet, that customer can request redelivery of that piece of mail. After the customer signs and leaves the original notice for their mail carrier, it is then possible to leave that piece of mail in a safe spot. People that do not have a mailbox large enough for the mail or that do not have a safe spot for delivery, can also take advantage of the redelivery service.

One online customer service feature that is used a great deal, has replaced many nuisance phone calls to post offices everyday. With the internet, it is possible to search

for ZIP + 4 codes for any address in the country. Before this was offered, the requests for ZIP codes by customers calling post offices were numerous, and lowered employee productivity. In addition to finding ZIP codes, the USPS website also helps customers locate the closest Post Office.

Other ways that the Postal Service looks to increase revenue through their website is by selling Post Office box space online. It makes the process more accessible by offering the opportunity to purchase the box 24 hours a day at what ever time is most convenient.

One of the most useful and popular services that the post office offers online is the ability to track items that you ship or that you plan to receive. With new technology that is used in each processing plant, post office, and even by each mail carrier on the route, it is possible to locate your item by logging online. It will provide you with the last scanned location and time, so the package can be tracked from the moment that it is shipped until the time that it is delivered.

With the internet reaching so many people, it is a good means by which to work toward providing every customer with all the information that with which they may be interested. The website can offer advantages for customers, but it also helps to improve the Postal Service's financial situation by keeping customers interested and informed, and makes some postal processes more efficient.

POSTAL SERVICE AS A BUSINESS

The Postal Service, although affiliated with the federal government, is not subsidized in any way, so they are required to act like other for-profit companies. Every economic industry changes with new technology, and this requires the companies in that

field to evolve as well. The internet is one new innovation that has reached every business sector, including delivery companies like the Post Office.

In addition to the Postal Service utilizing the internet to provide better customer service relations and promote its products, the internet also allows for a more productive work environment. Even though one of the primary responsibilities of the Post Office is to deliver messages through the mail, they are forced to respond to the new advantages of the internet and use the internet to send messages electronically. With the internet and E-mail, distant post offices aren't required to communicate through only a mutually convenient time through a telephone conversation, or through the standard mail which may take days if the post offices are separated by a large distance. Because E-mail can eliminate many inconveniences of the other communication methods, it allows for quicker and more opportune message delivery. E-mail also allows for more convenient methods of sending large memos to several offices simultaneously, because the message only has to be typed on the computer and sent, there is no duplicating or delivery involved.

Increased competition has been another result from the development of the internet and its increased usage. Some of the Postal Service's major competitors are UPS, FedEx, and DHL. With the increase in online shopping, and parcel deliveries, the competition for the business of package delivery has become more intense. The increase in competition reduces the effect of the increase in parcel shipping that result from the internet. There are many advantages that the Post Office has because they are affiliated with the government, but with that connection, many disadvantageous situations arise. Because the Postal Service is associated with the federal government, there are no

stockholders pushing for maximum profit. This allows the Postal Service to work towards a balanced amount of revenue and expenses to offer the public the best prices on its services. The goal of each office is still to report a profit, but price adjustments that may result in higher revenues may sometimes be rejected because they are not needed for the financial situation and would reduce the number of people that utilize postal products. One large disadvantage that the Postal Service encounters because of their government affiliation is its inability to negotiate with large companies. Corporations that make large numbers of shipments are desired by all of the delivery companies. The way that most private companies respond to the desired business is to offer reduced rates for the substantial number of shipments that are made. The Postal Service is unable to compete with companies in this sense. Because of government regulations, the prices that are set, although they may be lower than other courier companies, are not flexible in any situation. Because the prices are set, many companies who require large shipping numbers will work with a private company because of the price advantages that they can offer. For the Postal Service to continue to be the primary delivery service, a strong lobbying movement may be required to reduce the regulations that are placed on the flexibility of postal rates.

POST OFFICE USAGE

The student survey that was administered to 92 Worcester Polytechnic Institute students shows results that correspond to information presented thus far. Of the 92, 43 students said that they send multiple E-mails each day, and 71 responding they send at least one a day, as opposed to only 3 students who said they send a Postal letter at least

once a week, and 9 responded they do at least once biweekly. This significant difference in volume; I believe is directly related to the cost of postage, convenience of the internet, and the immediate delivery of the message.

A similar result was found when the student addressed the question of the number of each type of correspondence they receive. Of the 92 students, 81 responded that they receive multiple emails a day, including junk mail. Of the same 92, only 23 people receive multiple pieces of postal mail each day, including junk mail.

The most interesting responses to the survey were to the question of the volume of mail and E-mail people would send, if they were in a situation in which they did not have access to the internet or cell phones. The number of letters that people would send without access to these technologies would be significantly higher than the amount that they currently send. With internet access, one person said they send at least one letter a day and three said they send at least one a week. Without access to the internet or cell phones, 17 people said they would send at least one letter a day, and 50 responded that they would send at least one per week.

In addition to the volume of different classes of mail people send and receive, the survey also addressed the frequency that people ship and receive packages, and the people that they are shipped to and from. Seven students said that they receive packages at least once per week, two responding they receive at least one daily. There were also three people who responded that they ship at least one package biweekly, with one person responding that they do so at least once a day. A large number of the college students receive care packages from family and friends, but the number that I believe is more significant is that a large number of online companies were cited to be sources that

people receive packages from. The most popular companies were Ebay.com, Amazon.com, and Newegg.com, but others included Netflix, Barnes & Noble.com, Half.com, the Best Buy website, and other various retail sites. This list of companies shipping products purchased online is a direct reflection of the increase in products being shipped with the Post Office. I believe it is a fair assumption that a majority of the products that are purchased online and shipped with the Postal Service, would not be sent through the mail if the online retail establishments did not exist. With the exception of some, most of those same products that would be purchased without the internet, would be purchased at a brick and mortar retail store, and transported by the consumer.

Another interesting result from the survey was the number of students that didn't respond to the question on the volume of mail that they would send without modern technology. Five students skipped questions in that section, but I think that a lot of people, especially WPI students have become so comfortable with technology that they depend on it. I believe that it was a question that a lot of the students didn't want to think about, and actually had a hard time imagining a situation without the convenience of the internet.

NEW TECHNOLOGY AND THE FIRST CLASS LETTER

One of the main factors that the Postal Service played in the daily lives of the citizens of the United States has been the conveying of information. Before any of our modern day communications technology, the only way to pass information from one source to another was through a hard, written copy. It was through this means that personal correspondences took place, to share ideas, feelings, and events between

families and friends, but it was also through the post office that many correspondences between business people took place. In a sense, the post office had a monopoly on relaying information for many years. Since that time, there have been many technological improvements to allow the delivery of information more quickly. Some significant innovations were the telegram and telephone. Both allowed people to contact others in an almost instantaneous format. These two methods of communication did not create much direct competition initially because of the lack of popularity at its introduction stages.

Modern technology has expanded the use of old forms of communication, especially the telephone, and has done a great deal of work through the internet. I believe that both have a much more significant effect on the Postal Service because of the availability of each. The telegram was limited to a certain number of people, who were required to transmit important information long distances. Today, the internet is widely available to the public, even through libraries to those that can't afford an internet connection.

Telephone usage has become commonplace. Since its introduction the phone has become widespread, and has become a tool with which the public has become generally comfortable. Because of the common usage of the phone, much advancement has been made to improve it. One of the latest and most significant improvements is the cellular phone. Its growing numbers indicate the popularity with which it has been received. The cell phone has allowed people to not only share information through audio messages almost instantly, but it has given people the opportunity to do so any place they travel.

With the cell phone, there is minimal restriction to the location you must be to communicate with others.

The internet will continue to expand, and with it, it will connect more people, especially through E-mail accounts. E-mail is in direct competition with the first-class mail that the Post Office delivers. Both allow messages to be written and transmitted from one person or group to another. There are many reasons that E-mail is preferred over shipping a hard copy letter. One is the shipping costs. To use E-mail, there may be a utility fee for the internet connection, but once online, sending E-mail is free. As mentioned previously, even the utility fee can be avoided if accessing the internet through a public library. Because E-mail is free, there is no hesitation to send messages, regardless of length, to people you require contacting. Another way that E-mail saves money is by reducing the amount of material necessary to send your letter. Through E-mail, the message is typed, and electronically delivered. If a person chooses to send a letter using the Postal Service, cost of ink, paper, and envelopes arise. When shipping one letter, these expenses aren't large, but when sending a mass mailing, they can total a significant amount of money.

POSTAL TECHNOLOGY

Technology has been essential to the expansion of the United States economy. Businesses rely on new means to produce products, and improved technology reduces the number of labor hours needed within a company, and allows the business to drastically increase its production rate. Businesses in the private sector of the economy are not the only organizations that depend on, a continued response to new technology to improve

efficiency; the postal service has used new ideas and tools to improve the rate at which they work.

One of the first machines that were used by the postal service was facer-cancellers. They were first introduced to the Post Office in 1959, and 75 were being used to process mail quicker. The facer-cancellers were very large machines that cancelled the postage that was used to ship the piece of mail, and would also print the date on which it was cancelled on the envelop itself. By 1984, there were more than 1,000 of the facer-cancellers being used throughout the country.

After use of the facer-canceller became standard, the development of a new facer-canceller would lead to the more efficient mail processing. The Advanced facer-cancellers are able to sort through more than 30,000 pieces of mail per hour, or more than eight per second. In addition to performing the same tasks as the previous facer-canceller, but at a faster rate, the advanced facer-cancellers are able to sort the pieces of mail into separate groups, one of prebarcoded mail, one for handwritten pieces, and one for machine imprinted envelops.

In addition to facer-cancellers to speed up the processing of mail at large plants barcode sorters were also used. These machines were able to sort mail according to the barcode that had been printed on the pieces of mail prior to sorting. The ability of the machines to sort according to barcode sped up the procedure significantly.

In 1965, the first optical character reader was used. It was able to scan and distinguish single lines of printed words. Since 1965, multiline optical character readers have been developed. They now have the ability to read an entire address, and can sort through more than 9 envelopes per second. These machines play a large role in the

process of deliver point sequenced (DPS) mail. The DPS system sorts through the envelopes for each mail route, and through automation, and the machinery discussed earlier, sorts each piece of mail, not only into the correct route, but also into delivery order. This technology has replaced several labor hours for each route, by replacing trays of mail that need to be sorted with trays that are prepared to bring directly to the route.

To provide better customer service products, the Postal Service has created a strong tracking system. For a small fee, the customer can request to deliver a package, or envelop with extra additions to allow for online tracking. When a customer chooses to use the service, a barcode is attached directly to the item being shipped. That barcode is then scanned at each point of its transition including by the local mail carrier. Each postal worker uses a scanner regularly throughout the day. Having a transportable scanner with the employee allows for the mail carrier to input information about the delivery or attempted delivery of pieces as they occur, and offers the customer the most detailed information possible.

The postal trucks that are used to deliver postal routes are also an advantage to reducing expenses in the business. The term for the trucks is LLV or “Long Life Vehicles.” They were designed to be used for long periods of time, which extend beyond the normal life of an average motor vehicle. The frame of the LLVs is made of aluminum and this allows the frame to last even longer than the other parts of the truck. Each part is made at a minimal cost, and because of the large number of LLVs, it allows for stockpiles of parts to be used whenever a replacement is necessary. Also because the trucks are all the same, it allows mechanics to specialize on the LLVs and correct any problems more effectively.

POSTMASTER SURVEY RESULTS

What effects has the internet had on the volume of the different classes of mail? On the volume of parcels?

Trish Henn - Central MA PDC Shrewsbury

First Class volume has dropped slightly – package volume is up. Bill payments online are causing first class drop, online orders (EBAY, catalogs, etc.) result in increase parcels.

Joe Fanciullo – Lawrence

I feel that the internet, Caused A reduction in F.C. mail. However we have an increase in Standard Mail because of the great service standard mail gets.

Bernie Duggan – Lowell

I believe the greatest effect on our volume is directly evident in our decline in first class mail. Most people correspond via the email accounts that they have. Major mailers – utilities, banks, etc. now take their payments – and in some cases send the bills – via the internet. This has had a huge impact. We have however, increased our package and parcel business because online shopping etc. However, the decline in 1st class volume is so significant the gain in packages are not enough to offset the loss.

Mike Welch – Maynard

Decrease on letter size mail (online bill payments). Increase of catalogs. Increase of parcels.

Larry Day – Amesbury

1st class mail down. Standard mail up. Parcel volume about same – you can tell it is parcels ordered over net from internet companies.

John Steele – Springfield

Any information I share concerning volume is a need to, I because its hard to determine if the impacts of 9/11 o the internet have effected our letter volume. As far as Parcels go, the internet has positively effected Parcel volume.

Michael Quinn – Lynnfield

The internet and email have had a significant impact on mail volumes. There has been a dramatic decrease in overall volume but more specifically, the 1st class mail volume. Christmas, Easter, and Mother’s Day cards have decreased over time also. People have faster and more economical ways to travel for the holidays and rely less on the mail.

John Meuse – Woburn

The internet has reduced the volume of every class of mail – the precise measurability of such is hard to gauge however as the economy, the competition and our own rates also

play a part. The effect of the internet on first class mail is most easily visible with business mail. Business mail has dropped dramatically as businesses are communicating electronically. Parcel post has increased as a result of the internet.

Michael W. Allen – Beverly

The internet had a strong effect of first class correspondence for the private sector and even more on the business sector now that bills can be paid on-line. The parcel business is growing due to the increasing business on E-bay and the increased usage of shopping on-line with the major retailers and the companies like home shopping.

What effect, if any, has the increasing population of the U.S. had on the volume of mail?

Trish Henn – Central MA PDC Shrewsbury

Drop in letter volume negated by increased number of households to deliver to.

Joe Fanciullo – Lawrence

A substantial increase in possible deliveries without additional routes.

Bernie Duggan – Lowell

The major impact is in numbers of deliveries we have. These increase dramatically. Mainly in areas outside of the Northeast. However this does not have a corresponding increase in mail volume. Many of the reasons for that are stated above.

Mike Welch – Maynard

Probably kept up with the loss of internet and personal writing.

Larry Day – Amesbury

More new housing means increase in possible deliveries, increasing volume

John Steele – Springfield

The growing population has caused volume increase in some parts of the country. We grow by approximately 1.7 million deliveries a year. Unfortunately not in the Northeast.

Michael Quinn – Lynnfield

In some parts of the country, e.g. the Southeast and Southwest there has been growth. There are more new homes and businesses and consequently more mail. Area's with stagnant growth have had decreases in mail volume.

John Meuse – Woburn

An increasing population will increase deliveries which will increase volume. That having been said however with all the mitigating factors such as the internet the economy and competition the increased population has actually only served to help volume decline increase at a slow pace.

Michael W. Allen – Beverly

The increase in population has increased the volume of bulk business mail however the loss of volume is so great with first class letters the population increase doesn't have a positive effect on revenue. The bulk business mail does not provide a profit in revenue because the low cost to use it doesn't compensate for the high cost of handling it!

What are the most important technological advances to the Post Office?

Trish Henn – Central MA PDC Shrewsbury

Continuous improvements in the abilities of mail processing equipment – OCR (optical character readers) increased readability. New equipment to sort parcels helps also to keep processing cost down.

Joe Fanciullo – Lawrence

Automated mail processing at the plants and associate offices. DPS, FSM. Automated postal centers in our lobby.

Bernie Duggan – Lowell

Automation processing of all classes of mail. Whether is be mail processing – flats and letters or parcels these advances have afforded us an opportunity to capture enough savings to avoid a major financial problem with our business. However those advances may not prevent an ultimate financial collapse.

Mike Welch – Maynard

Online services. Internal integration of programs. Consumer friendly websites.

Larry Day – Amesbury

DPS, Flat sorting, PARS – Forwarding of mail, online reporting (various reports)

John Steele – Springfield

Delivery point sequencing (letters), carrier route sortation (flats) FSM-100s, scanning (delivery confirmation ability to track and trace)

Michael Quinn – Lynnfield

Delivery bar code sorters – have the ability to sort mail by bar code in delivery order/sequence. This technology alone has saved immeasurable work hours that would have been needed for clerks to sort to routes and carriers to sort in sequence. Likewise, there is new technology to sort flats and parcels by bar code.

John Meuse – Woburn

Automated mail processing equipment, Long-Life Vehicles, point of service retail equipment and I could go on – they all help our bottom line by increasing efficiency. But automated mail processing equipment by far has the greatest impact.

Michael W. Allen – Beverly

The most technological advances have been in automation. Machines can process the mail efficiently and economically – some types of our machines have replaced 8 or 10 clerks per machine thereby, reducing the number of employees. The good part is we keep costs down therefore postage rates are stable and the postal service has not incurred any lay offs.

Have you noticed any advertising gimmicks such as a hand-written font on envelopes, etc., used to attempt to fool customers?

Trish Henn – Central MA PDC Shrewsbury

No real change, “gimmicks” have been around forever.

Joe Fanciullo – Lawrence

No

Bernie Duggan – Lowell

Yes. And in many cases it works.

Mike Welch – Maynard

Occasionally mass mailers will use catch phrases and words on envelopes to draw attention. They will use green emblems to mimick certified mail.

Larry Day – Amesbury

Made to look like certified mail – green bar code endorsed “Important Document Enclosed” endorsed “to be opened by addressee only” Heavy stock paper – looks like wedding invitation

John Steele – Springfield

I don’t believe that the intent is to fool anyone. The real purpose of personalizing mail is to catch the recipients attention.

Michael Quinn – Lynnfield

All of the Standard mail is basically advertising. All these mailers are working to sell something. Advertisers like the mail because TV and radio ads are easy to ignore. Advertisers like to get in the mailbox and in consumer’s hands. Most people are reluctant to discard hard copy without reading. These advertisers are happy with a 5% response.

John Meuse – Woburn

Every Day – But marketers can treat their customers (in their markets) anyway they would like as long as they adhere to our mailing guidelines.

Michael W. Allen – Beverly

The most dangerous advertising gimmick for people are from these agencies who proclaim you are a winner in a lottery. For the elderly people they often don't understand the entire concept so they order magazines or other products they don't need and will never use.

What are the most difficult or most common problems that you or others in the post office face?

Trish Henn – Central MA PDC Shrewsbury

Trying to balance service improvements with constant budget reductions

Joe Fanciullo – Lawrence

Human Resources and Budgets

Bernie Duggan – Lowell

Staffing

Mike Welch – Maynard

Trying to keep our employees and customers up to date on new products (especially online services)

Larry Day – Amesbury

On-time transportation, even mail flow – work load balance

John Steele – Springfield

The most common problem that we face along with other post offices and all business in general is the challenge of maintaining excellent service while maintaining reasonable costs.

Michael Quinn – Lynnfield

Attempts to manage decreasing volumes is difficult. We are generating less revenue due to decreasing mail and carrier routes can't be adjusted quickly enough. 2nd thing is the ever increasing competition from UPS, FEDEX, and numerous couriers trying to take the lucrative parcel and overnight service. Postal Service is unable to discount large mailers due to Federal Law. There other couriers routinely discount the large mailers, L.L. Beam, etc. and steal the business.

John Meuse – Woburn

The most common and greatest problem is in accepting change or from my personal perspective managing change. Technological advances can quite obviously change industries and has ours – the challenge lies in getting the culture of our employees to also change, to accept the technological advances and to help move the company progressively.

Michael W. Allen – Beverly

Our competition: the Postal Service can compete in overall services and price with any company in the world. The problems for us arise because we are now a private agency rather than a government agency however we are still restricted by the government in most areas.

STUDENT SURVEY RESULTS

	Multiple A day	Daily	Weekly	Bi- weekly	Monthly	Almost Never	Never
How often to you receive . . .							
junk mail?	23	17	22	12	8	7	3
magazines?	1	0	9	8	28	22	24
bills?	0	1	1	6	47	17	20
letters?	0	1	7	12	27	34	11
greeting cards?	0	0	1	1	10	62	18
e-mail?	81	10	0	1	0	0	0
e-cards?	0	0	1	2	12	50	27

How often do you send . . .

letters?	0	1	2	6	12	51	20
greeting cards?	0	0	1	1	9	57	24
e-mail? (1 skipped)	43	28	15	3	2	0	0
e-cards? (1 skipped)	0	0	2	0	6	39	44

If you did not have access to the internet or Cell phones, how often do you think you would send . . .

letters? (4 skipped)	1	16	33	12	13	8	5
cards? (5 skipped)	0	4	13	9	30	22	9

How often do you receive packages?

1	1	5	8	41	30	6
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How often to you send packages?

0	1	1	1	8	49	32
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SOURCES

The United States Postal Service: An American History 1775 – 2002 (Publication 100, September 2003). Washington D.C.: Government Relations, United States Postal Service, under direction Ralph A. Moden, Senior Vice President, 2003.

Postmaster Survey Responses

Postmaster In-Person Interviews

Student Survey Responses