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THE VALUE OF OUTPUT OF THE POST OFFICE DEPARTMENT

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Introduction

Postal traditions are quite old. The early Greeks and Romans had regular mail systems for communicating with distant military commanders or government officials, and the familiar mailbag is said to have originated with the Phoenicians, predating even the Greeks and the Romans. The American colonies had a privately operated postal service by the early sixteen hundreds, and from 1712 until the Revolution regular postal service was provided by a wholly owned subsidiary of the British Post Office. The United States Post Office was established by Benjamin Franklin in 1775, nearly one year before the Declaration of Independence was signed. It was one of the initial agencies of the government, and it has been a government agency ever since. The Post Office is thus the nation's oldest public enterprise. As such, it enjoys a rich history of which it can be justly proud.

With a government-protected monopoly on carrying the mail, the Post Office has grown to be quite large. In the fiscal year ended June 30, 1967, expenditures totaled \$6.3 billion, revenues were \$5.0 billion, its labor force averaged more than 700,000 full- and part-time employees, its net investment in plant and equipment was estimated to be \$800 million, and the volume of mail handled was over 78 billion pieces—almost 400 pieces for every man, woman and child in the United States.

The postal system is a widespread network; the United States had 33,121 individual post offices in 1966. At the same time the bulk of postal operations is highly concentrated in and between our large

NOTE. Valuable comments and criticisms were received from a number of people, especially William Sullivan, Arthur Edens and Emerson Markham of the Post Office Department, and Lewis Gaty of Swarthmore College. The author assumes sole responsibility for all opinions expressed here.

metropolitan areas. The 317 largest post offices, which constitute less than one per cent of all post offices, accounted for over 67 per cent of all postal revenues in 1966. Looked at from the other end of the scale, 86 per cent of all offices accounted for less than 7 per cent of all revenues. Summary data on the distribution of revenues by size of office are given in Table 1.

The principal mission of the Post Office is, of course, to receive mail from senders and deliver it to addressees. However, the Post Office also provides a number of auxiliary services. Some of these are mail-related: for example, special delivery, registered mail, certified mail and parcel post insurance. Nonmail special services provided by the Post Office include the sale of postal money orders, administration of civil service examinations, assistance in taking the census and, until recently, the postal savings system. In terms of man hours expended or revenues received, all special services taken together amount to less than 6 per cent of total Post Office revenues. Because these special services are so diverse and relatively so small, this paper will exclude them from further consideration and will focus exclusively on the value of ordinary mail service.

One facet of mail service, *international mail*, will not be discussed in this paper. International mail constitutes a small part of the total mail picture. In 1966 it accounted for less than 4 per cent of postal revenues and less than 0.8 per cent of total mail volume.

TABLE 1
1966 POSTAL RECEIPTS, BY SIZE OF OFFICE

Class of Post Office	Number of Offices	Per Cent	Receipts ^a (millions of dollars)	Per Cent
First—large	317	0.9	3,066.9	67.6
First—small	4,307	13.0	1,175.4	25.9
Second	7,125	21.5	207.2	4.6
Third	12,971	39.2	75.2	1.7
Fourth	8,401	25.4	11.0	0.2
Total	33,121	100.0	4,535.7	100.0

SOURCE: U.S. Post Office Department, *Cost Ascertainment Report*, Washington, D.C., 1966, p. 89.

^a Excludes value of money orders sold.

Throughout this paper *the postal production function will be treated as fixed*, an assumption which fits the existing situation well. For years the technology observed throughout the postal system has remained virtually static¹ and questions concerning the possibility of shifting the production function would constitute a legitimate and interesting field of inquiry. Indeed, Congress does perennially inquire whether the Post Office is installing enough new equipment and spending enough money on research and development. Some sharp critics of the Post Office contend that existing technology offers substantial potential for mechanizing mail handling and reducing costs. These critics submit that increased mechanization is prevented chiefly (1) by interference from Congress and labor unions and (2) by the fact that postal managers have virtually no incentive to reduce costs. Milder critics are less sanguine about existing technology, but they are dissatisfied with the Post Office's research effort, and they, too, sense that Post Office management has virtually no incentive to make economically correct decisions regarding capital-labor substitution. The problem of how to give proper incentives to managers of large government enterprise is obviously very important, as students and critics of the Post Office have frequently pointed out. However, such questions are a digression from the main purpose of this paper, which is a discussion of the valuation and pricing of postal services under existing technology.

It should be pointed out that the above questions were under intensive study by the President's Commission on Postal Organization during the time this paper was being prepared. Questions concerning the best organizational form for the Post Office are not considered here because of the complexity of the subject and because the study by the Presidential Commission was known to be underway. The Commission's report, which was not released in sufficient time to integrate into this study,² concludes that Post Office management is severely hampered by the present organizational form, and the Commission recommends that the Post Office cease to be a cabinet agency of the government and instead become a government-owned corporation more or less like TVA. The Commission's report³ and the four separate contractor reports (published separately as appendices to the study) are

¹ Except for developments in air transportation, which the Post Office was in no way responsible for, but which the Post Office has taken advantage of.

² An addendum at the end of this paper gives a summary comparison of the conclusions of this paper and the Postal Commission's report.

³ *Towards Postal Excellence*, Report of the President's Commission on Postal Organization, Washington, D.C., June 1968.

recommended reading for anyone interested in studying postal problems in depth.

This paper will address itself to the following issues: *First*, should the Post Office continue to be regarded as a "natural monopoly," or should the government allow private firms to offer regular mail service in competition with the Post Office? *Second*, how would postal services be priced under competitive conditions? To provide a substantive basis for discussing these issues, it will first be necessary to explore the nature of the Post Office as it now exists.

Postal Rates and Mail Volume

The Post Office now divides all postal rates into four classes. The basic distinctions between these four classes are summarized in Table 2. The apparent simplicity of Table 2 is, however, a bit deceiving. Within these four classes Congress has authorized a number of further distinctions and subclassifications, most of which have the effect of giving substantial discounts to particular mailers or to certain

TABLE 2
DISTINGUISHING CHARACTERISTICS OF THE
FOUR BASIC MAIL CLASSES

Class of Mail	General Description
First	Private correspondence (sealed) plus post cards. First class mail receives priority in handling and shipping. The privacy of first class mail is considered inviolate, and mail is forwarded (or returned) as often as necessary to make final delivery.
Second	Newspapers, magazines and similar publications which may be presumed to possess some news or literary value.
Third	Mostly advertising matter—commonly called "junk mail"—plus certain small parcels or other miscellaneous items weighing less than one pound.
Fourth	All parcels or packages weighing more than one pound and not exceeding the upper size limits.

types of mail. As a consequence, the Post Office really has twenty-six—not four—different rate classes.

Some of the distinctions in the rate structure are based on sound economic principles. *First*, the form in which mail is turned over to the Post Office can significantly affect the collection, sorting and processing costs of the Post Office. Large bulk mailings which the sender presorts, bundles by Zip code and then delivers direct to the Post Office loading dock will unquestionably reduce handling costs of the Post Office. *Second*, parcels, magazines or similar bulky items have much greater weight per piece than do letters or circulars. The cost of shipping letters long distances is small compared to other handling costs, but this is not true for bulky items. Hence for these latter items the rate structure should and properly does take account of weight and distance shipped. *Third*, the addition of low-priority items to the mail system enables the Post Office to even out its work flow and utilize more fully its work force, plant and equipment. Despite the validity of these three economic factors, it ought to be recognized that economic principles are of limited assistance in explaining the existing rate structure. The determining forces are undoubtedly as much political as economic.

A striking feature of the rate structure is the extent of the differential between various classes of mail. Among the four classes of mail the highest charge is on first class, the lowest on second class. Rates for third and fourth class mail fall between these two. To illustrate the extent of the extreme differences that exist, if magazines paid first class rates the cost of mailing a typical issue of *Time* would be about 54–60 cents, an increase of between 1,700 and 1,900 per cent over current rates.

The preceding example may give a slightly unfair picture of the extremes of the existing rate structure. As stated previously, magazines do not require the same handling as letters, and from a mail-handling point of view the two are not strictly comparable. To appreciate the difference in rates for items with similar mail-handling characteristics, let us compare (1) a 32-page magazine weighing 4 ounces and consisting of 50 per cent advertising, with (2) a 32-page advertising piece also weighing 4 ounces. Assume both are distributed nationally in large quantities, both are bundled by Zip code and are taken by the mailer to the Post Office for distribution. The charge for mailing the magazine would range between 1.1–2.25 cents per copy, depending on the distance mailed, whereas the advertising piece would cost 4.0 cents per copy to mail to any address in the United States.

TABLE 3
RATES ON SECOND CLASS MAIL^a

Classification	Rate (cents)
Within county of publication (newspapers):	
Weekly	1.3 per lb.
—minimum	0.2 per copy
Local city delivery rates:	
More often than weekly	1.0 per copy
Less often than weekly, 2 ozs. or less	1.0 per copy
Less often than weekly, over 2 ozs.	2.0 per copy
Outside county of publication	
Regular publications:	
Editorial portion	3.0 per lb.
Advertising portion:	
Zones 1-8 (see schedule)	4.6-15.0 per lb.
Minimum	1.1 per piece
Classroom publications	60% of regular rates
Nonprofit publications	
Editorial	1.9 per lb.
Advertising:	
Zones 1-8 (see schedule)	2.3-3.5 per lb.
Transient rate	5.0 first 2 ozs. 1.0 ea add'l oz.
Entry fees:	
Original entry	\$30.00-\$120.00
News-agent entry	\$25.00
Reentry or additional entry	\$15.00-\$50.00

^a PL 90-206, December 16, 1967, authorized certain step-increases in these rates, to become effective on January 1st of 1969 and 1970.

The rates for most of the subclasses within second and third class mail are shown in Tables 3 and 4. These tables illustrate the complexity of the rate structure as well as the variation in rates within a given class of mail.⁴

Subclassifications within the second and third class rate structures give significant discounts to authorized nonprofit organizations. Tables 3 and 4 illustrate the extent of these discounts for second and

⁴ Tables 2 and 3 show major rate classifications but omit some detail contained in the complete schedule.

TABLE 4
RATES ON THIRD CLASS MAIL^a

Classification	Rate (cents)
Single pieces:	
Circulars, merchandise	6.0 first 2 ozs. 2.0 ea add'l oz.
Keys and identification devices	14.0 first 2 ozs. 7.0 ea add'l 2 ozs.
Bulk mailings:	
Regular:	
Circulars, etc.	22.0 per lb.
—minimum	3.6 per piece
Books, catalogs, etc.	16.0 per lb.
—minimum	3.6 per piece
Nonprofit:	
Circulars, etc.	11.0 per lb.
—minimum	1.4 per piece
Books, catalogs, etc.	8.0 per lb.
—minimum	1.4 per piece
Annual bulk mailing fee	\$30.00

^a PL 90-206, December 16, 1967, authorized a second step-increase in these rates, to become effective on July 1, 1969.

third class mail. In the fourth class rate schedule discounts are given to books and records, and even bigger discounts are given for such mailings to and from libraries, schools and other educational institutions. As there is no indication that the cost of handling mail for non-profit organizations is any different than that of other mail with similar handling characteristics, the rate differences simply reflect discrimination in favor of certain mailers. It is highly doubtful whether these rate differentials could be justified in terms of differences in the elasticity of demand. It is much more likely that they have no economic rationale whatsoever and instead represent an intentional subsidy or transfer payment to those institutions or organizations which benefit from the lower rates.

Table 5 gives data on mail revenues and the volume of mail handled. It also provides additional perspective on the rate structure. Table 5 contains 1966 data, the last year for which complete informa-

TABLE 5
POSTAL REVENUES AND VOLUME, BY CLASS
OF MAIL, 1966

	Revenues (millions of dollars) (1)	Pieces (millions) (2)	Revenue per Piece (cents) (3)	Revenue per Pound (cents) (4)
First class mail:				
Regular	2,333.9	40,421.8	5.8	180.97
Airmail	186.5	1,780.5	10.5	231.70
Air parcel post	90.5	47.7	189.9	86.34
Total, first class	2,610.9	42,250.0	15.2^a	178.16^a
Second class mail:				
Magazines	74.5	3,380.9	2.2	4.06
Newspapers—daily	27.0	1,894.0	1.4	3.74
Newspapers—other	5.9	840.1	0.7	3.18
Nonprofit publications	8.3	2,300.3	0.4	2.03
Classroom publications	1.5	108.1	1.4	2.82
Other second class revenues	9.1	110.2	—	—
Total, second class	126.3	8,633.6	1.5^a	3.92^a
Controlled circulation	18.9	347.0	5.46	13.54
Third class mail:				
Single-piece rate	200.9	3,347.7	6.0	56.50
Bulk rate, regular	436.2	14,101.1	3.1	32.89
Bulk rate, nonprofit	36.9	2,856.3	1.3	28.41
Fees	7.6	—	—	—
Total, third class	681.6	20,305.1	3.4^a	37.62^a
Fourth class mail:				
Parcels	784.3	767.7	102.16	15.54
Catalogs	31.1	103.6	30.02	8.07
Special rate (39 USC 4554a)	53.9	202.8	26.56	7.23
Special rate (39 USC 4554b)	1.5	16.1	9.28	1.85
Total, fourth class	870.8	1,090.2	79.87^a	14.00^a
All other^b	663.6	3,005.6	—	—
Total	4,972.0	75,631.5		

SOURCES: *Survey of Postal Rates*, House Document No. 106, Washington, D.C., 1967; and U.S. Post Office Department, *Cost Ascertainment Report*, Washington, D.C., 1966. Revenue from certain items with different rates, such

as post cards, airmail postcards, etc., has been merged into the larger classification.

^a Average.

^b Includes reimbursement for franked government mail, international mail, special services (registry, insurance, etc.) and other miscellaneous revenues.

tion was available. The revenue figures are therefore based on 1966 rates and do not reflect the current rate schedule, which went into effect January 7, 1968. The figures in Table 5 show that first class mail (including airmail) is the backbone of the postal system in terms of either *revenue* or *pieces handled*. In 1966 first class mail accounted for 56 per cent of basic mail revenue and 56 per cent of all pieces handled.⁵

The rate structure shows the maximum which mailers are allowed, but of course not all pieces of mail weigh the maximum allowed. The great differences in rates *actually paid* for various classes of mail are reflected most strikingly in columns 3 and 4 of Table 5, which show, respectively, *revenue per piece* and *revenue per pound*. On a *per piece basis* the average postage on a regular first class letter (5.8¢) is over 2.5 times more than the postage on a typical magazine (2.2¢); the postage for a typical advertising brochure (3.1¢) is about 1.5 times more than for a typical magazine. If all first class letters weighed exactly one ounce, in 1966 the Post Office would have received only 80 cents per pound for first class mail. In fact, it received \$1.81 per pound. Thus on a *weight basis*, the Post Office realized from first class letters about 45 times more than from magazines, which paid 4 cents per pound. Advertising material, at 33 cents per pound, paid about 7.5 times more than magazines. These figures give some indication of the extent of the subsidies Congress is willing to pay in order to have magazines and newspapers distributed via the mail.

The postal rate structure reflects a number of different concepts. For first class mail, rates are based on the presumption that the service rendered has a high value to users and that enough should be charged to attempt to eliminate the deficit incurred on other classes of mail. In other words, first class rates reflect a "value of service" concept administered by a benevolent monopolist who fails to take full advantage of the inelasticity of demand. For the editorial content of periodicals and for publications of nonprofit organizations, the information which these presumably convey to the public is used to ration-

⁵ The category "Controlled circulation" following "Second class mail" is really a subclassification of second and third class mail, but it is reported separately by the Post Office because these periodicals pay substantially higher rates than do other second class mailers.

alize the substantial loss (or subsidy) which is intentionally incurred. The advertising portion of periodicals has a rate formula which depends on both weight *and distance*, but the *maximum* charge for magazine advertising is less than the *minimum* charge for an equivalent amount of bulk third class mail. Hence an element of subsidy also underlies the advertising portion of periodicals.

The rates for fourth class mail are also based upon weight and distance. For parcels the Post Office charges fees related to both distance and weight because (1) the law requires that revenues cover at least 96 per cent (and not more than 104 per cent) of the cost of handling parcels and (2) competition from firms such as United Parcel Service makes demand for this service somewhat more elastic. This competition precludes the Post Office from charging uniform fees which do not vary with weight or distance shipped. For if it did attempt to levy a uniform rate which would just cover all expenses then, since the Post Office does not have any monopoly on parcel shipments, private firms would almost surely undercut the Post Office on short-haul lightweight business and let the Post Office carry only long-haul heavy business at a substantial loss. The Post Office has avoided this situation by establishing a zone-rate structure for parcel post.

In addition to the various rate concepts discussed above—value of service, subsidy to provide information to the public, and weight-distance—second and third class bulk mailers also pay an annual permit or “entry fee.” These permit fees are quite low in relation to the regular postage paid by most bulk mailers, but they do add a trace of a two-part tariff to the rate structure.

Nature of the Demand for Postal Services

About three-fourths of all mail originates in business firms, and a large portion of all mail is also addressed to business firms. A breakdown of first class mail by originator—business and institutional versus individuals—is shown in Table 6.

It is worth noting that although all first class mail is considered “private correspondence,” in fact only a fraction consists of actual letters. A significant portion of first class business mail consists of items like bills, credit cards or dividend checks. Each month banks, telephone companies, gas and electric utility companies, department

TABLE 6
 ORIGINATORS OF DOMESTIC MAIL
 (PER CENT)

Originator	Class of Mail				
	First	Second	Third	Fourth	All Mail
Business or Institutional	75	100	96	80	80
Individual	25	0	4	20	20
Total	100	100	100	100	100

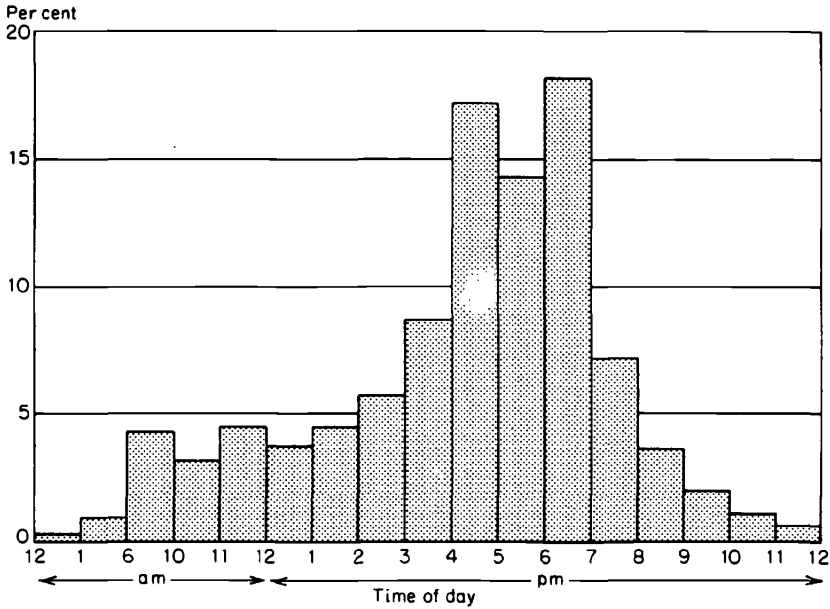
SOURCE: U.S. Post Office Department, results of a number of unpublished surveys.

stores, oil companies, etc., send millions of statements through the mail.

On normal workdays the mailing habits of business cause the Post Office to be faced with a serious peak-load problem. Throughout the day secretaries type and prepare letters and automatic equipment prepares bills, dividend checks, etc. Most of this mail is deposited in chutes and mail boxes towards the end of the working day, between 3:30 and 5:30 P.M. Half of all originating first class mail is received at the Post Office between 4 and 7 P.M. The distribution of the arrival of first class mail at the Post Office throughout the day is shown in Figure 1. Between the hours of 5 and 9 P.M., consequently, a typical post office presses all available manpower into sorting the mail and preparing it for transportation to the area of final delivery. Between 8 and 10 P.M., most of the outgoing mail is dispatched to the airport or train station. Then a relative lull sets in until sometime around 3 or 4 A.M., when mail from other post offices starts arriving for final delivery. Again, from about 4 to 8 A.M., the Post Office is pushed to capacity as it prepares all the incoming mail for final delivery. By 9 or 10 A.M., the large work spaces of the Post Office are again mostly idle, with only skeleton crews on hand to process mail from the occasional late-arriving train or plane. Most of the 4 to 7 P.M. peak-loading problem is of course attributable to business firms since they originate so much of the mail.

The fact that so much of the first class mail from business firms consists of "bulk" items like bills suggest that the Post Office could

FIGURE 1
ARRIVAL OF ORIGINATING-OUTGOING FIRST CLASS
MAIL AT MAIN POST OFFICE



SOURCE: Post Office Department, Bureau of Operations, *NIMS Program Report*, PFY 1968, Quarter III.

probably use the price mechanism to promote more efficient use of its plant and equipment. Under competitive conditions one expects that prices will fall during periods of excess capacity and lower marginal cost. This has the desirable effect to both society and the individual firm of utilizing excess capacity and "spreading the overhead." The Post Office could easily adopt the competitive "solution" to its problem of excess capacity by offering discounts or rebates to any first class mailer who would bring large quantities of mail to the Post Office between, say, 10 A.M. and 12 noon, Monday through Friday. To take advantage of such a discount, many business firms would be required to hold overnight the bills or invoices which they prepare during the day. Under the existing rate structure they have absolutely no incentive to do so. However, there is every reason to expect that large mailers would react quite favorably to discounts of, say, 2-5 per cent because even though postage for an individual piece is usually small

in relation to the value of the contents mailed, the total cost of postage represents a significant expense to many firms.

SECULAR GROWTH OF DEMAND. Mail volume has grown every year since World War II. For the years 1946–1966 the over-all growth rate averaged about 3½ per cent per year. Every class of mail did not change uniformly, however. Mail of the first two classes increased at about the same rate as the over-all average, but third and fourth class mail exhibited markedly different behavior.

Since 1953 the advertising portion of third class mail, which comprises the bulk of all third class mail, has increased at a compound rate exceeding 4 per cent per year. The regular parcel post portion of fourth class mail, on the other hand, experienced a sharp downturn after 1951. The chief causes of this decline were higher rates plus Congressional limitations on size and weight of parcels, which diverted many parcels to private carriers. In contrast to the decline in ordinary parcels, the volume of books and records rose sharply, undoubtedly reflecting the markedly lower rates for these items.

PRICE ELASTICITY. Although brief, this review of secular growth indicates that demand has grown somewhat faster in those classes or subclasses where rates are lower. From this it would appear that mailers are indeed conscious of postal rates and respond to rate differentials and changes in rates with a fairly elastic demand. However, econometric studies of the demand for mail services show that:

Growth in mail volume can be “explained” almost exclusively in terms of changes in population and real GNP.

After allowing for the effect of population and real GNP, *the demand for mail services appears to be highly price inelastic*, indicating that existing substitutes for mail service are rather imperfect.

Changes in the rate differential between first and third class mail has resulted in a measurable shift in the distribution of the total volume between these two classes, and here there appears to be some cross-elasticity and substitution.⁶

⁶ Baratz (1962, pp. 4–12) goes into considerably more detail on the studies and the economic rationale underlying these conclusions. Virtually all econometric studies of the demand for postal service have originated within the Post Office Department, as a consequence of the Post Office Department's obvious interest in forecasting mail volume.

An examination of the available substitutes for mail service reinforces the conclusion that the demand is probably price-inelastic. To begin with, first class mail is protected from direct competition by the so-called Private Express Statutes. These laws give the Post Office authority to prevent any person or any firm from regularly carrying or distributing private correspondence. The Post Office enforces these laws at all times, going so far as to prevent large companies from carrying intracompany correspondence between different plants on a regular basis.⁷ With all competition of this sort totally eliminated, the remaining substitutes for mail service currently are:

- Private messenger
- Telephone
- Private Wire
- TWX
- Western Union

Each of these has the advantage of being somewhat faster than mail service. Except for local telephone calls, however, the cost of each of the above substitutes is considerably higher than the 6 to 12 cents charged for most letter mail. But local phone calls are probably used right now in preference to the mail. Given the cost of dictating and typing a letter, it seems unlikely that many letters are written when a local phone call would suffice.

Certain major components of first class mail will be subjected to future competition from recent inventions now being developed. This may increase the elasticity of demand somewhat. Most important will be the advent of the so-called "checkless society." This is to be accomplished by electronic devices which will enable people to pay their bills by wire—over the telephone lines perhaps. Also under development by the Xerox and Magnavox Corporations is a device that will transmit letters, maps, charts, etc., over long distance telephone lines. Although the cost of this latter device will probably be somewhat more than six cents per page, it will enable business firms to transmit exact facsimiles. This is something which existing substitutes do not now permit, and the cost for such printed messages could well turn out to be lower than private wire, TWX, or Western Union.

The readership of virtually all magazines is widely dispersed geographically. A great many magazines cater to special interest groups, ranging from specialized trade groups to automobile, sports or fashion

⁷ See, for example, the article on page 1 of the *Wall Street Journal*, June 5, 1967.

enthusiasts. Some national newspaper and magazines, such as *Christian Science Monitor*, *Wall Street Journal*, *Newsweek* or *Time* can usually be procured at convenient newsstands. These latter publications face considerable competition from television and radio. Moreover, every magazine must compete for reading time of its target audience. Hence the demand for magazines may be somewhat price-elastic. Nevertheless, the second most economical method of distributing magazines to subscribers would probably be far more expensive than mailing. Since postage accounts for only 15 to 20 per cent of the regular subscription price, demand for mail service by magazine publishers is probably inelastic over a price range considerably in excess of present rates.

One fairly recent development by large national periodicals is worth noting. Several large mailers now use facsimile typesetting to print regional editions simultaneously in a number of locations. This practice probably developed independently of postal rate considerations. Nevertheless, it probably results in saving the Post Office a certain amount of extra transportation cost since the second class rate structure does not reflect the full incremental cost associated with moving bulk mail over long distances, especially distances exceeding 1,000 miles. If the rate structure were changed so as to reflect true cost differentials, more magazines might publish regional editions.⁸ Encouraging such practices where cost considerations warrant could not worsen over-all economic efficiency, and it might yield some improvements.

Third class mail is the principal method by which many advertisers reach highly selected audiences. The chief alternative to direct mail advertisers seems to be first class mail rather than other media. Though first class mail is more expensive, it is said to receive more attention from the addressees. Hence demand by third class mailers may be elastic, but the Post Office itself provides the competition.

The parcel post portion of fourth class mail has more competition from the private sector than any other type of mail. This competition consists chiefly of United Parcel Service, Railway Express, Air Express and less-than-carload-lot freight forwarders. It has lobbied long, vigorously, and with some success to place weight and size restrictions on parcels carried by the Post Office. As noted earlier, this is the only

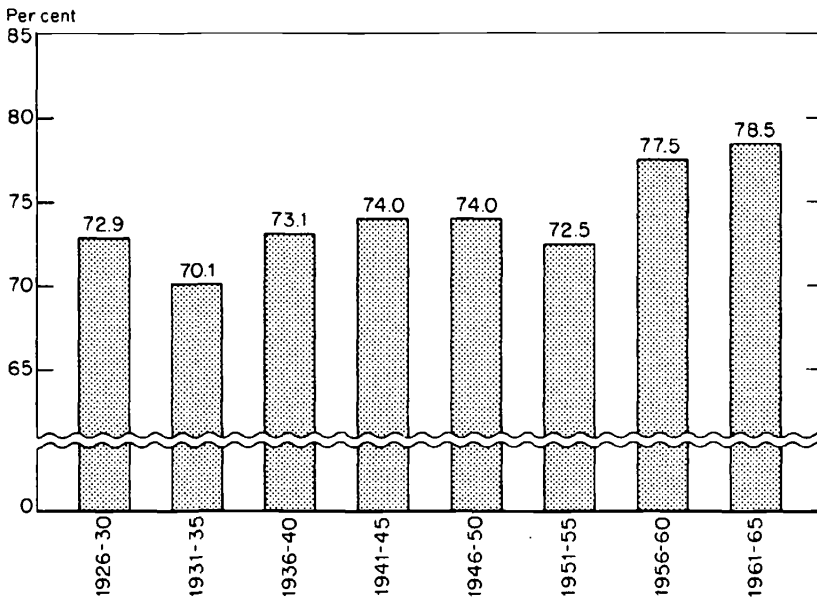
⁸ Or they might use nonpostal transportation to the area of final delivery, if some more economical private arrangement could be made. It is reported that many publishers take out "multiple-entry permits," which the Post Office has only recently permitted, and by this means they do attempt to minimize their transportation costs.

class of mail which has shown a year-to-year decline in volume since World War II. Thus the price elasticity of parcel post is probably greater than for any other type of mail. But parcel post constitutes only 15 per cent of total revenues and 1.4 per cent of total pieces mailed. Hence parcel post is not important enough to affect the over-all conclusion that elasticity of demand for mail service is probably price-inelastic, at least around the existing price level.

Postal Costs

Mail-handling technology is a highly labor-intensive activity. This fact is vividly illustrated in Figure 2, which shows that during the last decade labor costs have actually become an *increasing percentage* of

FIGURE 2
LABOR COSTS AS A PER CENT
OF TOTAL POSTAL COSTS
1926-65



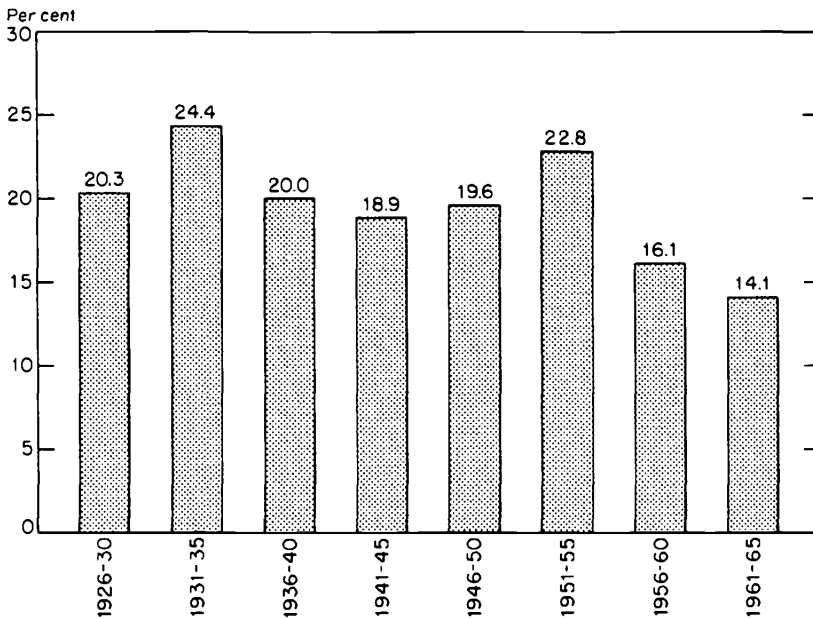
SOURCE: U.S. Post Office Department, *Annual Report of the Postmaster General*, 1966, Financial Supplement, p. 80.

all expenditures by the Post Office. For thirty years prior to 1955 labor costs averaged around 73 per cent, but since 1955 labor costs have increased to a current rate of around 80 per cent.

The definition of labor costs used to calculate the percentages in Figure 2 includes direct salaries *plus* fringe benefits. Labor cost also includes a 10 per cent differential for night work, plus overtime rates paid for weekends and time over forty hours. The 10 per cent differential for night work represents a sizable expenditure because a large number of man-hours are consumed after 6 P.M. on account of the peak-load problem discussed previously. Actions or policies which alleviated this problem would thus have immediate and direct payoff to the Post Office.

Direct payments to common carriers for transportation services have, during the years 1926-65, varied between 14 and 24 per cent. This is shown in Figure 3. The combined total of labor and transporta-

FIGURE 3
TRANSPORTATION COSTS AS A PER CENT
OF TOTAL POSTAL COSTS
1926-65



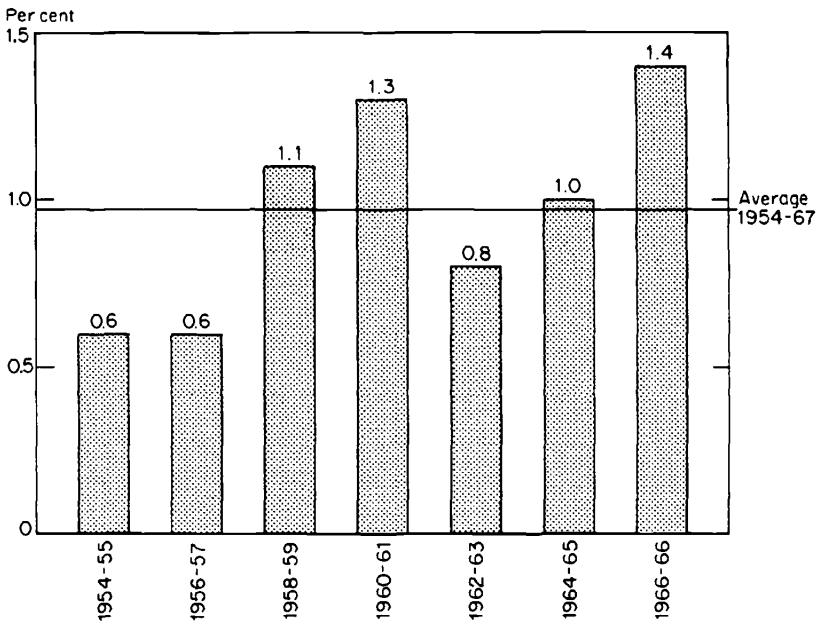
SOURCE: Same as Figure 2.

tion cost has been fairly stable, averaging just under 94 per cent for the last forty years.

Capital spending by the Post Office was almost exclusively on new *buildings* prior to 1920. After 1920 the Post Office began investing in trucks and other vehicles for moving the mail, but prior to 1945 the Post Office spent virtually nothing on *mechanization and equipment* for handling the mail.

Since 1945 spending for mechanization has increased, but it still represents a small percentage compared with other industries. In the last 14 years, for example, mechanization and equipment spending has accounted for just about 1 per cent of total expenditures, as Figure 4 shows. Spending on mechanization is low either because the capital equipment presently available does not yield many worthwhile economies, or because Post Office management has little incentive to install

FIGURE 4
MECHANIZATION AND EQUIPMENT AS A PER CENT
OF TOTAL POSTAL EXPENDITURES
1954-67



SOURCE: Internal data supplied by the U.S. Post Office Department.

cost-saving equipment.⁹ Regardless of the reason, the Post Office shows no evidence of mechanizing at either a rapid or an expanding rate.¹⁰

Public protection of monopoly is usually predicated on the assumption that significant economies of scale exist out to and beyond the point of current operation. For the Post Office, however, the validity of this assumption appears to be somewhat dubious. Short-run marginal cost may be low for minimal increases in mail volume, but it appears that *marginal cost increases sharply with substantial increases in volume*. This is demonstrated each Christmas when the Post Office is temporarily forced (1) to authorize a significant amount of overtime at premium rates, and (2) to add untrained employees who at first are less productive than regular employees. The supervisory staff is not adequate to train or supervise so many new employees at once, and, by the time these added employees become trained, the Christmas season is over. Since labor accounts for 80 per cent of all postal costs, the increased unit-labor costs offset any savings that occur elsewhere in the system.¹¹ In view of the fact that postal technology is so labor-intensive, the fact that the short-run marginal cost curve is U-shaped should not be considered unusual or unexpected.¹²

Long-run cost behavior is more difficult to ascertain. Direct evidence on this question is unfortunately lacking. Productivity is known to vary between facilities, and as a general rule productivity is greater in smaller offices than in larger offices. But it is impossible to infer the long-run cost curve of the entire postal *system* from this sort of evidence. In the long run all costs are variable by definition and the Post Office is presumed able to adjust capital and labor in whatever way is

⁹ The Post Office is said to have made a substantial number of pre- and post-mechanization cost studies which show that mechanization does not pay. It is not clear whether the results of these studies represent a shortcoming in technology, failure by management to capture potential cost savings, or simply poor techniques in estimating payoff from mechanization.

¹⁰ Statements that Congress and labor unions have seriously impeded worthwhile mechanization appear to be inaccurate. This is not to deny that both groups wield important influence. However, to date Post Office management has not recommended any large-scale mechanization program for either of these two groups to thwart or resist.

¹¹ Other costs also rise at Christmas. For example, extra trucks are rented at higher short-term rates. It is not too important whether total "trucking" costs increase proportionately or less than proportionately with the increase in volume because they represent such a small part of the total costs.

¹² In a few of the most modern facilities it is said that short-run productivity increases (and marginal cost declines) with increases in volume. The number of facilities where this occurs is so few, and is expanding so slowly, however, that it does not affect the over-all conclusion concerning the entire postal system.

optimal for accommodation of increased mail volume. The question, therefore, is: Given an increase in mail volume and sufficient time to make all desired adjustments, what would the Post Office do and will the resulting unit cost be less than today's average cost? It turns out that the answer depends upon (1) the composition or *mix* of the increased volume, and (2) whether mail service will be allowed to decline or the current level of service will be continued.

For some insight into this problem of long-run cost, let us examine the behavior of postal costs along the program lines adopted in the planning-programing-budgeting (PPB) system. The programs and 1966 costs are shown in Table 7. The Post Office defines its programs along *functional* lines, as can be seen from Table 7. These functional cost categories provide a convenient way of assessing how long-run costs are likely to vary with changes in *workload* or *output of postal service*.

Acceptance, Category I, contains two principal activities: (1) selling stamps and (2) picking up mail along collection routes. Virtually all costs in the acceptance category are assignable to first class mail. For example, stamps are used almost exclusively on first class mail. Practically all mail picked up in collection boxes is first class since (1) mailers deliver all second class and all bulk third class mail directly to the loading dock, and (2) the public mails parcels at the Post Office

TABLE 7
1966 POST OFFICE COSTS, BY PROGRAM
CATEGORY

Program Category	Amount (millions of dollars)	Per Cent
I. Acceptance	510.5	9.1
II. Processing	1,542.7	27.5
III. Delivery	2,367.3	42.2
IV. Transportation	863.9	15.4
V. Other	325.3	5.8
Total	5,609.7	100.0

SOURCE: Percentage breakdown obtained orally from the Post Office Department and applied to total accrued cost figure found in *1966 Cost Ascertainment Report*, p. 16.

itself. To some extent acceptance costs do not vary with changes in workload. Only with large increases in first or fourth class mail by the general public, such as now occurs only during the Christmas season, would the Post Office find it necessary to increase window services in order to alleviate severe queuing problems.

Mail Processing, Category II, is composed solely of costs incurred at major processing facilities. These are usually sizable establishments in principal cities. The main post office in Chicago, for example, has about 15,000 full-time employees who do nothing but sort and process mail. In a major processing facility *originating mail* typically goes through the following distinct operations:

Operation	Mail Affected
1. Edging-stacking	“Loose” first and third class
2. Facing-cancelling	Nonmetered first and third class
3. Sorting	All mail not presorted and bundled by Zip code area

Despite all research and development efforts to date, mail processing in today's Post Office remains highly labor-intensive. Facing-cancelling is the only operation which has been more or less mechanized. Sorting of mail, which accounts for most of the costs in Category II, is done almost entirely by hand.¹³ The principal capital costs associated with the sorting operation are (1) annual depreciation of the “cases,” which probably amounts to between one and three dollars per man, and (2) the cost of the building itself. Observers have speculated that only Chinese agriculture is more labor-intensive.

Processing costs clearly vary with changes in workload. However, since so much second and third class mail is presorted and handled as bundles rather than as individual pieces, the extent of the variation in total processing cost will depend on the “mix” of any increased volume. But if the mix remains unchanged and the Post Office has to sort additional mail *with the same service now given existing mail*, then it is safe to say that processing costs will either increase proportionately or more than proportionately. In order to handle permanent increases in mail volume, the Post Office will have to hire additional workers, and additional facilities will also be required since major postal facilities are already jammed to capacity during peak periods.

¹³ The chief exception is parcels, where various mechanical devices are employed to help speed the sorting operation.

Delivery, Category III, comprises about 42 per cent of all postal costs. Delivery cost is the only *common cost* of major significance in the postal system. Special interest groups such as second and third class mailers have focused attention on the relationship between workload and delivery cost. These groups traditionally maintain that the entire cost of delivery should be charged to first class mail on the grounds that delivery costs would be unchanged if there were no second or third class mail. In other words, they claim that delivery costs are not workload-related. But under no circumstances is their argument entirely correct.

A carrier is given eight hours to (1) sort and prepare for delivery of all mail on his route, (2) go from the Post Office to his route, (3) make delivery to all patrons on the route, and (4) return to the Post Office. Only items (2) and (4) can be treated as entirely invariant with regard to the amount of second and third class mail. On average, sorting and preparation of mail for final delivery require over two hours of a carrier's time. This part of a carrier's job is obviously workload-related, and the time which it requires will unquestionably increase as per capita mail volume increases. Similarly, the number of stops which a carrier must actually make will, on a statistical basis, increase as the per capita volume of mail in the system increases. It is undoubtedly true that delivery costs do not vary proportionately with increases in the volume of mail handled, but neither are they totally invariant.

Available data are sparse, but on net balance it is reasonable to assume that the delivery portion of the postal system exhibits some economies of scale. That is, if the volume of mail for delivery over the existing route structure increased, delivery costs probably would not increase proportionately. Where carriers do not have a full load, the cost of increased mail is chiefly the additional time required to sort and prepare it for delivery. But as over-all volume increases, a point is reached where a carrier cannot sort or deliver any more. Then, given to time to adopt long-run alternatives, the Post Office can make various adjustments, each of which involves some increase in costs.

- Increase the number of trucks depositing mail at storage boxes along the carrier's route; or
- Shorten existing routes; or
- Supply the mailman with a vehicle (or a bigger vehicle).

Thus long-run delivery costs are a function both of workload and the total number of patrons for which delivery service must be provided.

TABLE 8
POST OFFICE PAYMENTS TO COMMON CARRIERS
FOR TRANSPORTATION, 1966

	Amount (thousands of dollars)	Per Cent
Railroad service	317,109	46.3
Airmail service:		
Domestic	96,312	14.1
International	106,322	15.5
Water service:		
Domestic	4,545	0.7
International	10,585	1.5
Star Route service	115,035	16.8
Other	34,748	5.1
Total	684,656	100.0

SOURCE: U.S. Post Office, *Cost Ascertainment Report*, Washington, D.C., 1966.

Transportation, Category IV, is composed of (1) all costs of transferring mail (bundling, loading, unloading, etc.) from one processing facility to another and (2) payments to common carriers. The first functions are related directly to workload, and their cost will vary proportionately with changes in the volume of mail.

A breakdown of 1966 payments to common carriers is shown in Table 8. Payments to some carriers vary directly with the amount of mail shipped, but others do not. Airlines are usually paid on the basis of ton-miles shipped; hence this portion of transportation cost varies directly with weight and distance. But domestic airmail service accounted for only 14 per cent of all carrier payments.¹⁴ In 1966 almost half of all carrier payments were still being made to the railroads. Bulky items such as parcels, magazines, catalogs and circulars figured heavily in this railroad traffic. Payments to railroads are sometimes variable (as occurs when the Post Office pays by the linear foot for a partial carload), but frequently they are semivariable (this occurs when the Post Office rents the entire car). Regardless of whether the

¹⁴ Air carriers will receive a somewhat larger portion as all long distance first class mail is shifted to airlift.

Post Office rents entire railcars or pays by the linear foot, it buys rail services on a "cube basis," not on a weight basis. Thus when railcars are less than full the Post Office can handle additional mail at no additional transportation cost. In the absence of any data or studies on economies of scale in the transportation function, one can only speculate. It is my suspicion, however, that if all "lumpiness" occasioned by these semivariable or semifixed costs were smoothed out on a cost-quantity diagram, the resulting curve would show that payments to private carriers for transportation exhibit either slight economies or constant returns to scale for the entire postal system.

Looking beyond the postal system, extra mail may increase social costs somewhat less as more of our existing transportation capacity is utilized. In this event, however, virtually all savings (if any) arising from this source would accrue to the airlines and railroads, and would not be reflected in the Post Office's cost function.

LONG-RUN COST BEHAVIOR: SUMMARY. The preceding review of the behavior of various categories of postal costs, summarized in Table 9, enables some inferences to be drawn about the extent of economies of scale in the postal system. In the absence of better data, it seems reasonable to conclude that within the context of existing technology the postal production function exhibits some economies of scale. These economies do not result from any large-scale technology but simply from increasing the utilization of underutilized overhead

TABLE 9
LONG RUN COST BEHAVIOR IN THE POST OFFICE

Category	Per Cent of Total Cost	Extent of Economies of Scale
I. Acceptance	9	Significant
II. Processing	27	Probably none; perhaps slightly increasing costs
III. Delivery	42	Some
IV. Transportation	16	Probably none; perhaps a few
V. Other	6	Unknown; these costs mostly not workload-related
Total	100	Some, but not extensive

which must exist in order to provide service to the entire postal system. But such excess capacity as exists does not occur uniformly throughout the system. Excess capacity is most notable in delivery service to the less densely settled areas of the country. Also, residential carriers probably have some excess capacity, especially along delivery routes in the suburbs where there are no apartment houses. This result agrees generally with Baratz (1962, pp. 30-33), who has analyzed certain available data and has also conducted an extensive survey of the literature on this subject.

If the postal production function does not exhibit significant economies of scale, as surmised here, an important policy issue arises: Should the Private Express Statutes be repealed? Repeal would end the Post Office's monopoly on first class mail and would allow private firms to offer competitive mail service, if any firm so desired. A likely result of such repeal is that some large firms would carry their own intrafirm mail between plants and between cities. As noted previously, this form of private mail service is from time to time detected and stopped by postal authorities. In addition to this form of competition, private firms might also attempt to compete with the Post Office in and between major cities, especially on business delivery routes.¹⁵

Since all realizable economies of scale were reached long ago in the high density portion of the postal system, competition probably would not increase social costs. The Post Office admits to a 12 per cent profit on gross income from first class mail.¹⁶ If this is true, *the return on*

¹⁵ Private competition has been observed at various times in our history (especially in the 1840's, 1860's and 1930's), and on more than one occasion this competition has been instrumental in bringing about significant reductions in postal rates as well as increased service. For more detail see Kennedy (May 1957).

¹⁶ Since 1926 the Post Office has regularly determined the cost of handling each class of mail, and the profit or loss on each class of mail, by means of the *Cost Ascertainment System* which allocates to the various classes of mail every cost of the Post Office, including the salary of the Postmaster General, his furniture, etc. In the Cost Ascertainment System costs are charged directly to the responsible class of mail wherever possible (such direct charges account for 17 per cent of total cost) and all other costs (83 per cent of total cost) are allocated on the basis of extensive samples taken during the year. Such fully-allocated costs are not useful for questions concerning incremental cost or economies of scale. Their usefulness for rate-making determinations is also dubious.

A better procedure would be to charge each class of mail with its direct costs *plus all traceable indirect costs*, leave all nontraceable costs in an unallocated overhead account, and then debate the extent to which each class of mail should cover its own cost and contribute to the unallocated overhead. For further discussion of the Cost Ascertainment System, see Kennedy (June 1957).

investment would be rather high since investment is so low. Hence private firms which efficiently catered only to the low cost portion of the market would probably prosper. Of course, if the Post Office suffered a substantial loss of its first class mail volume, the postal deficit would then increase further, at the expense of the general taxpayer. But there is no economic argument why first class mailers should subsidize other mailers. The likely outcome of allowing private firms to compete with the Post Office would thus be a number of income transfers, but not a marked change in social efficiency.¹⁷ Competitive "waste" from duplicate postal services in major cities would probably be no greater than the "waste" involved in "duplicate" grocery stores in suburban neighborhoods. Over a long-run period consumer benefits from competition probably far exceed any short-term waste. Hence it would appear that on economic grounds the Private Express Statutes should be repealed.

Pricing for Economic Efficiency

If we assume that all benefits of the postal system are appropriable either to mailers or addressees, then, with the usual Pareto Model as a yardstick, competitive prices should reflect the cost of the service rendered. The postal rate structure deviates from this norm in several significant ways. To appreciate better the deviations which exist, the postal system will be examined both by function and by class of mail. Let us begin with the functional approach.

ACCEPTANCE. As previously discussed, most of the expense associated with entering mail into the system is properly chargeable to first class mailers. But among first class mailers the Post Office spends considerably more providing acceptance service to some than to others. For many mailers, such as individuals and small firms, the Post Office incurs the cost of selling stamps and picking up mail from boxes all over the downtown and suburban areas. A great number of large first

¹⁷ Private postal firms with strong economic incentives to reduce costs might very well bring about marked shifts in the postal production function. Certainly the production possibilities curve could not shift much less than it has over the last 200 years. As noted in the introduction, however, this paper treats all shifts in the production function as exogenous.

class mailers, though, put postage on their mail with a meter¹⁸ and then truck it to the rear door of the post office. Mail delivered in this manner circumvents both the edging-stacking and facing-cancelling operations inside the post office and goes directly to the sorting area. Some large mailers may even presort all their "bulk" first class mail. They do this at little cost to themselves by having their computer address all pieces in one Zip code area before addressing mail to another Zip area. Mail arriving at the post office in this condition can go directly into mail bags for shipment to the office of final delivery.

Were postal rates established competitively, then any mailer following the above practices would almost certainly be "rewarded" with a discount commensurate with the cost which he saves the Post Office. Any such discount would of course be a positive inducement to large mailers to carry out those mail handling functions which they can do more efficiently than the Post Office. By not adopting a "bulk rate" for first class mail and instead charging everyone the same rate, the Post Office is not only practicing price discrimination, it is also missing an excellent opportunity to use the price system to reward and promote activity which would result in greater over-all social efficiency.

The efficiency gained from presorting is obvious, and the Post Office is very much aware of it. Note, for example, that the Post Office *requires* second class mail to be presorted and bundled by Zip code, and in order to induce bulk third class mailers to presort their mail, the Post Office uses the price system in exactly the manner advocated here for first class mail. That is, third class mail *not* presorted and bundled by Zip code is charged individual piece rates rather than the bulk rate. The *minimum* differential between the single piece rate and the bulk rate is 2.4 cents per piece (refer to Table 3 for more detail), a discount from the single piece rate of over 40 per cent. The differential between piece rates and bulk rates is so great it may even exceed the Post Office's additional cost of sorting individual pieces. This use of the price system is obviously effective—over 80 per cent of all third class mail was sent at the bulk rate in 1966 (see Table 4).

Inasmuch as the Post Office purports to be more of a benevolent monopolist than an exploitative monopolist, it is difficult to explain why it refuses to do more to encourage and reward metering, presorting and bundling of first class mail while at the same time it adopts

¹⁸ It has been estimated that it costs the Post Office as much as fifty times more to take in revenue of, say, \$500 million from sale of stamps than from postage meters.

such strong inducements in the third class rate structure. True, the Post Office is fond of claiming that it treats all first class mailers equally, and that the "individual citizen" is able to post a single letter for six cents, just the same as the large mailer. However, individuals can—and do—post single pieces of third class mail, but when this occurs the Post Office is rather callous about equal treatment or equal rights for the "individual citizen."

It is also interesting to note, incidentally, that the "equal treatment" attitude perpetrates a sort of myth (within the Post Office Department, at least) that all individuals do indeed pay exactly six cents for their stamps. This ignores the very obvious fact that a great number of six cent stamps are bought and then resold through vending machines in drug stores, hotels and elsewhere for more than six cents apiece. Clearly the public is willing to pay a price for the sort of convenience which the Post Office does not and cannot offer, but which certain entrepreneurs are willing to supply. The stamp resale market renders an important and valuable service to both the public and the Post Office by increasing the convenience and accessibility of stamps; yet the Post Office refuses to give official recognition to this fact by taking any action—such as offering discounts on large quantities of stamps which would encourage the practice.

PROCESSING. First class mail receives top priority in sorting and dispatching. This is as it should be, considering the premium paid by first class mailers.

Within second class mail it is interesting to observe that various publications receive two rather different levels of service, *regular* and *expedited handling* (the latter being so-called *red-tag* service), despite the fact that all "for-profit" publishers pay according to the same rate schedule. Red-tag service is given to newspapers, news magazines and other magazines considered to have "time-value." Newspapers alone account for about 38 per cent of all second class mail, and when this is added to the volume of news magazines, it results in about 50 per cent of all second class mail receiving expedited handling. Among all magazines a few thus receive priority handling and service equivalent to that given first class mail, but *at no extra cost* and despite the rather sizable loss which is attributed to second class mail. This priority service almost surely has direct out-of-pocket costs associated with it. An individual post office hires sufficient workers to enable it to process and dispatch on average all originating priority mail in time to meet established departure schedules for planes and trains. As the volume

of priority mail increases, the number of workers necessary to process this mail within fixed time limits will also increase.

Expedited handling has other incremental costs, too. Second class mail receiving red-tag service is transported and sorted on railway post office (RPO) cars, along with first class mail (where RPO service still exists). RPO cars are now reputed to be the most expensive method of sorting and transporting mail in the entire postal system, and mail trains on high density runs such as New York-Washington have multiple RPO cars. If red-tag service were eliminated the Post Office could conceivably save money by reducing the number of RPO cars. It would appear that magazines receiving red-tag treatment are given a service which far exceeds the rate charged, much less its value. Were mail services offered competitively this sort of price-service combination would almost surely not exist.

Regular or nonpriority second class mail and all third class mail are sorted and processed only after preferential treatment has been given to priority mail. Under normal operating conditions most of this deferred mail is sorted and sent on its way within 24 hours after being received at the Post Office. From this point on the postal system does not subject such mail to any more intentional delays. This means that second and third class mailers receive substantial discounts from first class rates for only slight delays in processing.¹⁹ In general, this "deferred service" is as *predictable* as first class or priority service (a very important point to many bulk mailers) and it is almost as good. Conceivably the discounts in the rate structure could reflect different elasticities of demand, but it is much more likely that second and third class rates are simply a result of political lobbying. There is no compelling reason why prices which achieve political equilibrium should be the same prices as those which achieve competitive equilibrium.

TRANSPORTATION. Virtually all ordinary first class mail which moves over 200 miles is now sent via "airlift" or "deferred air." For ordinary airmail the Post Office pays the airlines about 30¢ per ton-mile, and for airlift it pays about 18¢ per ton-mile. The essential

¹⁹ This is not to say that mail should be intentionally delayed until the difference in service reflects the difference in rates charged. Planned delays of more than 24 hours would neither be desired by mailers nor practical for the Post Office. Major postal facilities are built to handle mail in a *flow*, and storage space is minimal throughout the entire facility. A deferred class of service with intentional built-in delays of more than 24 hours would probably increase the Post Office's cost by requiring additional storage space to be leased or constructed.

difference between ordinary airmail and airlift is that airlines can refuse to accept airlift mail if they have passengers or higher-paying airfreight, whereas the airlines are obliged to take all ordinary airmail on a first priority basis. Thus those mailers who pay the airmail premium receive *guaranteed* service whereas others take their chances. From time to time the two services will vary, but probably more than 80 per cent of all long-distance ordinary first class mail is delivered on the same day it would have been delivered had it been sent via airmail.

It is sometimes suggested that because of transportation costs the Post Office should charge more for long-distance first class letters. However, this suggestion ignores two important facts: (1) the cost of administering such a differential rate structure would probably be high; and (2) transportation is but a small percentage of the total cost of handling first class mail. This latter point can be readily illustrated. Referring back to Table 4, note that in 1966 the average revenue per pound of airmail letters was \$2.32. The Post Office paid the airlines about 37¢ per pound to send regular airmail from New York to San Francisco, or less than 15 per cent of the total revenue. Similarly, on ordinary first class letters the Post Office received on average about \$1.81 per pound and it paid about 20¢ per pound (only 11 per cent of revenue) to airlift mail from New York to Los Angeles. For shorter distances, such as Chicago-Miami or Chicago-San Francisco, the transportation cost would be less; and under the higher postal rates which went into effect in January 1968, these percentage figures will be reduced even further.

Third class mail, like first class mail, is charged a flat rate per piece regardless of distance shipped. Price discrimination is significantly greater in the third class category, however, since transportation costs account for a greater share of revenues. Referring to Table 4 again, the Post Office received about 33 cents per pound for regular bulk third class mail, which on a weight basis represents only 18 per cent of the amount received for regular first class mail. Although surface transportation cost is less than airlift, it is not 82 per cent less. Hence, the ratio of transportation cost to revenue is greater, which suggests that for bulk third class mail the Post Office should probably adopt a weight *and* distance rate schedule like those for second and fourth class mail. Such a rate schedule would be relatively easy and inexpensive to administer since under existing regulations all bulk third class mail is delivered to a loading dock for checking in by regular postal employees. If postal services were offered competitively, such a rate schedule would probably evolve in the natural course of events.

DELIVERY. Each day carriers sort and deliver all first, second and third class mail which they receive for the patrons on their routes. At this point in the system no mailer and no class of mail receives preferential handling. This is probably as it should be as there are no cost savings nor is there any other economic rationale for setting aside and delaying delivery of any mail once it is in the hands of the carrier, except on those rare occasions when a carrier has more mail than he can physically handle. Different patrons do, however, receive a marked difference in both the quantity and quality of delivery service. Business routes receive at least two deliveries a day, but all residential routes in the United States receive only one delivery a day.

Moreover, among the totality of residential routes *the cost and service given to various types of residences differ markedly*. Strange as it may seem, the Post Office has never established a set of residential delivery standards based on an equal-cost concept, on an equal-service concept, or on any other economic criterion. Mail is delivered direct to the door of many families, which is by far the most "luxurious" and expensive service provided by the Post Office. Houses in many older suburbs and in virtually all newer suburbs receive only curb delivery, which costs the Post Office considerably less than door delivery. And, in apartment houses, delivery service probably costs the Post Office less per customer than any other type of residential service. The cost differences are indeed striking. The Post Office may spend up to ten times more providing door service to an individual home than it spends delivering mail to a family living in an apartment house. Under competitive conditions where people pay according to value received, suburban families would probably receive some minimal level of service (curb delivery perhaps), and they would be charged a monthly or yearly fee for incremental service above the minimum. Mailers would pay only the postage required for "minimal delivery." Mailers probably do not care, after all, whether the addressee's mail is delivered to a curbside box or to his door, so long as it is delivered promptly to a location which is reasonably convenient and secure.

The suggestion to charge addressees for certain delivery services is not as novel as it may sound. Incremental pricing schemes which reflect differences in value rendered to individual customers are accepted as standard practice with our regulated monopolies. The telephone company, for example, provides "minimal" service with a standard black instrument. The customer pays extra for additional service in the form of color telephones, lighted dials, different shapes,

pushbuttons, etc. In view of the political controversy generated by the sizable postal deficits in recent years, it is somewhat surprising that the Post Office has never been held accountable for not giving postal patrons a choice between door and curbside delivery, with the customer paying an additional fee for the cost of the additional service. On occasion the National Association of Home Builders has mounted sizable campaigns to generate political pressure sufficient to force the Post Office to give more door delivery service in new suburbs. The Post Office has resisted these pressures, but an equally simple and more expedient way of dealing with such pressures would seem to be use of the price mechanism along the lines recommended here.

PARCEL POST. The preceding discussion of functions omitted any reference to fourth class mail because parcel handling is almost a separate subsystem within the over-all postal system. Parcels, because of their odd sizes, shapes and weight, are always sorted and handled separately from other mail. Long-distance parcels are usually shipped via rail on a space-distance basis, and in all major cities parcels are delivered by separate delivery trucks, independent of the regular route carrier. Only in small cities and on rural routes, which account for a small and declining percentage of all mail, are parcels delivered along with other mail. Because of the law which says that parcel post must be self-supporting, and because of competition from the private sector, the basic parcel post system is structured along fairly rational economic lines. Exceptions do exist, however. Congress has on occasion yielded to political pressure from private firms and placed some peculiar weight-size limitations on the parcels which the Post Office can handle.²⁰ These competitive restraints act chiefly to the detriment of the consumer and should probably be repealed.

Within the fourth class rate structure, substantial discounts are given to library and educational materials, books, records or catalogs on the ground that these items somehow promote the "public service" more than do other parcels. There is no apparent economic rationale whatsoever for these discounts, and in a competitive system they almost certainly would not exist. Among other things, these differential rates

²⁰ Small post offices (second, third and fourth class post offices) can accept larger and heavier parcels than can large (first class) post offices, despite the fact that they are less well-equipped to handle such parcels. The reason for this anomalous restriction is that Railway Express and United Parcel Service do not offer any parcel service to the smaller communities served by the smaller post offices, and Congress is reluctant to deprive these sparser areas of such service.

result in income transfers from retail book stores and record outlets to book clubs and record clubs which sell direct to consumers through the mail.²¹

FIRST, SECOND, AND THIRD CLASS MAIL. Mail with different handling characteristics, different costs and different priority requirements would receive differential treatment and pricing under competitive conditions. The interclass differentials in the current rate structure are based in part on such considerations, but more on the political power of the press and the lobbying ability of third class mailers, plus a "public value of information" concept which Congress attaches to dissemination of news and literature. To achieve competitive pricing most of these distinctions should be substantially reduced or totally eliminated.

Intraclass differentials in the second and third class rate structures also contain many noneconomic distinctions which are now enshrined with all the virtue which Congress and the Post Office Department accord to long-standing tradition. One major distinction is between *qualified nonprofit institutions* and ordinary private firms or individuals. Qualified nonprofit organizations are given sizable discounts in the name of "public service." One familiar result of this discount is the large volume of mail from nonprofit organizations soliciting gifts or donations. Under normal competitive conditions discounts on this type of mail would not exist. In fact, they probably would not even exist under conditions of regulated monopoly, since nonprofit institutions generally do not receive discounts on their telephone or light bills.

SUMMARY. The Post Office is a government agency occupying a monopolistic or quasi-monopolistic position. As one might expect, the postal rate structure reflects a number of significant departures from competitive pricing. Even after the shortcomings of the Cost Ascertainment System have been taken into account, it is fair to say that a great many mailers and addressees are not charged in proportion to the costs incurred on their behalf.

²¹ The annual subsidy on this class of mail, based on the Cost Ascertainment System, is \$63 million. An interesting study by McLaughlin (1968, p. 54), which is a pioneering attempt to apply cost-effectiveness analysis to the Post Office, points out that if one's primary interest is in promoting "culture," \$63 million would have bought: "1. A 100 per cent increase in the number of books purchased annually by libraries, or; 2. Ten thousand elementary school teachers (an increase of 1 per cent over the current number), or; 3. Ten thousand four-year college scholarships (at \$1,650 per year), or; 4. Sixty-six major symphony orchestras (an increase of 260 per cent)."

Generally speaking, first class mail is overpriced and most other mail is underpriced. On net balance, the total cost of mail service exceeds the revenues received by a substantial amount. The Post Office has yet to establish any experience with the new higher rate structure, which became effective in January 1968, but in 1967 total costs exceeded revenues by over 20 per cent.

Because the postal system is so widespread (every business firm and virtually every home in the country is both a sender and receiver of mail), the net result of a more allocative pricing system is difficult to calculate. A great number of income transfers would certainly result. But in addition it is almost certain that a pricing system which better reflected the cost differences occasioned by different types of mail would cause certain mailers to adopt practices which would result in greater social efficiency. It is true that the Post Office recognizes some of these potential efficiencies and attempts to achieve them either by regulation or by inducing large mailers to adopt socially desirable practices out of "good will." But adoption of a "competitive" rate structure would appear to be a far simpler and less expensive method of correcting any social inefficiencies associated with the postal system. Unfortunately, as so often occurs when resource allocation problems interact with Congress, competitive pricing does not draw much political support.

Externalities

The preceding discussion assumed that all benefits from postal service are distributed directly to individuals or organizations in proportion to the amount of mail they send or receive. This assumption needs critical examination.

For over 200 years postal service has tended to be a government monopoly in every country of the world. Why? Do governments confer postal monopolies on themselves primarily to raise money, or because postal systems contain some extensive externalities or public goods elements omitted from the previous discussion, or simply because of an historical tradition which has roots elsewhere? The answer to the first part of this question is straightforward. Governments do not run postal systems for purposes of indirect taxation because postal receipts rarely cover postal expenditures in any country of the world. Quite the

contrary; the citizenry must generally be taxed to whatever extent is necessary to cover the postal deficit.²²

Historical development is certainly one important factor in explaining our government postal monopoly. The British Post Office became a public monopoly in 1609 primarily in order that the government might control and censor all correspondence entering and leaving Great Britain.²³ The U.S. Post Office was patterned on the British model. But over the last 200 years, attitudes concerning government censorship of the mail have completely reversed. Both the U.S. and British Post Offices now go out of their way to accord complete privacy to first class mail. However, like the famous Cheshire Cat who disappeared but left his grin behind, the government monopoly remains long after the original rationale disappears.

In addition to historical precedent, is there any economic rationale to help explain government ownership of the Post Office? Does the postal system, considered as a whole, contain some externalities or public goods elements which justify either government monopoly or the extensive subsidies which the Post Office receives? Indeed, in years past the Post Office has from time to time been used by Congress to promote various transportation programs generally regarded as possessing certain public good characteristics. The development of *Post Roads*, such as the old Boston-New York Post Road (which actually ran from Boston to Florida), was furthered by the Post Office. Less widely recognized but also true is the fact that Post Office pilots pioneered night flying. Later, after the Post Office switched to commercial airlines for its airmail requirements, Congress for many years used the Post Office as a convenient means of subsidizing air carriers in order to develop the industry. However, Post Office support of government-sponsored transportation programs is strictly historical. Within the Federal Government, responsibility for major support of all transportation programs except maritime now lies with the recently formed Department of Transportation and its constituent agencies.

Turning to the current postal deficit, which exceeded one billion dollars in 1966, one can inquire whether any portion of this is assignable to any generally recognized economic externalities. The postal deficit falls broadly into two categories: (1) subsidies or losses

²² In some countries the postal system is operated in conjunction with other publicly run businesses, such as the telephone company, and profits from the telephone system are used to offset postal deficits.

²³ See Kennedy, May 1967, p. 94.

attributable to *public service* as defined in the Postal Policy Act of 1958, and as amended in 1962; and (2) other revenue deficiencies not covered under the Postal Policy Act. Following these distinctions, the presentation of the postal deficit is usually based on (1) the Postal Policy Act and (2) the Cost Ascertainment System which, as previously mentioned, fully allocates all Post Office costs except those attributable to *public service*. A breakdown of the 1966 deficit is given in Table 10.

TABLE 10
THE 1966 POSTAL DEFICIT ..
(MILLIONS OF DOLLARS)

	Public Service ^a	Postal Deficit or Surplus
First class mail	—	116.3
Second class mail		
In county publications	67.2	—
Nonprofit and classroom publications	116.5	—
Regular publications	—	-236.3
Other, incl. controlled circulation	—	-9.9
Third class mail		
Single piece rate	—	-32.2
Bulk rate, regular	—	-269.5
Bulk rate, nonprofit	99.5	—
Fourth class mail		
Parcel and catalogs	—	-22.6
Special rate	75.2	—
Government mail	0.4	7.1
Free for the blind	2.9	—
International mail	0.3	-16.3
Special services (COD, insured mail, special delivery; money orders)	55.0	—
Nonpostal services for other agencies	24.5	—
Part of the cost of operating of rural post offices and rural routes	105.5	—
Deficit	547.0	462.4

SOURCE: 90th Congress, 1st Session, House Document No. 106, *Survey of Postal Rates*, Washington, D.C., April 17, 1967, p. 60.

^a As defined in the Postal Policy Act of 1958, as amended in 1962.

Whenever one starts with the premise that all postal costs should somehow be allocated to the various classes of mail, then, regardless of whether one uses the Cost Ascertainment System or some other allocation system, any deficit will always be attributed to particular classes of mail.²⁴ Thus the second column of Table 10 assigns all of the regular operating deficit to the various classes of mail. And any other system which fully allocates all costs will inevitably make the deficit appear as a subsidy to one group of mailers or another. Hence any such system cannot reveal any evidence on the existence of public goods or external economies.

The *public service* portion of the deficit reflects all arguments accepted by Congress for subsidizing mail service. In the first column of Table 10 the various classes of mail have been assigned \$362.0 million of the public service deficit, \$79.5 million is assigned to special and nonpostal services, and \$105.5 million is attributed to rural postal service. The \$362.0 million deficit assigned to various classes of mail arises from knowingly and deliberately carrying certain mail at a discount from the general rate structure and below cost—that is, by accepting mail from various nonprofit institutions (an alumni magazine, for example) for less than similar mail from profit making organizations (an ordinary magazine, for example). The method of computing this part of the public service deficit has been sharply criticized, but the critics would simply shift part of the public service deficit to the other column in Table 10. Hence this portion of the public service deficit offers no evidence of public goods or externalities. It simply reflects subsidies or transfer payments, paid for by the general taxpayer, to those mailers whom Congress feels it is in the public interest to subsidize.

It can be argued that the various institutions to which Congress has given postal subsidies in the public interest—for example, schools, libraries and churches—create a variety of nonmarket benefits which far exceed any subsidy which they receive from the Post Office. But questions of whether these institutions deserve to be subsidized by the government, or the extent to which they deserve to be subsidized, or whether they should be subsidized directly instead of via the Post Office, are not relevant to a discussion of whether the postal system itself contains any externalities or public goods. That is, the postal system cannot be presumed to contain any elements of public goods

²⁴ Thus when one's concern is with externalities, the usual technical criticisms of the Cost Ascertainment System are not relevant to the discussion, as these almost always aim simply at reallocating total cost. For this reason these criticisms will not be discussed here.

just because it serves customers which may exhibit such characteristics.

This conclusion also applies to two other items shown in Table 10: "Special services" and "Nonpostal services for other (government) agencies." Any deficit attributable to these two items reflects transfer payments to the mailers or users involved, and not external economies or public goods inherent in the postal system itself.

One major item in Table 10 not related to "class of mail" is the public service cost of operating rural post offices and rural routes. This item arises in part because the Post Office has from time to time proposed that a number of rural post offices be closed and equal service be provided by alternative means but at substantially lower cost. It is not known whether such moves could or would reduce costs by the amount shown in Table 10. This item appears in Table 10 in part because Congress has resisted this "efficiency approach" and has instead substituted the "public service" concept. Hence, part of the public service deficit attributed to this item is something of an "employment subsidy" for rural postmasters, and not a public good.

The other part of the deficit under this item is attributed to delivery service on sparsely settled rural routes. At the present time the Post Office gives delivery service along rural roads which average three patrons for each two miles. When the density is less than this, then anyone wishing to have his mail delivered must erect a mailbox along the nearest road which has delivery service. In this connection it should be noted that under current delivery standards the Post Office makes no attempt to carry mail to the property line of every rural patron. Nevertheless, it does deliver mail in areas where the population is relatively sparse, and it is generally acknowledged that the cost of this delivery service exceeds any reasonable assignment of the revenues received from such mail.

Were we to depend solely on competitive firms to supply postal service, it is reasonable to assume that rural areas would either receive less service than now, or else they would be forced to pay more for the existing level of service. It is also reasonable to assume that as the population density of rural areas increases above the minimum required for delivery service, the cost of providing such service will also increase, but far less than proportionately.²⁵ That is, there are probably substantial economies of scale associated with rural delivery service along existing routes. In a sense, then, rural postal service,

²⁵ Conversely, as the rural population continues to decline, this will probably have an adverse effect on the Post Office's attempts to reduce its deficit.

which is a small and declining portion of the total postal system, exhibits a characteristic associated with a "mixed" public good.

In conclusion, the vast majority of the postal system does not exhibit the usual characteristics associated with public goods. For example, if existing users attempt simultaneously to increase their consumption of mail service, total postal costs will rise substantially. Similarly, if new users or patrons are added to the system, costs will also rise. And postal services can be extended or withheld from patrons on an individual basis should there be any reason or desire to do so. Only in delivery service to rural areas are economies of scale so large as to approach on rare occasion a pure public good. Whether this part of the system justifies the extensive monopoly given the Post Office is a moot question indeed.

Addendum: The Report of the President's Postal Commission

The Commission's report, including the four appendices published separately (hereafter, the "Report"), was released too late for systematic referencing and integration into this paper. However, a few observations and comparisons will be given here.

In terms of coverage, the Report treats all major topics discussed in this paper and it covers several other subjects as well. By far the most important problem studied in the Report—and omitted here—is the possibility of downward shifts in the cost curve through greater technological and managerial efficiency. Regarding this subject, the Commission concludes that existing management procedures are unduly cumbersome and complex, particularly rate-setting and construction of major new facilities. The Report estimates that total cost of the existing postal system could be reduced by as much as 20 per cent through greater efficiency resulting from improved management procedures. Based chiefly on this finding the Commission strongly recommends changing the Post Office from a government agency to a government-owned corporation.

The Report contains a large amount of useful data, much of it being the result of original surveys done by private contractors. Both this study and the Report draw, of course, on the same basic data or observed "facts." Hence, many observations or conclusions are similar. Thus:

1. Business firms are the chief source of mail, but the Report also gives data showing that the household sector is the major recipient.
2. Demand for postal services is generally price-inelastic.
3. The Post Office should be regarded principally as a business-type enterprise, which collects revenues and gives services for the fees charged. The Commission recognizes that some types of mail—notably news media—may deserve subsidization in the “public interest.” However, the Commission did not recognize or endorse any public goods arguments concerning the postal system.
4. Labor costs dominate all other factors involved in the supply of postal services. Moreover, and regardless of what one may have read concerning new postal machinery, the Commission concludes as I do, that the Post Office gives no evidence of modernizing or automating at a rate which will significantly alter the capital-labor ratio in the foreseeable future.
5. Rate schedules should be substantially revised, and in the general directions indicated here. The Commission recommends that rates be based more on economic criteria and less on political considerations. It should be noted, however, that although the Report makes a number of rather specific observations concerning the adequacy or inadequacy of various rates, the Report says nothing about charging addressees or patrons who regularly receive a level of delivery service which costs substantially more than alternative forms of adequate delivery service (e.g., door delivery instead of curb delivery).

Finally, the reasoning which leads the Commission to favor continuation of the existing postal monopoly is worth commenting on, inasmuch as the Report and this study reach opposite conclusions on the basis of many similar observations or assumptions:

- a. Despite the inadequacies of the Cost Ascertainment System, the Report acknowledges that delivery to central business areas is “low cost” and that the Post Office earns a substantial “profit” or contribution to overhead on this part of the system. The Report accepts the conclusion that if it were not for the Private Express Statutes vigorous competition would most likely arise in this area. (The Report refers to such competition as “cream-skimming.”)
- b. Although not stated explicitly, the Report appears to recognize that present mail volume long ago passed the point of discernible

economies of scale in downtown or central business delivery areas. Thus the Report does not appear to disagree with my conclusion that in such districts one or more competitors could coexist with no significant decrease in social efficiency.

- c. A survey taken by one of the Commission's contractors indicates that many large business firms would prefer to have available, and would be willing to pay a premium for, a particular type of mail service not now offered—labeled by the Report "urgent"—and which would virtually guarantee next-day delivery. Similarly, for "non-urgent" first class mail (of which there appeared to be quite a bit) these same mailers would prefer a lower rate over "next day delivery." Thus this survey indicates that many large mailers would prefer to have first class mail offer different price-service options rather than attempt to achieve next-day delivery for *all* first class mail.
- d. The Report acknowledges that large postal facilities are generally overcrowded, sometimes grossly. These facilities are probably operating at a point of increasing marginal cost. Moreover, the Report implies that given the 10-year period now required to plan and construct major new facilities, this situation is likely to get considerably worse before it improves. Effective competition would alleviate this overcrowding and could thus increase over-all economic efficiency. Moreover, effective competition might result in more innovation in the means by which mail is processed (it is certainly unlikely that competition will lead to any less innovation than in the past!).
- e. As noted previously, the Report and I agree that repeal of the Private Express Statutes would most likely result in competition in and between the major central business districts. Moreover, we also agree that private firms are not likely to offer much competition in rural or suburban areas where the Post Office has some element of "natural monopoly." Instead of competing, private carriers would most likely use the Post Office to deliver any such mail which found its way into their delivery systems. Thus the Report and this study both conclude that private firms would have little incentive to increase social costs by competing inefficiently and uneconomically.
- f. In those central business areas where private firms would most likely compete, the Report and I both agree that the private firms would attempt to offer large mailers lower rates or more desirable service on first class mail. Moreover, we both agree

that the Post Office could possibly lose a substantial part of this segment of first class mail. Many large mailers could be expected to switch from the Post Office to private firms because they would receive a preferred service, or lower cost. The Report acknowledges that private firms are likely to capture enough of this business (i) to make it financially rewarding for them, and (ii) to affect significantly and adversely the revenues of the Post Office.

g. The Report and I both agree that competition would reduce or eliminate much of the contribution to overhead now paid by large first class mailers. In turn, this will either increase the postal deficit or it will force rate increases on those classes of mail which continue to use the Post Office in preference to private carriers.

Thus, while the Report and this study agree on the seven foregoing points, considerations of social efficiency and concern for consumer preferences lead me to favor repeal of the Private Express Statutes whereas concern over financial viability of the Post Office leads the Commission to favor retention of almost all of the existing postal monopoly.

References

1. Baratz, Morton S., *The Economics of the Postal Service*, Washington, D.C., 1962.
2. Kennedy, Jane, "Development of Postal Rates: 1845-1955," *Land Economics*, Vol. 33, pp. 93-112.
3. ———, "Structure and Policy in Postal Rates," *Journal of Political Economy*, Vol. 65, June 1957, pp. 185-208.
4. U.S. Post Office Department, *Cost Ascertainment Report*, Washington, D.C., 1966.
5. Report of the President's Commission on Postal Organization, *Towards Postal Excellence*, Washington, D.C., June 1968.
6. McLaughlin, John Francis, "Analyzing Benefits of a Postal Subsidy: Special Fourth-Class Rate Mail," *Massachusetts Institute of Technology*, May 1968, unpublished term paper.

COMMENT

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Those of us who have applauded the recent "push" to build systematic analysis into the process of government decision making, which many of us feel is at the core of the effort begun in 1965 to establish a planning-programing-budgeting system on a governmentwide basis, are grateful that there is a Post Office Department. At least this is true of those of us who have been actively engaged in promoting this effort to improve the kind and quality of information available to those who must make decisions on government policies, programs, and budgets.

The reasons those interested in promoting the use of analysis are glad that postal service is a federal activity lies in the fact that, at least at first glance, this seems to be an activity which is sold to users in the market place and in which there are not significant externalities, with all, or almost all, of the benefits accruing to the individual users of the service. As a result the analyst does not have to grapple with formidable problems of social benefit estimation. Nor need he be concerned in a major way with income redistribution.

Not only does the "payoff" side of the analysis of the Post Office operation look to be relatively straightforward, but the production function seems to be susceptible of measurement and specification. Thus the analyst can hope to come up in relatively short order with "hard" analyses which can point to specific improvements in the operation of this federal activity. And for those interested in establishing the credibility and usefulness of a widespread application of systematic analysis, some quick payoff applications are very welcome. It is no secret that there are legions of skeptics throwing cold water at the corporal's guard of PPBS enthusiasts.

Alas, it turns out that my statement above that the benefit estimation problems are simple and straightforward is an overstatement. As Mr. Haldi's paper reminds us, the Congress has traditionally used the postal service as a device to subsidize activities considered to be in the public interest. Rather than providing direct subsidies to defray distribution costs of newspaper, magazine, and book publishers—to say

nothing of junk mail advertisers—the Congress has chosen to “jigger” the rates charged to certain classes of mail and groups of users. The result, as Haldi makes clear, is that rates and costs in some cases bear little relationship to each other. Moreover, since useful analysis requires that we recognize that the Post Office is not producing a single service, but several distinct services, in an important way this is a case of joint production and we are faced with a difficult problem of cost allocation. Those familiar with business cost and production function analysis will not need to be told that joint production poses a serious challenge to the analyst.

I thoroughly agree with Mr. Haldi's implication that the public would be much better served if the Post Office could rationalize its pricing structure to a “competitive” basis. Regarding the subsidy issue, there are three separate questions which need to be faced in this connection and it is important to distinguish each from the others: First, should an activity be subsidized in order to achieve some legitimate public purpose? Second, if so, should the subsidy be in the form of below-cost mail service? And, third, if we answer “Yes” to both of the foregoing questions, should the subsidy come from the general taxpayer via the appropriation process, or from other users of mail service via below-cost prices to the nonsubsidized user and above-cost prices to other users? I am prepared to accept a “Yes” answer to the first question above with regard to at least some mail service users now subsidized. I am skeptical that a persuasive case can be made for a “Yes” answer to the second question, though tradition is so strong that subsidy of *distribution* cost of an activity may have to be accepted. But, on the third question, it seems very hard indeed to believe that some users of mail service should subsidize others. In other words, *if* we are to subsidize some postal users, as an economist I am certain that this should be done out of general Treasury funds—though I will be forced to qualify this view below.

I have no quarrel with Mr. Haldi's identification of the many anomalies in the present structure of postal rates, and the inefficiencies which this structure encourages and abets. At least conceptually—if not politically—the present rate structure could be rationalized so that there was a correspondence for particular users between what they pay and the costs incurred in providing that service, while maintaining the Post Office as a regular department of government. However, a Presidential Commission which is to report shortly has been investigating the possibility of transforming the Post Office Department into a public corporation—or the creation of some other

organizational format which will free the postal service from annual and detailed Congressional appropriation and oversight and give management a good deal of discretion. From a practical standpoint I hope that the Commission recommends such a change, for I think there are at least two important advantages which *might* be gained by such an institutional modification. In the first place, the corporation and its management might be (and should be, in my view) given the authority to proceed with the rationalization of the postal rate structure, discussed above.

In connection with the recommendation of the Kappel Commission that the Post Office be reorganized as a government corporation under which management would have far more discretion, I need to enter a *caveat* to my previous discussion of the subsidy issue. Although I still believe that, conceptually, subsidies should come from general Treasury funds, I must recognize that there may be an overriding institutional-political argument to the effect that if the subsidy is relatively small (it is suggested by some that the subsidy amounts to a small percentage of total cost) and if we can gain a good deal of freedom for the management of the postal service by an institutional arrangement which takes the postal system out of the annual Congressional appropriation process, then it *may* be worth paying the price of requiring the rates to reflect price discrimination in favor of those classes of users the Congress deems deserving of subsidy. But I wouldn't pay this price if (1) the subsidy were significant (from either the subsidizers' or subsidized view) *or* (2) if Congress insisted on setting the absolute level of rates to be charged subsidized users. (The alternative, which might be acceptable, would be a Congressional determination that the subsidy be a certain fixed percentage of cost of providing the service, leaving management free to set the over-all structure and level of rates within this constraint.) This point is an illustration of the need, which sometimes faces us, to depart from the dictates of sound economic analysis in order to gain important institutional and procedural changes, given the facts of the workings of our political processes. In other words, some sacrifice of the niceties of economic reasoning may be necessary to make much more important economic gains possible.

The second potential gain from the creation of a more independent and autonomous institution to run the postal service is that the management might be in a position to achieve substantial economies through improvement in the production process, and they might be somewhat better able to resist—where resistance is appropriate—

the demands of the postal workers union. It is a commonplace in Washington to note that that union has one of the best track records on the lobbying circuit between the Capitol and the White House. A side effect of the present political coupling of Congressional decisions with regard to civil service pay rates with postal worker pay rates has meant that it has been politically much more difficult to achieve the kind of adjustment of civil service pay scales necessary to attract and retain the kind and quality of people necessary to discharge effectively federal responsibilities.

My one serious question about Mr. Haldi's analysis lies in his suggestion that we might actually transform the postal service into a competitive market. He seems to me to give a qualified endorsement to repeal of the Private Express Statutes, which "would end the Post Office's monopoly on first class mail and allow private firms to offer competitive mail service." He bases this position on his conclusion—again carefully qualified—that economies of scale are not significant in the production of the postal service. It seems to me possible that Mr. Haldi has gone astray because, in his attempt to estimate (or at least infer) the shape of the long-run cost curves, he has confined himself to costs borne by the Post Office itself. Before I can agree with him that a competitive market structure would not introduce significant inefficiencies, from society's standpoint, I think we need to consider the *total* cost functions involved in the sending, receipt, and "assimilation" of materials distributed through the postal system. And this requires that we look not only at Post Office Department costs involved in the system but also at costs borne by users. Moreover, he has not yet persuaded me that the scale economies *internal* to the Post Office are minor. Haldi does recognize, for example, that there are "some" scale economies in connection with the delivery function. I suspect that if one considered business firms and individuals who receive mail and the cost to them the "some" would be "somewhat" larger. Do we really want three, four, or more "mail deliveries" coming to our doors? While obviously postal service is nothing like telephone service in that there is not the same compelling requirement that we all be (literally) wired into the same system, nonetheless it seems to me that there are real "convenience" advantages—which translate into cost advantages—in having a single postal delivery service at least for first class mail. It is worth noting in this connection that estimates have been made which indicate that we today do pay a price for supporting a system of competitive home milk deliveries. The advantages of competition in this case may outweigh the added

costs of several milk trucks traveling down each street. And the customer has the option of performing the delivery function himself by purchasing milk at the grocery store. At least for local mail delivery, the customer also has this option—one that few select since, even today's relatively inefficient mail system does provide a service at very low price "per unit."

I also wonder if senders of mail, and particularly business firms (which as Haldi points out are the dominant consumers of mail service), would not suffer increased costs if they were sending their outgoing mail through a number of separate postal services (e.g., bulk mailing with Zip code sort would be more cumbersome and produce smaller gains in efficiency). Of course, it is possible to conceive of an industry structure of a number of local monopolies for each kind of service. But such a system would certainly add something to total costs, if for no other reason than that a fairly elaborate system of recordkeeping would be necessary in order to keep track of transactions among these local monopolies. Moreover, it is not at all clear to me that a system of decentralized local monopolies is really going to have the competitive incentives to improve service and reduce costs at which the Haldi proposal is aimed at achieving.

Thus it seems to me at least possible that the economies of scale in the total system are a good deal more significant than those Mr. Haldi finds internal to the Post Office Department (even if we accept his judgment that internal scale economies are modest). I should hasten to add that I am perfectly willing to accept a suggestion that there may be much more room for the private and competitive provision of certain specialized services now provided by the Post Office Department. We already have a real-life example of this in the shipment of packages. The parcel post system does face competition from private firms (or "rivalry," if one is a purist about the term "competition"). Indeed, in this instance one questions the way the Congress has tied the hands of the Post Office Department, limiting the size of package it may accept in the parcel post system. I would be willing not only to see these restrictions dropped so that the rivalry between the Post Office, on the one hand, and United Parcel, Railway Express, etc., could be given freer rein, but I would be willing to see the Private Express Statutes repealed or at least drastically modified so that private firms could attempt to enter various parts of the total postal service market. But, as I speculated above, I am not at all sure that such entry would be very effective or widespread *if the Post Office Department (or a public corporation taking its place) is per-*

mitted to adjust its rates to reflect the costs of various types of service. My disagreement with Mr. Haldi is not flatfooted. Postal service is certainly not like telephone service (as I noted above), in that in the case of postal service there is not a clear-cut and dominant public interest in having a single interlinked system (forced by the technology and economies of the system), and I recognize together with Mr. Haldi that competition increases the possibility that innovations will be developed which would provide better and more efficient postal service.

Before I close let me note the recent report by the British National Board for Prices and Incomes on post office charges.¹ One is struck by the strong similarities between the British and American postal systems. For example, the distribution of costs among the various functions seems to be very much the same in the two countries, and they are also wrestling with an irrational rate structure. In fact, the report was undertaken in response to a proposal by the Postmaster General that rates be increased *and* modified. The specific modification proposed is the establishment of a "two-tier letter service." The present British first class mail system recognizes two categories, defined on the basis of *contents*, not quality and speed of service. Printed matter (e.g., newspapers, magazines, etc.) is handled at a much lower rate than letters. Under the new proposal, first class mail of whatever content will get priority handling (e.g., delivery virtually guaranteed the day after posting anywhere in the country) while second class material may be deferred. The major rationale for this shift will sound very familiar to anyone who has read Mr. Haldi's paper: it is expected that the two-tier system will permit a smoothing-out of the work load over the twenty-four hour period, significantly reducing the present requirement for nighttime—i.e., premium pay—work.

It is my understanding that the British report was written, at least in part, by an economist known to many of us—Ralph Turvey. I think those who know Turvey will agree that this suggests that the report deserves a careful reading. I was therefore struck by one of the findings of this study because it buttresses a question that I wish to put to Mr. Haldi: Because of the "joint product" character of producing postal services, how reliable are the presently available attempts to allocate costs by function and by type of service? The British report questions the usefulness for decision purposes of the very meticulous

¹ *Post Office Charges*, Report No. 58, National Board for Prices and Incomes, March 1968, Her Majesty's Stationery Office, London, Great Britain.

and exhaustive allocation of costs currently made by the British Post Office on the grounds that there are enough joint costs and overhead elements involved to suggest that the allocation of total costs can only be done by rather arbitrary rule-of-thumb techniques (e.g., in the British case the salary of the Postmaster General is completely allocated to the various services and functions). The specific issue is the relevance of the cost allocations to decisions about *pricing policy* (e.g., a system of cost allocation designed for *cost control* by management may not be useful for pricing decisions, especially in a joint production situation).

I began by suggesting that those of us who hope to see systematic analysis more widely used in illuminating public decisions welcomed the existence of the postal service as a federal function because it at least seemed to offer a set of problems more directly and immediately susceptible to the kinds of analysis we economists think we know how to do. And I think that this expectation is supported to a degree by Mr. Haldi's paper and some of the work which I understand has been done in the Post Office Department over the last couple of years—when this output is compared with the typical run of the Program Memoranda and analyses produced by other agencies. (It is not accidental that some of that work has been useful and good nor that Mr. Haldi chose this subject for his paper: he was instrumental in aiding the Postmaster General and his key associates in understanding the value of, and in beginning to use, analysis.) However, the honesty and modesty with which he presents this paper indicate that even in the case of Post Office activity problems of data availability and of analysis are formidable and that much hard work is still to be done. His paper also underlines the pervasive importance of the institutional, political, and "social value" environment and the need for the analyst to understand this environment if his work is to be relevant.