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POSTAL REGULATION AND WORKSHARING IN THE U.S.

**Robert H. Cohen
Matthew Robinson
Renee Sheehy
John Waller
Spyros Xenakis**

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Part I: Regulation

Introduction

Before postal reorganization in 1970 the Post Office Department was a cabinet agency under the direction of a Postmaster General who was typically the President's chief political advisor. The appointment of the 32,000 postmasters made the Post Office a major source of patronage. Increasing postal rates was an important political event involving Congress in the issue of who would be subsidized by taxpayers and by how much. It inevitably involved increasing the pay of postal workers, which was set by Congress. Because the Post Office Department had politically appointed senior management and was subject to congressional appropriations, it was run like a governmental agency rather than a business providing commercial services.

The goal of reorganization was to create a new non-political governance structure for the Post Office Department. It was to be transformed into a quasi-corporate establishment within the federal government with its own board of directors (called Governors), with control over its own income and expenditures, and with the authority to engage in collective bargaining with its labor force. The objective was to have the new Postal Service operate very much like a business with professional, not political management. An overriding goal was that it should be self-supporting thereby allowing the large taxpayer subsidies to be discontinued.

The regulatory model for monopolies at the time was a commission with broad authority over the utilities it regulated and detailed rate setting authority based on cost of service. In 1970, it was thought that this model did not fit the new Postal Service in many respects. While the new Postal Service was to act like a business, it was still fundamentally a governmental institution with the power to define and enforce its monopoly, to define its universal service obligation, to have its own police force (to enforce postal laws), and to represent the government in international forums.¹ The distinction between operator and regulator had not yet come to the fore in thinking about postal services. Congress expected to continue to exercise its oversight, and the

¹ Many other hallmarks of governmental status remained including not being subject to taxation, participation in federal programs for health benefits, retirement and workers compensation and being able to borrow from the Federal Financing Bank.

removal of governmental authority from the operator was not even given consideration.² The Postal Service was to be overseen by its Board of Governors appointed by the President and by postal committees in both houses of Congress, and it was thought that there was no need for oversight by an independent regulator.

It was understood, however, that of the Service should not set its own rates because of its broad letter mail monopoly. The Service had competitors with whom it could compete unfairly by cross-subsidizing competitive products from revenues derived from its letter monopoly. Congress was also aware that large commercial mailers were highly motivated to seek lower rates. There was fear that postal management would unfairly recover its revenue requirement from First-Class mailers (especially households). Thus, Congress created an independent rate setting authority, the Postal Rate Commission, with five full-time presidentially appointed commissioners.

By largely duplicating the U.S. regulatory model for setting rates, Congress set up a mechanism based on transparent costs with an open forum where all affected parties could participate. Decisions were made by commissioners who were totally independent of management and had no personal stake in the outcome. The Postal Rate Commission was required to provide due process for all who might choose to participate in its proceedings.³ The Reorganization Act called for a cost-based rate system with no cross-subsidies. Fairness in rates was made an important goal, as were lower rates for non-profit organizations and educational, scientific, cultural and informational matter. The Rate Commission was instructed to set rates high enough to enable the Service to breakeven, a paramount goal since there was no residual claimant to hold responsible for failure to meet financial targets. Consequently, there was no mechanism to cap expenditures or to disallow imprudent ones.

The Commission was instructed to allocate overhead costs to the classes of mail based on nine factors⁴ that did not allow the objective approach of using Ramsey prices

² Even today the recent Presidential Commission's Report concerning postal reform rejected the corporatization of the Postal Service which would make it subject to commercial laws (while having the government as its sole shareholder). Today, this is the organizational structure of most posts in the industrial world. The governments of the Netherlands and Germany have sold shares in the post to the public and other countries are contemplating similar sales.

³ The Commission must follow the Administrative Procedure Act when it's conducting adjudicatory procedures.

⁴ Rates shall be (or reflect), 1) fair and equitable, 2) value of service to sender and recipient, 3) attributable cost and a reasonable contribution to overhead, 4) the effect on customers and competitors, 5) the availability of alternatives, 6) the degree of mail preparation, 7) simplicity of structure, 8) educational, cultural, scientific and informational value, and 9) other factors deemed appropriate by the Commission.

to maximize economic efficiency. Indeed, Ramsey prices presume that a seller is indifferent as to which customers bare the overhead burden. The Reorganization Act was in conflict with this presumption and the Commission has judgmentally allocated overhead costs balancing many considerations in addition to economic efficiency. In the R2001-1 rate proceeding USPS witness Bernstein testified that the R2000-1 rates recommended by the PRC missed Ramsey targets for economically efficient rates.⁵ He calculated that the rates sacrificed over \$1 billion in consumer surplus primarily because First-Class and periodical rates were too low, and advertising mail rates were too high.⁶ The loss in consumer surplus should be judged in the context of an overall overhead burden of \$25 billion in that proceeding.

Results of the Current System

To a great extent the structure that Congress set up has succeeded. Postal Service volume grew from 89 billion pieces in 1970 to 203 billion in 2004. Advertising mail grew to the point that its volume will soon be larger than First-Class. Over the 34-year period cumulative revenue and expenses of over 1 trillion dollars have been in balance with the important exception of unfunded liabilities.⁷ Thus, the overriding goal of breakeven has largely been met. In addition, the basic First-Class stamp price since 1970 has stayed within the rate of inflation and as we will see in the section on worksharing real (inflation adjusted) rates for bulk mailers have dropped sharply. An extensive system of worksharing discounts has developed which has transferred about twenty-five percent of the Postal Service's workload to the private sector because it could do the work less expensively.

The Congressional emphasis on costs, transparency and proceedings with public participation remains unique throughout the postal world. Indeed the United States sets a standard for transparency that is unparalleled. As we shall see, the rate setting mechanism played a significant role in the USPS worksharing program, which has quite literally transformed the mission of the Postal Service to a provider of services at the lowest combined mailer/Postal Service cost. This in turn has had very important impact on costs and far reaching ramifications for the growth volume.

⁵ R2000-1, USPS T-41.

⁶ Notwithstanding, First-Class mail pays an above average contribution.

⁷ The General Accounting Office (the investigative arm of Congress) estimates that the unfunded liabilities for retiree health care benefits, workers compensation and employee retirement benefits amount to about \$70 billion. See GAO-04-1084 available at www.gao.gov.

The Rate Commission has authority to determine the attributable costs of the classes of mail. It does this based on evidence furnished by the USPS and analyzed by all parties. Thus, First-Class mailers typically argue that attributable cost levels should be high because they pay a disproportionately large share of overhead costs. Bulk mailers typically argue the opposite. Competitors are allowed to participate in Commission proceedings and usually side with First-Class mailers because they want rates for competitive classes to be as high as possible. To its credit the USPS has, over the 34-year period, provided increasingly better data and analyses to determine attributable costs (i.e., marginal costs plus fixed costs specific to a single class of mail). Almost always, the Commission has determined that attributable costs levels were higher than those proposed by the bulk mailers and the Postal Service.⁸

This has had important consequences for competition in the postal sector of the U.S. economy. At the time of reorganization USPS was the nation's dominant small parcel carrier and shortly after reorganization it was the first to enter the overnight Express Mail business. Because the determination of attributable costs was in the hands of an independent PRC, the cost of competitive services were independently determined and rates for them were set high enough to cover cost and provide a reasonable contribution to overhead. In part because of this and in part because they provided superior service, UPS and FedEx prospered while the Postal Service lost a significant portion of its parcel and overnight market share. While this was arguably bad for the Postal Service it was good for the United States. The nation was better off that these products were not allowed to be cross-subsidized by monopoly revenues and the U.S. has become a world leader in these industries. The U.S. has excellent parcel and express delivery systems; better than that which would have been provided by the Service if it had been allowed to cross-subsidize these products in order to maintain its dominant position. Even the Postal Service is better off because it would have been of no benefit to the Service to cross-subsidize competitive services just to retain market share. Instead, it has had to improve its services and innovate in order to compete. In short, third-party rate regulation was responsible, in part, for the success of the UPS and FedEx and for giving U.S. customers greater choice.

⁸ The Rate Commission believes that more empirical studies should be done to establish more reliable estimates of attributable cost.

In a zero sum game not every party is likely to be satisfied with the outcome of a contentious proceeding involving \$70 billion in revenue. Even so, virtually all parties would agree that the Commission's proceedings provide for decisions arrived at based on the evidence presented.⁹ The opportunity for mailers to be heard has provided a forum where the Postal Service must respond to requests for information. This information has given parties the opportunity to publicly complain about the Postal Service failings and has provided a measure of accountability that is disliked by postal management but appreciated by mail users.

Failings of the Current System

The regulatory structure in the U.S. has two major failings. The first that the price of the stamp has just about equaled inflation and this is disappointing considering the Service's economies of scale. The doubling of overall volume coupled with scale economies should have resulted in the average price of the stamp dropping in real terms.

More important, total factor productivity (TFP) growth has failed to keep pace with the private non-farm economy multi-factor productivity growth (MFP) which is the standard against which the Postal Service compares itself.¹⁰ See Table 1. The anemic productivity growth trend has turned around sharply under the leadership of the current Postmaster General.¹¹ This, however, illustrates the problem with the regulatory system. A management that is highly motivated to control costs and improve productivity is a sometime thing for the Postal Service. There is no institutional mechanism that produces efficiency. Much of the blame can be found in the Commission's lack of authority to set the Service's revenue requirement. The

⁹ The Administrative Procedures Act not only requires that all parties be given due process, it also requires the Commission to adjudicate every issue brought up by any party and provide a written explanation of its determination based on the evidentiary record before it. Judicial review is available to correct arbitrary or capricious decisions, or those not based on record evidence.

¹⁰ The Postal Service's measure of total factor productivity (TFP) was developed by Christenson Associates. TFP is a measure similar to the Bureau of Labor Statistics Multi-Factor Productivity. See USPS annual tables, GFY 2002 TFP (posted at www.prc.gov).

¹¹ This was accomplished largely by reducing employee work hours by 11 percent between FY 2000 and FY 2003. In 2004, work hours decreased by 1.4% and TFP grew by 2.4%.

Commission's rates must raise sufficient revenue to cover anticipated expenses.¹² Thus, management has no external constraints on it to control cost. The other reason why the Service has not been efficient over the whole 34-year period since reorganization is the lack of a residual claimant. Consequently, the regulatory system cannot instill efficiency by motivating residual claimants and management has little financial stake in making the service efficient. In fact, management pay (including bonuses) is limited by general government ceilings, and is far below private sector counterparts.

Table 1
Comparison of Growth of TFP with MFP
(Average Annual Growth Rates)

<u>FISCAL YEARS</u>	<u>TFP</u>	<u>MFP</u>
1970-1979	0.7%	1.1%
1980-1989	0.0	0.3
1990-1999	0.2	0.7
2000-2003	1.7	1.0

The second major failing of the regulatory system is its lack of flexibility. The time it takes to implement a new set of rates from the time the Service begins its preparation to implementation is generally between 14 and 18 months. Thus, the Service in practice can not raise its rates annually and instead has raised them after two, three or four year intervals.¹³ This creates sticker shock when costs are rising rapidly. Moreover, under the regulatory system in practice, all rates are raised at once (i.e., omnibus rate increases). This results in an inability to adjust rates for a single-class. It is also time consuming to get approval for new (worksharing) discounts when they are subject to dispute. In addition, the service is not free to negotiate rates with customers of its competitive products as can its private sector competitors. Finally, rates are constrained by the overhead burden that the PRC places on the several

¹² When the Commission's rate fail to cover anticipation expenses, the Postal Service Board of Governors is empowered to modify the rates so that they cover costs.

¹³ The Postal Service is considering proposing rate increases to be phased in over a period of time (say, four years). This would mean that rates could be adjusted annually or bi-annually with a single rate proceeding. The PRC has said that phased rates could be enacted under the law.

classes of mail using the standards in the postal law. Thus, the Service is not free to set more market-based rates.

These problems must be understood in the context of the Service's monopoly. About 90 percent of its revenue comes from monopoly or *de facto* monopoly products which are all price inelastic. It is not clear how much advantage the Service would gain if it had more flexibility over pricing its monopoly products. On the other hand, flexibility in setting prices for its competitive products would be an important improvement.

The great ornament of the U.S. rate-setting system is the extensive set of worksharing discounts that have been established by the Commission in concert with the Service. The remainder of this paper will deal with the impact of these discounts on the U.S. Postal Service and its customers.

Part II

Worksharing and the Rate Setting Process

Prior to the creation of the Postal Rate Commission in 1970, large mailers petitioned the old U.S. Post Office Department for a First-Class Mail presort discount. They were using computers to sort their mailing lists and were able to produce mail in presort sequence. The Post Office refused the request. The mailers again proposed discounts in the first rate proceeding (1971) before the new Commission. The newly transformed Postal Service opposed the proposal. Postal management felt that a discount would reward mailers for what they would do anyway. They reasoned that a discount would just be giving money away.

The new legislation, however, required the Postal Service to seek approval of its product offerings (the classification schedule) from the new PRC and the Service subsequently proposed that the Commission approve its then current schedule with a few minor modifications.¹⁴ In order to encourage a settlement with many of its large mailers who might oppose the Service's proposal at the Commission, the Postal Service included a one-half-cent presort discount for First-Class mail. Thus, the simple existence of an independent body for setting rates and classifications had an important impact on the Postal Service's attitude towards worksharing.

¹⁴ Docket MC 73-1.

Postal inflation was high in the 1970's and the Postal Service was forced to initiate rate proceedings calling for large price increases five times. Because the Postal Service had to participate in the trial-like proceedings of the PRC to gain the additional income it required, the Service had to suffer considerable interrogation and complaints from the mailers. In response to this criticism management attempted to offset the increases in rates by offering more and larger worksharing discounts. The very process of preparing to file for a rate increase with the PRC caused postal management to think in terms of new discounts to assuage the inevitable criticism. This came about because they could not simply raise rates by decree but had to deal with their customers in a public proceeding.

Initially, the Postal Service attempted to persuade the Commission that the cost avoidance (the basis of worksharing discounts) was low. Mailers, however, presented other cost data to the Commission that persuaded it to set discounts as much as three times higher than the Postal Service wanted. The larger discounts encouraged mailer participation and grew worksharing volumes. Thus, the public forum sponsored by the independent Rate Commission was the catalyst for today's extensive worksharing program.

An Overview of Worksharing

Worksharing has had a dramatic effect on the U.S. Postal Service and its customers. It has impacted postal volumes, workload, costs, prices and employment. It has also led to a plethora of rates reflecting the large number of opportunities to engage activities that reduce the workload of the USPS. Postal worksharing began with the implementation of discounts for First-Class mail in 1976 and it developed over time to include virtually all classes. It's an evolving program that includes concepts that were not envisioned at its outset and it has become increasingly important to the operations of both the Postal Service and mailers. While the program is now nearly three decades old, much effort is still being spent on how to best combine the capabilities of the mailing industry with opportunities to reduce Postal Service costs. The Appendix describes worksharing in some detail and lists the number of discounts by mail class.

Worksharing is essentially the exporting of work that otherwise would be performed by the Postal Service to mailers or third-party consolidators. Worksharing directly or indirectly reduces the Postal Service's workload for a given amount of mail. The discounts given to mailers reflect the Postal Service's avoided cost. This ensures

that the lowest cost provider (the Service or the mailer) does the work. The activities affected by worksharing involve mail processing (including carrier and in office sorting) and transportation. Neither activity exhibits large economies of scale. This is unlike out-of-office delivery, which is characterized by large economies of scale. Worksharing has led postal observers to seriously consider a last mile strategy for the Postal Service as it confronts increasing direct and indirect competition. The President's Commission on the United States Postal Service has stated:

Those who can do it best and for the best price should have the job, regardless of whether the "best execution" provider is the Postal Service and its existing workforce or a private-sector company. This greater integration of the public and private postal networks will add value to both. It also holds the possibility of allowing the Postal Service to focus on its true core competency: delivery of the mail, the first and last mile reach that makes the Postal Service unique.¹⁵

The Impact of Worksharing on Volume

We have found that the volume response to worksharing discounts is greater than what would be expected from just the lower prices they entail. In other words, the volume effect of worksharing discounts can not be explained simply by demand elasticity.¹⁶

The appearance of new discounts allows mailers to innovate in their use of mail and this creates additional demand. Initially, presort discounts allowed better use of census data for creating targeted mailing lists. In addition, much worksharing involves third-party consolidators, software vendors, printers, and letter shops. They have an interest in promoting mail and they become salesmen who frequently conceive of new ways to use mail for customers or potential customers.

Table 2 presents estimates of the growth in volumes because of worksharing for several classes of mail. It shows that almost all of the growth of parcel post and most of

¹⁵ *Report of the President's Commission on the United States Postal Service*, July 31, 2003, page 84.

¹⁶ See "The Impact of Using Worksharing to Liberalize a Postal Market" by Cohen et al. Appendix 2: Regression Analysis of the Impact of Worksharing Discounts written by Edward S. Pearsall. Published in *Liberalisation of Postal Markets*, Eds. Gabriele Kulenkampff and Hilke Smit (Rheinbreitbach: Druckerei Plump KG, 2002). Available at www.prc.gov.

the growth of advertising mail was due to worksharing discounts. It is noticeable that much of First-Class growth was also due to worksharing.¹⁷

Table 2
Cumulative Impact of Worksharing on Volume Growth
(in billions)

	<u>Start</u> <u>(FY) Year</u>	<u>Cumulative</u> <u>Volume</u>	<u>Estimated</u> <u>Volume</u> <u>w/o Worksharing</u>	<u>Volume</u> <u>Due to</u> <u>Worksharing</u>	<u>Growth</u> <u>Due to</u> <u>Worksharing</u>
First-Class Mail	1976	2,282	1,485	796	54%
Periodicals	1978	259	232	27	12
Advertising Mail	1979	1,597	988	609	62
Parcel Post	1991	3.6	0.6	3.0	514

Advertising Mail

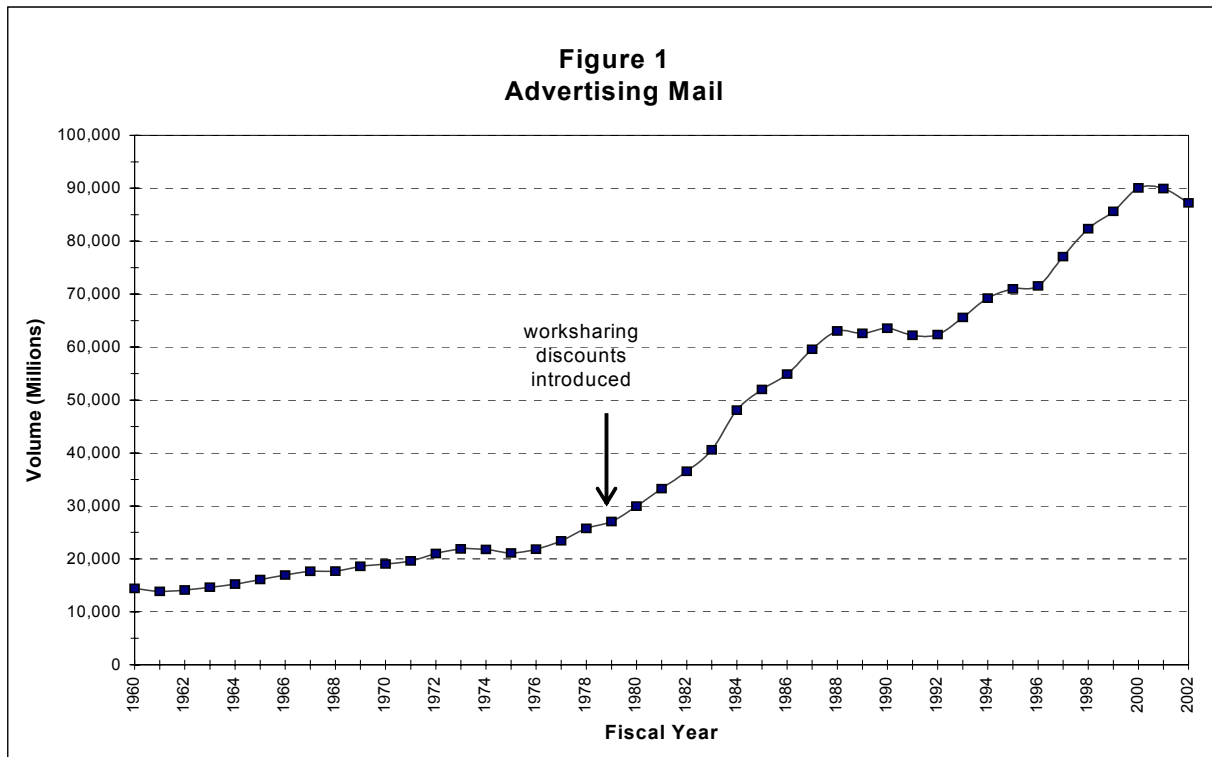
Annual advertising mail volume has grown 230 percent since the introduction of discounts in (FY) 1979. Today advertising mail accounts for 45 percent of total volume, 25 percent of total revenue and contributes 21 percent of total institutional or overhead costs. Direct mail has grown to be an important factor in total advertising expenditure in the United States for all media. It accounts for about a 20 percent market share. Households now receive more advertising than First-Class mail and advertising is the undoubted growth engine of the U.S. Postal Service.

Figure 1 shows the acceleration of advertising volume after the introduction of the first worksharing discount for advertising mail. Additional discounts have been introduced over time. Analysis has found that each discount appears to have affected volume growth.¹⁸

¹⁷ See "The Effects of Worksharing and Other Events on U.S. Postal Volumes and Revenues" by Edward S. Pearsall. (2005). In *Regulatory and Economic Changes in the Postal and Delivery Sector*, edited by M.A. Crew and P.R. Kleindorfer. Boston: Kluwer Academic Publishers. Available at www.prc.gov.

¹⁸ A complete explanation of advertising mail growth must also take into account other causative factors such as the declining price of computer power and lifestyle changes.

Advertising mail is non-preferential in terms of service, but very often mailers are intensely interested in the window of home delivery for particular mailings. Mailings



may be timed to coincide with holiday periods or other events or with particular time periods found to have favorable response rates for certain types of advertising. In addition, the delivery window may be coordinated with the manning of phone banks to take orders, with advertising campaigns in other media, and so on. Worksharing has assisted mailers in controlling the window of home delivery, and this has greatly increased the value of mail to advertisers.¹⁹

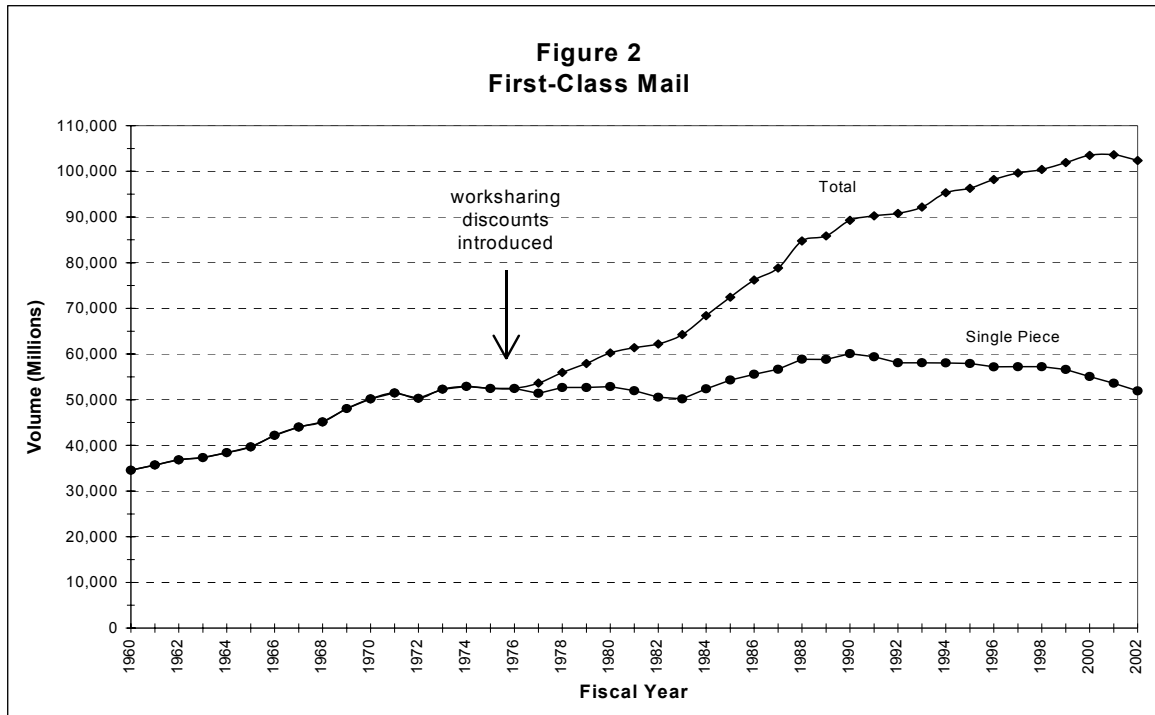
Finally, the requirements for address hygiene and list updating (which are a precondition for presort discounts) have increased the percentage of advertising mail that is actually delivered. This eliminates waste and has also increased the value of mail to advertisers.

First-Class

It would be expected that worksharing would have a smaller impact on First-Class volume than on advertising mail because First-Class is largely transaction oriented and the value of innovation in this kind of mail is inherently less.

¹⁹ The size of the U.S. makes controlling the delivery window difficult.

Notwithstanding, worksharing appears to have had an important influence on First-Class volume as seen in Figure 2. Worksharing was a causal factor in First-Class resuming its rate of growth, which had leveled in the early 1970's. About ten percent of First-Class mail consists of pure advertising, and it is doubtful that there would be much First-Class advertising without worksharing discounts. Dropshipping has not been introduced for bulk First-Class in spite of the considerable indirect evidence that this would assist volume growth.



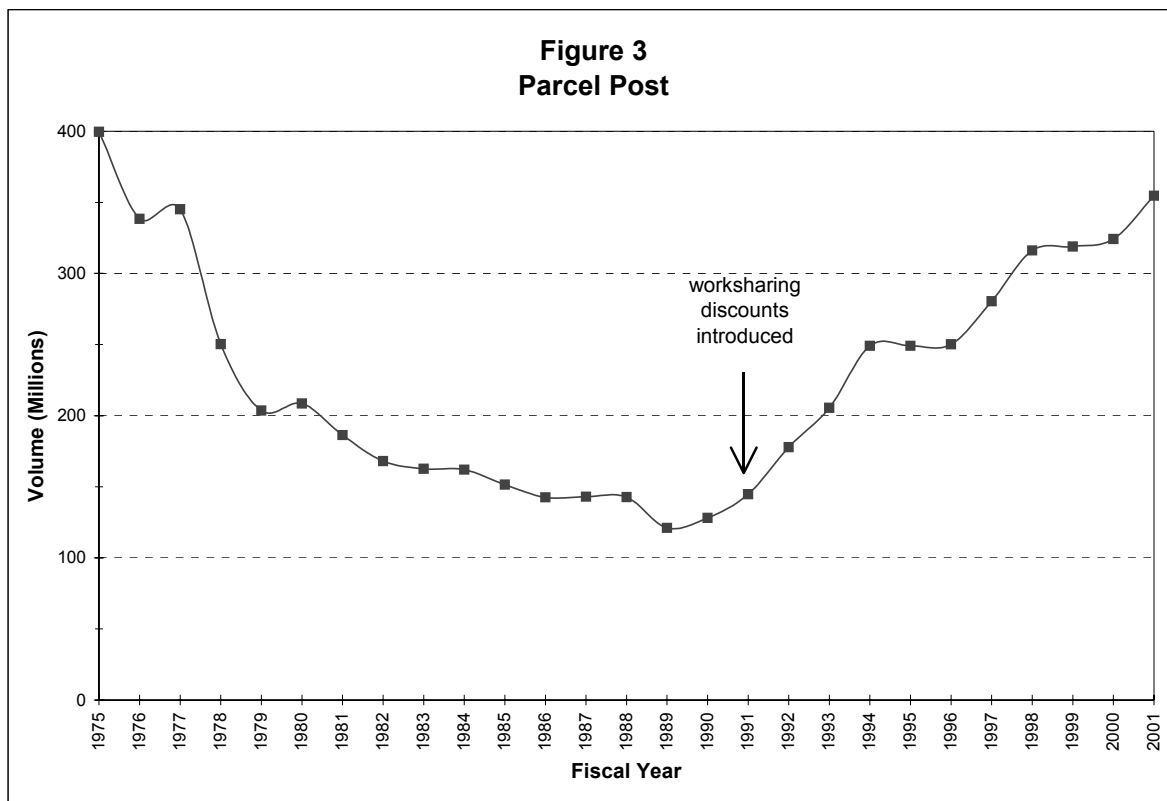
Single-piece First-Class has been in decline since 1988 but bulk (or workshared First-Class) growth has more than compensated. In the last few years it appears that single-piece has been much more severely impacted by the Internet than bulk First-Class. Today bulk First-Class constitutes about half of total First-Class volume.

Parcel Post

In spite of a growing market, the USPS ground parcel product, parcel post,²⁰ lost market share and absolute volume in its competition with United Parcel Service. Figure 3 shows that parcel post volume had been in steady decline for the whole period

²⁰ Parcel post is for general merchandise weighing over one pound and it uses non-preferential (surface) transportation. The Postal Service has separate products for books, records and bound advertising weighing over one pound and for parcels requiring preferential transportation and handling.

displayed until the introduction of the first worksharing discount in 1991. This was for dropshipping at the destination BMC. It was followed by discounts for dropshipping at



the origin BMC and destination SCF and DDU. Surprisingly, dropshipping at the DDU is becoming the most widely used discount.

By dropshipping parcels more deeply into the network and closer to their destination, the shipper saves postage, speeds delivery, and narrows the delivery window. Dropshipping of parcel post is done by third-party consolidators who began operation after the introduction of worksharing for parcel post. The Postal Service has basically gone into partnership with them. It supplies the last mile and the consolidators supply sorting and line haul. By using worksharing, the Postal Service has created a much more competitive product. This allows the Postal Service to better exploit its comparative advantage in residential parcel delivery, *i.e.* the large economies of scale and scope of its delivery force. Today even USPS competitors are making use of parcel post to lower their cost of residential delivery by dropshipping parcels at the DDU.

The Impact of Worksharing on Workload

Worksharing has greatly reduced the Postal Service's workload of handling its current mail volume. Without this reduction the Postal Service's employment level and costs would be much greater than they are currently.

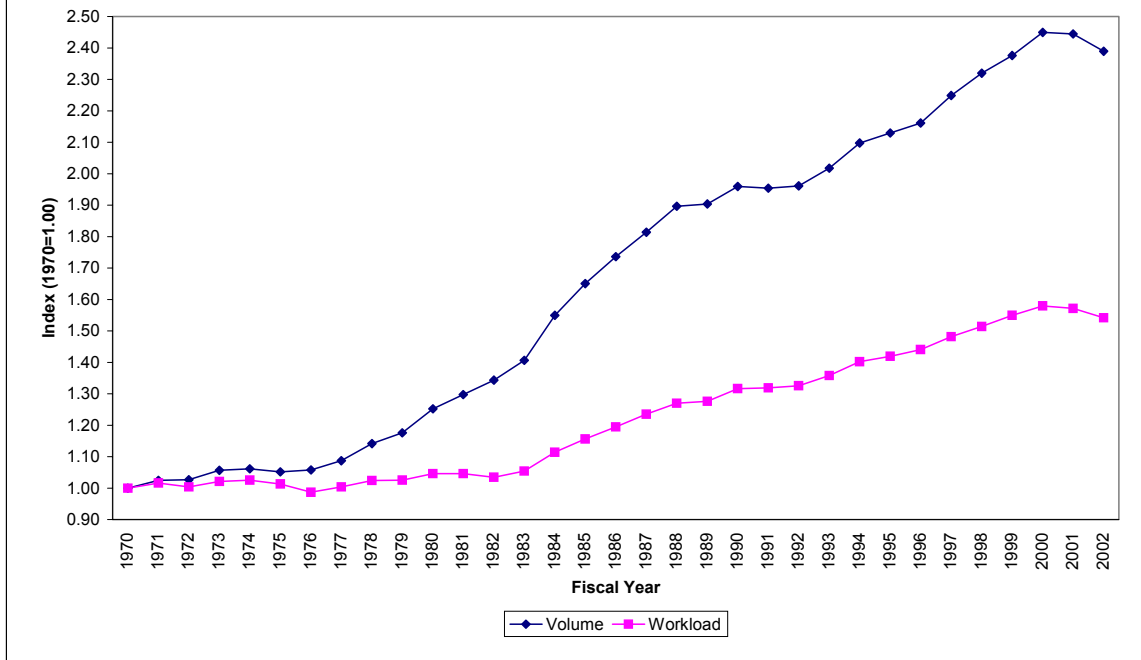
Workload is a measure of the Postal Service's task of accepting, processing, transporting, and delivering its mail volume and servicing its delivery network.²¹ Workload is not to be confused with productivity.²² For example, consider the task of carrying 100 widgets from point A to point B. If the task is changed because the widgets are subsequently placed at a point midway between A and B, then the workload and labor productivity will be reduced by half. For productivity to remain constant, one would expect to see a corresponding reduction in work hours. On the other hand, if only half of the work hours are now consumed to carry the 100 widgets between A and B because the workers have started using a cart (so they could carry twice as many at a time), then labor productivity will double, but the workload will remain unchanged. Workload is a measure that is used to calculate productivity. Labor productivity is the ratio of workload to work hours.

Figure 4 compares the growth in Postal Service volumes and workload from 1970 to 2002. Since 1976 when worksharing began, volume has grown 126 percent while workload has grown 56 percent. Had there been no worksharing program, workload would have grown more in line with volume.

²¹ Delivering the mail and servicing the delivery network are considered different subtasks. Servicing the delivery network refers to the fact that not every delivery point receives mail on a given day but a carrier passes by regardless.

²² Nor should workload be confused with mail volume. First, the Postal Service weights the different types of mail volume to account for variations in workload content due to factors such as size, physical weight, preparation, and mode of transportation. Then, it combines the growth of the resulting weighted mail volume with the growth in delivery points to calculate the growth in the workload.

**Figure 4
U.S. Postal Service
Volume and Workload Growth
1970-2002**



The Impact of Worksharing on Postal Cost and Prices

Table 3 displays the total USPS cost avoided by worksharing in 2001. It also displays the value of discounts receive by worksharing mailers. While the Rate Commission as a matter of policy strives to set the discounts equal to avoided cost, rate design consideration and changes in the estimates of avoided cost frequently make it impossible to perfectly achieve this goal.²³

²³ See the section below on efficient component pricing.

Table 3
2001 Worksharing Total Avoidable Cost
and the Total Value of Worksharing Discounts
(Millions)

<u>Class of Mail</u>	<u>All Volume</u>	<u>Workshared Volume</u>	<u>Percent of Volume Workshared</u>	<u>Total USPS Cost Avoided</u>	<u>Value of Discounts</u>
	(1)	(2)	(3)	(4)	(5)
First-Class Mail	105,727	50,458	48%	\$3,549	\$3,523
Periodicals	10,369	9,786	94	1,485	1,396
Advertising Mail	88,215	85,059	96	9,297	9,121
Package Services	1,130	822	73	151	108
Other	2,756	-	-	-	-
Total	208,197	146,126	70	\$14,482	\$14,149
User Cost^a					\$2,830
Mailer's Net Savings					\$11,319

^a User cost is assumed to be 20 percent of discount.

The table also displays user costs. The Commission has been informally told by large mailers that user cost to comply with mail processing discounts is not more than 20 percent of the discount and frequently less.²⁴ We have also been told that the cost of dropshipping is not greater than half the discounts.²⁵ Dropshipping discounts account for only about ten percent of total worksharing discounts, so it seems that a 20 percent user cost figure is reasonable. Moreover, this percentage figure is supported by an econometric analysis by witness George Tolley in Docket MC95-1.²⁶

Effect of Worksharing on Employment

If the Postal Service had to produce all the workload that has been eliminated by the efforts of mailers and third-party consolidators, then there would be no avoided cost as shown in Table 3. Total postal cost would have been \$82 billion instead of \$68 billion in 2001. This translates into a work force increase of 281 thousand. The employee compliment would have been 1,172 thousand instead of 891 thousand. It seems intuitively obvious that it is easier to manage a smaller work force than a larger

²⁴ The cost to comply by third-party consolidators is somewhat more but we have no information on this. Presort service bureaus frequently give up more than half the discount to customers and are still profitable.

²⁵ The cost to comply by third-party consolidators is greater but we do not know how much greater.

²⁶ See the testimony of U.S. Postal Service witness Tolley (USPS-T-16) in Docket No. MC 95-1.

one. Thus, it would seem that worksharing not only reduced the Service's labor force, but also resulted in a better-managed institution.

Impact of Worksharing on Prices

Table 4 displays the current price and discount for single-piece First-Class mail and the two largest workshared categories of First Class. Again, these discounts represent avoided costs. The methodology for the calculation of avoided cost has changed over the nearly thirty years of studying the issue. As the method gets more refined the discounts have tended to grow, not only for First-Class, but for the other classes as well. This is in spite of the fact that automation of the Postal Service has tended to reduce the cost of the avoided operations. The Commission's trial-like proceedings have been the venue for these refinements.

Table 4
Worksharing Effect on Selected
First-Class Letter Prices^a
(1976 Base)

	<u>Single Piece</u>	<u>3-Digit Automation</u>	<u>5-Digit Automation</u>
Current Price (Cents)	37.0	29.2	27.8
Current Discount	N/A	-21.1%	-24.9%
Real Price Change^b	-11.2%	-30.0%	-33.3%

^a Prices are for letters weighing less than one ounce (about 28 grams).

^b Real prices are calculated using July 1976 CPI-U data as the base. The first worksharing discount for First Class was established on July 6, 1976.

Table 5 shows similar figures for advertising mail using 1979 as the base year. It should be noted that the real prices of the basic letter (a non-worksharing category) and 3/5 digit automation flats have increased.

Table 5
Worksharing Effect on Selected
Advertising Mail Commercial Prices^a
(1979 Base)

	<u>Basic Letter</u>	<u>3-Digit Automation Letter</u>	<u>5-Digit Automation Letter (SCF Entry)</u>	<u>3/5-Digit Automation Flat (BMC Entry)</u>	<u>Carrier Route Letter (BMC Entry)</u>	<u>Saturation Letter (BMC Entry)</u>
Current Price (Cents)	26.8	20.3	16.4	24.0	17.3	13.1
Current Discount	N/A	-24.3%	-38.8%	-10.4%	-35.4%	-51.1%
Real Price Change^b	19.0%	-9.9%	-27.2%	6.6%	-23.2%	-41.8%

^a Prices are for commercial advertising mail pieces weighing no more than 3.3 ounces (about 90 grams).

^b Real prices are calculated using January 1979 CPI-U data as the base. The first worksharing discount for advertising mail was introduced on January 28, 1979.

Price and discount information for parcel post appears in Table 6. Nineteen-ninety is used as the base in this case reflecting the date of introduction of the first parcel post worksharing discount. Parcel post discounts are larger than the other classes indicating the greatest exporting of workload.

Table 6
Worksharing Effect on Selected
Parcel Post Prices^a
(1990 Base)

	<u>Inter-BMC Single Piece</u>	<u>Automation DBMC Entry</u>	<u>SCF Entry</u>	<u>DDU Entry</u>
Current Price	\$3.85	\$2.24	\$1.71	\$1.28
Current Discount	N/A	-41.8%	-55.6%	-66.8%
Real Price Change^b	67.7%	-2.4%	-25.5%	-44.2%

^a Prices are for a typical piece weighing two pounds (about one kilo) and going to zones 1 & 2, of an 8 zone system.

^b Real prices are calculated using 1990 data as the base. The first worksharing discount for Parcel Post was established in the second quarter of FY 1991.

Table 7 shows the effect of worksharing on Periodical prices. It shows very large discounts and it also shows real price decreases for 5-digit SCF entry and carrier route DDU entry. Periodicals consist almost entirely of flats. The growth of flat processing costs since the mid-1980's has been greatly in excess of inflation. While this increase has been the subject of much study, a satisfactory explanation has not been found. This phenomenon has also affected advertising mail, which contains about half flats. However, advertising mail flats are deeply workshared, and this has minimized the impact of flat processing cost growth. Moreover, about half of advertising mail consists

of letter-size pieces. Real letter mail processing costs have been dropping with the use of automation. Thus, advertising mail has not suffered as much as Periodicals from the unexplained growth of flat processing costs.

Table 7
Worksharing Effect on Selected
Periodicals Prices^a
(1978 Base)

	Basic Piece	3-Digit Piece (SCF Entry)	5-Digit Piece (SCF Entry)	Carrier Route Piece (DDU Entry)
Current Price (Cents)	57.0	44.4	34.5	24.4
Current Discount	N/A	-22.1%	-39.5%	-57.2%
Real Price Change^b	56.5%	26.9%	-1.4%	-28.0%

^a Prices are for flat pieces weighing 10 ounces (about 280 grams).

^b Real prices are calculated using second quarter FY 1978 data as the base. The first worksharing discount for periodicals was introduced in the third quarter of FY 1978.

In summary, it can be seen that overall the real price of worksharing mail has decreased considerably. Thus, while the Postal Service has been characterized by labor cost growth that has exceeded the cost of living and anemic total factor productivity growth, worksharing mailers have still seen decreasing rates.

Efficient Component Pricing (ECP)

The Rate Commission has used ECP as a basis for setting worksharing discounts. This means that discounts are set equal to the cost savings and each worksharing category in a subclass makes the same unit (per piece) overhead contribution.²⁷ ECP has the advantage of *Pareto* optimality because no rate has to increase when a new worksharing discount is established.²⁸ This makes new

²⁷ New discounts are frequently set at less than avoided cost because of uncertainty about the analysis of avoided costs. The Commission may also depart from ECP in order to avoid rate shock if a new cost analysis shrinks the cost avoidance.

²⁸ If the starting point is averaged rates and disparate costs, then at the start institutional contributions are unequal. Under these circumstances ECP will equalize the unit institutional contributions and some rates necessarily will increase. This was the situation for Periodicals when worksharing discounts were introduced. Prior to that presorting was required but each presort tier paid the same averaged rate. Thus, some paid more and others paid less unit institutional costs. When discounts were installed and ECP was used for pricing, rates were deaveraged. The problem did not emerge in First-Class, or in advertising mail when carrier route was introduced, because few if any pieces were being presorted in First-Class or presorted to the carrier route in advertising mail before the discounts were put into effect.

worksharing discounts acceptable to all mailers in a class, even those who will not make use of the discount. In a litigated rate setting system as in the U.S., this is a considerable virtue.

ECP also has the property that the Postal Service is indifferent as to who does the work (itself or the mailer). Either way the Postal Service collects the same unit contribution to institutional costs.²⁹ Finally and most important, ECP will result in productive efficiency, with the lowest cost provider (mailer or Postal Service) doing the work and this is beneficial to the economy.

²⁹ This has been of considerable importance in gaining the Postal Service's support for worksharing.

Appendix

Most worksharing activities involve presorting^a and dropshipping as follows:

BMC^b (non-preferential mail only)
ADC^c (preferential mail only)
SCF^d
DDU^e

Presort Levels Only

Carrier Route^f
Saturation^f

- (a) Presorting involves an 11-digit zip code. The first three digits designate an SCF, the next two designate a DDU, the next two designate a carrier route and the remainder designates a unique location on a block face.
- (b) BMC's are the 21 regional bulk mail centers. They handle non-preferential mail.
- (c) ADC's are the 60 area distribution centers that handle preferential mail. Each state has at least one.
- (d) SCF is the 900 sectional center facilities in the U.S. network. They handle preferential and non-preferential mail.
- (e) DDU's are the 24 thousand local delivery units from which carriers depart on their daily rounds.
- (f) Carrier route and saturation presort requires mail to be sorted to the walk sequence of the carrier. There are 230 thousand delivery routes in the U.S.

First-Class and periodicals are preferential mail from the standpoint of speed of service. Advertising and package services are non-preferential.

In addition to the above, worksharing also includes barcoding and containerization. The former requires mailers to meet address hygiene standards and to ensure that their mailing lists are current. These have indirect benefits for the Postal Service since they result in higher read rates for barcode sorters and less forwarding of mail pieces. About half the cost of flat mail processing in the U.S. Postal Service involves package or container handling as opposed to piece handling. Currently there are some discounts to encourage the use of pallets instead of sacks. Additional discounts to encourage palatization and efficient bundle size are under consideration.³⁰

In general, there are separate worksharing discounts for letters and flats. This multiplies the number of distinct discounts. There are now about 250 distinct worksharing rates. The number for selected subclasses is as follows:

³⁰ These may involve the trade off of presort discounts for forming bundles of a minimum size in order to minimize total cost.

	<u>Number</u>
First-Class Bulk	18
Periodicals Regular Rate	13
Advertising Mail Commercial	82
Advertising Mail Nonprofit	82
Parcel Post Bulk	14
Bound Printed Matter ^a	19
Media Mail (Books & Records)	4

^a Books and bound advertising over one pound.

Bulk mailers of any size are computerized. This makes the calculation of postage straightforward. Much of the required mailing data is provided to the Postal Service in a standard protocol via the Internet.