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DIRECT TESTIMONY

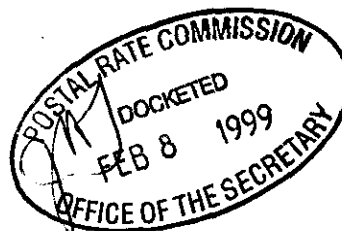
OF

JAMES F. CALLOW

ON BEHALF OF

THE OFFICE OF THE CONSUMER ADVOCATE

FEBRUARY 8, 1999



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DIRECT TESTIMONY OF

JAMES F. CALLOW

STATEMENT OF QUALIFICATIONS

My name is James F. Callow. I am a Postal Rate and Classification Specialist. I have been employed by the Postal Rate Commission since June 1993, and since February 1995 in the Office of the Consumer Advocate (OCA).

I have testified before the Commission in Docket Nos. R97-1, MC96-3, and MC95-1. In Docket No. R97-1, I proposed a restructuring of post office box fee groups to better reflect costs of providing box service in high and low cost offices. My testimony in Docket No. MC96-3 opposed the Postal Service's non-resident surcharge on post office boxholders, and proposed alternative box fees designed to equalize inter-group cost coverages and reduce the disparity in cost coverages by box size. My testimony in the MC95-1 proceeding summarized the comments of persons expressing views to the Commission and the Office of the Consumer Advocate on postal rates and services.

As a Special Assistant to former Commissioner H. Edward Quick, I participated in Docket Nos. R94-1, MC93-2 and MC93-1. In Docket No. R94-1, I was assigned responsibility for substantive subject areas considered by the Commission in its Opinion and Recommended Decision. Specifically, I analyzed quantitative testimony of the Postal Service with respect to the estimation of workers' compensation costs and evaluated rate design proposals of the Postal Service and other parties related to special postal services.

1           Prior to joining the Commission, I held positions on the legislative staff of a  
2   US Senator and a Member of Congress from Michigan, and served as an aide to the  
3   Governor of the State of Michigan in Washington.

4           I am an accountant by training. In 1985, I earned an MS degree in  
5   accounting from Georgetown University. My course work included cost accounting  
6   and auditing. In 1977, I obtained my BA degree from the University of Michigan-  
7   Dearborn with a double major in political science and history and a minor in  
8   economics.

1 I. PURPOSE AND SCOPE OF TESTIMONY

2 This testimony addresses the postage charges for Mailing Online, a new  
3 service offering. In the absence of experience-based cost or volume data, the  
4 Postal Service proposes Automation Basic discount rates (within class and shape)  
5 for all Mailing Online mailpieces. The Commission, in its opinion on the market test,  
6 suggests customer rebates of otherwise applicable postage rates where daily  
7 "batching" of the mailpieces results in greater depths of sort. The Commission's  
8 suggestion is in response to the anti-competitive effects of waiving the minimum  
9 volume requirements for Automation Basic rates requested by the Postal Service.

10 I support establishment of a rebate system for Mailing Online to eliminate any  
11 anti-competitive effects and promote fairness and equity. However, if the  
12 Commission accepts the Postal Service's view that implementation of a rebate  
13 system is problematic, I propose an alternative to the Postal Service's Automation  
14 Basic rates. I propose that customers pay either (1) rates for which their mailpieces  
15 would qualify if entered as hardcopy directly with the Postal Service or (2) rates  
16 reflecting the greater depths of sort resulting from Postal Service batching and  
17 presorting during the experiment, whichever is lower. Rates based upon the Postal  
18 Service's experience would be phased in gradually, with rates entirely experience-  
19 based at the end of the experiment.

20 The calculation of postage charges can utilize a computer-implemented  
21 pricing formula similar to the Postal Service's pricing formula for Mailing Online pre-  
22 mailing service fees. My proposed pricing formula relies on volume data from the

1 experiment showing the extent of batching and presortation achieved by the Postal  
2 Service. The data would be collected in tabular form by job type, and regularly  
3 updated by the Mailing Online system, to derive experience-based rates. Tables  
4 containing the experience-based rates would be periodically referenced by  
5 computer, and incorporated into the proposed pricing formula. The computer-  
6 implemented pricing formula would calculate a firm fixed postage charge for each  
7 mailing at the time the Mailing Online transaction is confirmed.

1 II. ESTABLISHMENT OF A REBATE SYSTEM PERMITS ASSESSMENT OF A  
2 SPECIFIC POSTAGE CHARGE FOR EACH MAILING ONLINE MAILING

3 In its "Opinion and Recommended Decision on Market Test" for Mailing

4 Online, the Commission asks

5 whether it would be feasible . . . to charge currently applicable  
6 mailstream rates to Mailing Online mailings that are initially under the  
7 current threshold volume requirements for automation discounts, and  
8 then make an appropriate rebate to their account after batches are  
9 ultimately formed.

10

11 PRC Op. MC98-1 at 27.

12 The Commission suggests the rebate system in response to what it views as  
13 a "potentially serious flaw in [the Mailing Online] rate design."<sup>1</sup> Under the Postal  
14 Service's proposal, an assumed single average discount rate, Automation Basic  
15 (within class and shape), would apply to all mailings prepared using Mailing Online.<sup>2</sup>  
16 However, not all mailings are expected to meet the minimum volume requirements  
17 for Automation Basic rates. At least with respect to "small-volume" mailings, the  
18 exemption of Mailing Online mailings from the minimum volume requirements  
19 permits the Postal Service to compete on preferential terms.<sup>3</sup>

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<sup>1</sup> PRC Op. MC98-1 at 35.

<sup>2</sup> As a new service offering, there is no data over an extended time period with which to confidently estimate Mailing Online volumes. Consequently, the Postal Service assumes that "[Automation Basic rates] are expected to be more representative than any other existing rate of the type of mailpiece that will be produced through Mailing Online." Tr. 5/1137 (Plunkett, OCA/USPS-T5-41(b)).

<sup>3</sup> PRC Op. MC98-1 at 35. "By exempting Mailing Online mailings from the threshold volume eligibility requirements that apply to its competitors, the Postal Service will be able to compete for at least the small-volume portion of the market on preferential terms."

1           The Commission declined to recommend an alternative to this “unilateral  
2   preference” during the market test.<sup>4</sup> However, the Commission requested  
3   comments on the competitive effects of exempting Mailing Online mailings from the  
4   minimum volume requirements in Notice of Inquiry No. 1.<sup>5</sup> Moreover, the  
5   Commission’s Notice specifically requested comments on the feasibility of the  
6   rebate system raised in its opinion.<sup>6</sup>

7           The establishment of a system to provide rebates for each Mailing Online  
8   customer approaches the economic ideal in terms of product pricing. In theory,  
9   economic efficiency of the first order can best be obtained if all postal customers pay  
10   unique rates based on the marginal costs of their respective mailpieces.<sup>7</sup> In  
11   practice, this is generally difficult. Customer-specific costs are unknown, or the  
12   costs of administering a customer-specific rate schedule could prove prohibitive.

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<sup>4</sup> Id. “The Commission declines to require a specific alternative to this unilateral preference during the market test . . .”

<sup>5</sup> Notice of Inquiry No. 1 Concerning Proposed Mailing Online Experiment, (herein “NOI”), October 16, 1998, at 2. In Issue No. 1, the Commission requested that participants supplement “the record concerning the justification for, and the competitive effects of, the requested waiver . . .”

<sup>6</sup> Id. at 3. “Participants are requested to comment on the feasibility and desirability of such [a rebate] alternative, and to suggest any other alternatives to the use of this waiver that they consider feasible and desirable.”

<sup>7</sup> PRC Op. R94-1, Appendix F, at 2. “For firms in competitive markets, marginal cost prices are considered to be economically efficient prices. It is widely accepted in the field of economics that marginal cost prices lead to the most efficient allocation of the society’s resources (*i.e.*, economic efficiency).”



1           Postal ratemaking has generally dealt with such complications through  
2   varying degrees of rate averaging.<sup>8</sup> However, in the case of Mailing Online, the  
3   Postal Service proposes an assumed single average discount rate (within class and  
4   shape) in place of five different rates.<sup>9</sup> An alternative that approaches the ideal is  
5   the Commission's suggested rebate of the otherwise applicable postage charges.

6           For Mailing Online, a rebate system removes any competitive advantage on  
7   the part of the Postal Service vis-à-vis competitors for small-volume mailings. In  
8   general, under a rebate system, each customer pays a postage rate for which their  
9   mailpieces qualify when submitted, and then receives a rebate where daily batching  
10   of mailpieces produces lower presort discount rates. Consequently, there is no  
11   need to waive the minimum volume requirements otherwise applicable to Mailing  
12   Online mailings for any presort rates. In terms of pricing, at least, a rebate system  
13   places the Postal Service and competitors (or possible new entrants) on an equal  
14   footing in the market for small-volume mailings.

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<sup>8</sup> PRC Op. MC95-1, para 3063. "Averaging is an integral part of postal ratemaking. It is neither possible nor wise to try to establish separate rates for every piece of mail."

<sup>9</sup> In the absence of the proposed waiver of the minimum volume requirements for automation basic rates, there are five rates for which Mailing Online mailpieces could qualify. The five rates (and their abbreviations) are: 1) 5-Digit Automation (5B) for First-Class Mail letters/cards and Standard Mail letters; 2) 3-Digit Automation (3B) for First-Class Mail letters/cards and Standard Mail letters; 3) 3/5-Digit Automation (3/5B) for First-Class Mail flats and Standard Mail flats; 4) Basic Automation Presort (BB) for First-Class Mail letters/cards and flats, and Standard Mail letters and flats, and; 5) Single Piece (SP) for First-Class Mail letters/cards and flats, and Standard Mail letters and flats. Tr. 2/251 (Garvey, POIR No. 1, Question 1). The abbreviations are found on USPS Qualification Reports. See Section P012.2.3 and Section P710.3.3., DMM 52, July 1, 1997.

1           A rebate system also promotes fairness and equity. Because customers pay  
2 postage charges for which their mailpieces qualify, all customers are treated the  
3 same with respect to the minimum volume requirements for presort discounts,  
4 whether they use Mailing Online, a competitor's "hybrid" mail service, or by  
5 comparison to hardcopy mail entered directly with the Postal Service.

6           The Postal Service views establishment of a rebate system as unacceptable  
7 on grounds of feasibility and contrary to the goals of convenience and simplicity for  
8 Mailing Online customers.<sup>10</sup> According to the Postal Service, a rebate system would  
9 present "formidable challenges."<sup>11</sup> A rebate system would require customers with  
10 mailings below the current volume minimums to pay single-piece rates for First-  
11 Class Mail and be denied access to Standard Mail rates,<sup>12</sup> since the actual presort  
12 level is unknown until daily batching and presortation are performed.<sup>13</sup>  
13 Subsequently, "[e]ach customer's qualifying mailpieces must then be individually

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<sup>10</sup> Tr. 6/1427 (Garvey, NOI No. 1, Issue 2). "The Postal Service views [a rebate] approach as unacceptable both because of the immense technical complexity implicit in such a design and because it is contrary to the goal of simplicity (finalizing a transaction during a single Web-site visit.)." See also Tr. 5/1123 (Plunkett, NOI No. 1, Issue 1). "[A rebate] alternative thus is not consistent with the goals of convenience and simplicity."

<sup>11</sup> Tr. 6/1413 (Garvey, OCA/USPS-T5-43(b)-(c)). "Customer accounting, data gathering and data storage all present formidable challenges."

<sup>12</sup> Tr. 5/1123 (Plunkett, NOI No. 1, Issue 1). "Under such a system, customers whose mailings are under the threshold volume would be charged single-piece rates for First-Class Mail, and denied access to Standard Mail rates at the time the transaction is confirmed."

<sup>13</sup> Tr. 6/1520 (Garvey). "The batching and presorting of the customers' jobs occurs at the end of the day, basically, and that can be many hours after the customer has logged on and submitted their job."

1 evaluated for rebating/crediting purposes, and those credits must be gathered and a  
2 transaction performed to adjust every affected customer's account."<sup>14</sup> While such  
3 tasks might not be that difficult with a single print site and limited volumes, the  
4 Postal Service maintains that complexity grows as the number of print sites  
5 increases.<sup>15</sup>

6 The Postal Service also considers a rebate system "incompatible" with its  
7 strategy of "simplicity and ease of use."<sup>16</sup> Mailing Online is designed to permit  
8 customers to complete transactions quickly and efficiently, in a single session.<sup>17</sup>  
9 Each aspect of the Mailing Online transaction—"electronic document and list  
10 submission with real-time verification, online document proofing, menu-driven  
11 finishing options and firm final cost quotes and real-time payment processing are  
12 part of a strategy to create a simple, straightforward service . . . ."<sup>18</sup> Essential to the

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<sup>14</sup> Tr. 6/1412-13 (Garvey, OCA/USPS-T5-43((b)-(c))).

<sup>15</sup> Tr. 6/1427-28 (Garvey, NOI No. 1, Issue 2). "While the determination of appropriate discounts with batching via just one print location and limited volumes may not be that difficult, as volume increases during the experiment and the number of print locations expands, the difficulties of tracking and matching each piece's origin to its ultimate qualifying rate would multiply the complexity many times over."

<sup>16</sup> Tr. 6/1428 (Garvey, NOI No. 1, Issue 2). "[T]he inherent complexity of such a transactional model is incompatible with the PostOffice Online's overall strategy of simplicity and ease of use."

<sup>17</sup> Id. (Garvey, NOI No. 1, Issue 2). "The Mailing Online interface is designed to be highly structured and automated so that the user's experience is completed quickly, efficiently and in a single session."

<sup>18</sup> Id. (Garvey, NOI No. 1, Issue 2).

1 strategy of convenience and simplicity is a firm fixed postage charge, which, the  
2 Postal Service maintains, is precluded by a rebate system.<sup>19</sup>

3 The benefits of establishing a rebate system—eliminating anti-competitive  
4 effects and promoting fairness and equity—are significant.<sup>20</sup> Nevertheless, the  
5 Commission may find the Postal Service's views compelling. As a result, I propose  
6 an alternative in the form of a computer-implemented postage pricing formula that  
7 achieves most of the benefits of a rebate system and addresses many of the Postal  
8 Service's concerns. The alternative I propose is not offered in opposition to the  
9 establishment of a rebate system. A rebate system is the best (most efficient)  
10 approach. My proposal is second best.

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<sup>19</sup> Tr. 5/1122 (Plunkett, NOI No. 1, Issue 1). "The Postal Service has determined to charge a firm fixed price at the time the transaction is confirmed . . . [in order] to provide customers a convenient and simple means of inducting mail into the postal system." See also Tr. 6/1520-21 (Garvey). "The batching and presorting of the customers' jobs occurs at the end of the day . . . . So what depth of sort we might achieve and what possible Postal rate we could offer customers based upon that commingling and combining is not known until possibly long after they have logged off and gone away."

<sup>20</sup> Additional evidence appears necessary to support a waiver of the minimum volume requirements for automation basic rates, or alternatives thereto, including a rebate system. See Presiding Officer's Ruling Granting OCA Motion To Compel, December 30, 1998. In its ruling, the Commission stated that it had specifically requested "more evidence on the issue of whether the objectives of the waivers proposed by the Postal Service could be achieved in other ways, such as a rebate system for Mailing Online mail that meets existing requirements for bulk discounts. ("Issue No. 2" in the Notice of Inquiry). The Postal Service's responses to Issues No. 1 and No. 2 in the Notice have substantially improved the record, but they are frequently overly general and conclusory. Responses to the OCA's interrogatories would help fill the critical need for more specific information on the need for, the impact of, and alternatives to, the unilateral waivers of discount eligibility requirements that the Postal Service seeks." *Id.* at 2.

1     III.     PRICING FORMULAS CAN REDUCE THE RISK OF NET REVENUE LOSS  
2             ASSOCIATED WITH NEW POSTAL SERVICES

3             Setting prices for new postal services is complicated by the lack of cost or  
4     demand information. Even established services have some uncertainty associated  
5     with their costs and volumes. This uncertainty arises both from the use of statistical  
6     sampling for cost and volume estimation and from the need to forecast costs and  
7     volumes for future time periods. However, at least with respect to established  
8     services, there is a body of data reflecting actual usage. With new services, there is  
9     no cost or volume experience to rely upon when setting prices.

10            Postal rates and fees for any service are supposed to cover costs.  
11     Uncertainty with respect to costs can be compensated for by establishing a higher  
12     margin between unit costs and the rates and fees than might otherwise be  
13     necessary in the absence of such uncertainty. In the case of postal subclasses,  
14     compensation for uncertainty often takes the form of a higher mark-up or cost  
15     coverage.<sup>21</sup> For worksharing rate categories, especially new ones, compensation  
16     often takes the form of discounts that reflect "passthroughs" at less than the  
17     estimated unit costs avoided.<sup>22</sup>

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<sup>21</sup> See PRC Op. MC97-5 at 51. "While the Service has persuaded us that its estimates of the costs of packaging service are generally reasonable, a coverage of 117 percent provides little protection against the contingency that costs may prove to be higher, or increase, during the provisional service period."

<sup>22</sup> See PRC Op. R90-1, para. 5946. "The guiding principles of the Commission's longstanding approach to presort passthrough have been . . . gradually increasing levels of passthrough, as improved cost estimates became available." *Accord* PRC Op. R94-1, para. 5317. "The Commission has set

1 For the proposed Mailing Online service, the Postal Service has devised an  
2 ingenious mechanism for dealing with the uncertainty associated with unit cost  
3 estimates for the pre-mailing services of a Mailing Online job. The pre-mailing  
4 services (e.g., printing and finishing options, such as folding, stapling, tape binding  
5 and the application of tabs to self-mailers, and inserting, as well as the provision of  
6 paper and envelopes) are performed under fixed-price contracts with commercial  
7 printers.<sup>23</sup> The unit costs of the pre-mailing services are thus known with certainty.<sup>24</sup>  
8 However, different jobs submitted by customers will consume these services in  
9 varying and, at present, unpredictable proportions.<sup>25</sup> Some jobs will require printing  
10 on both sides of the paper; others on only one side. Some jobs will be one page;  
11 others several pages. Some jobs will use 8.5x11 paper; others 8.5x14 or 11x17.  
12 Some jobs will be black and white; others will use spot color.

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discounts to reflect less than 100 percent passthrough of cost avoidance because of uncertainty about cost estimates."

<sup>23</sup> The first such fixed-price contract was entered into on August 19, 1998. See USPS-LR-11/MC98-1. An expected total of 25 contracts is to be awarded by the Postal Service by the end of 2001. Tr. 2/162 (Garvey, OCA/USPS-T1-4(a)). "Confirmed" that the Postal Service intends to issue 25 separate solicitations for bids for the 25 commercial print sites expected to be in operation during 2001.

<sup>24</sup> USPS-LR-11/MC98-1, "Part 1 - Schedule, 1.1 Items and Prices," as amended. See also Tr. 5/1176-77 (Plunkett). "[Mailing Online] is a somewhat unique product relative to other Postal products in that the vast majority of the costs are, for all intents and purposes, known and certain insofar as they are enumerated in contracts between the Postal Service and third party vendors."

<sup>25</sup> Tr. 5/1103 (Plunkett, OCA/USPS-T5-35(f)-(i)). "While the [Rothschild] survey permits reasonable inferences regarding general parameters, it does not allow informed construction of precise estimates of volumes within subclass/job-type/page-count categories as contemplated in this interrogatory." See also Tr. 2/617 (Plunkett, OCA/USPS-T5-28(b)). "[T]he market research presented in USPS-

1           Given the large number of paper, printing and finishing options available with  
2 Mailing Online, predicting the options chosen for an "average" job is a formidable  
3 task.<sup>26</sup> An "average" job is likely to have substantial variation. It is also extremely  
4 difficult to predict the frequency of each possible job type, and then determine a  
5 weighted average cost per job type. Moreover, charging the same weighted  
6 average cost plus mark-up for all Mailing Online jobs would have the highly  
7 undesirable effect of encouraging customers to submit high-cost jobs while deterring  
8 low-cost jobs.<sup>27</sup>

9           The Postal Service proposes that the pre-mailing service costs, and  
10 consequently fees for pre-mailing services, for each Mailing Online job be calculated  
11 separately, based upon the specific customer-chosen options for each job.<sup>28</sup> Thus,  
12 the pre-mailing fee for each job is the specially calculated cost plus 0.1 cents<sup>29</sup> per

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LR-1/MC98-1 provides no guidance regarding which finishing options customers might prefer."

<sup>26</sup> The Postal Service calculates that there are approximately 3,000 different possible job options for customers to choose from. See Tr. 6/1354 (Garvey, OCA/USPS-T1-45(f)). There are "a total of 62 job-type batches. The page-count can be equal to or less than 48. Therefore the possible page-count/job-type batches equals  $62 \times 48 [\cong] 3000$ ."

<sup>27</sup> Tr. 5/1134 (Plunkett, OCA/USPS-T5-39). "Confirmed" that charging a national average price (i.e., weighted average cost plus mark-up) for all Mailing Online jobs would have the effect of encouraging customers to submit high-cost jobs and deterring low-cost jobs.

<sup>28</sup> Tr. 5/1135 (OCA/USPS-T5-40(a)). "Confirmed" that the cost of pre-mailing services for each Mailing Online job will be calculated separately, based on the specific paper, printing and finishing options and distribution preferences chosen by the customer for the job.

<sup>29</sup> Based upon more recent estimates, the per impression information system cost is 0.21 cents. Tr. 8/1787 (Plunkett, PB/USPS-T5-6). "[U]sing the new

1 impression (for telecommunications and information systems costs) times a cost  
2 coverage of 125 percent.<sup>30</sup> Consequently, the fee schedule for Mailing Online is not  
3 a single price (or even a single price per page) for every job. Nor is the schedule  
4 3,000 to 75,000 separate fees—i.e., the estimated 3,000 separate prices for each  
5 possible job type multiplied by up to 25 commercial printers with different contract  
6 costs. Rather, the fee schedule is, in effect, a formula or set of instructions within  
7 computers for calculating pre-mailing fees based upon the characteristics of each  
8 job.<sup>31</sup>

9 While the proposed Mailing Online fee schedule exists as a single paragraph  
10 in the DMCS,<sup>32</sup> in actuality it represents nearly 75,000 different fees for pre-mailing

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information provided by witnesses Lim and Seckar, a per impression cost of 0.21 cents could be used.”

<sup>30</sup> Request of the United States Postal Service for a Recommended Decision on a Market Test Classification and Fee Schedule, and a Recommended Decision on an Experimental Classification and Fee Schedule Mailing Online Service (herein “Request”), Revised August 5, 1998, Attachment B2 at 1, “Fee Schedule 981, Mailing Online.”

Fees are calculated by multiplying the Mailing Online cost coverage of 125 percent times the sum of printer contractual costs for the particular mailing and 0.1 cents per impression for other Postal Service costs.

<sup>31</sup> Tr. 5/1135 (Plunkett, OCA/USPS-T5-40(b)). “Confirmed” that the “fee schedule” for Mailing Online constitutes a formula or set of instructions to calculate the pre-mailing fees based on the characteristics of the job. See *also* Decision of the Governors of the United States Postal Service on the Recommended Decision of the Postal Rate Commission on the Market Test of Mailing Online Service, Docket No. MC98-1 (herein “Governors Decision”), October 16, 1998 at 4. “The Commission recommended a novel, ‘floating’ fee schedule, which, in place of particular fees, displays the formula (discussed above) by which the fees are calculated based on the prices set forth in the contract between the Postal Service and the printer, rather than fixed fees for the particular contract currently in place.”

<sup>32</sup> See Request Attachment B2 at 1, “Fee Schedule 981, Mailing Online,” *supra* note 30.



1 services when all 25 print sites are operational.<sup>33</sup> If the Postal Service adds a single  
2 new option—i.e., creates two choices where none exists—the number of fees  
3 doubles to 150,000 (2 x 75,000). Adding a single new print site introduces nearly  
4 3,000 new fees. By proposing a pricing formula rather than completely enumerating  
5 all possible fees, the Postal Service manages to make a highly complex fee  
6 schedule appear simple.

7 The appearance of fee-schedule simplicity can be maintained for Mailing  
8 Online because fee calculation is performed by computers.<sup>34</sup> No Mailing Online  
9 customer or Postal Service employee need calculate the fee for a particular job.<sup>35</sup>  
10 No customer ever sees the fee calculations. The customer simply submits a  
11 proposed job to the Postal Service's computers, and the computers reply with fees  
12 for pre-mailing services and a postage charge.<sup>36</sup>

13 The effect of formula-based pricing is to carry cost-based pricing to a new  
14 level. Each Mailing Online mailpiece is charged a price for pre-mailing services

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<sup>33</sup> Tr. 5/1141 (Plunkett, OCA/USPS-T1-64(d)). "Confirmed as an approximation, though I would caution that prior to activation of all 25 sites the available features of Mailing Online may change in such a way as to change the number of possible combinations."

<sup>34</sup> Tr. 6/1409 (Garvey, OCA/USPS-T5-40(c)). "Confirmed that the fees quoted are calculated by computer at the San Mateo data center."

<sup>35</sup> Tr. 7/1713-14 (Garvey). "[Customers] are able to pick off of pick lists on that web page the selections that they want and while they are doing so, they see a [price] response on the screen to the selections that they have chosen . . . . It is a totally automated and instantaneous process."

<sup>36</sup> Tr. 6/1409 (Garvey, OCA/USPS-T5-40(c)). "Customers receive a two-part quote, premailing fees and postage costs, which are then totaled for payment processing."

1 based upon the unit production cost of that piece. Each individual Mailing Online  
2 job covers its own costs and makes a 25 percent contribution to institutional costs.<sup>37</sup>  
3 Consequently, problems associated with traditional rate averaging are reduced  
4 tremendously. There is a reduced likelihood of internal cross-subsidization.<sup>38</sup>  
5 Moreover, incentives for uneconomic "cherry picking" among competing providers of  
6 service are eliminated.<sup>39</sup> No competing provider is able to consistently offer a lower  
7 price unless the competitor has lower costs or is willing to accept less than a 25  
8 percent profit margin.<sup>40</sup>

9         Given the obvious economic efficiency and apparent simplicity of a computer-  
10 implemented pricing formula for pre-mailing service fees, why not apply the same  
11 approach to calculating presort discount rates for Mailing Online? The Postal  
12 Service proposes Automation Basic rates for all First-Class Mail, and Automation

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<sup>37</sup> USPS-T-5 at 18. "The [25 percent] markup would be applied to the actual pre-mailing costs of each customer's transaction . . . . This markup guarantees that Mailing Online will cover its attributable costs and provide a contribution to cover institutional costs."

<sup>38</sup> Tr. 5/1130-31 (Plunkett, NOI No. 1, Issue 6). "[N]early all of the costs of Mailing Online are incurred on a unit basis [citation omitted], thus reducing the likelihood of cross subsidization."

<sup>39</sup> USPS-T-5 at 3. "In the absence of a markup over geographically variable costs, the Postal Service will be forced to use an average national price. In areas where prevailing prices are low relative to the Postal Service fee, price sensitive customers might use other providers . . . ."

<sup>40</sup> Tr. 5/1128 (Plunkett, NOI No. 1, Issue 1). "It is conceivable that a potential competitor . . . may be able to purchase printing capacity from printers who can more easily use existing equipment and space. This may thereby enable such a competitor to achieve lower costs than Mailing Online. Alternatively, . . . [a digital printer] business might enjoy a cost advantage because it would presumably charge a rate comparable to what contractors could charge the Postal Service while the Postal Service's fees would be 25 percent higher."

1 Basic Destination BMC rates for all Standard A mail<sup>41</sup>—regardless of whether the  
2 Mailing Online mailing qualifies for lesser or greater discounts.<sup>42</sup> In the alternative to  
3 the proposed discount rates for all mailings, the Postal Service apparently fears that  
4 it would be unable to offer Mailing Online customers the convenience and simplicity  
5 of a definite postage charge at the time the transaction is confirmed.<sup>43</sup>  
6 Consequently, the Postal Service believes its has only two options: (1) a highly  
7 averaged single discount rate (within class and shape) for all mail,<sup>44</sup> or (2) a

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<sup>41</sup> For purposes of the experiment, the Postal Service has effectively abandoned its request for Automation Basic DBMC rates for Standard A mail.

CHAIRMAN GLEIMAN: Okay. So one could reasonably assume that if the Commission did not recommend that discount, that postal management when it presented the recommended decision of the Commission on the experimental case to the Governors would not make a cause celebre out of this fact that the Commission chose not to recommend this [DBMC] discount.

THE WITNESS [Plunkett]: I think that's a fair conclusion.

Tr. 5/1164. The Postal Service's action follows the Commission's decision not to exempt Mailing Online from the DBMC discount requirements during the market test. See PRC Op. MC98-1 at 29.

<sup>42</sup> USPS-T-5 at 11-12. "[I]n some cases a printer's daily volume, especially early in the experiment, may not exceed the 500-piece minimum volume established for the automation rates . . . . If Mailing Online volume exceeds expectation, or is in any way concentrated in a particular area, it is conceivable that printers will be presented with volumes large enough to qualify for larger discounts than those offered via Mailing Online. In the event that this happens, the predetermined rates, i.e., automation basic for First-Class and automation DBMC for Standard Mail would still apply."

<sup>43</sup> Tr. 5/1122 (Plunkett, NOI No. 1, Issue 1). "The Postal Service has determined to charge a firm fixed price at the time the transaction is confirmed . . . [in order] to provide customers a convenient and simple means of inducting mail into the postal system."

<sup>44</sup> Tr. 6/1429 (Garvey, NOI No. 1, Issue 3). "[T]he Postal Service [is] . . . thus committing to a single average rate category (within class and shape) for all volume received and mailed. The use of an average rate is also critical to completion of a transaction in a single Web-site visit . . . ."

1 contingent rate that might change after daily batching determines the depth of sort.<sup>45</sup>  
2 The Postal Service imagines a cascade of problems resulting from option two and  
3 thus proposes option one.<sup>46</sup>  
4 A postage pricing formula offers a third option for calculating Mailing Online  
5 postage charges, should the Commission accept the Postal Service's views with  
6 respect to a contingent discount rate. Formula-based pricing virtually eliminates  
7 crude discount averaging. Formula-based pricing preserves convenience and  
8 simplicity for Mailing Online customers in the form of a certain price up front.  
9 Through the high-speed data-processing capabilities of computers, the Postal  
10 Service could implement a postage pricing formula that incorporates Postal Service  
11 batching and presorting during the experiment to calculate postage charges instead  
12 of assuming one presort discount rate for all Mailing Online mailings.

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<sup>45</sup> Tr. 5/1140-41 (Plunkett, OCA/USPS-T1-64(c)). "All the parameters necessary for the operation of the algorithm used to calculate [pre-mailing] fees can be known at the time that a customer presents a document for acceptance. The same is not true of postage rates if rates are based on the depth of sort that a customer's mailing attains as a result of document batching." See *also* Tr. 6/1521 (Garvey). "Technically speaking, it would be possible to charge many different rates . . . to the customer online. The problem with that is we don't know what . . . ultimate rate they should be charged until . . . perhaps long after they are gone."

<sup>46</sup> Tr. 6/1410 (Garvey, OCA/USPS-T5-41(d)). "Confirmed. These sentences [from the Commission's Opinion and Recommended Decision on Market Test, PRC Op. MC98-1 at 13-14] reflect issues that guided the Postal Service's decisions regarding the structure of Mailing Online service."

1 IV. IT IS BOTH DESIRABLE AND FEASIBLE TO CALCULATE A UNIQUE  
2 POSTAGE CHARGE FOR EACH MAILING ONLINE MAILING

3 In the case of Mailing Online, it is not only desirable but feasible to assess  
4 postage charges specific to each customer's mailing. The Postal Service's method  
5 of determining pre-mailing service fees for Mailing Online suggests how a unique  
6 postage charge for each customer's mailing could be calculated.

7 The use of high-speed computer data processing allows the Postal Service to  
8 propose and the Commission to recommend a "novel, 'floating' fee schedule" for  
9 pre-mailing services during the Market Test.<sup>47</sup> Computers allow the Postal Service  
10 to manage approximately 75,000 prices of 25 commercial printers for nearly 3,000  
11 different printing options, and to accommodate changes in contract prices and  
12 printing options without further regulatory proceedings.<sup>48</sup> Similarly, such computer  
13 capabilities make it feasible to calculate a unique postage charge for each Mailing  
14 Online mailing.

15 A. Setting Postage Charges For Mailing Online On The Basis Of Actual  
16 Experience Eliminates Both Guesswork And Any Anti-Competitive  
17 Effect Of Waiving Minimum Volume Requirements For Automation  
18 Basic Rates

19 The Postal Service's experience batching and presorting Mailing Online  
20 mailpieces should be the basis for setting postal charges during the experiment.

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<sup>47</sup> Governors Decision, at 4, *supra* note 31.

<sup>48</sup> *Id.* "As the Commission noted, this [floating fee schedule] allows for the flexibility needed to accommodate the potential use of multiple printing contractors and to accommodate changes in individual contracts without further proceedings."

1 Using volume data from the Mailing Online experiment, I propose a computer-  
2 implemented pricing formula similar to that which exists for pre-mailing fees.

3 My pricing formula calculates Mailing Online postage charges based upon the  
4 batching and presortation experience of the Postal Service. At the outset of the  
5 Mailing Online experiment, the Postal Service's assumed single average discount  
6 rate (e.g., Automation Basic for First-Class, or Automation Basic for Standard A)  
7 would apply to all mailpieces. Thereafter, the Postal Service's experience batching  
8 and presorting mailpieces would gradually be reflected in the postage charge.  
9 Volume data on the level of presortation for each job type would be collected in  
10 tables. The accumulated presort-level volume data by job type implies a weighted  
11 average rate for that job type. This experience-based weighted average rate would  
12 periodically be incorporated into the pricing formula, along with the Postal Service's  
13 assumed single average discount rate. Subsequent mailings of a given job type  
14 result in customers paying postage charges reflecting, in part, the Postal Service's  
15 batching and presorting experience.<sup>49</sup> If, as the Postal Service assumes, the  
16 proposed Automation Basic rates "are appropriate given the characteristics of the  
17 mail pieces produced by Mailing Online,"<sup>50</sup> then the discount rates calculated under  
18 my pricing formula would be the same as those proposed by the Postal Service. If  
19 the Postal Service can batch mailpieces and presort those batches more deeply

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<sup>49</sup> Alternatively, customers pay postage charges for which their mailings (of a given job type) qualify if entered as hardcopy directly with the Postal Service, if that charge is lower than the pricing formula calculation.

<sup>50</sup> USPS-T-5 at 11.

1 than necessary to qualify for the proposed discount rates, my pricing formula would  
2 calculate lower discount rates. At the conclusion of the Mailing Online experiment,  
3 the pricing formula produces postage charges that are entirely based on experience.

4 The pricing formula I propose strikes a balance between simplicity with  
5 competitive advantage for the Postal Service, on the one hand, and greater  
6 complexity with fairness for both customers and competitors, on the other. In the  
7 case of Mailing Online, as proposed, postage calculations are simplified by offering  
8 all customers the same discount rate—Automation Basic (within class and shape)—  
9 at the time the Mailing Online transaction is confirmed. However, such simplification  
10 has a price. The Postal Service reserves a competitive advantage for Mailing  
11 Online by exempting small-volume mailings from the minimum volume requirements  
12 for Automation Basic rates otherwise applicable to such mailings, and still applicable  
13 to the mailings of competitive service providers.

14 My pricing formula eliminates any competitive advantage on the part of the  
15 Postal Service and thereby promotes fairness. Mailing Online customers pay  
16 postage charges for which their mailings qualify when submitted, or rates calculated  
17 by the pricing formula reflecting the Postal Service's batching and presorting  
18 experience during the experiment, whichever is lower. Consequently, my proposal  
19 obviates the need to waive the minimum volume requirements otherwise applicable  
20 to Mailing Online mailings. My proposal also eliminates anti-competitive effects  
21 caused by adopting the proposed waiver. Competitors and potential new entrants  
22 are not disadvantaged, as no preference is accorded to the Postal Service versus a  
23 competitor in the market for small-volume mailings.

1           My pricing formula preserves simplicity for Mailing Online customers in the  
2 form of a firm fixed postage charge when the Mailing Online transaction is  
3 confirmed, but adds some complexity for the Postal Service. The pricing formula  
4 calculates a postage charge using experience-based weighted average rates by job  
5 type derived from volume data from prior time periods during the experiment and  
6 applied in subsequent periods. Consequently, a firm fixed postage charge can be  
7 offered when mailings are submitted, since the experience-based rates used in the  
8 formula are known and will be unaffected by daily batching. Simplicity for customers  
9 is thereby preserved.

10           Nevertheless, the pricing formula introduces some complexity for the Postal  
11 Service. In general, the determination of postage charges is more involved, since  
12 customers are offered rates for which their mailings qualify when submitted or rates  
13 calculated by the pricing formula, whichever is lower. Moreover, because the pricing  
14 formula relies on volume data, that data must be collected by presort level for each  
15 job type by class. Limited rate averaging by job type over specified time periods is  
16 introduced in order to derive the experience-based weighted average rates used in  
17 the formula. However, relative to a rebate system, the pricing formula avoids the  
18 complications associated with evaluating and adjusting customer accounts  
19 envisioned by the Postal Service.<sup>51</sup>

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<sup>51</sup> See Tr. 6/1412-13 (Garvey, OCA/USPS-T5-43(b)-(c)). See also note 14, *supra*.



1           Finally, my pricing proposal permits verification of the Postal Service's  
2   assumption that Automation Basic is the most appropriate discount rate for all  
3   Mailing Online mailings. The Postal Service predicts large volumes of mail will  
4   permit high densities and levels of presortation beyond those required for the  
5   proposed Automation Basic discount rate.<sup>52</sup> Accordingly, the Postal Service intends  
6   to test this hypothesis during the Mailing Online experiment.<sup>53</sup> My proposal also  
7   tests this hypothesis using available Mailing Online data, but goes one step further.  
8   In keeping with the notion of an "experiment," I propose to test a computer-  
9   implement postage pricing formula, using data from the experiment to derive  
10   experience-based weighted average rates, to calculate postage charges on an  
11   ongoing basis.

12           B.     It Is Possible To Develop A Pricing Formula To Calculate Postage For  
13                   Mailing Online That Will Initially Generate The Postal Service's  
14                   Proposed Discount Rate And Then Adjusts Postage To Reflect Actual  
15                   Presorting Experience Over The Course Of The Experiment

16           The pricing formula I propose calculates postage charges for each Mailing  
17   Online mailing. The formula is intended to guide the development of an algorithm to  
18   be incorporated in Mailing Online software.<sup>54</sup>

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<sup>52</sup> Tr. 2/158 (Garvey, MASA/USPS-T5-10(b)). "[W]e predict that large volumes of locally destinating mail will flow through the MOL system and allow high densities and levels of sort beyond those required of the requested basic automation rate."

<sup>53</sup> Id. (Garvey, MASA/USPS-T5-10(b)). "We will test this hypothesis during the market test and experimental service periods."

<sup>54</sup> Tr. 5/1140 (Plunkett, OCA/USPS-T1-64(a)-(b)). "[T]he act of incorporating [the pre-mailing fee] formulae into the Mailing Online software gives rise to an algorithmic formulation."

1 Two practical results are obtained from this pricing formula. First, it ensures  
 2 that all Mailing Online mailpieces, at a minimum, receive the discount rates for which  
 3 the mailings would qualify if entered as hardcopy directly with the Postal Service.  
 4 Second, the formula automatically adjusts postage charges to reflect the actual  
 5 batching experience of the Postal Service during the course of the experiment.

6 My pricing formula produces a blended discount rate consisting of the  
 7 proposed Automation Basic discount rate and an experience-based weighted  
 8 average rate based upon Postal Service volume data from batching and presorting.  
 9 During the first period of the experiment, the postage rate is the same for all  
 10 mailings—the assumed single average (i.e., Automation Basic) discount rate  
 11 proposed by the Postal Service. Cumulative depth of sort data is collected for each  
 12 possible job-type/page-count category.<sup>55</sup> At the end of the period, a weighted  
 13 average rate for each job-type/page-count category is calculated based on the  
 14 actual depth of sort achieved for that category.<sup>56</sup> During the second and

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<sup>55</sup> The Postal Service states that there are 62 Mailing Online job-types, and a maximum of 48 pages for each job-type, resulting in nearly 3,000 job-type/page-count “batches.” Tr. 6/1354 (Garvey, OCA/USPS-T1-45(f)). However, during the operation of Mailing Online, not all job-type/page-count combinations are likely to be “commingled” or “batched,” Tr. 7/1721-22 (Garvey); that is, “aggregated into a single file.” Tr. 2/194 (Garvey, OCA/USPS-T1-19(a)(ii)). The Postal Service identifies “commingled batches,” as well as “separate batches,” which consist of mailpieces that have not been batched at all. Tr. 6/1353 (Garvey, OCA/USPS-T1-45(b)). I use the term “job-type/page-count category” to describe the nearly 3,000 job-type/page-count combinations prior to batching, since all job-type/page-count volume data is relevant to my proposal, whether a result of batching or not. By contrast, I reserve the term “job-type/page-count batch” or “batch” to mean a single file of like mailpieces (i.e., the same job-type/page-count) that have been batched.

<sup>56</sup> “Depth of sort” and “level of presort” are defined as “a vector of integers whose elements are the volumes of a mailing that qualified for the various available

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2 that all Mailing Online mailpieces, at a minimum, receive the discount rates for which  
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12 possible job-type/page-count category.<sup>55</sup> At the end of the period, a weighted  
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<sup>56</sup> “Depth of sort” and “level of presort” are defined as “a vector of integers whose elements are the volumes of a mailing that qualified for the various available

1 subsequent periods, each customer is offered the lesser of its "stand-alone" rate or  
2 a blended discount rate consisting of the assumed single average discount rate and  
3 the experienced-based weighted average rate for the submitted job type. The  
4 specific blended discount rate offered is adjusted by a weighting factor applied to  
5 each formula component during each period. The weighting factor increases  
6 gradually as the experiment progresses, resulting in more "weight" assigned to the  
7 discount derived from Postal Service experience and successively less "weight" to  
8 the assumed single average discount rate. At the conclusion of the experiment,  
9 postage charges are entirely experience-based.

10 The derivation of an experience-based weighted average rate is  
11 commonplace in the determination of postage charges, and a familiar process to the  
12 Postal Service. In the case of hardcopy mail entered directly with the Postal  
13 Service, where a mailing exceeds the minimum volume requirements, it will qualify  
14 for some or all of the various presort discounts available. The mailer's total postage  
15 charge, then, is the sum of the presort discount rates times the number of  
16 mailpieces that qualify at each presort level. In effect, the mailer's total postage  
17 charge for the mailing is nothing more than an experience-based weighted average  
18 discount rate specific to the mailing.

19 In the case of Mailing Online, the derivation of the experience-based  
20 weighted average rate requires the collection of volume data showing the extent of

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presort discounts (as shown on a Qualification Report), the order of the elements being from greatest discount to no discount." See Tr. 8/1773 (Plunkett, OCA/USPS-T5-51(d)).

1 subsequent periods, each customer is offered the greater of its "stand-alone" rate or  
2 a blended discount rate consisting of the assumed single average discount rate and  
3 the experienced-based weighted average rate for the submitted job type. The  
4 specific blended discount rate offered is adjusted by a weighting factor applied to  
5 each formula component during each period. The weighting factor increases  
6 gradually as the experiment progresses, resulting in more "weight" assigned to the  
7 discount derived from Postal Service experience and successively less "weight" to  
8 the assumed single average discount rate. At the conclusion of the experiment,  
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presort discounts (as shown on a Qualification Report), the order of the elements  
being from greatest discount to no discount." See Tr. 8/1773 (Plunkett, OCA/USPS-  
T5-51(d)).

1 batching and presortation achieved by the Postal Service during the experiment.  
2 Table I presents a simplified rendering of the data necessary by presort level for  
3 nine possible job-type/page-count categories.<sup>57</sup> In the fully operational Mailing  
4 Online experiment, the theoretical maximum number of tables for First Class would  
5 be 2,976 (48 x 62),<sup>58</sup> one for each job-type/page-count category estimated by the  
6 Postal Service.

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<sup>57</sup> The presort levels applicable to Mailing Online are denoted by the abbreviations 5B, 3B, 3/5B BB, and SP in Table I. See *supra* note 9.

<sup>58</sup> See Tr. 6/1354 (Garvey, OCA/USPS-T1-45(f)). However, witness Garvey maintains that, "A fundamental design objective of the MOL system is to combine all jobs to the greatest extent possible . . . [a]lthough differences in processing categories and handling characteristics are likely to prevent complete combination of all jobs for the foreseeable future . . ." Tr. 6/1400. Some features likely to "prevent complete combination" include batching letters and flats, First-Class and Standard A letters, and mailpieces with different service levels (i.e., next-day service and two-to-five day service). Tr. 6/1600-01. According to witness Plunkett, the realization of this fundamental design objective would make most of the job-type information unnecessary for purposes of determining depth of sort. Tr. 8/1774 (Plunkett, OCA/USPS-T5-51(a)-(c)). Under such circumstances, the theoretical maximum number of data tables estimated for my proposal would be reduced to four: First-Class Mail letters and flats, and Standard A Mail letters and flats.

**Table I**  
**MAILING ONLINE "LOOK-UP" TABLES FOR FIRST CLASS MAIL CONTAINING PERIODIC AND CUMULATIVE VOLUME DATA BY JOB TYPE BY PAGE COUNT BY PRESORT LEVEL**

**Table I.A.1.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type A/Page-Count 1			
		Volumes	
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.B.1.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type B/Page-Count 1			
		Volumes	
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.BJ.1.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type BJ/Page-Count 1			
		Volumes	
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.A.2.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type A/Page-Count 2			
		Volumes	
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.B.2.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type B/Page-Count 2			
		Volumes	
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.BJ.2.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type BJ/Page-Count 2			
		Volumes	
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.A.48.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type A/Page-Count 48			
		Volumes	
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
3/5B	225.0		
BB	228.0		
SP	231.0		
Weighted Average Rate			

**Table I.B.48.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type B/Page-Count 48			
		Volumes	
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
3/5B	225.0		
BB	228.0		
SP	231.0		
Weighted Average Rate			

**Table I.BJ.48.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type BJ/Page-Count 48			
		Volumes	
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
<2lb Priority Mail	320.0		
Weighted Average Rate			

**Table I**  
**MAILING ONLINE "LOOK-UP" TABLES FOR FIRST CLASS MAIL CONTAINING PERIODIC AND CUMULATIVE VOLUME DATA BY JOB TYPE BY PAGE COUNT BY PRESORT LEVEL**

**Table I.A.1.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type A/Page-Count 1			
Volumes			
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
3/5B	20.3		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.A.2.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type A/Page-Count 2			
Volumes			
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
3/5B	20.3		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.A.48.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type A/Page-Count 48			
Volumes			
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
3/5B	20.3		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.B.1.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type B/Page-Count 1			
Volumes			
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
3/5B	20.3		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.B.2.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type B/Page-Count 2			
Volumes			
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
3/5B	20.3		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.B.48.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type B/Page-Count 48			
Volumes			
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
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3/5B	20.3		
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SP	33.0		
Weighted Average Rate			

**Table I.BJ.1.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type BJ/Page-Count 1			
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5B	24.3		
3B	26.1		
3/5B	20.3		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.BJ.2.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type BJ/Page-Count 2			
Volumes			
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
3/5B	20.3		
BB	27.0		
SP	33.0		
Weighted Average Rate			

**Table I.BJ.48.**  
**Volume by Job-Type, Page-Count and Presort Level**

Job-Type BJ/Page-Count 48			
Volumes			
Presort Level	Rates (Cents)	Period <i>n</i>	All Prior Periods
5B	24.3		
3B	26.1		
3/5B	20.3		
BB	27.0		
SP	33.0		
Weighted Average Rate			



1       The presort-level volume data is collected by job-type/page-count category  
2 each period. At the end of each period, the volume data is summed with data from  
3 prior periods for each job-type/page-count category. The cumulative presort-level  
4 volume data by job-type/page-count category implies a particular experience-based  
5 weighted average rate. For example, suppose that data collected during period one  
6 revealed the volume and proportions by presort level for job-type A/page-count 1, as  
7 shown in Table II. The implied experienced-based weighted average rate used in  
8 period two would be 27.6 cents  $((0.25 \cdot 24.3) + (0.25 \cdot 26.1) + (0 \cdot 20.3) + (0.25 \cdot$   
9  $27) + (0.25 \cdot 33))$ . Table II shows the derivation of the experience-based weighted  
10 average rate in the last column.

11

**Table II**  
**DERIVATION OF EXPERIENCE-BASED**  
**WEIGHTED AVERAGE RATE**

<b>Job-Type A/Page-Count 1</b>				
<b>Presort Level</b>	<b>Volume</b>	<b>Percent of Total</b>	<b>Rates (cents)</b>	<b>Weighted Average Rate (cents)</b>
5B	500	0.25	24.3	6.075
3B	500	0.25	26.1	6.525
3/5B	0	0	20.3	0
BB	500	0.25	27.0	6.750
SP	500	0.25	33.0	8.250
<b>Total</b>	<b>2,000</b>	<b>1</b>		<b>27.600</b>

12

13       The presort-level volume data used to derive the experience-based weighted  
14 average rates requires two data sets. Both sets consist of volume data on the  
15 association of presort level with job-type/page-count characteristics, as shown in

1 Table I.<sup>59</sup> The first set consists of Mailing Online volume data by presort level during  
 2 the current period for each job-type/page-count category (the "Period *n*" volume  
 3 column). The second set consists of the cumulative volume data for each job-  
 4 type/page-count category as presorted for all periods other than the current period  
 5 (the "All Prior Periods" volume column). The cumulative volume data and rate  
 6 information are used to derive the experience-based weighted average rates shown  
 7 in each "look-up" table. The experienced-based rates are used in the formula to  
 8 calculate the blended discount rates in the current period.

9 Consequently, for each job-type/page-count category, if *x* represents the  
 10 experience-based weighted average rate, and *y* the assumed single average  
 11 discount rate proposed by the Postal Service, the blended discount rate (*D*) for any  
 12 mailing of the job-type/page-count category is

$$14 \quad D = xw + y(1-w) \quad \text{Equation 1}$$

15

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<sup>59</sup> The Mailing Online system will produce the presort-level volume data to derive the experience-based weighted average rate for each job-type/page-count category. As currently configured, the Postal Service's processing center computer will require job-type, page-count, address list ZIP+4 Codes and print site ZIP Code tables to permit distribution to print sites, batching, and the presortation of batches. Tr. 8/1774 (Plunkett, OCA/USPS-T5-51(a)-(c)). Moreover, the Mailing Online system is currently being modified to enable a Mail.dat reporting option. (Garvey, OCA/USPS-T1-72(c)(i)). This option would permit reporting on the association of mailing statements on presort qualification with batch information. Id. "With the eventual advent of the Mail.dat utility, depth of sort information for non-qualifying mailings will also become available." Tr. 8/1770 (Plunkett, OCA/USPS-T5-48(a)-(c)).

1 Table I.<sup>59</sup> The first set consists of Mailing Online volume data by presort level during  
2 the current period for each job-type/page-count category (the "Period *n*" volume  
3 column). The second set consists of the cumulative volume data for each job-  
4 type/page-count category as presorted for all periods other than the current period  
5 (the "All Prior Periods" volume column). The cumulative volume data and rate  
6 information are used to derive the experience-based weighted average rates shown  
7 in each "look-up" table. The experienced-based rates are used in the formula to  
8 calculate the blended discount rates in the current period.

9 Consequently, for each job-type/page-count category, if *x* represents the  
10 experience-based weighted average rate, and *y* the assumed single average  
11 discount rate proposed by the Postal Service, the blended discount rate (*D*) for any  
12 mailing of the job-type/page-count category is

13

14 
$$D = xw + y(1-w)$$

Equation 1

15

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<sup>59</sup> The Mailing Online system will produce the presort-level volume data to derive the experience-based weighted average rate for each job-type/page-count category. As currently configured, the Postal Service's processing center computer will require job-type, page-count, address list ZIP+4 Codes and print site ZIP Code tables to permit distribution to print sites, batching, and the presortation of batches. Tr. 8/1774 (Plunkett, OCA/USPS-T5-51(a)-(c)). Moreover, the Mailing Online system is currently being modified to enable a Mail.dat reporting option. Tr. 8/1770 (Garvey, OCA/USPS-T1-72(c)(i)). This option would permit reporting on the association of mailing statements on presort qualification with batch information. Id. "With the eventual advent of the Mail.dat utility, depth of sort information for non-qualifying mailings will also become available." Tr.8/1770 (Plunkett, OCA/USPS-T5-48(a)-(c)).

1 where  $w$  represents the weighting factor computed each period.

2 The weighting factor ( $w$ ), applied to the experienced-based average rate in  
3 each period, is derived as follows:<sup>60</sup>

4 
$$w = \frac{\sum_{i=1}^n (i-1)}{\sum_{i=1}^N i}$$
 Equation 2

5 where  $N$  represents the total number of periods, and  $n$  represents the current  
6 period. Conversely, the weight applied to the assumed average discount is  $(1 - w)$ .

7 If the experience-based average rates are recalculated every quarter during  
8 the experiment,<sup>61</sup>  $N = 8$ , and for the first quarter,  $n = 1$ . The numerator then equals  
9 0, reflecting the fact that there is no accumulated experience in the first quarter, and  
10 the denominator equals 36, i.e., the sum of the digits representing each quarter ( $1 +$   
11  $2 + 3 + 4 + 5 + 6 + 7 + 8$ ). Thus, in the first quarter, the weighting factor ( $w$ ) applied  
12 to the experienced-based average rate is 0 ( $0/36$ ), and the weight applied to the  
13 assumed single average discount rate is 1 ( $1 - 0$ ). In the fifth quarter, i.e. at the  
14 beginning of the second year of the experiment,  $n = 5$ , and the numerator becomes

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<sup>60</sup> This formula-derived weighting factor will be recognized by those familiar with the Sum-of-the-Years'-Digits (SYD) method of accelerated depreciation for real property. The SYD method uses a decreasing fraction in each succeeding period times the cost of the property to calculate the depreciation. The formula presented here is simply the accumulated "sum-of-the-years' digits" method in reverse; that is, an increasing fraction in each succeeding period. The formula thereby gives more of the "depreciation" (i.e., weight for experience) to later periods than to earlier periods.

<sup>61</sup> An adjustment every quarter is assumed for illustrative purposes. The exact value of  $N$  could range from two to continuous. A continuous adjustment would, of course, require modification of the formula presented here.

1 10, resulting in a weighting factor of 10/36 being applied to the experienced-based  
2 average rate, and a weight of 26/36 ( $1 - (10/36)$ ) applied to the assumed single  
3 average discount rate. By the last quarter,  $n = 8$ , and the weighting factor applied to  
4 the experienced-based average rate is 28/36.<sup>62</sup> Table III shows the weighting  
5 factors derived from Equation 2 that are applied to the experience-based average  
6 rate each quarter.

**Table III**  
**DERIVATION OF WEIGHTING FACTORS**  
**APPLICABLE TO EXPERIENCE-BASED AVERAGE**  
**RATES**

Quarters	Equation 2		Factors
	Numerator	Denominator	
1	0	36	0/36
2	1	36	1/36
3	3	36	3/36
4	6	36	6/36
5	10	36	10/36
6	15	36	15/36
7	21	36	21/36
8	28	36	28/36

7 1. At the Beginning of the Experiment, Postage Charges for  
8 Mailing Online Would Be Based on the Assumed Ability of the  
9 Postal Service to Batch Jobs for the Purpose of Presorting

10 At the beginning of the experiment, the pricing formula I propose "accepts"  
11 the Postal Service's assumed ability to batch jobs for the purpose of presorting.  
12 Moreover, the formula "accepts" the Postal Service's assumed single average  
13 discount rate for purposes of determining postage charges for Mailing Online

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<sup>62</sup> In the "ninth" quarter, i.e., the beginning of the third year of operation of Mailing Online, and every quarter thereafter, the weighting factor applied to the experience-based weighted average rate is 1 (36/36).

1 customers. Consequently, for the first quarter of the experiment, Mailing Online  
2 customers are offered the assumed single average discount rate, Automation Basic  
3 (within class and shape), as proposed by the Postal Service. And the proposed  
4 pricing formula generates the same postage charge as the Postal Service proposes  
5 to offer. For example, the First-Class Automation Basic rate is 27 cents. The  
6 discount rate calculated by the pricing formula is also 27 cents ( $x(0) + 27(1-0)$ ).

7 During the first quarter, and all subsequent quarters, data on volumes  
8 actually presorted by the Postal Service are collected, accumulated, and tabulated  
9 for each job-type/page-count category. The data collected serves two purposes. It  
10 serves to verify the Postal Service's assumption as to whether Automation Basic is  
11 truly reflective of the characteristics of Mailing Online mailpieces. It also permits  
12 derivation of the experience-based weighted average rate for each job-type/page-  
13 count category used in the formula to calculate postage charges during the  
14 experiment.

15 2. If Batching Experience with Mailing Online During the  
16 Experiment Verifies Original Assumptions, the Postage Pricing  
17 Formula Would Automatically Generate Charges Based Upon  
18 the Original Assumptions

19 The Postal Service claims that Automation Basic is the appropriate discount  
20 rate for Mailing Online service. At full implementation, the Postal Service expects to  
21 obtain sufficient volumes to permit batching and presorting at least to the

1 automation basic level.<sup>63</sup> Under such circumstances, the pricing formula also  
2 generates discount rates consistent with that assumption. For example, suppose  
3 the experience-based weighted average rate derived from data during the first two  
4 quarters for a certain job-type/page-count category is 27 cents, the same as the  
5 First-Class Automation Basic rate proposed by the Postal Service. Then the  
6 blended discount rate in the third quarter calculated by the pricing formula is also 27  
7 cents ( $27(3/36) + 27(1-(3/36))$ ).

8                   3.     If Batching Experience with Mailing Online During the  
9                         Experiment Differs from Original Assumptions, the Postage  
10                        Pricing Formula Would Automatically Adjust Charges to  
11                        Experience

12           One of the desirable characteristics of the Postal Service's formula for  
13 calculating Mailing Online pre-mailing fees is that fees automatically adjust as the  
14 Postal Service experiences changes in contractor printing costs. Contract costs for  
15 the various printing and finishing options, as well as ZIP Codes areas, associated  
16 with each printer are stored in "look-up" tables in the Postal Service's computer.<sup>64</sup>  
17 As new print sites are added, new services offered, or costs of existing services

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<sup>63</sup> Tr. 2/572 (Plunkett, MASA/USPS-T2-3(c)). "[A]t full implementation, Mailing Online is expected to generate tens of thousands of pieces per printer per day on average. Thus it is expected that Mailing Online pieces will meet the aforementioned qualifications." See also Tr. 5/1127 (Plunkett, NOI No. 1, Issue 1). "In fact, we expect that in most instances, the mail may be presorted more finely and dropshipped more deeply into the system than is necessary to qualify for the proposed discounts."

<sup>64</sup> Tr. 6/1384 (Garvey, OCA/USPS-T1-59(b)). "According to the developer . . . 'The current system uses a print site table that defines the characteristics of the print site. This combined with the [ZIP C]ode of the addressee determines the print site destination for a mail piece.'"

1 change during the course of the experiment, these tables are updated.<sup>65</sup> To  
2 calculate the pre-mailing fees for a particular Mailing Online job, the computer first  
3 uses addressee ZIP Codes to determine to which print site(s) the job will be sent.<sup>66</sup>  
4 The computer automatically references prices in the "look-up" tables associated with  
5 the relevant print sites. A different pre-mailing fee is then calculated for each group  
6 of mailpieces going to different print sites.

7 Just as the pre-mailing fees of Mailing Online adjust to actual contractor costs  
8 at new (and existing) print sites, so too will the pricing formula I propose adjust  
9 postage charges for Mailing Online mailings based upon actual experience.  
10 Cumulative data on the Postal Service's experience batching and presorting the  
11 various job-type/page-count categories from all prior quarters permits derivation of  
12 an experience-based weighted average rate for each category. This rate  
13 information is stored in "look-up" tables for each job-type/page-count category, as  
14 shown in Table I. The computer-implemented pricing formula references the "look-  
15 up" tables, and combines the relevant experience-based weighted average rate with  
16 the Postal Service's assumed single average discount rate to calculate the blended  
17 postage charge offered to Mailing Online customers.

18 Continuing the previous example, the calculations are as before. However,  
19 for the first two quarters, assume instead an experience-based weighted average  
20 rate of 26.1 cents (i.e., a First-Class Automation 3-Digit Presort). The formula

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<sup>65</sup> Tr. 6/1385 (Garvey, OCA/USPS-T1-59(d)). "[T]he print site table would . . . simply be modified to reflect the addition or deletion of specialized capabilities."

<sup>66</sup> Tr. 6/1384 (Garvey, OCA/USPS-T1-59(b)).



1 produces a blended discount rate in quarter three of 26.925 cents ( $26.1(3/36) +$   
2  $27(1-(3/36)))$ . Over time, the experience-based weighted average rate is expected  
3 to change. As a result, assume that the experience-based weighted average rate  
4 with four quarters of data is now 24.3 cents (i.e., First-Class 5-Digit Presort). The  
5 blended discount rate in quarter five is 26.25 cents ( $24.3(10/36) + 27(1-(10/36)))$ .

6 The change in the blended discount rate from quarter three to quarter five  
7 illustrates the two components affecting the calculation of postage charges. The  
8 first is the gradual increase in the weighting factor as the experiment progresses.<sup>67</sup>  
9 The second is the change in the experience-based weighted average rates resulting  
10 from Postal Service batching and presorting. Both components could work in  
11 tandem to produce ever lower discount rates, as shown in the two preceding  
12 examples. Or they could work at cross purposes, with discount rates remaining  
13 constant or even increasing during the experiment.

14 4. Batching Experience with Mailing Online Late in the Experiment  
15 Would Carry More Weight in Postage Calculations Than  
16 Experience Early in the Experiment

17 The Postal Service recognizes that as the experiment progresses, mailings  
18 submitted in a "more mature environment" are likely to be more representative of  
19 "permanent" job types than mailings submitted earlier in the development of Mailing  
20 Online.<sup>68</sup> As the Postal Service states, "[c]ommon sense suggests . . . that

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<sup>67</sup> See Table III for the derivation of the weighting factors, *supra* IV.B.

<sup>68</sup> Tr. 6/1363 (Garvey, OCA/USPS-T1-52(b)). "I can agree that jobs submitted in a more mature environment should be more similar to permanent jobs than those from earlier in the market test."

1 individual users' respective and collective experiences would mature over time to  
2 provide a clearer picture of demand and common job characteristics."<sup>69</sup>

3       These same expectations are relevant to implementation of my postage  
4 pricing formula. During the latter stage of the experiment, more complete data on  
5 "demand and common job characteristics" will be available upon which to base  
6 postage calculations. For example, as the experiment progresses, the cumulative  
7 volume data will weigh more heavily in the calculation of postage charges under the  
8 pricing formula. This is a consequence of the larger weighting factor applied to the  
9 experience-based weighted average rate. To see this, suppose the experience-  
10 based weighted average rate remains, as in the previous example, at 24.3 cents.  
11 However, in quarter eight, the weighting factor increases to 28/36. Consequently,  
12 the formula produces a blended discount rate of 24.90 cents ( $24.3(28/36) + 27(1 -$   
13  $(28/36)))$ .

---

<sup>69</sup> Id.

1 V. CONCLUSION

2 I support establishment of a rebate system for Mailing Online because it is  
3 the best approach. In the alternative, I propose a computer-implemented postage  
4 pricing formula that incorporates Postal Service batching and presorting during the  
5 experiment to calculate postage charges. The alternative I propose achieves most  
6 of the benefits of a rebate system, while addressing many of the Postal Service's  
7 concerns regarding implementation of such a system. The formula eliminates the  
8 anti-competitive effects of waiving the minimum volume requirements for Automation  
9 Basic rates proposed by the Postal Service. At the same time it preserves  
10 convenience and simplicity for Mailing Online customers in the form of a firm fixed  
11 postage charge at the time the Mailing Online transaction is confirmed.