

UNITED STATES OF AMERICA
POSTAL REGULATORY COMMISSION
WASHINGTON DC 20268-0001

Before Commissioners:

Ruth Y. Goldway, Chairman;
Tony L. Hammond, Vice Chairman;
Mark Acton;
Dan G. Blair;
Nanci E. Langley

Estimating Volume Changes from
Pricing Incentive Programs

Docket No. RM2010-9

NOTICE OF PROPOSED RULEMAKING CONCERNING
METHODS TO ESTIMATE VOLUME CHANGES CAUSED BY
PRICING INCENTIVE PROGRAMS

(Issued June 8, 2010)

I. INTRODUCTION

The Commission is initiating this proceeding to investigate methodologies for estimating volume changes due to pricing incentive programs. Upon consideration of various methodologies, the Commission may, if a change in analytical principles is warranted, propose a specific methodology for adoption. Initial comments are due 30 days from publication of this notice in the *Federal Register*.

II. BACKGROUND

In the past year, the Postal Service has conducted two pricing incentive programs, and a third program is scheduled to begin in July. The purpose of the incentive programs is to generate new volume and additional revenue. Rebates are offered to mailers who mail more pieces than they would mail without rebates. The first of these programs occurred in the summer of 2009.¹ This program offered rebates of 30 percent to Standard mailers who increased their volume above the same period in 2008 (SPLY) adjusted for each mailer's volume trend. The Commission evaluated this program in the recently issued 2009 Annual Compliance Determination (2009 ACD). In the 2009 ACD, the Commission noted that the Postal Service had developed a new methodology for estimating the profitability of the program. That methodology produced an estimated \$24.1 million contribution to institutional costs, while the Commission's traditional estimating methodology produced a negative contribution of \$36.9 million. The Commission announced that it would conduct a rulemaking to "explore the merits of these alternate methodologies...." 2009 ACD at 88.

On February 26, 2010, the Postal Service filed notice of another Standard Mail pricing incentive program. The Commission established a docket to consider the incentive program and appointed a Public Representative.² The Public Representative proposed a third methodology for estimating the profitability of pricing incentive programs.³ Another commenter, Robert W. Mitchell, described several qualitative adjustments to the Commission's established methodology.⁴

¹ The second incentive program occurred in the fall of 2010, and offered rebates of 20 percent to bulk First-Class mailers. Docket No. R2009-5, Order Approving First-Class Mail Incentive Pricing Program, September 16, 2009.

² Docket No. R2010-3, Notice and Order Concerning Standard Mail Volume Incentive Pricing Program, March 2, 2010.

³ Docket No. R2010-3, Comments of the Public Representatives, March 22, 2010, at 9-10, 15-16.

⁴ Docket No. R2010-3, Comments of Robert W. Mitchell on Proposed Summer Sale 2010, March 22, 2010 (Mitchell Comments).

Estimating the profitability of a pricing incentive program depends on accurately estimating what volume of mail mailers would mail in the absence of a rebate. Rebates for mail volume that would have been sent without a rebate result in a loss of contribution. However, it is not possible to know ahead of time what volume a mailer would have sent without a rebate. The Commission evaluates the profitability of rebate programs after the fact by applying a measure of price sensitivity (elasticity) to volumes actually mailed during the rebate program. This method is described in the next section.

III. ESTABLISHED METHODOLOGY

The Commission's experience with pricing incentive programs began in Docket No. MC2002-2.⁵ The Postal Service had negotiated declining block rates with Capital One Services, Inc. (Capital One). The essential feature of a declining block rate is that a customer must purchase a minimum quantity to be eligible for a reduced rate. The reduced rate then applies only to quantity in excess of the minimum. So long as the reduced rate covers cost, the additional volume is profitable. This assumes that the minimum quantity (or threshold) is set at the quantity the customer would have purchased at regular rates.

In fact, the Postal Service cannot know what a mailer would have mailed at regular rates. There is always a possibility that the threshold is set below the volume the mailer would have mailed. In this situation, the Postal Service loses revenue on pieces that would have been mailed at regular rates but are only charged the reduced rate. This loss must be accounted for when calculating the contribution (profit) earned from the reduced rate. In the Capital One case, the Postal Service estimated the additional volume effect of the volume-based discount provision of the Capital One NSA

⁵ Docket No. MC2002-2, Opinion and Recommended Decision, May 15, 2003; see *also* Errata Notice, May 21, 2003.

using the analysis of Capital One witness Elliot.⁶ Elliot's analysis applied price elasticities from the Postal Service's demand model to the marginal discount.

Elasticity is a measure of the volume response to a price change. Roughly speaking, elasticity is the percentage change in quantity divided by the percentage change in price. Thus, if the elasticity, price change, and volume (either before or after the price change) are known, the volume change associated with the price change can be determined.

Beginning in Docket No. MC2004-3, the Commission has applied an elasticity-based approach similar to that of witness Elliot for estimating the effect of volume-based discounts both before implementation, and based on after-the-fact analysis of actual results.⁷ The Commission described the accepted analytical principle for this type of analysis as "the analytical principle that the financial impact of price incentives to increase mail volume or to shift mail volume between products should be based on the Postal Service's best estimate of the price elasticity of the discounted product."⁸

IV. METHODOLOGIES FOR ESTIMATING SHORT-TERM VOLUME CHANGES

In evaluating pricing initiatives that apply to multiple eligible mailers, the elasticity-based approach can be applied to each discounted mailer's actual volume to determine its before-rates volume. The discounts on all pieces up to the mailer's before-rates volume (leakage) are then subtracted from the contribution of the increased volume that results from the discount incentive. Since this approach is dependent on the after-rates volume, it is most readily applied *ex post*, when the actual

⁶ Direct Testimony of Stuart Elliott (COS-T-2) on Behalf of Capital One Services, Inc., September 19, 2002.

⁷ Docket No. MC2004-3, Opinion and Further Recommended Decision, April 21, 2006 at 21-38.

⁸ Docket No. RM2008-4, Notice of Proposed Rulemaking Prescribing Form and Content of Periodic Reports, August 22, 2008, at 9, citing 2007 Annual Compliance Determination, March 27, 2008, at 127.

after-rates volumes is known. Nevertheless, it can also be used to estimate a range of potential effects *ex ante* by applying the same approach to a range of potential after-rates volumes.

An elasticity-based approach has many advantages, not the least of which is that price elasticities implicitly control for all other variables that affect volume. Therefore, other exogenous variables that cause changes in volume are held constant, thus isolating the volume generated in response to the discount from the volume change due to all other factors. The most significant weakness is the difficulty of identifying the price elasticity that applies to the specific details of the pricing initiative in question. While the Postal Service develops price elasticities annually as part of its demand analysis, they are not perfectly suited to the analysis of the Postal Service's volume-based pricing initiatives. These initiatives have been generally shorter in duration, larger in magnitude, and more narrowly focused in terms of mailer eligibility than the historical price changes from which the elasticities in the Postal Service's demand analysis are estimated.

Commenting on the 2010 summer initiative, Robert Mitchell discussed several ways in which a mailer's response to temporary volume-based discounts that are available to both a few mailers or one mailer might not be properly modeled with long-term elasticity estimates like the Postal Service's. He identified four factors that would suggest a potentially smaller volume response than the Postal Service's demand analysis elasticities would indicate. These are the temporary nature of the discounts (which might preclude mailer investments), the potential lag in response to the discount, the absence of mailers entering and leaving the market, and a mailer's uncertainty as to whether it will reach the discount threshold. He also explained that if the discount is not available to a mailer's competitors, the response might be greater than indicated by the market elasticity. Mitchell Comments at 4-6.

Postal Service method. In its data collection report for the 2009 Standard Mail pricing incentive, the Postal Service presented a new method for estimating the portion of the discounted volume that would have been sent in the absence of the discount. It

calculated a “spring threshold” for each mailer using the same trend used to develop the summer thresholds for discount eligibility. After calculating the difference between the actual spring 2009 volume and the spring 2009 threshold for each mailer, the sum of these differences for the mailers with actual volume above the threshold was divided by actual spring 2008 volume for all participating customers. The 7.07 percent result was referred to as “loyalty growth” by the Postal Service. This percentage was then multiplied by the total actual (after-rates) summer 2009 volume sent by participating customers to estimate “loyalty growth” volume for the 2009 pricing initiative.⁹ As the source of revenue leakage (discounts paid on before-rates volume), the volume identified as “loyalty growth” is roughly analogous to “anyhow” volume, *i.e.*, volume that would have been mailed absent the discount.

The Postal Service’s method attempts to control for non-price factors that affect volume by assuming that the extent of above-trend volume growth that occurred in the period immediately preceding the discount period also occurred during the discount period. Because the above-trend growth occurred in the absence of the discount incentive, this volume is deemed to be unrelated to the incentive.

The Postal Service also used a variation of this approach in its development of a forward-looking estimate of anyhow volume in its 2010 summer pricing initiative. It applied the 7.07 percent from the 2009 initiative to the aggregate SPLY (summer 2009) volume of mailers expected to participate in the 2010 initiative.¹⁰ As a practical matter, since volume data for the period immediately preceding a discount period are not available in advance, the application of the Postal Service’s “spring threshold” approach in an *ex ante* analysis requires the use of a “loyalty growth” factor developed from a previous initiative.

⁹ Docket No. ACR2009, Responses of the United States Postal Service to Questions 1-5 of Chairman’s Information Request No. 8, March 8, 2010, questions 1 and 2.

¹⁰ Docket No. R2010-3, Response of the United States Postal Service to Chairman’s Information Request No. 1, March 16, 2010, questions 1 and 3.

Some of the details of the application of this methodology by the Postal Service raise potential questions that should be explored in this case. For example, the 7.07 percent “loyalty growth” was developed as a percentage of SPLY volumes (the period exactly one year prior to the discount period) and, for the 2010 initiative, was applied to SPLY volumes to produce the *ex ante* estimate of discounted volume attributable to exogenous (non-price) factors. In contrast, the 7.07 percent was applied to actual after-rates volume sent during the discount period, rather than SPLY, to produce the *ex post* estimate of “loyalty growth” from the 2009 initiative.

Public Representatives method. The decision to apply the trend-based approach collectively to aggregate volumes sent by participants, instead of on a mailer-by-mailer basis, was identified as an issue by the Public Representatives in the review of the 2010 initiative.¹¹ In their comments, they presented a variation of the trend-based approach to estimate the “loyalty growth” from participants in the 2009 initiative.¹² While the Postal Service’s method was applied to aggregate participant volumes, the Public Representatives applied the same method to individual mailer data. For each participant that earned discounts, if the mailer’s actual spring 2009 volume exceeded that of its trend-based “spring threshold,” the difference was divided by the mailer’s actual spring 2008 volume. The resulting percentage (equivalent to the Postal Service’s 7.07 percent, but unique to each mailer) was multiplied by that mailer’s actual summer 2009 volume to estimate the amount of anyhow volume. *Id.* at 8-10.

Because of the wide variation in the volume patterns of individual participants, the disaggregated application of the trend-based approach yielded results very different from the aggregated method. Whereas the Postal Service estimated a relatively low amount of revenue leakage from discounts on mail that would have been sent absent

¹¹ Docket No. R2010-3, Comments of Public Representatives, March 22, 2010, at 15-17.

¹² The Public Representatives did not present an application of this trend-based approach to an *ex ante* analysis of the 2010 initiative in the manner that the Postal Service applied its aggregate 2009 “loyalty growth” rate (7.07 percent) to the 2010 initiative. The Public Representatives’ estimated net impact of the 2010 initiative on Postal Service finances was instead based on an analysis of historical distribution of annual mailer volume growth rates.

the incentive, the Public Representatives' disaggregated method estimated a larger revenue leakage and a correspondingly smaller amount of contribution from new mail. As a result, the estimated net increase in contribution was nearly 90 percent less than the Postal Service's estimate.¹³

V. COMMENTS

The Commission invites comments from interested persons on the volume-estimating methodologies to be used in connection with pricing incentive programs. The Commission also invites interested persons to propose other methodologies for estimating the new volume caused by pricing incentive programs and alternative estimates of price elasticity for use in evaluating these programs.¹⁴

Initial comments are due 30 days after publication of this Notice in the *Federal Register*. Reply comments, if any, are due 60 days after publication of this Notice in the *Federal Register*. The Commission will evaluate comments and, if appropriate, propose a new methodology for estimating volume changes due to pricing incentive programs. Interested persons will be provided an opportunity to comment on any such proposal.

John P. Klingenberg is appointed to represent the interests of the general public in this proceeding.

¹³ The Public Representatives also stated that because volume growth in the period after the sale exceeded the volume growth during the sale period, a "fall threshold" (as opposed to "spring threshold"), trend-based approach would lead to the conclusion that all of the discounted volume was anyhow volume. Using this method, the initiative generated net contribution losses equal to the sum of discounts awarded (\$67.9 million). *Id.* at 9.

¹⁴ The Commission has required the Postal Service to provide panel data on the results of each pricing initiative. This data should allow for improved understanding of mailers' reactions to these incentive programs, including quantified measures of the response such as price elasticity. *See, e.g.*, Docket No. R2010-3, Order Approving Standard Mail Volume Incentive Pricing Program, April 7, 2010, at 23-24.

VI. ORDERING PARAGRAPHS

It is Ordered:

1. The Commission establishes Docket No. RM2010-9 to consider volume-estimation methodologies for pricing incentive programs.
2. Comments by interested parties are due 30 days after publication of this Notice in the *Federal Register*. Reply comments are due 60 days after publication of this Notice in the *Federal Register*.
3. Pursuant to 39 U.S.C. 505, John P. Klingenberg is appointed to serve as the officer of the Commission (Public Representative) to represent the interests of the general public in these proceedings.
4. The Secretary of the Commission shall arrange for publication of this Order in the *Federal Register*.

By the Commission.

Shoshana M. Grove
Secretary