BEFORE THE
POSTAL REGULATORY COMMISSION
WASHINGTON, D.C. 20268-0001

RATE ADJUSTMENT DUE TO EXTRAORDINARY OR EXCEPTIONAL CIRCUMSTANCES	Docket No. R2013-11

Statement of Lawrence G. Buc

SLS Consulting, Inc.

Contents

Statement of Lawrence G. Buc on Behalf of NPPC et al.

My name is Lawrence G. Buc. I am the President of SLS Consulting, Inc. ("SLS"), a Washington, D.C.-based, consulting firm specializing in postal economics. I have participated in rate and classification cases of the United States Postal Service ("Postal Service") for over 35 years. I joined the Revenue and Cost Analysis Division of the Postal Service in March of 1975 and have analyzed postal issues ever since. I have also been employed by the United States Postal Rate Commission ("Commission") and have been retained by private clients for consultations on postal topics.

This is the tenth case in which I have submitted testimony or comments to the Commission. I have testified previously in five rate cases (R84-1, R90-1, R97-1, R2000-1, R2006-1), three mail classification cases (MC76-1, MC77-2, and MC2004-3), and in one complaint case (C99-4). I have testified on behalf of the Postal Service, a number of interveners, and the Office of the Consumer Advocate at the Commission.

I graduated from Brown University with an A.B. with honors in mathematics and economics. I also received an M.A. degree in economics from the George Washington University of America. While there, I was a member of Omicron Delta Epsilon, the national honorary economics society.

Introduction and Summary

I am submitting this statement on behalf of the National Postal Policy Council, the American Catalog Mailers Association, the American Forest & Paper Association, the Envelope Manufacturers Association, Grayhair Software, the Greeting Card Association, International Paper, the Major Mailers Association, the National Association of Presort Mailers, Pitney-Bowes, Inc., the Printing Industries of America, Quad/Graphics, and R. R. Donnelley. It covers two important topics: (1) the price elasticity of mail, and (2) the effect of the recession on mail volumes and diversion. This statement is based on an analysis of studies pertaining to the price elasticity of demand for mail as well as surveys of and discussions with mailers. Details on the surveys and discussions will follow.

Price Elasticity of Demand

Studies conducted over a number of years in the United States have generally found that the demand for most classes of mail now classified as Market Dominant is inelastic with respect to price. This means that mail volume responses to price changes are smaller on a percentage basis than and in the opposite direction of those price changes; if demand were elastic, the response of mail volume to price changes

would be larger than the percentage change in price, but still in the opposite direction. Three recent studies – one by the Postal Service's Office of the Inspector General ("OIG"), one by the Postal Regulatory Commission's technical staff, and one by the Postal Service itself – all produce these results for most Market Dominant mail groupings.[1]

The elasticity estimates from these studies, however, are based solely on regression analysis, an econometric tool. With real prices extremely stable in the recent past, econometrics provides very little useful information about how mail volumes would respond to larger real price increases, particularly with the rapid changes in alternative channels of communication in this period. In a March 2010 report for the Postal Service, "Projecting Mail Volumes to 2020", Boston Consulting Group recognized important limitations on using econometrics in estimating mail volumes (and implicitly demand elasticity) and the value of discussions with mailers…

> Our findings are based on an in-depth study of Sender and Consumer perspectives about mail and its alternatives for key market segments. This approach has been proven in work with other posts, and it is particularly applicable in times of economic and technological upheaval – when traditional long-term econometric approaches, such as that used by the USPS, break down. BCG at Page 2

To provide additional perspective to the elasticity discussion, a group of industry participants undertook a study of mailers to elicit information from them about how they make mailing decisions with respect to operational/transactional communications and marketing. The study included (1) surveys of mail owners focusing on their First-Class Mail and Standard Mail use and (2) a number of in-depth interviews with mail owners, most, but not all, of whom had responded to the surveys. The mail owners who participated in the study spanned a wide variety of large mail volume businesses throughout the mailing industry: banks and credit card issuers, insurance companies, utilities, catalogers, and publishers.

[1] Analysis of Postal Price Elasticities, Report Number: RARC-WP-13-008, Office of the Inspector General, United States Postal Service, May 1, 2013. Are U.S. Postal Price Elasticities Changing? Margaret M. Cigno, Katalin K. Clendinin and Edward S, Pearsall, Presented at the 21st Conference on Postal and Delivery Economics, Center for Research in Regulated Industries, May 29-June 1, 2013. Narrative Explanation of Econometric Demand Equations for Market Dominant Products Filed with Postal Regulatory Commission on January 22, 2013 Prepared for the Postal Regulatory Commission by the United States Postal Service.

The survey results and interviews support a view that the demand for mail is likely to be more price elastic than estimated in the econometric studies. In fact, one group of mailers – catalogers - report elastic demand derived from running the same return-on-investment/profitability models that they use in their ordinary course of business to select actual mail recipients from lists of potential recipients. Other mailers of marketing material who report quantitative results also report higher elasticities than those estimated in the studies. Finally, mailers of operational/transactional mail provide a compelling narrative explaining why this mail is likely to be more elastic than estimated using econometrics.

The Effect of the Recession on Mail Volume

In Further Statement of Thomas. E. Thress on Behalf of the United States Postal Service in Docket No. R2010-4R[2], witness Thress makes truly extraordinary claims about the effect of the recession on mail volumes. He claims that (1) even in FY 2012, a period that began more than two years after the recession ended and recovery began, volume losses due to the recession are 53.546 billion pieces, about one-third of current mail volumes, and (2) the volumes losses due to the recession increased each year from 2008 to 2012. (Thress, Table 1 at 4) Further, in response to POIR 6 Q14, Thress claims that volume losses will continue to grow by about 5 billion pieces a year through FY 2013 and 2014. Since these remarkable estimates of recessionary volume loss hinge on the unsupported assumption that the recession induced additional electronic substitution, we also asked survey questions about this assumption, trying to shed light on the relationship between the recession and diversion.

There is no doubt that the recession caused reductions in mail volumes for both marketing and operational/transactional mail during the period the economy was in recession. Further, there is also no doubt that mail volumes for these two categories of mail are below what they were before the recession began, largely due to electronic diversion. But the economy has been in recovery since July of 2009. Further, our surveys and interviews provide no support for the proposition that the recession in and of itself caused increased diversion. In fact, they point to just the opposite conclusion: increased diversion was independent of the recession. As one interviewee phrased it, "Whether the recession was there or not, our company would have been going down the path of electronic anyway." Another interviewee expressed a parallel thought, "Adoption of [the] digital age occurred more so after the recession, not due to the recession; rather when the clients became more interested in alternative/readily available information and ability to complete transactions at their finger tips." Finally, a third explained, "We

[2] Originally filed as part of Docket No. R2010-4R, all statements and library references are now listed as part of Docket No. R2013-11.

developed our 'move to electronic communications' plans in 2006 and vetted the plans for approval in March of 2007. This was before the recession began. That the start of our implementation occurred in the early part of the recession time period was not planned."

In particular, in response to a question asking respondents who increased their rate of electronic substitution for operational/transactional mail over the last five years as compared to the previous five years to rank reasons for this increased electronic substitution, the recession was ranked as the least important factor.

In the rest of this statement, I discuss the price elasticity of demand and the effect of the recession on mail volume in additional detail.

The Demand for Mail is More Elastic than Reported by Regression Analysis

Valid Regression Analysis Must Meet Two Conditions: Those Used to Estimate Price Elasticity of Demand Don't

Each year the Postal Service estimates and provides to the PRC demand analyses in accordance with Commission Rule 3050.26. According to its "Narrative Explanation of Econometric Demand Equations for Market Dominant Products Filed with Postal Regulatory Commission on January 22, 2013", the price elasticity of demand for three important product groups, accounting for well over two thirds of the Postal Service's Market Dominant mail volume in that year, varies from fairly inelastic to almost completely inelastic as shown in Table 1, below. To set a context for the table, the price elasticity of all goods and service in the economy is, by definition, -1.0. Also, Single-Piece Letters and Cards are estimated to be even less sensitive to price than is medical care, a highly counter-intuitive proposition given the emergence of numerous electronic substitutes for mail.[3]

[3] "Despite a wide variety of empirical methods and data sources, the demand for health care is consistently found to be price inelastic. Although the range of price elasticity estimates is relatively wide, it tends to center on –0.17, meaning that a 1 percent increase in the price of health care will lead to a 0.17 percent reduction in health
care expenditures" The Elasticity of Demand for Health Care, A Review of the Literature and its Application to the Military Health System, Prepared for the Office of the Secretary of Defense, Rand Health, RAND.

Table 1. Price Elasticity of Demand for Selected USPS Products (USPS Estimates), FY 2012

Product Grouping		Elasticity	Base Volume (millions)
		[a]	[b]
First-Class Single Piece Letters, Flats, & Cards	[1]	-0.157	24,359.600
First-Class Workshared Letters, Flats, & Cards	[2]	-0.345	41,993.522
Standard Regular (Excluding Parcels)	[3]	-0.464	41,036.653

Source: Docket No. R2013-11, USPS-R2010-4R/9, AfterRates-Exig-Oct.xlsx
[1][a] "Elasts", cells B11, C11, P11
[2][a] "Elasts", cells E11:N11, Q11:U11
[3][a] "Elasts", cells Z11:AK11
[1][b] "Vols&Revs", SUM(B7:C7, P7)
[2][b] "Vols&Revs", SUM(E7:N7, Q7:U7)
[3][b] "Vols&Revs", SUM(Z7:AK7)

While estimating slightly different values for these price elasticities, in the reports cited in footnote 1 above, the Office of the Inspector General and the staff of the Postal Regulatory Commission have also published studies in the last year showing inelastic demand for most market dominant product groupings. These studies also relied exclusively on regression analysis for their price elasticity of demand results.

At the most fundamental level, regression attempts to predict how changes in a dependent variable (in this case mail volume) will be caused by changes in independent variables (in this case, variables like the price of mail and the state of the economy.) To do so, it estimates how past changes in the dependent variable were associated with past changes in the independent variables and then assumes that the same relationship will obtain in the future. From a theoretical perspective, the technique critically depends on the structural relationship between the dependent and the independent variables remaining unchanged in the future from what it was in the past. If the structure changes, there is no basis for assuming that any predictions based on the regression will capture the future relationship correctly. From a practical perspective, the technique critically depends on sufficient variation in the dependent variables to allow predictions across a range of values of those variables. When the values of an independent variable are tightly clustered, there is little predictive power in the relationship of the dependent variable and the independent variables outside of the range of independent variables used in the estimation procedure.

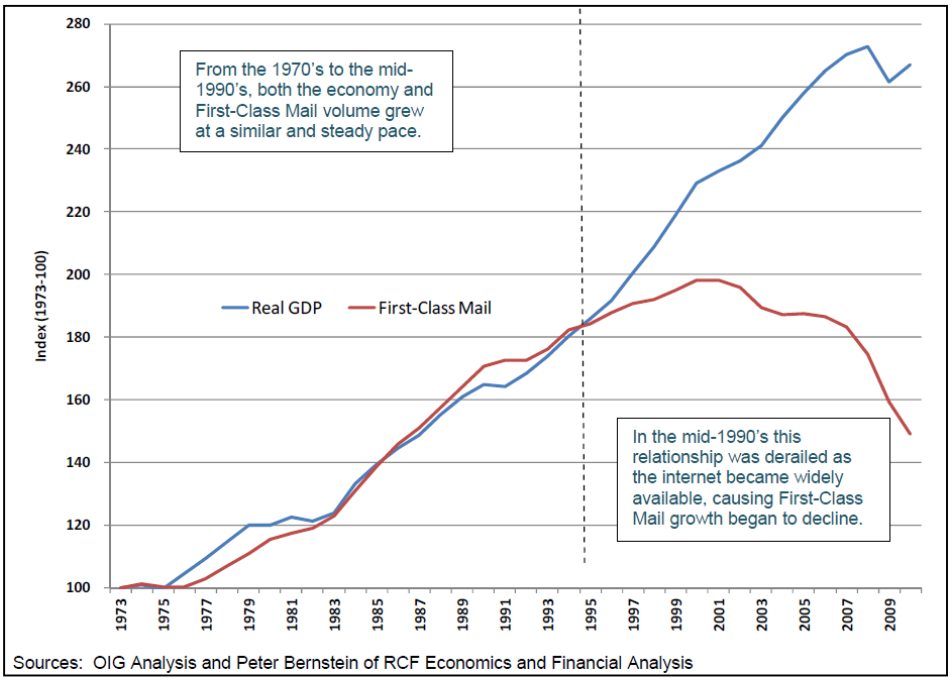
The design of a regression analysis to measure the effect of a person's height on his or her weight provides a common sense illustration of both points. On the first point, if input data on height are limited only to adult males of a wide variety of heights, the regression may be useful in predicting the

weight of an adult male from his height, but it is far less useful in predicting the weight of a juvenile female from her height. The structural relationship is simply different: in general, males typically weigh more than females of the same age and older people typically weigh more than juveniles, at least up to some age. On the second point, if input data on height are limited only to females from 5'4" to 5'5", the regression may be useful in predicting the weight of a female who is 5'4½", but it is far less useful in predicting the weight of a woman who is 4'11" or 6'1" since both heights lie outside the range of the data on which the regression has been estimated.

The regression analyses estimating the price elasticity of demand suffers from both defects: (1) the structural relationships between mail and factors such as employment, GDP, and others is arguably changing, and that may make mail more or less price elastic, and (2) while postal prices have been relatively stable in real terms for a long time, there has been markedly less variation in real prices recently, particularly since the enactment of PAEA.

Figure 1, below, reproduced from an OIG report, shows First-Class Mail volumes and real GDP in the United States. As the figure shows, while mail volume and GDP used to be tightly correlated, they no longer are: structural changes in the economy have altered the relationship between mail volume and GDP over the years. And these structural changes might well have changed the relationship between mail volume and price. My discussion of the survey and the interviews will show that the structure of the American economy and its use of First-Class Mail have changed, not due to the recession, but due to changes in communication technologies and how those changes have changed attitudes.

Figure 1. First-Class Mail Volume and Real GDP



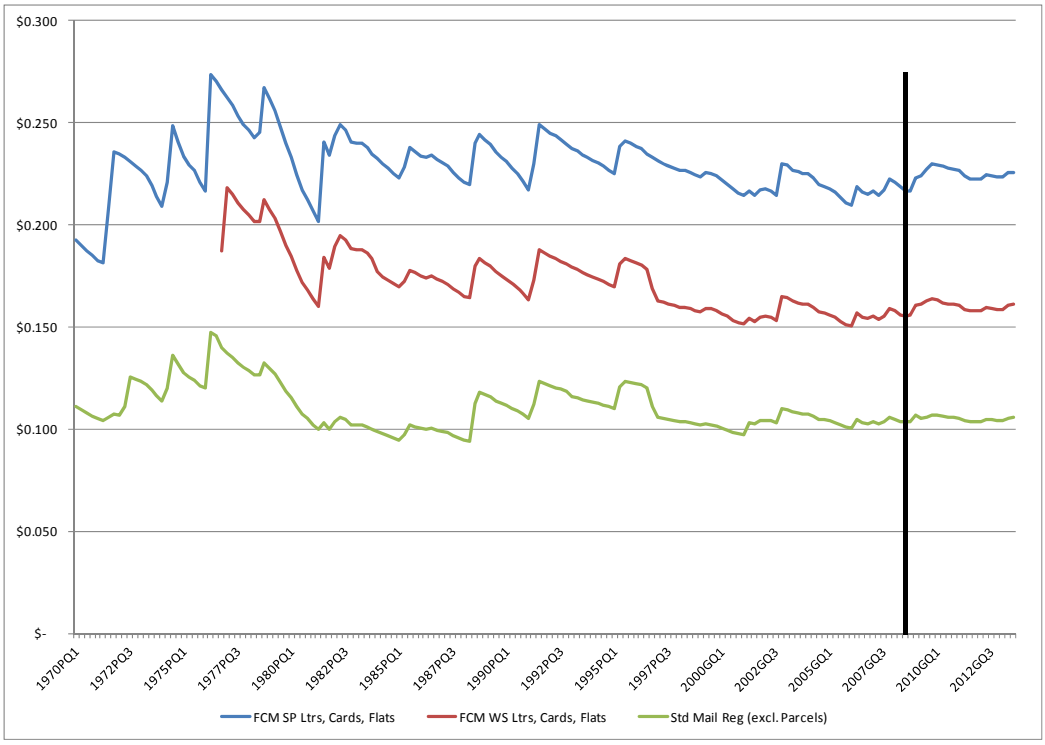
Source: RARC-WP-12-010, April 27, 2012

I now turn to a discussion of price variation in the recent past.

Price Variation

Real prices for three major groupings of postal products (First-Class Single Piece Letters, Flats, and Cards; First-Class Workshared Letters, Flats, and Cards; and Standard Mail Regular, Excluding Parcels) have been fairly stable over a long period of time as shown in Figure 2. (The vertical straight black line is drawn at the date of the first CPI price increase under the Postal Accountability and Enhancement Act (PAEA).)

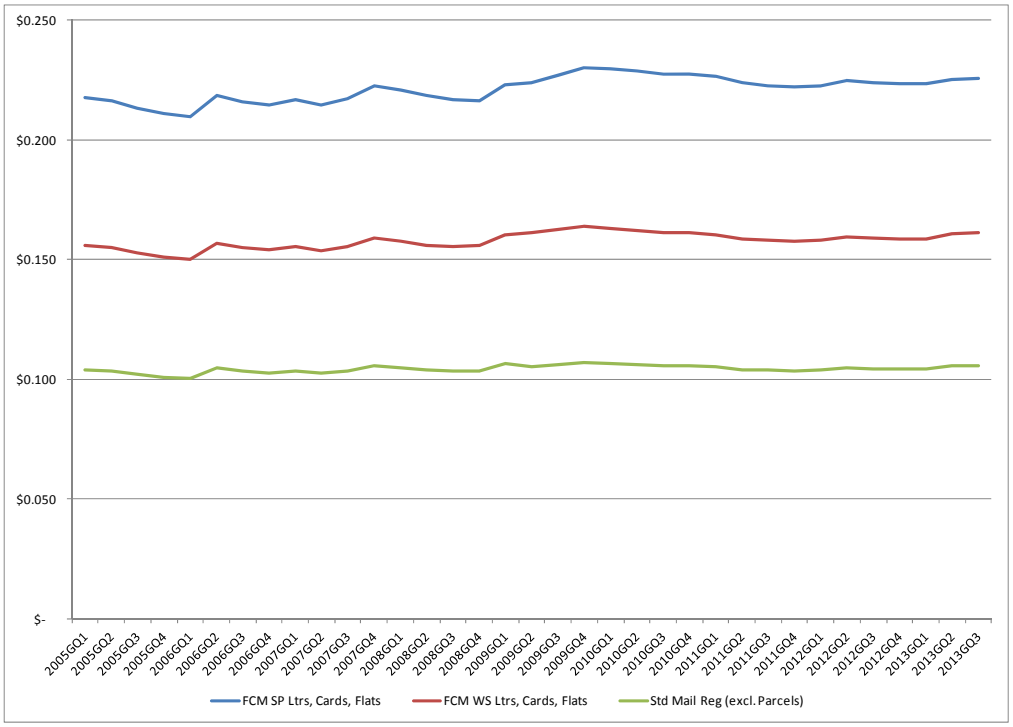
Figure 2. Real Price of Mail (1970 – Present)



Source: NPPC et al.-LR-R2013-11/1, LR-R2013-11-1-Price Calculations.xlsx, "Charts"

And while prices have been fairly stable over a long period, the CPI price cap regime under PAEA has further dampened the variability in real prices for these three product groupings as shown in Figure 3, which simply magnifies the right-hand portion of the previous graph by starting at 2005.

Figure 3. Real Price of Mail (2005 Present)



Source: NPPC et al.-LR-R2013-11/1, LR-R2013-11-1-Price Calculations, "Charts"

The data underlying the two graphs also illustrate how stable prices have been. For First-Class Single-Piece Mail, the largest single quarter-to-quarter change in the 29 quarters (more than seven years) since Q3 2006 is 2.9 percent and the average quarter-to-quarter change is 0.8 percent. For both workshared First-Class Mail and Standard Mail, the largest single quarter-to-quarter change in that period is also 2.9 percent while the average change is 0.7 percent.

Thus, there is little reason to have confidence in projected volume declines caused by a price increase greater than 2.9 percent and, as price increases become even greater, estimating volume declines becomes ever more problematic.

Surveys and Interviews Indicate that Demand for Mail is More Elastic than the Postal Service Indicates – at Least for First-Class Operational and Transactional Mail and Standard Marketing Mail

Because econometrics is of limited use in estimating price-elasticity of demand when prices are enormously stable and the communications market is undergoing a structural transformation, a group of industry participants sponsored a study of mailers to elicit information about how mailers make

decisions with respect to operational/transactional communications and marketing mailings. The results of these studies provide useful insight on price elasticity of demand. The results of these studies are contained in NPPC et al.-LR-R2013-11/NP1 and NPPC et al.-LR-R2013-11/NP2.

Study Methods and Design

SLS distributed 38 surveys to mailers who use First-Class Mail for operational and transactional purposes and 36 surveys to mailers who market using Standard Mail. In many cases, the First-Class mailer users also used Standard mailers. Thirteen First-Class Mail surveys were returned; collectively those completing the surveys estimate that they will mail 3.80 billion pieces of First-Class Mail in their current Fiscal Year. NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, "FCM Summary Statistics". Fourteen Standard Mail surveys were returned; collectively those completing surveys estimate that they will mail 5.07 billion pieces of Standard Mail in their current Fiscal Year. NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, "STD Summary Statistics". The survey forms for both First-Class Mail and Standard Mail have been redacted to protect information of the individual respondents. The redacted forms, as well as summary information, are provided in NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx.

To follow up on selected topics from the surveys, we also conducted six interviews pertaining to First-Class Mail and an additional six for Standard Mail. Not all who provided completed surveys participated in interviews and not all who participated in interviews completed surveys. The lap guide we used for framing the interview discussions as well as redacted notes from our conversations are provided in NPPC et al.-LR-R2013-11-NP2, LR-R2013-11-NP2 – Interview Notes.docx. Finally, we also distributed a supplemental survey pertaining to the recession, diversion and substitution, and mail volumes. We distributed this survey to 36 of the 38 mailers of First-Class Mail who had received the original survey and received 11 responses. Cumulated across respondents, those who returned surveys mail 4.54 billion pieces of First-Class Mail in their current fiscal year. Data from the supplemental survey is also included in NPPC et al.-LR-R2011-13/NP1, LR-R2013-11-NP1 – Survey Results.xlsx.

Outside of the Postal Service, no organization has an exhaustive listing of all mailers' mail volumes by product. Because of this, no party outside of the Postal Service can construct a truly random sample of mailers or of mail. Ours wasn't. But we did send surveys to all firms for which our sponsors provided contact information, and we have no reason to believe that these potential respondents were biased in any fashion other than being mailers of large volumes of mail. Similarly, we have no reason to believe

that our responses were subject to any response bias. Our responses cover a large volume of mail and span a wide range of businesses: banks and credit card issuers, insurance companies, utilities, catalogers, and publishers. Finally, we believe we achieved a satisfactory response rate given the time required to fill out the survey, the busy schedules of those who completed it, the period for response, and the period of time for participating in interviews. Thus, we believe our responses to be representative of mailers in general for workshared transactional/operational and marketing mail.

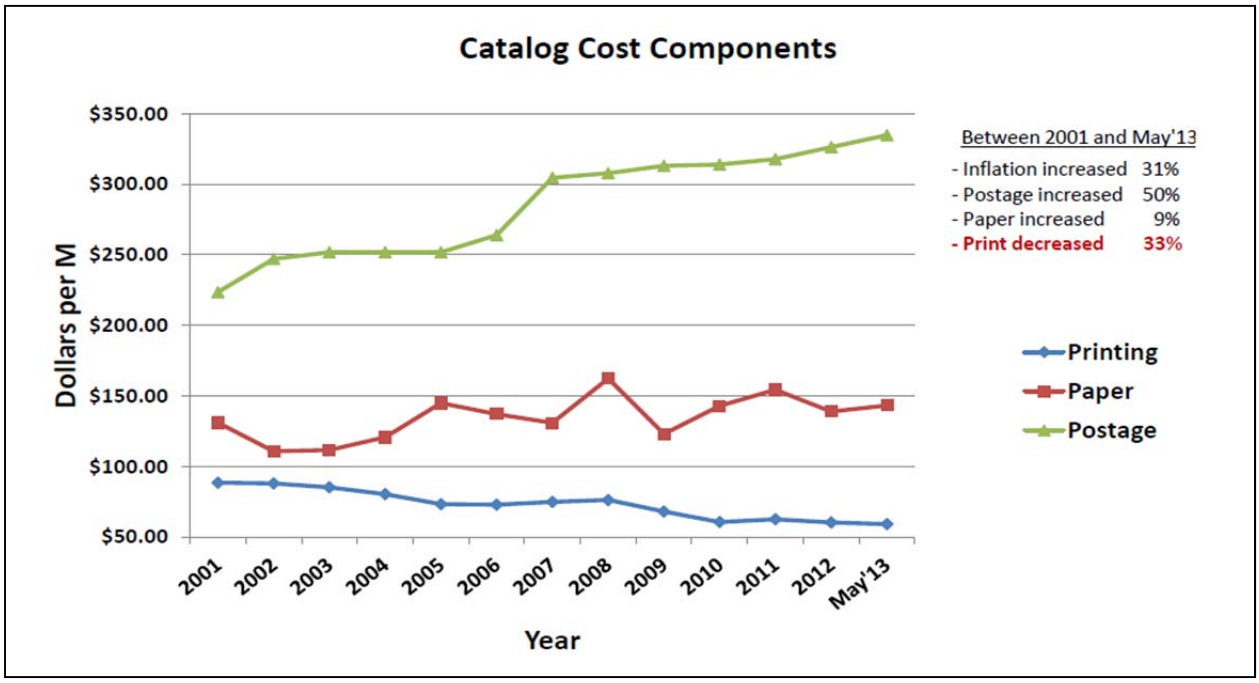
Standard Mail Results

In its description of factors affecting demand elasticity, Christensen notes…

> The larger the share of the household budget allocated to purchase of a good, the more sensitive the consumer is to price. This is because it is worth the effort for the consumer to search out substitution alternatives for these big purchases while it might not be so for purchases that are a very small share of the budget. Analysis of Postal Price Elasticities, Report Number: RARC-WP-13-008, Office of the Inspector General, United States Postal Service, May 1, 2013, page 46.

Data from a supplier to the mailing industry show that for one category of Standard Mail, catalogs, postage comprises a large and growing share of its cost of marketing through the mail.

Figure 4. Postage Trends Have Far Exceeded Inflation & Other Catalog Cost Components



This fact alone motivates the thought that demand for Standard Mail might be more elastic than estimated econometrically.

Survey results and interviews both support the position that the demand for Standard Mail is more elastic than estimated econometrically. A series of questions asked marketers with formal models that they use in their business for selecting mail recipients from lists of potential recipients to run these models at real price increases of four, ten, and 20 percent and report volume declines.[4] I constructed from survey responses and discussion with marketers the following paragraph summarizing their general approach to determining how much volume to mail...

> "As business people, we try to maximize our profitability. Determining whom to mail to determines how much to mail, and is critical to our business. Over the years, we have developed and improved our capabilities and those who don't use similar analytics don't

[4] The exact questions were: Does the company use formal models to determine the allocation of marketing budget to different types of marketing and/or to different channels? If so, when do you run the models and how are they used? What are the input variables to the model and what are the outputs? If the price of mail is an explicit input to the models, please run them with an increased price of mail of 4 percent, 10 percent, and 20 percent above inflation (across all mail classes) and tell us what happens to the amount of marketing volume of mail and the other marketing channels. NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, beginning in row 76 of all worksheets that begin with "Standard Survey".

survive. While input values (response rates, lifetime value of a customer, required ROI, etc) and output answers of others may differ from ours, at a high level, their methods are the same. Based on our analytics, we mail to everyone up to the point where we first exceed and then hit our ROI targets. We do this by estimating response rates and average value of sale (for our house list) and segment customers into groups varying across these parameters. We mail to all that are profitable (although in some cases for marketing credit cards they must also have passed prescreening requirements with respect to credit scores.) Postage represents the majority of our mailing expense and postage increases increase mailing cost. When that happens, those people whom we estimate to have a lower response rate or a lower expected value of sale no longer receive mail (although they may be marketed in other channels), since it is no longer profitable to mail to them."

Per our instructions in the survey, these firms ran their marketing models at real price increases of four, ten, and 20 percent and reported the volume decreases associated with these price increases. Four firms in the cataloging or publishing industry collectively representing about 755 million pieces of mail in their current fiscal year provided answers to these questions.

Table 2. Price Elasticity of Demand Calculated from Mailing Models: Catalogers and Publishers

Real Price Increase (Percent)	Modeled Volume Decrease (Percent)	Implied Elasticity
4%	7.0%	- 1.75
10%	14.8%	- 1.48
20%	23.4%	- 1.17

Source: NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, "STD Summary Statistics"

As Table 2 shows, the marketing models show that rather than being inelastic, the demand is actually elastic. Volume responses are slightly bigger than the price increase.

An additional five companies collectively representing about 2.9 billion pieces of mail in their current fiscal year also provided elasticity estimates based on their experience with and understanding of their marketing models rather than actually running the models themselves. Four of these five firms comprising 2.6 billion pieces of mail are financial institutions or insurers. Their reported results in Table 3 generally show demand to be elastic, although somewhat less so than the catalogers and publishers.

Table 3. Reported Price Elasticity of Demand: Other Standard Mailers

Real Price Increase (Percent)	Modeled Volume Decrease (Percent)	Implied Elasticity
4%	3.6%	- 0.91
10%	10.5%	- 1.05
20%	21.5%	- 1.08

Source: NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, "STD Summary Statistics"

Finally, we aggregated results from both groups of mailers using volume weighting, with results as shown in Table 4 below. According to these results, Standard Mail also appears more elastic than reported in the Postal Service's regression studies.

Table 4. Reported Price Elasticity of Demand: All Standard Mailers

Real Price Increase (Percent)	Modeled Volume Decrease (Percent)	Implied Elasticity
4%	4.5%	- 1.12
10%	11.7%	- 1.17
20%	22.5%	- 1.13

Source: NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, "STD Summary Statistics"

First-Class Mail Results

For Standard Mail, the decision as to how much to mail rests solely with the entity sending the mail; for First-Class operational and transactional mail (bill and statements, privacy notices, etc.) customers may have a legal choice about whether they choose to receive a particular communication by mail or through an electronic channel. Even in circumstances for which customers don't have a legal right, a company may honor a customer's communication preference because of the risk of losing a customer. Consequently, most companies do not have formal models showing how their First-Class operational/transactional mail volume will respond to price changes. Thus, rather than asking for results from non-existent models, we constructed a set of survey questions the answers to which might shed light on the price elasticity issue. We augmented this with discussions with mailers on the topic.

Data from respondents show that while mail is still the predominant communication channel, electronic communication continues to make steady inroads.

Table 5. Channel Choice for Transactional Operational Mail

Channel	Numbers of Transactional/Operational Communications by Channel (Mail Pieces)		
	Projected Total Current Fiscal Year	Last Year	Year Before Last
Mail	3,035,161,290	3,003,734,595	3,072,205,659
Electronic	893,804,106	778,438,654	657,624,765
Other	-	66,025	315,389
Total	3,928,965,396	3,782,239,274	3,730,145,813
Mail as Percent of Total	77.3%	79.4%	82.4%

Source: NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, "FCM Summary Statistics"

The change in communication channel choice over the last five years illustrates the continuing and relentless electronic diversion.

Table 6. Channel Choice

Percentage Transactional/Operational Communications that Could be Sent by FCM that Actually Are		
Projected Total – Current Fiscal Year of Mailer	**Three Years Ago**	**Five Years Ago**
69%	79%	88%

Source: NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, "FCM Summary Statistics"

Mailers say that they prefer electronic channels because mail is expensive compared to the electronic substitutes. Not only is mail expensive, but increasingly, mailers focus on the cost of postage. During the course of the discussions with mailers, I was told that in "the old days" the cost rule of thumb for mail was a third, a third, a third: postage was a third the cost of a mailing, paper and other supplies were another third, and labor was the final third.

Today and for the last few years, according to survey respondents, postage has increased and now comprises a much greater share of the cost of mailing.

Table 7. Cost of Mailing

	First-Class Mail Expense Percentages		
	Current Fiscal Year	**Last Year**	**Year Before Last**
Postage	75.5%	74.6%	74.3%
All Others (Ink/Toner/Paper/Labor etc)	23.9%	24.6%	25.1%

Source: NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, "FCM Summary Statistics"

As postage has become more expensive, it and the mailings it pays for are increasingly topics of concern within corporations. Mailers say that if they could "snap their fingers and convert all their customers to electronic communications", they would certainly do so. In large part, because many mailers already have the infrastructure in place to accommodate the conversion, the technical marginal cost of an electronic communication is very low, certainly much less than postage and other costs of physical mail.

But mailers remain wary of a high potential cost of forced conversions: mailers know they need to respect their customer's preferences or risk losing some customers. At current mail prices, they simply won't risk losing valuable customers over the issue of communication channels. While it may be expensive to send monthly statements to a customer, it would be far more expensive to lose a

profitable customer to a competitor who respected the customer's communication preferences. I heard that story over and over again: "We take customers where they are", and "We communicate with our customers in their preferred manner."

Because of this, mailers have so far used "carrots" rather than "sticks" to try to convert customers to electronic channels. Carrots include on-line access to historic statements, environmental nudges like pointing out alleged virtues of electronic communications as compared to paper or offering to plant trees in return for conversions, entry in a lottery for valuable prizes, a reduction in the amount of a loan, no-fee checking, etc, etc. Also, mailers are exploring the use of larger and sweeter carrots.

Further, some customers prefer electronic communication to the mail; these customers do not require carrots to convert and many of them are more than willing to sign up for accounts that don't use the mail for communication. For example, my children just laugh when I ask them whether they get statements or bills by mail. Finally, as time goes by, and those of us who are not digital natives become more comfortable in the digital world, electronic communication simply becomes more natural and a large segment of the population becomes more amenable to persuasion.

But despite the consumer-friendly approach to date, most mailers understand that sticks may also work in some instances where carrots haven't. Some have experimented with mail surcharges (although usually not for extremely valuable customers) and most mailers have talked about the need to increase the use of sticks if postage increases become larger in real terms or less predictable, both of which are outcomes of "busting the cap". For example, some low-balance savings or checking accounts may require their owners to accept electronic communication. And of course, as more mailers use surcharges and the like, the probability of losing a customer over the practice decreases. At this point, there will be far less restraint on the part of the mailers. Drawing an analogy to another industry, it will be much harder for customers to punish those airlines with baggage fees when all airlines have baggage fees.

Finally, in some industries laws and regulations which previously required physical communication no longer do. Thus, in some states, insurance companies may now send insurance binders or proof of insurance by e-mail, rather than mail and this fact expands the universe of potential substitution. [5] The

[5] In fact, 11 states now allow online presentment of policy contracts, 26 allow mobile presentment of insurance cards, and four allow e-mail of cancelation/non-renewal notices.

universe of potential substation could also be expanded by regulatory interpretations. As one bank said…

> For credit cards, Regulation Z (or the Truth in Lending Act) is the major requirement that provisions how "cost of credit" disclosures must be delivered. Reg. Z and many of the other requirements do not specifically call out "in writing", or if they do use phrasing like "in writing or similar means", or "clear and conspicuous", which can be interpretive.

And the bank told me that while they already believed it perfectly legal to deliver these notices in channels other than mail, increased prices for mail would lead them to be far more likely to act on this belief.

Several representatives of financial institutions said that the proposed exigent price increase had attracted attention either at the C-suite level or at the level directly below it. They said that this attention is virtually unprecedented. More mailers also said that when price increases are higher than inflation, the value of the differential above supports conversion to electronics. In other words, the Postal Service basically provides the money they need to invest to fund the campaigns they will use to persuade their customers to convert. So, as postage prices rise higher and higher, these companies in essence have more money to invest. As part of the discussion, some mailers also explained that these investments will “move higher in the ranking of potential investments” if the exigent increase is approved.

In summary, mailers present a number of reasons why smaller real price increases in the future could be met with larger volumes drops than predicted by elasticity estimates: (1) postage matters, (2) technologies are in place to accommodate electronic substitution, (3) customers are more accepting of communication channels other than mail, (4) carrots can be sweeter and sticks could be used, (5) senior management is watching and worried that current price increases are harbingers of even larger ones in the future.

The Recession In and Of Itself Did Not Accelerate Electronic Diversion

Thomas E. Thress presents the Postal Service’s estimates of volume losses due to the recession. He makes truly extraordinary claims about the overall mail volume losses due to the recession and how long following the recession these recessionary mail volume losses have lasted:

> Even more significant to the Postal Service, the Postal Service's financial losses due to factors related to and triggered by the Great Recession continue to accrue even now, four years after the general U.S. economy has been in recovery. Thress at 6

> The estimated cumulative effect of factors relating to the Great Recession on total Market-Dominant mail from FY 2008 through FY 2012, as shown in the final row of Table Two, is a loss of Market-Dominant mail volume of 53.5 billion pieces of mail.
>
> That is to say, it is my estimate that, if macro-economic conditions had not deteriorated between FY 2007 and FY 2012, and the relationship between mail volume and macro-economic and other factors had remained the same as before the Great Recession, total Market-Dominant mail volume would have been 53.5 billion pieces higher in FY 2012 than actual volumes that year, or 209.8 billion pieces of total mail, as compared to actual FY 2007 volume for these categories of mail of 209.4 billion pieces. Thress at 7.

Thus, in summary, he claims that even in FY 2012, a period that began more than two years after the recession ended and recovery started, volume losses due to the recession amounted to 53.546 billion pieces, about one-third of current mail volume. He also claims that the volume losses due to the recession increased each year from 2008 to 2012. (Thress, Table 1 at 4) Finally, he claims that these volume losses will continue to grow even larger in FY 2013 (58.790 billion) and 2014 (63.895 billion). POIR.6.Q.14.ExigentImpact.xlsx, "Testimony Tables".

Importantly, Mr. Thress has candidly admitted that much of his claim about the recessionary volume losses is based on his judgment and interpretation of the econometrics rather than the econometrics themselves. As Mr. Thress stated…

> Careful econometric analysis can be extremely useful in identifying when these net diversion trends might have changed and to quantify these trends historically. But to understand why these trends have changed, as well as predict the impact in wider ranges of prices, requires moving outside of the econometric models and analyzing the underlying factors that are driving these trends. POIR.3.Q.1

And again…

> It is not possible to isolate the separate effects of coincident trends on mail volume econometrically. The econometric demand equations presented in this case are only capable of measuring net mail diversion over a particular time period. In order to identify the specific factors underlying net mail diversion, it is necessary to step outside of the econometric model and seek outside information on what these factors might be and their relative importance. POIR.6.Q.25

Continuing to peel the onion, Thress's judgment on Postal Service's recessionary volume loss hinge on the unsupported assumption that the recession caused behavioral changes…

> It is also obvious that the Great Recession has had a significant impact on the behavior of consumers, businesses, and governments within the United States (and around the world). These behavioral changes include changes to the relationship between Americans and the mail in ways that are clearly consistent with other behavioral changes observed over this same time period and **appear** to be in direct response to the Great Recession. POIR 6.Q.4 (emphasis added)

Lacking any theoretical construct as to why and how these changes might have been caused by the recession or data to show that they were, Thress simply posited that they were…

> After a careful analysis of the relevant factors and the affected mail volumes, which included careful consideration of additional information beyond my econometric models, for those factors which I have attributed to the Great Recession, I could not find sufficient evidence to support the possibility that these factors were caused by something other than the Great Recession. POIR 6.Q.4

In contrast to Thress, rather than simply assuming there was or wasn't a relationship between the recession and business behavior with respect to mail, we explored this critical issue by distributing a supplemental survey (NPPC et al.-LR-R2013-11/NP1, all worksheets that begin with "Follow-Up") that included three questions on the relationship and allowed for a comment:

1. Over the last five years did you increase your rate of electronic substitution for your company's operational/transactional mail as compared to the previous five years?

_____ Yes
_____ No

2. If so, please rank the following factors in order of importance (1 being the most important factor, 9 being the least important) to which you attribute this acceleration of electronic substitution.

_____ Introduction/adoption of new technologies by customers (e.g., smartphone, tablet)
_____ Development of electronic alternatives by your company (e.g., apps, websites)
_____ Company campaigns to encourage adoption of electronic alternatives
_____ Changes in regulatory requirements
_____ The 2007-2009 recession
_____ Increased company focus on controlling costs
_____ Increased comfort level of customers with electronic alternatives
_____ The growing number of "digital natives" in your customer base
_____ Other (specify)

3. Was your company's annual budget available to invest in developing electronic alternatives; and encouraging customers to adopt electronic alternatives during the recession higher than, lower than, or the same as it was in the years after the recession?

Source: NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx.

We also asked for current year's estimated total First-Class Mail volume (if they had not already submitted a First-Class Mail Survey response) so we could weight responses and provided a response block for any comments a respondent choose to provide.

We received responses from 11 mailers indicating they have increased their rate of electronic diversion in the last five years as compared to the previous five years. Volume losses from mailers like these are exactly the losses that Mr. Thress has judged as being "due to" the recession. In their current fiscal year, survey respondents will collectively mail 4.5 billion pieces of First-Class Mail, a not insignificant share of the total volume of First-Class Mail.

In response to the question asking them to rank the reasons for their electronic substitution, only two of the mailers used the "other "category, one of whom ranked "the environment" as the fourth most important factor and the other of whom ranked "CASS Cycle L" as the sixth most important factor. Because each of these factors appeared only once, we dropped them from further analysis and rescored the factors ranking below them for these two respondents, promoting each lower-ranked factor one place. Thus, for analytic purposes, we use eight factors. Further, one respondent ranked only five factors. For the three that were unranked, we assigned them all a ranking of 7, the average of the missing rankings. Finally, one respondent categorized six factors as "high" and two as "low." Since the "high" responses were all similarly ranked, we assigned an average score of 3.5 for these, and an

average score of 7.5 for those categorized as “low.” Our conclusions are robust to these editing procedures: they only simplify calculations without affecting our results. The raw data (with company names redacted) appear in NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, "FCM RAW DATA".

As the data show, of the 11 respondents, only one ranked the recession as being anything other than the least or second least important factor for their increased electronic substitution over the last five years; even this single mailer ranked the recession only as the fourth most important factor. Five of the mailers ranked the recession as the single least important factor, one ranked it as tied for least most important, and the remaining four ranked it as the seventh (of a possible eight) least important factor. It is thus correct to say that these mailers feel that very little of their increased diversion is due to the recession.

Table 8 summarizes the raw data on the importance of various factors for increased electronic substitution we received from this phase of the survey, edited as described above. The columns display four alternative methods for rankings the importance of the factors accounting for increased electronic substitutions over the last five years. The first simply calculates the average ranking while the second calculates the average ranking weighted by the mail volume of the respondents. As these two columns show, our respondents state that the 2007-2009 recession and changes in regulatory requirements are the least important factors by a wide margin in their increased electronic substitution. Far more important are factors that relate to technology availability (Introduction/adoption of new technologies by customers, Development of electronic alternatives by companies), the acceptability to customers of new technology (Increased comfort level of customers with electronic alternatives, The growing number of “digital natives”), and company understanding that e-communication is a less expensive alternative than paper (Increased company focus on controlling costs, Company campaigns to encourage adoption of electronic alternatives.)

The third and fourth columns simply re-rank the average scores in the first two columns respectively from 1 to 8 based on the ordering in those first two columns. These re-rankings also show that the 2007-2009 recession and changes in regulatory requirements are again the least important factors by a wide margin in their increased electronic substitution.

Table 8. Reasons for Increased Electronic Substitution

	Raw Score		Ranking	
	Average	Weighted Avg	Average	Weighted Avg
Introduction/adoption of new technologies by customers (e.g., smartphone, tablet)	2.68	3.03	1	2
Increased comfort level of customers with electronic alternatives	2.77	2.66	2	1
Development of electronic alternatives by your company (e.g., apps, websites)	3.41	3.93	3	4
Increased company focus on controlling costs	3.68	3.51	4	3
Company campaigns to encourage adoption of electronic alternatives	4.41	3.98	5	5
The growing number of "digital natives" in your customer base	5.05	4.51	6	6
Changes in regulatory requirements	7.00	7.43	7	8
The 2007-2009 recession	7.09	7.16	8	7

Source: NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, "FCM Summary Statistics"

Comments from the mailers support their rankings. As one interviewee phrased it, "Whether the recession was there or not, our company would have been going down the path of electronic anyway." A second expressed much the same thought, "We developed our 'move to electronic communications' plans in 2006 and vetted the plans for approval in March of 2007. This was before the recession began. That the start of our implementation occurred in the early part of the recession time period was not planned." Finally, a third also noted that his company's increased substitution was not due to the recession, "Adoption of [the] digital age occurred more so after the recession, not due to the recession rather than when the clients became more interested in alternative/readily available information and ability to complete transactions at their finger tips."

New technologies are not free; under most theories of technological dispersion, investment is necessary to promote this dispersion. But during the recession, as shown by Thress, investment in the United States was sharply reduced.[6] Thus, we hypothesized that it would be unusual for the typical company to actually invest more in promoting diversion while overall investment was sharply curtailed. Table 9 below shows mailers expenditures on developing technology for electronic alternatives and encouraging their customers to divert.

[6] Docket No. R2013-11, USPS-R2010-4R/10, Sources-of-ChangeCalcs.xlsx, "Input Data", column H.

Table 9. The Recession and Electronic Substitution Budget

During the Recession, Budget Was…	# of Mailers	% of Volume
Bigger	3	30.6%
Smaller	2	22.4%
Same	6	47.0%

Source: NPPC et al.-LR-R2013-11/NP1, LR-R2013-11-NP1 – Survey Results.xlsx, "FCM Summary Statistics"

The rows show the effect of the recession on the budgets companies allocated to investing in electronic alternatives. Our results confirm our hypothesis. Only three of the 11 mailers (representing about 31 percent of the reported mail) increased their budgets to promote diversion during the recession: the remaining eight did not. Of these, six of them (representing about 47 percent of the mail) reported the same investments while the other two (representing 22 percent of the mail) invested less as compared to the period following the recession.

Given that their investment budgets are compatible with their rankings and their statements on the effect of the recession on electronic substitution, we found no support for the proposition that increased electronic diversion of First-Class operations and transactional mail was due to the recession. In fact our surveys and interviews support the proposition that the increased substitution was in fact independent of the recession regardless of the Postal Service's judgment on the issue.

Summary

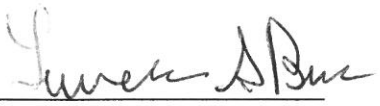
This statement discusses two important topics: (1) the price elasticity of demand for mail and (2) whether the recession induced additional electronic diversion. With respect to the price elasticity of demand, I show that recent real prices have been remarkably stable and that reliable predictions from regression depend on variation in the independent variables; together, these two facts render the econometrically derived elasticities unreliable. In contrast, I then provide information from mailers derived through survey and discussion showing that demand for mail is far more elastic than estimated by regression analysis: for Standard Mail demand is elastic and for First-Class Mail, mailers present a number of reasons why smaller real price increases in the future could be met with larger volumes drops than predicted by elasticity estimates

With respect to whether the recession induced additional electronic diversion, I provide information from mailers showing that this is not the case. Mailers rank the recession as least important among eight possible factors in accelerating electronic diversion and their comments and budgets strongly support their rankings. As one mailer explained, "Whether the recession was there or not, our company would have been going down the path of electronic anyway." In light of this information and his repeated candid admissions that the econometric model does not and cannot know what caused the increased electronic substitution, the Postal Regulatory Commission should not accept witness Thress's judgment that the recession caused additional electronic substitution.

DECLARATION

I declare under penalty of perjury that the foregoing was prepared by me or under my supervision and is true and accurate to the best of my knowledge.

Dated: November 26, 2013



Lawrence G. Buc