BEFORE THE
POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268–0001

POSTAL RATE AND FEE CHANGES, 2001

Docket No. R2001–1

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS BERNSTEIN TO GCA INTERROGATORIES GCA/USPS -T10-9 - 23
(December 10, 2001)

The United States Postal Service hereby provides the response of witness Bernstein to the following interrogatories of GCA: GCA/USPS–T10-9 - 23, filed on November 26, 2001. Question 8 of the same set was redirected to witness Thress. Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorney:

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December 10, 2001

RESPONSE OF POSTAL SERVICE WITNESS BERNSTEIN
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GCA/USPS-T10-9 On page 56 of your testimony you discuss diversion from telephone price declines as part of the other factors you estimated for the past five years. Would not the major impact from this telephone factor have been in the first ten years following telecom deregulation in the early 1980s?

RESPONSE:

To the extent that telephone deregulation had any negative impact on First-Class single-piece letter mail volume, it seems likely that the major effect would have been in the years soon after telecom deregulation. Please see GCA/USPS-T10-8 for more discussion of the relation between single-piece letter volume and telephone prices. My testimony discussed the general downward trend in single-piece letter volume due to a variety of factors and concluded at page 56, lines 18-20, "[T]his decline is probably largely complete, but is part of the historical trend in single-piece letter volume that is measured in the econometric equation."

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GCA/USPS-T10-10 You argue on page 4 starting on line 8 that "technological diversion" weakens the "Postal Service's financial position". You go on to state: "Consequently, diversion of mail makes rate cases more frequent or makes rate increases larger than they would otherwise be."

a. Are you familiar with the term "right-sizing" as it is used in the private sector? Please define the concept as you understand it to be used.
b. Other firms faced with competition from new technologies either retain market share by innovating themselves, or have to cut costs, including labor and capital costs. Don't you agree that this is also an option for the USPS, as opposed to larger or more frequent rate increases?
c. Isn't the larger or more frequent rate increase (or both) strategy you propose tantamount to a business that loses volume, trying to make it up by charging higher margins to its remaining customers? Isn't that a self-defeating strategy under competitive conditions?

RESPONSE:

a. My understanding of "right-sizing" is that a firm should seek its most efficient size. In the case of the Postal Service, there is considerable evidence that increases in volume (a larger size) increase the Postal Service's efficiency (i.e., reduce average costs), because larger volumes allow the non-volume variable costs of the Postal Service to be spread over more pieces of mail.

b. Yes.

c. I do not propose a strategy of frequent rate increases. I merely observe that the Postal Service has recently had to rely on more frequent rate increases to ensure its financial stability in the face of diversion of mail to electronic alternatives. Given that the demand for most postal products is inelastic, raising rates is not self-defeating in that rate increases lead to increases in revenue and

contribution. However, I would agree that ultimately, the Postal Service cannot continue to raise rates well beyond the rate of inflation.

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CA/USPS-T10-11

a. Please confirm that your view of the impact of "technological diversion" on the Postal Service is that, on balance, it will have a negative impact.
b. Please confirm that this is not an estimate based on economy-wide efficiency or welfare considerations, just the narrow consideration of the Postal Service's own welfare.
c. Please confirm that the "technological diversion" on which your testimony focuses is a very good example of what the late economist Joseph Schumpeter meant by process of "creative destruction".
d. In Schumpeter's view, please confirm that on balance for the economy as a whole, technological processes of "creative destruction" are viewed as a positive, and indeed, necessary occurrence for economic progress?

RESPONSE:

a. Confirmed.

b. Diversion has a negative impact both on the Postal Service and users of the Postal Service.

c. My testimony does not address the theories of Joseph Schumpeter. The technological changes affecting the Postal Service may reflect his idea of "creative destruction."

d. Again, my testimony does not address the work of Joseph Schumpeter. However, I would agree that the wide range of technological changes discussed in my testimony have had an overall positive impact on the economy.

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GCA/USPS-T10-12.

a. Please confirm that in Schumpeter's theory, the process of creative destruction almost always involves the creation of new organizations to grow and manage the new technology due to the inability or unwillingness of the older institutions to do so.
b. Please confirm that in the context of your discussion of diversion due to the Internet, relatively new firms like AOL are leading the process of "creative destruction".
c. Has the Postal Service contemplated alliances with companies like AOL for universal electronic delivery of letter mail as, for example, it has consummated with FedEx in a different arena of new competition?

RESPONSE:

a. My testimony does not address the theories of Joseph Schumpeter.

b. Maybe.

c. I don't know.

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GCA/USPS-T10-13 Are you implying by your testimony that "technological diversion is responsible for there being two rate increases (January and July) and another rate case filing to further raise rates, all in 2001?

RESPONSE:

The second rate increase in 2001 is due to the Postal Rate Commission's decision to reduce the Postal Service's revenue request. Beyond that, I believe that volume losses due to technological diversion are one of the important reasons why the Postal Service is filing the R2001-1 rate case soon after implementing the R2000-1 rates.

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GCA/USPS-T10-14 Is the main point of your testimony to argue that Ramsey pricing is warranted because of technological diversion?

RESPONSE:

No.

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GCA/USPS-T10-15 With respect to your Table 6, what percentage of total households served by the Postal Service, under your universal delivery mandate, with hard copy delivery services would be included in your May, 2005 estimate of 168.9 million active Internet users? Between today and that date, does this represent a movement toward your universal delivery address totals?

RESPONSE:

I do not quite understand your question and I do not believe I have any data that would be responsive. Active Internet users is measured in terms of individuals, not households. I can say that growth in the number of users is projected to exceed growth in total population, and that therefore the percentage of households with Internet access is expected to increase.

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GCA/USPS-T10-16

a. With respect to your argument on pricing and demand inelasticities on page 66, lines 1-10, please confirm that the own price demand elasticity for Standard A Regular mail is less than one in absolute value.
b. Please confirm that such a numerical elasticity in a. renders the service a price inelastic one, not a price elastic one.
c. Please confirm the textbook proposition that for price inelastic goods, raising the price results in greater revenue even factoring in the volume loss from the price increase.
d. Why would substitutes for FCM letter mail such as you discuss affect elasticities "not much" while substitutes for advertising mail are alleged to explain the less inelastic own price elasticity found for those subclasses than those traditionally found for FCM letters?

RESPONSE:

a. Confirmed.

b. Confirmed.

c. Confirmed.

d. Standard Regular is more elastic than First-Class letter mail. There may be a number of different reasons why it is more elastic. One likely reason is that the presence of competing advertising media makes Standard Regular volume more sensitive to rate changes. This can occur because advertisers often make decisions based on a direct comparison of the cost effectiveness of different media. Increases in Standard Regular rates make direct mail relatively less cost effective and could be expected to induce advertisers to shift advertising dollars to another media.

In contrast, it seems reasonable that the decision to use First-Class letters or an electronic alternative is less based on the price of First-Class letters. Instead, the decision may have to do with the technological capabilities of a user, including such things as their ownership of home computer, access to the Internet, and their individual comfort with using computers and the Internet as alternatives to the mail. Increases in First-Class letter rates are unlikely to cause people to buy a computer, obtain Internet access, or become more comfortable with using technological alternatives to the mail. Therefore, it appears that technological diversion is not strongly related to the price of First-Class letters, and would not be expected to have a meaningful impact on the letter own-price elasticity.

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GCA/USPS-T10-17 With reference to your discussion on page 68, lines 20-22, please cite all factors that would lead current own price elasticity of FCM letters to be less than what it was in the last case, given the fact it is greater for FCM single piece letters.

RESPONSE:

I would argue that the price elasticity of First-Class letters is essentially the same as it was in the last case, in that whatever difference that exists is well within the range of statistical variation. More simply, the overall elasticity is the same because while the estimated own-price elasticity of single-piece letters has increased, the estimated own-price elasticity of workshare letters decreased. Moreover, the share of First-Class letter mail that is workshared is increasing, giving relatively more weight to this lower elasticity in the calculation of an elasticity for total First-Class letters.

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GCA/USPS-T10-18 Please refer to page 35 in your testimony and your LR-J-133, Excel file, "Forecasts of Internet Variables.xls," in your worksheet "USER FORECASTS"

a. Please confirm that the formula you have given on this page of your testimony is correctly specified.
b. If your answer to a. is negative, please provide the correct formula.
c. If your answer to a. is affirmative, explain why the formula used in your Excel file under the column titled "Fitted" differs from the one in your text and how you would reconcile the two.

RESPONSE:

a through c. The formula on page 35 is missing one term. A corrected page will be submitted.

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GCA/USPS-T10-19 Please refer to your LR-J-133, Excel file, Forecasts of Internet Variables.xls," worksheet "USER FORECASTS."

a. Please describe in detail, what initial values you used for the model coefficients (m, p, q, d), what constraints (if any) you imposed on these coefficients in the solver, and how did you run the solver to obtain the final parameter estimate.
b. If you did not impose any constraints on the coefficients, please explain, why using your final parameter estimates as initial values without any constraints yields completely different parameter estimates.

RESPONSE:

a and b. The parameter estimates were constrained to be non-negative. No initial values were selected. However, it may be the case that the final estimation of the Bass curve parameters is dependent on results from earlier estimations so that small differences in parameter estimates can result from following a different estimation process.

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GCA/USPS-T10-20 Please refer to your LR-J-133, Excel file, "Forecasts of Internet Variables.xls," worksheet "USER FORECASTS."

a. Please confirm that the minimum ESS you have obtained equals 60.521993.
b. Please confirm that by using the following parameter estimates m=274.6, p=0.008398, q=0.002309, and d=0.418733 in your model the ESS would equal 60.458634.
c. If your answer to both a. and b. are affirmative, then m, the ceiling on the active users or as you define it "the maximum size of the market or ceiling value" equals 274.6 rather than your estimate of 306.7. Please explain how this affects your reviewing of the statistical results on line 17, page 37 of your testimony.
d. If your answer to b. is affirmative, explain how these parameter estimates affect your results in the other sections.

RESPONSE:

a. Confirmed.

b. Confirmed.

c. It has no effect.

d. The impact is immaterial. Using the parameter estimates suggested in your interrogatory leads to projections of future users that are essentially the same as those presented in my testimony. For example, my testimony projects that in May of 2003, active Internet users will total 139.27 million. Using the above parameters would yield a forecast for May of 2003 of 138.89 million, a difference of less than three-tenths of one percent.

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GCA/USPS-T10-21 Please refer to your LR-J-133, Excel file, "Forecasts of Internet Variables.xls," worksheet "$ per USER FORECASTS" and Table 7 on page 39 of your testimony USPS-T-10.

a. Please confirm that adjusted R-squared is 0.938 rather than 0.983 as you have reported in your Table 7.
b. Please confirm that the values you have reported in Table 7 of your testimony for intercept are not from the regression summary output you have provided in your Excel file (where you must have used time trend input of 1 to 25) rather from an unreported regression output where you have used time trend 0 to 24.
c. Please confirm that if you had used a quadratic model where the square of the time trend was also included in the model you would have obtained a better fit.
d. If your answer to c. is affirmative please describe how this would have affected your forecasts of dollar per user spending on ISP (Table 8 and Table 9 page 40 and 42 of your testimony) and ultimately Dr.Tolley"s volume forecasts.

RESPONSE:

a. Confirmed, "0.983" should read "0.938."

b. Confirmed, understanding that a linear model with a time trend running from 0 to 24 yields exactly the same forecasts as a linear model with a time trend running from 1 to 25.

c. Not confirmed. While I found that a quadratic model (one with a time-squared term) yielded a higher adjusted r-squared, it had other properties which made it inferior to the model I presented in my testimony. First, in the quadratic model, the t-statistic on the linear term drops to 1.7, below the level generally used as a measure of statistical significance. Second, the quadratic model generates

forecasts which I consider to be unreasonable. For example, the quadratic model gives a forecast of $86.01 per month per active Internet user in April of 2005. This is more than twice the $40.46 monthly expense projected for this month using the linear model. Actual monthly expenses were measured at $18.61 in April of 2001 so that the quadratic model would project a 360 percent increase over a four-year period, a result that I consider to be unreasonable.

d. As I stated in c, I chose not to use the forecasts from the quadratic model because they were unreasonable. I expect that Dr. Tolley would be equally averse to using an unreasonable projection of an input variable in his volume forecasts.

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GCA/USPS-T10-22 Please refer to your testimony USPS-T-10 page 48. You state, "Total advertising expenditures are projected to grow by 1.5% from 2000 to 2001 and then increase at the same rate as personal consumption expenditure." In your LR-J-133, Excel file, "Forecasts of Internet Variables.xls," worksheet "advertising" you provide the following figures for the personal consumption expenditure growth rate: 5.29%, 5.47%, 5.30% and 5.59% for the years 2002, 2003, 2004, and 2005, respectively.

a. Please provide the source for the personal consumption expenditure growth rate.
b. Given the current projection of deeper than expected recession, do you confirm that these projected personal consumption expenditure growth rates are highly unlikely?
c. If you answer to b. is affirmative, then provide a more realistic projections available (if any) which has incorporated the recent events and other recent economic concerns as well as your revised projected Internet advertising expenditures based on these new growth rates. Furthermore, explain how this will affect the First-Class mail diversion to Internet and ultimately Tolley's volume forecasts. In other words, how it affects "the magnitude of the impact of ISP expenditure on single-piece letter volume" (USPS-T-10, page 53) and Table 2 of Dr. Tolley you have provided on page 54 of your testimony.
d. If your answer to b. is affirmative, please explain whether it is reasonable to state on page 57 of your testimony that "Between the Base Year and the Test year, ISP expenditures are projected to increase from $20.4 billion to $48.3 billion. This increase in projected to reduce single-piece volume by about 7.8% over a period of slightly more than two years."
e. If your answer to b. is negative, please elaborate in detail why these projected personal consumption expenditure growth rates would still entail and thus would not have any impact on the magnitude of the diversion of First-Class mail to Internet as you and Dr. Tolley have projected.

RESPONSE:

a. The personal consumption expenditure projections used in my analysis come from DRI/WEFA and are the same as the projections used by Dr. Tolley in his volume forecasts. The data are found in LR-J-124, file M02QTR.XLS. Nominal consumption expenditures can be calculated by taking the monthly values of real

consumption expenditures (C96C) and multiplying them by the implicit consumption deflator for that month.

b. Whether the projections are "highly unlikely," or merely "unlikely", we are in the midst of a recession which was not assumed to occur when these projections were made. Please see Dr. Tolley's response to NAA/USPS-T7-13 for a broader discussion of this issue. With respect to my testimony, the projected 1.5 percent increase in total advertising expenditures in 2001 represents a decline in real (inflation-adjusted) expenditures, consistent with the current recession. How much less advertising expenditures grow than I projected depends on the depth of the current recession and the strength of the ensuing recovery. There are indications that advertising expenditures are declining substantially. For example, on November 28th, the Wall Street Journal reported that during the 2001 fall advertising season, newspaper, magazine, television, and radio advertising spending were each between 9.6 and 15.0 percent less than a year earlier. [Decline in Ad Revenue Worsens, Suggesting No Quick Turnaround, Wall Street Journal, November 28th]. Bob Coen of McCann-Erickson estimates that total advertising will decline 4.1 percent for all of 2001 and grow only 2.4 percent for 2002. [Bob Coen's Insider's Report, McCann-Erickson WorldGroup, December 2001].

c. Please see Dr. Tolley's response to NAA/USPS-T7-13. Note also that as a point of record, ISP consumption expenditure projections are not based on projections of personal consumption expenditures.

d. Your interrogatory raises several issues, each of which will be addressed in turn. First, will the current recession cause ISP consumption expenditures to be less than originally projected? Indeed, this is a real possibility. Even though the projections of ISP consumption are not based on projections of total consumption, it seems reasonable that a recession could cause a slowdown in the growth of ISP consumption. A second issue is how would lower growth in ISP consumption would effect the estimate of diversion and ultimately the volume forecasts of Dr. Tolley. Taken by itself, a decline in ISP consumption would imply less diversion, but this decline cannot be taken by itself. Any change in ISP consumption due to a recession represents only one impact of a deteriorating economic environment. A recession will adversely affect mail volume in more direct ways than through its impact on diversion. In other words, there may be less diversion because there will be less mail to be diverted.

Beyond the impact of the recession on mail diversion, there is another important recent development -- the mailing of anthrax. This event is likely to cause more mail diversion to electronic alternatives. Whether this diversion is reflected in increases in ISP consumption expenditures is unclear, but it seems just as likely that the combined impacts of a recession and the mailing of anthrax will lead to more, as opposed to less, diversion of First-Class letter mail than originally forecast.

e. Please see my answer to d.

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GCA/USPS-T10-23. Please refer to pages 65-67 of your testimony USPS-T-10.

a. Please confirm that in your discussion of technological diversion postal pricing, whether you are assuming that the technological diversion has no impact on the USPS costs.
b. If your answer to a. is affirmative, then isn't it reasonable for the USPS to cut back on some services to reduce costs rather than employing very large increases in rates in order to break-even?
c. If your answer to a. is negative, explain in detail in which direction the technological diversion affects the USPS costs and the alternatives that USPS may pursue to break-even other than "...rate cases occurring either more frequently, with greater increases, or both." (USPS-T-10, page 66).

RESPONSE:

a. I am not assuming that technological diversion has no impact on USPS costs.

b. Not applicable.

c. Taken by itself, technological diversion would be expected to increase average cost per mail piece because the reduction in volume causes the Postal Service's non-volume variable costs to be spread out over fewer pieces of mail. Alternatives to large or frequent rate increases could include efforts to reduce labor or capital costs or efforts to increase volumes through changes in marketing or pricing strategy.

DECLARATION

I, Peter Bernstein, declare under penalty of perjury that the foregoing answers are true and correct to the best of my knowledge, information and belief.

Peter Bernstein

(Signed)

12-7-01

(Date)

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

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