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

POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000–1

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS THRESS TO INTERROGATORIES OF THE NEWSPAPER ASSOCIATION OF AMERICA (NAA/USPS–T7–1-12)

The United States Postal Service hereby provides the responses of witness

Thress to the following interrogatories of the Newspaper Association of America:

NAA/USPS–T7-1-12, filed on March 14, 2000.

Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr.
Chief Counsel, Ratemaking

Eric P. Koetting

475 L'Enfant Plaza West, S.W.
Washington, D.C. 20260–1137
(202) 268–2992 Fax –5402
March 28, 2000

RESPONSE OF POSTAL SERVICE WITNESS THRESS
TO INTERROGATORIES OF NEWSPAPER ASSOCIATION OF AMERICA

NAA/USPS-T7-1   Please refer to pages A-20 and A-21 of Witness Tolley's testimony, where he states that "P0 is the weighted average of deflated prices for 1999Q1 through 1999Q4 ... P1 is the weighted average of deflated prices for 1998Q4 through 1999Q3, P2 is the weighted average of deflated prices for 1998Q3 through 1999Q2, P3 is the weighted average of deflated prices for 1998Q2 through 1999Q1."

    a.   In your estimation, do you use the weighted average of four quarters as your price input? Please cite the source for your answer.

    b.   In your estimation, when using lags, do you use lags by quarters, i.e., one, two, or three quarter lags? Please cite the source for your answer.

RESPONSE:

a.   No. All of my analyses are done on a quarterly basis. I therefore had no

occasion to calculated averages of multiple quarters.

b.   Yes. I describe my use of price lags in my testimony at page 90, line 15 through

page 91, line 6.

RESPONSE OF POSTAL SERVICE WITNESS THRESS
TO INTERROGATORIES OF NEWSPAPER ASSOCIATION OF AMERICA

NAA/USPS-T7-2   Please confirm that your First Class Workshared Letters regression does not include a cross-price elasticity with respect to Standard ECR.

      a.   If you cannot confirm, please explain why not.

      b.   Did you also estimate a regression that included the cross price elasticity with respect to Standard ECR?

      c.   If yes, please provide the results.

      d.   If not, please indicate why you did not include the cross price elasticity with respect to Standard ECR.

RESPONSE:

Confirmed.

a.   Not applicable.

b.   No.

c.   Not applicable.

d.   With the exception of automation carrier-route letters, which comprise a mere 6.6 percent of Standard ECR volume (in 1999), there is no presort category of First-Class letters that is comparable to Standard ECR mail in terms of preparation. Further, the average price of Standard ECR automation basic letters is more than 10 cents and more than 40 percent less than the average price of First-Class automation carrier-route letters. Hence, it seems extremely unlikely to me that there would be much, if any, price-based substitution between these two subclasses of mail.

NAA/USPS-T7-3   Please confirm that your Standard Regular regression includes a cross-price elasticity with respect to First Class Letters but does not include a cross-price elasticity with respect to Standard ECR, aside from the "Dummy for Shift of Mail from ECR into Regular after R97-1".

a.   If you cannot confirm, please explain why not.

b.   Did you also estimate a regression that included the cross price elasticity with respect to Standard ECR?

c.   If yes, please provide the results.

d.   If no, please indicate why you did not include the cross price elasticity with respect to Standard ECR.

e.   Why do you include the cross-price elasticity with respect to First Class Letters in your regression for Standard Regular rather than the cross price elasticity with respect to First Class Workshared Letters?

RESPONSE:

Not confirmed. My Standard Regular equation includes a cross-price elasticity with respect to workshared First-Class letters.

a.   Not applicable.

b.   Yes.

c.   Please see Workpaper 3 accompanying my testimony at pages 120 and 137 through 140.

d.   Not applicable.

e.   See my response above.

RESPONSE OF POSTAL SERVICE WITNESS THRESS
TO INTERROGATORIES OF NEWSPAPER ASSOCIATION OF AMERICA

NAA/USPS-T7-4   Please confirm that your Standard ECR regression does not include a cross-price elasticity with respect to either First Class Letters or Standard Regular, aside from the "Dummy for Shift of Mail from ECR into Regular after R97-1."

    a.   Did you also estimate a regression that included the cross price elasticity with respect to either First Class Letters or Standard Regular?

    b.   If yes, please provide the results.

    c.   If no, please indicate why you did not include the cross price elasticities with respect to either First Class Letters or Standard Regular.

RESPONSE:

Confirmed.

a.   Yes for Standard Regular, no for First-Class Letters.

b.   For a Standard ECR equation which includes a cross-price elasticity with respect to Standard Regular mail, please see Workpaper 3 accompanying my testimony at pages 141 through 145.

c.   With respect to First-Class letters, please see my response to NAA/USPS-T7-2(d) above.

RESPONSE OF POSTAL SERVICE WITNESS THRESS
TO INTERROGATORIES OF NEWSPAPER ASSOCIATION OF AMERICA

NAA/USPS-T7-5   Please confirm that you do not estimate separate equations for Standard A piece-rates and Standard A pound-rated mail in your analysis. Please indicate why you did not.

RESPONSE:

Confirmed. Because the Postal Service did not ask Dr. Tolley to make separate forecasts for Standard A piece-rated and pound-rated pieces, I saw no benefit in attempting to estimate separate demand equations for these mail categories.

RESPONSE OF POSTAL SERVICE WITNESS THRESS
TO INTERROGATORIES OF NEWSPAPER ASSOCIATION OF AMERICA

NAA/USPS-T7-6   Please confirm that you do not estimate any cross-price elasticities between Standard A piece-rated and Standard A pound-rated mail. Please confirm that as a result, you do not allow for the possibility of migration between Standard A piece-rated and pound-rated pieces.

RESPONSE:

Confirmed that I estimate no cross-price elasticities between Standard A piece-rated and Standard A pound-rated mail. This is not equivalent to saying that I have either estimated or assumed that such a cross-price elasticity is equal to zero. Hence, I cannot confirm your last sentence.

RESPONSE OF POSTAL SERVICE WITNESS THRESS
TO INTERROGATORIES OF NEWSPAPER ASSOCIATION OF AMERICA

NAA/USPS-T7-7   Please give the values and cite the source for:

a.   Your newspaper price inputs (reference your testimony page 50). What was the name of the specific BLS price series used?

b.   Your direct mail advertising delivery cost inputs (reference your testimony page 48).

c.   Your direct mail advertising technological cost inputs (reference your testimony page 48).

RESPONSE:

a.   USPS-T-7, Workpaper 1, Table 1-19, page 27, under the column heading "WP_NWS". This is BLS series WPI09310221NS.

b.   Delivery costs are measured by postal price indices. Nominal prices can be found in USPS-T-7, Workpaper 1, Table 1-15, page 22, under the column headings "PX3R_NCRU", "PX3R_CR", and "PX_3NU", for Standard Regular, ECR, and bulk nonprofit mail, respectively. These prices are deflated by dividing by the implicit personal consumption deflator (USPS-T-7, Workpaper 1, Table 1-18, page 26, under column heading "PC"). The natural logarithm of these prices are used in my regressions.

c.   Technological costs are measured by the price of computer equipment and the price of computer equipment squared. These variables can be found in USPS-T-7, Workpaper 1, Table 1-19 ("P_CMP") and Table 1-20 ("P_CMP_SQ") on pages 26 and 27, respectively.

NAA/USPS-T7-8   Please confirm that you impose stochastic restrictions in the
following: 1) Between workshared first class letters and single piece first class letters
(see page 15 of your testimony), 2) Between Standard A regular and workshared first
class letters (see pages 17-20 and 52), 3) Between Standard A nonprofit and both
Standard A Regular and ECR subclasses (page 53), and 4) Between Standard Regular
and Standard ECR (page 53).

    a.   If you do not confirm any of the above, please explain why not.

    b.   Please confirm that for restriction 1) above, you decided to freely estimate
the beta in the workshared equation and impose the stochastic restriction
in the single piece equation, based on a t-statistic test. If you cannot
confirm, please explain why not.

    c.   What basis is there for choosing the estimation in the way described in
(b), rather than freely estimating the beta in the single piece equation and
imposing the stochastic restriction in the workshared equation?

    d.   For restriction 2), you make the statement on page 20 that the standard
errors are estimated "such that these cross-price elasticity estimates have
implicit t-statistics of 3.633." Please explain what you mean by "implicit t-
statistics".

    e.   For restriction 3), you state that the "coefficient on this dummy variable is
freely estimated in the Standard bulk nonprofit equation, and is
stochastically constrained within the Standard Regular and ECR
equations." Why did you choose to do it this way rather than the other
way around?

    f.   For restriction 4), you state that the "coefficient on this variable is freely
estimated in the Standard ECR equation and is stochastically constrained
in the Standard Regular equation." Why did you choose to do it this way
rather than the other way around?

    g.   Again for restriction 4), what impact does including a dummy have when
this model is used to forecast? Can the model take into account relative
differences in proposed rates between Standard A Regular and ECR?

RESPONSE:

Confirmed.

a.   Not applicable.

b.   Confirmed.

c.   As I state at page 15 of my testimony, lines 17 through 20, "[b]ecause the freely-estimated value of β_{WS} (t-statistic of 3.619) is considerably more significant than the freely-estimated value of β_{SP} (t-statistic of -1.845), the freely-estimated value of β_{WS} was used, and the restriction in equation (II.4) was imposed stochastically on the value of β_{SP}."

d.   A stochastic restriction involves a coefficient and an associated variance. In this case, I chose the variance associated with the restriction such that the t-value of the restriction (where the t-value is equal to the restricted coefficient divided by the square root of the variance of the restriction) was equal to 3.633.

e.   The freely estimated coefficient was more significant in the Standard bulk nonprofit equation than in either the Standard Regular or Standard ECR equations. Because the volume of Standard bulk nonprofit (Nonprofit and Nonprofit ECR) mail is considerably less than the volume of Standard bulk regular (Regular and ECR) mail, the relative impact of the shift of mail out of Standard bulk nonprofit was greater than the relative impact of the shift of mail into Standard bulk regular. That is, the effect of the rule change being modeled in this case was to lower Standard bulk nonprofit mail volume by almost 5 percent, whereas this rule change increased Standard bulk regular mail volume by only about 1 percent.

f.   The freely estimated coefficient was more significant in the Standard ECR equation than in the Standard Regular equation.

g.   This dummy takes on a value of zero when the price of automation 5-digit letters is greater than the price of automation carrier-route letters (e.g., prior to R97-1) and a

value of one when the price of automation 5-digit letters is less than the price of

automation carrier-route letters (e.g., since R97-1).

Because part of the base year used by Dr. Tolley to make his volume forecasts

(1999Q1 through 1999Q4) is prior to R97-1, while all of the forecast period is since

R97-1, this variable does have a modest positive effect on the volume of Standard

Regular mail in the forecast period and an offsetting negative effect on the volume of

Standard ECR mail. This is discussed by Dr. Tolley at pages A-15 through A-17 of his

testimony (USPS-T-6).

Because this is merely a simply zero-one dummy, this variable will only reflect

changes in whether automation 5-digit letters are priced above or below automation

carrier-route letters, but will not otherwise take into account changes in the difference

between these rates.

RESPONSE OF POSTAL SERVICE WITNESS THRESS
TO INTERROGATORIES OF NEWSPAPER ASSOCIATION OF AMERICA

NAA/USPS-T7-9   Please refer to your testimony page 111, where you state "If, however, one's goal is to obtain the best possible estimate for each individual coefficient ..." What does "best possible" mean? How are you determining "best possible"?

RESPONSE:

The "best possible" estimate is the most efficient unbiased estimate of a coefficient. That is, the estimate for which the expected value is equal to the actual value (unbiased) which has the lowest estimated variance (most efficient). My estimation procedure is a form of Generalized Least Squares (GLS) and is described at page 129 of my testimony. Subject to the GLS restrictions described in my testimony, my estimated coefficients will be the most efficient unbiased estimates.

RESPONSE OF POSTAL SERVICE WITNESS THRESS
TO INTERROGATORIES OF NEWSPAPER ASSOCIATION OF AMERICA

NAA/USPS-T7-10   Please refer to your testimony page 59, Table II-11, where you find that the total Standard ECR own-price elasticity is equal to -0.808, and also to your testimony in R97-1, Table II-15, where you find that the total Standard ECR own-price elasticity is equal to -0.598. Does this change reflect a structural shift in the elasticity in the more recent time period, or does it reflect inherent randomness in the data used for estimation? Please explain.

RESPONSE:

This change appears to be the result of the changes made to the Standard ECR specification since the last case (e.g., inclusion of UCAP, exclusion of the price of radio advertising, different measure of the price of newspaper advertising), as opposed to indicative of a change in the actual own-price elasticity of Standard ECR mail over time. I say this because, if one estimates the current ECR demand equation using a sample period ending in 1997Q2 (as was done in R97-1), the estimated own-price elasticity for Standard ECR mail is estimated to be equal to -0.768, which is not very different from my current estimate of -0.808.

NAA/USPS-T7-11 Please refer to page 48, lines 1-12 of your testimony. Is there any correlation between the price of newspaper advertising and:
>a. Delivery costs
>b. Technological costs
>Please explain.

RESPONSE:

Yes.

a. The simple correlation between the price of newspaper advertising and the price of Standard Regular mail for the sample period over which I estimate the Standard A equations is 0.69. The simple correlation between the price of newspaper advertising and the price of Standard ECR mail over this same time period is 0.65.

b. The simple correlation between the price of newspaper advertising and the price of computer equipment for the sample period over which I estimate the Standard A equations is -0.93. The simple correlation between the price of newspaper advertising and the computer price squared over this same time period is 0.92.

RESPONSE OF POSTAL SERVICE WITNESS THRESS
TO INTERROGATORIES OF NEWSPAPER ASSOCIATION OF AMERICA

NAA/USPS-T7-12   Please refer to page 50, lines 11-13, of your testimony.

a.   Please confirm that Standard (A) mail competes with radio and television advertising. If you cannot confirm, please explain why not.

b.   Please confirm that you have not explicitly modeled substitution between Standard (A) mail and radio and television advertising.

c.   Have you made any adjustment to your model to account for the absence, in this year's model, of any explicit factor for radio and television advertising.

RESPONSE:

a.   I can confirm that direct-mail, radio, and television advertising are in competition

for limited advertising dollars.

b.   Confirmed.

c.   I have not made any adjustments to my model expressly for that purpose.

DECLARATION

I, Thomas Thress, declare under penalty of perjury that the foregoing answers are true and correct to the best of my knowledge, information and belief.
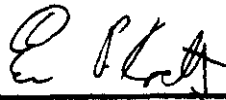
_____
(Signed)

3 - 24 - 00
_____
(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.

Eric P. Koetting

475 L'Enfant Plaza West, S.W.
Washington, D.C. 20260–1137
(202) 268–2992 Fax –5402
March 28, 2000