

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

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Postal Rate and Fee Changes, 2000

Docket No. R2000-1

POSTAL RATE COMMISSION
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**NOTICE OF FILING OF MISSING TABLE TO
REBUTTAL TESTIMONY OF
NEWSPAPER ASSOCIATION OF AMERICA
WITNESS CHRISTOPHER D. KENT
August 15, 2000**

The Newspaper Association of America hereby provides a corrected version of the rebuttal testimony of witness Christopher D. Kent. The software version of the testimony contained a Table on page 5 of the testimony. For reasons unknown to undersigned counsel, however, that table did not appear in the printed copy of the testimony. Therefore, the filed copy contained white space where the table should have appeared.

With this notice, NAA is filing a printed copy of page 5 that contains the table. For convenience, NAA is also attaching a complete copy of the testimony. We are also faxing copies of this filing to counsel likely to be most interested in this page.

Respectfully submitted,

NEWSPAPER ASSOCIATION OF AMERICA

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Table 1⁵
Comparison of ES and STS Studies

	ES	STS
Survey Start Date	Oct-96	Jul-86
Survey Completion Date	Apr-98	Oct-86
Surveyed Months	15	3
Recording Frequency	Every 6 Minutes	3 Per Route
Recording Frequency /day	46	3
Tallies	39,046	7,103
Routes	340	2,400
Locations	53	91
Activity Combinations	1,350	20

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1. Survey Period

5 In this proceeding, the ES study has come under fire for its lack of route
6 level distribution across the months of the year.⁶ Yet the STS survey was
7 conducted over a much more limited time frame, from July – October 1986, and
8 contains significantly less diversity over the months and seasons. The three-
9 month period in which the STS sample was completed provides little seasonal
10 and monthly differentiation. The ES study extended over an eighteen-month
11 period, from fall 1996 to spring 1998. Specifically, while 44% of the ES routes
12 occur during a 3-month period, 100% of the STS routes were sampled during a
13 3-month time frame. Even witness Crowder stated in her cross examination that

⁵ Raymond Direct Testimony at 3, 7 and 14; Hume Direct Testimony, USPS T-7, Docket R87-1 at 12, USPS-7B page 2 and 9, USPS-7B Figure B-5 and Figure B-6. The 53 ES locations, detailed in LR-I-159, may be reduced to 39 if one condenses multiple CY codes for commonality in the first 3 digits of zip codes.

⁶ Specifically, the large percentage of routes sampled during the months of October – December See Crowder at 28.

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WASHINGTON, D.C. 20268-0001

_____)	
POSTAL RATE AND FEE CHANGES, 2000)	DOCKET NO. R2000-1
_____)	

REBUTTAL TESTIMONY OF
CHRISTOPHER D. KENT
ON BEHALF OF THE
NEWSPAPER ASSOCIATION OF AMERICA

Please address questions
concerning this testimony to:

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August 14, 2000

1 **I. Overview of Testimony**

2 I am Christopher D. Kent, President of FTI/Klick, Kent & Allen, an
3 economic and financial consulting firm with offices at 66 Canal Center Plaza,
4 Suite 670, Alexandria, Virginia 22314. Since 1974, I have been regularly
5 involved in calculating revenues, costs, lost profits and project valuations
6 associated with a wide variety of industries and endeavors. During the last 15
7 years my work has been heavily focused towards rate proceedings in the railroad
8 and telecommunications industry. Virtually all of the studies I have
9 directed/performed have involved the development and/or use of complex
10 computerized cost models that make extensive use of detailed engineering and
11 operating input data.

12 During the period between about 1990 and 1994 I directed numerous
13 projects my firm performed for the Postal Service. These projects ranged from a
14 feasibility analysis of a USPS National Control Center, to operating efficiency
15 studies at distribution centers, to examining the viability of an integrated
16 management system. My qualifications are appended to this testimony.

17 I am filing testimony in the year 2000 postal rate hearing, Docket No.
18 R2000-1, on behalf of the Newspaper Association of America ("NAA"). The
19 purpose of my testimony is to respond to testimony submitted by witnesses Keith
20 Hay and Antoinette Crowder on behalf of MPA et al. Specifically, I compare and
21 evaluate the methodological constructs of the Engineered Standards ("ES")
22 database developed and presented by USPS witness Lloyd Raymond and the

1 1986 Street Time Sampling ("STS") survey, which has been used to develop
2 time proportions for city carriers in postal rate cases since Docket No. R87-1.

3 In considering whether to replace an older study such as the STS with the
4 newer ES database, it seems to me that the most important question has yet to
5 be fully addressed in this proceeding. Specifically, is the ES study an
6 improvement from the current standard?

7 While the STS study lacks much of the underlying data that would enable
8 an all-inclusive critique, numerous comparisons to the ES study can shed light
9 on their inherent similarities. Where methodological differences exist between
10 the two studies, the ES study generally appears to be superior to the STS study.
11 Furthermore, criticisms that have been leveled against the ES study also appear
12 to apply to the STS study. To that end, I will demonstrate that the ES database
13 makes important improvements to the STS database with more current data that,
14 in my opinion, a more preferable basis for developing carrier costs.

15 Consequently, I believe that the ES data should be used by the Postal Rate
16 Commission in developing its estimates of the costs associated with street
17 carrier activities.

18 **II. Comparison of ES and STS Methodologies**

19 **A. Summary of the ES and STS studies**

20 USPS Witness Lloyd Raymond presented testimony regarding the
21 development of the carrier street activities based on data collected during the
22 Engineered Standards/Delivery Redesign project that extended from the fall of
23 1996 to the spring of 1998. From this database, Mr. Raymond extracted

1 information related to carrier street activities and provided it to USPS witness
2 Donald Baron. According to Mr. Raymond, "the objective of the Engineered
3 Standards was to collect actual (emphasis added) activities of the city letter
4 carrier and to develop engineered methods and time standards to establish a
5 workload managing system."¹

6 The Street Time Sampling ("STS") survey was introduced by USPS
7 witness Peter Hume in Docket No. R87-1 in order to develop time proportions for
8 city carriers in postal rate cases. It was adopted by the Postal Rate Commission
9 and has since been relied upon to derive time proportions. To develop the STS
10 database, the Postal Service had street carriers record their own activities. That
11 data was later provided to analysts to be entered into a database and then used
12 to develop time proportion calculations. Incidentally, witness Hume argued in
13 R87-1 that the 1986 STS survey should replace its predecessor because it
14 provides an updated, larger sample and successfully overcame many former
15 data deficiencies.²

16 B. Survey Designs

17 While much criticism has been leveled at the fundamental design
18 characteristics of the ES study, the underlying methodology is largely
19 comparable to the STS study. First, each study sampled carrier activity at
20 specific "snap-shots" in time. Second, each study relied upon a tally-based

¹ Direct Testimony of Lloyd Raymond on behalf of the USPS, R-2000-1 at 5.

² Direct Testimony of Peter Hume, USPS-T-7, Docket R87-1 at 5, 8-9.

1 sampling system that required an after-the-fact assignment procedure to allocate
2 the tallies to time categories.

3 Specifically, the STS study collected carrier activity data via a tally-based
4 work-sampling system. The self-reported data from the carriers were later
5 recorded by a trained data collector, and ultimately assigned to time proportions.³
6 The ES study used an electronic tally-based system to record the carrier's
7 activity, and took advantage of technological improvements to rely on an
8 electronic scanner to record the various carrier activities. A post-processing
9 methodology was employed to convert the tally to the proper time category to
10 allocate carrier street-time costs.

11 While some intervenors have criticized the ES study⁴ in this regard, the
12 bottom line is the STS methodology also used an after-the-fact assignment of
13 observed tallies to the cost categories.

14 **C. Characteristics Associated with the STS and ES Studies**

15 Table 1 presents a summary of the characteristics of the ES and STS
16 studies. Particularly noteworthy are the facts that the ES database includes a
17 larger sample size, a longer survey period, and a greater recording frequency.

³ Id. at 12.

⁴ See Hay Direct Testimony at 12-13. Specifically, witness Hay postulates that since the enumerators did not know the post-survey questions, they couldn't recognize the weaknesses or exercise any quality control.

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1. Survey Period

5 In this proceeding, the ES study has come under fire for its lack of route
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7 conducted over a much more limited time frame, from July – October 1986, and
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9 month period in which the STS sample was completed provides little seasonal
10 and monthly differentiation. The ES study extended over an eighteen-month
11 period, from fall 1996 to spring 1998. Specifically, while 44% of the ES routes
12 occur during a 3-month period, 100% of the STS routes were sampled during a
13 3-month time frame. Even witness Crowder stated in her cross examination that

⁵ Raymond Direct Testimony at 3, 7 and 14; Hume Direct Testimony, USPS T-7, Docket R87-1 at 12, USPS-7B page 2 and 9, USPS-7B Figure B-5 and Figure B-6. The 53 ES locations, detailed in LR-I-159, may be reduced to 39 if one condenses multiple CY codes for commonality in the first 3 digits of zip codes.

⁶ Specifically, the large percentage of routes sampled during the months of October – December See Crowder at 28.

1 she would "want a survey that was representative of the year."⁷ The ES study
2 therefore has a much better time differentiation than the STS study.

3 As Table 1 indicates, the ES database contains many more tallies than
4 the STS study, with approximately 39,000 and 7,100 tallies attributable to the ES
5 and STS databases, respectively. Furthermore, this disparity is even larger
6 when the 1,100 STS records that were dropped from the STS database because
7 of "missed" or "no-call lunch" are eliminated from the total STS tallies. Ultimately,
8 the STS study drops 15% of the tallies, while the ES database only dropped 4%
9 that were personal, break or lunch observations.⁸

10 The STS database does contain more routes than the ES study. While in
11 isolation this is in its favor, on balance it is not enough to make the STS
12 preferable to the much more current and much larger ES database.
13 Furthermore, the STS database lacks route diversity, an area where some
14 intervenors have criticized the ES study.⁹ Specifically, 5,321 out of the 7,100
15 STS tallies, or nearly 75%, fall within two of the eight route types (residential curb
16 and mixed curb) which today comprise only 33 percent of all city routes.¹⁰ By
17 comparison, 83% of the ES routes fall into two route types (residential loop and
18 residential curb) that comprise 81% of the total USPS system routes today.

⁷ Cross Examination of Ms. Crowder at 16326.

⁸ See Baron SAS log file in USPS LR-I-159 Line 157 and the note immediately following line 173.

⁹ See Crowder at 29.

¹⁰ Hume Direct Testimony, Docket No. R87-1, USPS-7B at 13. Witness Baron lists the current number of city routes by route types in his response to MPA/USPS-T12-6.

1 According to Witness Hay at page 8 of his testimony, "Too large of a
2 sample may require the expenditure of too many resources while adding little
3 extra information beyond what could be obtained from some smaller yet useful
4 sample size." While this is an interesting theoretical concept, it contradicts the
5 vast majority of my consulting experiences, which have been driven largely by
6 the desire/need to obtain as much data as possible. That is certainly what the ES
7 study did and I believe that it is more likely to produce accurate results.

8 **2. Timing of Reporting/Recording**

9 As presented in Table 1, the ES study sampled street carrier activities far
10 more frequently than the STS study. The ES study relied upon observations
11 taken every 6 minutes, when a beep would signal the observer to record the
12 carrier's activity (and time). The STS study relied upon three random signals
13 over the course of a route-day, notifying the carrier to record his then current
14 activity. There is no question that the ES methodology provides a more
15 systematic and frequent review of the carrier activity than the STS methodology.
16 The ES methodology therefore should provide a broader and therefore more
17 representative depiction of the street carrier activities. A sampling of only three
18 times over the course of a day results in greater uncertainty and variation
19 surrounding the street carrier activities that are actually captured in the tally
20 observations.

21 On its face, it is clear that certain activities could be lost or hidden among
22 the large un-surveyed portion of the time period of the STS study. This can be
23 clearly illustrated by considering the number of observations that would occur

1 over the course of a typical 8-hour route day. While the STS study captured
2 three “snap-shot” street carrier activities, the ES study would accumulate
3 approximately 46 observations from that same period.¹¹ The relative value of the
4 significantly greater recording frequency is that the ES study collected a large set
5 of observations, thus yielding a more detailed picture of a carrier’s day. It
6 therefore is preferable to the STS database.

7 **3. Reporting Choices**

8 The STS study relied upon multiple-choice cards for the carrier to observe
9 his activity and assign the time to the appropriate category. Generally speaking,
10 the carrier identified whether he was either moving between two or stopped-at
11 one of nine locations. Under the ES study methodology, 1,350 combinations
12 resulted from the location and activity choices that were available to record what
13 the street carrier was performing at the observed time.

14 While the number of activity categories is large, it was organized with a
15 tiered approach, similar to a web content provider such as Yahoo!, to simplify the
16 reporting process. While Yahoo! is likely to have millions of ultimate
17 options/categories for one to peruse, its home page provides only a fraction of
18 those choices presented in a simple and clear manner. Once you select an initial
19 category, you are again provided with more options to select from. The multiplier
20 effect of having many choices at different category levels ultimately does provide
21 a large number of combinations, but is guided in a manner that eases the task.

¹¹ The 46 recordings per day is calculated by dividing 39,046 tallies by 844 route days. This approximates 5 hours a day that a carrier was out of the office.

1 Similarly, the step-by-step process associated with the ES study's recording
2 choices provides clear direction to the recorders and a multitude of data for
3 everyone to analyze.

4 Ironically, the ES study is criticized because it provides too much detail.¹²
5 The notion that such detail leads to confusion, particularly regarding the location
6 and activity definitions, simply does not make sense. Ultimately, more accurate
7 choices are better than less. Any minimal problems stemming from confusion
8 because there are "too many choices" is more than offset by the benefits from
9 having a greater number of, and more specific, observations.

10 The fact that other intervenors have been able to analyze the ES data in
11 so many different ways at a very microscopic level demonstrates the extensive
12 detail provided by the ES database. While this has enabled some intervenors to
13 inundate the proceeding with criticisms (such as allegedly misassigned tallies), it
14 illustrates a level of detail that is largely missing from the STS study. Simply put,
15 it is the absence of detailed STS data that insulates it from such attacks. I find it
16 ironic because my conclusion is that the lack of detailed data in the STS study
17 should be considered a weakness.

18 Furthermore, the purported errors from misassigning activities are small in
19 scope and effect. Witness Crowder states that Mr. Raymond misassigned a
20 number of tallies to the wrong cost categories, particularly load. She identified
21 the codes indicating such misassignment in her response to interrogatory

¹² See Crowder Testimony at, e.g., 14-16.

1 NAA/MPA et al.-T5-1. Upon cross-examination, however Ms. Crowder conceded
2 that if the total misassigned tallies were approximately one-half of one percent, it
3 would not have a material effect on the time proportions derived from the ES
4 study.¹³ And, in fact, she later indicated that only 233 tallies, which are 0.6
5 percent, contained those suspect combinations of codes.¹⁴

6 **III. Data Compiled for the ES Study is More than Sufficient for**
7 **Ratemaking Purposes**

8 As discussed above, the STS study itself is vulnerable to many of the
9 criticisms thrown at the ES study. Furthermore, the ES study by definition is a
10 look at current carrier activities, with data collected over a much longer period of
11 time. Therefore it should be considered superior to the STS study.

12 In this proceeding some intervenors have attempted to suggest that Mr.
13 Raymond's study, and therefore the results of his study, do not meet a
14 heightened standard required for ratemaking.¹⁵ While I do not fundamentally
15 disagree with the components of these purported standards as a theoretical
16 "wish list," I respectfully suggest that the STS study by that same measure also
17 falls far short of meeting the criteria set forth by the intervenors and criticisms of
18 the ES study. Most importantly, the ES study is a more current, more extensive

¹³ See Crowder's cross-examination at 16305.

¹⁴ Response of Magazine Publishers of America, Inc. Witness Crowder to Questions Raised at the Hearing (July 27, 2000).

¹⁵ See e.g. "Direct Testimony of Antoinette Crowder" at 6-7; "Direct Testimony of Keith Hay," virtually in its entirety.

1 sample of carrier activities that was surveyed over a longer period of time (1996,
2 1997 and 1998) than the 1986 STS study.

3 Professor Hay specifically comments on the use of ES data for
4 ratemaking in his testimony. While he understands the importance of ES studies
5 to determine time and motion aspects of route performance, he believes the data
6 acquisition methods applied in the ES study are quite different from those used
7 for, and often inappropriate for, ratemaking purposes.¹⁶

8 As mentioned earlier, my firm manages data very similar to the ES data in
9 ratemaking and rate reasonableness proceedings. In fact, it is reasonable to say
10 that we routinely receive this type of data collected by Mr. Raymond's group and
11 submit it to regulatory agencies such as the Federal Communications
12 Commission and the Surface Transportation Board, which ultimately rely upon
13 such cost data for ratemaking. In my opinion, the ES data compiled by the ES
14 study is more than sufficient for ratemaking purposes.

15 **IV. Conclusion**

16 Based upon my experience and the evidence in hand, the ES data is a
17 reasonable and much more current source to use for ratemaking purposes than
18 the STS data. As discussed before, the STS study itself was largely accepted
19 because it was a more current and larger sample of carrier activities, and
20 overcame various shortcomings of the previous "old" street carrier cost data.
21 The methodological design, the number of tally observations, recording

¹⁶ Hay Direct Testimony at 4-5.


1 frequency, and current sampling lead me to conclude that the ES data is
2 superior to STS data and should therefore replace it.

3 For all of these reasons, it is hard for me to imagine a reason the
4 Commission would forego an opportunity to improve the data it relies upon for its
5 ratemaking. In summary, the ES database provides an abundance of current
6 estimates of street carrier activities and, in my opinion, is therefore a substantial
7 improvement over the 1986 Street Time Survey currently relied upon by the PRC
8 to develop street carrier time proportions.

CERTIFICATE OF SERVICE

I hereby certify that I have this date served the instant document on all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

August 15, 2000



William B. Baker