

Before The
POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268-0001

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POSTAL RATE COMMISSION
OFFICE OF THE SECRETARY

Postal Rate and Fee Changes, 2000

Docket No. R2000-1

RESPONSE OF THE UNITED STATES POSTAL SERVICE
WITNESS RAYMOND TO ADVO INTERROGATORY
(ADVO/USPS-T13-23(b))

The United States Postal Service hereby provides the response of witness Raymond to the following interrogatory of Advo, Inc.: ADVO/USPS-T13-23(b), filed on February 22, 2000. Interrogatory ADVO/USPS-T13-23 was intended originally to be redirected to the Postal Service, but in the course of developing the answer, it became clear that parts (a) and (b) should be redirected to the witness Baron, while part (b) could be answered by witness Raymond.

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

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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April 11, 2000

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS RAYMOND TO
INTERROGATORY OF ADVO, INC.

ADVO/USPS-T13-23. Please provide the following information with respect to the sample survey that generated the data presented in your testimony and used by USPS witness Baron:

(a) the "definition of the universe under study, the sampling frame and units, and the validity and confidence limits that can be placed on major estimates," as required by Rule 31(k)(2)(ii) of the Commission's Rules of Practice.

(b) a description of all sampling and statistical tests performed with respect to the data collection.

(c) the results of all such sampling and statistical tests.

RESPONSE:

(a) This part of the interrogatory has been redirected to Witness Donald Baron.

(b) Please see Witness Baron's response to part (a). This response presents the primary statistical tests that have been performed to validate the street-time percentages that he estimated based on data obtained in the sample survey.

Also relevant to this question are the series of sampling and statistical analyses that the Engineered Standards study team conducted to determine the size of the sample of observations it would need to produce precise measures of carrier activities. Note first that the engineered standards sample consisted of sites purposively selected by the area management and sites picked at random. However, all routes within both sets of sites were picked at random.

Three basic approaches were applied in these analyses to determine the required numbers of routes to include in the sample. The first approach was statistically based. The second approach was a comparison of the sample to USPS national profiles, and the third approach was a comparative review of the random data to the USPS management-picked sites.

In my response to OCA/USPS-T13-1, I presented the foundation of the statistical-based approach used to project sample size. I stated that Engineered Standards determined the sample size based on the number of time studies, and not on the number of routes needed for work sampling. To ensure that the number of observations for time study exceeded the number of observations for work sampling, Engineered Standards took a typical day in the life of a carrier and created an Excel spreadsheet to project the estimated sample size required for time study. The confidence level was set at 95%, with the level of accuracy at $\pm 5\%$. Library Reference USPS LR-I-293 presents the Excel file Hiloproc.xls, which shows the estimated values as of 10/21/96, and the actual values at the end of Phase 1 of data collection, 3/3/97. Based on the actual values, it was determined that the sample was within acceptable levels of accuracy for work sampling at the end of Phase 1.

The second approach was a comparison of the sample to USPS national profiles. Library Reference USPS LR-I-293 presents the Excel file Age_genderP1.xls. This file compares the ages and genders of carriers on the routes that had been sampled by the end of Phase 1 with national averages, and it shows that the sample at this point in time was very close to the national average.

Library Reference USPS LR-I-293 presents a third Excel file, ADVO23lr1Tbl.xls. One of the sheets in this file, "Age and Gender," compares the ages and genders of carriers in the random sample with non-random sample data, and with the combined random and non-random data. These three data profiles are then compared with the USPS's national profile at the end of the Phase 2 data collection. The data at this point in time were also close to the national average.

The third approach used to determine sample size was a review of the random-site reports compared to the management-picked site reports. This comparison is presented in the "Random to MGT picked comparison" sheet of the ADVO23lr1Tbl.xls workbook. The random-site data were combined with the management-picked-site data to create a combined set. Then the random-site data and the management-picked-site data were each compared to the combined set. A review of each of the items listed in the workbook shows no appreciable difference among the data sets. That is, the management-picked sites produced the same results as the random sample of sites.

(c) This part of the interrogatory has been redirected to Witness Donald Baron.

DECLARATION

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

Lloyd B. Raymond

Date: 4-11-00

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.


Richard T. Cooper

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