

Tamara G. Houston*
NOAA's National Climatic Data Center, Asheville, NC

1. Introduction

Whenever a service is being provided to a user community, it is important to periodically evaluate whether the service is meeting the needs of its users. Often, direct communication can provide useful feedback for changes as well as new ideas for future products.

During the spring of 2003, NOAA's National Environmental Satellite Data and Information Service (NESDIS) Data Centers (which includes the National Climatic Data Center, the National Geophysical Data Center, and the National Oceanographic Data Center) and the Office of Satellite Data Processing and Distribution sent a customer satisfaction survey to their users. The survey asked users to rate their satisfaction on issues such as the quality of provided products and services, accessibility of data, and timeliness of response. The survey also asked users to identify the type of data received, the primary use of the product, as well as the benefit of the data to the user or user's organization. Space was provided at the end of the survey for the user to include written comments.

Five years later, during the summer of 2008, NOAA's NESDIS Data Centers (without the Office of Satellite Data Processing and Distribution) sent out a second survey to their users to determine if user satisfaction had changed. The questions remained the same so that the two surveys could be compared; however, some questions in the second survey contained additional selections to choose from. The following sections provide a background on the survey development as well as a comparison of the results from the two surveys.

2. Survey Background

The two-page customer satisfaction survey consisted of 20 rank and multiple-choice

questions as well as a space for additional comments. The questions were selected from a pool of cleared questions approved by the Office of Management and Budget as well as other agreed-upon questions. Users were encouraged to utilize a password-protected web site to enter their survey responses or to mail the survey back in the postage-paid envelope that was provided. Surveys that were returned by mail or fax were entered into the resulting database by an independent contractor.

A survey was sent to each user who had requested data from the agencies during the year prior to survey dissemination, thereby eliminating the need to use any pre-defined statistical sampling method. Non-paying users who ordered data on-line were not surveyed since their contact information was not recorded. In 2003, a total of 25,850 surveys were distributed by mail or e-mail (depending on the amount of contact information available). 577 surveys were returned undeliverable for a total of 25,273 surveys that could possibly be filled out and returned. Overall, 6,440 responses were included in the database. 518 completed surveys received were incomplete or late, and were therefore not included in the database. Including the 518 unusable surveys in the responses received count provided a response rate of 28%. In 2008, a total of 16,396 surveys were distributed by mail or email. 1,557 surveys were returned undeliverable or the user requested removal from the mailing list for a total of 14,964 surveys that could possibly be filled out. Overall, 2,056 responses were submitted to the database for a response rate of 13.7%. A lower response rate in 2008 may be a result of the initially short deadline or the time of year the survey was disseminated.

3. Results

The number of users selecting each option for each question was calculated as well as the percent of responses. The first 11 questions (10 questions for the 2008 survey) asked the user to rate their satisfaction on issues such as quality of products and services received, accessibility

* Corresponding author address: Tamara G. Houston, NOAA's National Climatic Data Center, 151 Patton Avenue, Asheville, NC 28801; e-mail: Tamara.Houston@noaa.gov.

of data, and timeliness of response on a scale from 1 to 5 with 1 representing “Not at all Satisfied” and 5 representing “Extremely Satisfied”. Figure 1a shows the average score for satisfaction levels by service type from the 2003 survey and Figure 1b shows the average score for overall service satisfaction. Figure 2a shows the average score for satisfaction levels by service type from the 2008 survey and Figure 2b shows the average score for overall service satisfaction. Overall, average scores ranged from 3.94 to 4.41 with a score of 4 representing that the user was “Satisfied”. There was very little change in satisfaction for these questions from 2003 to 2008.

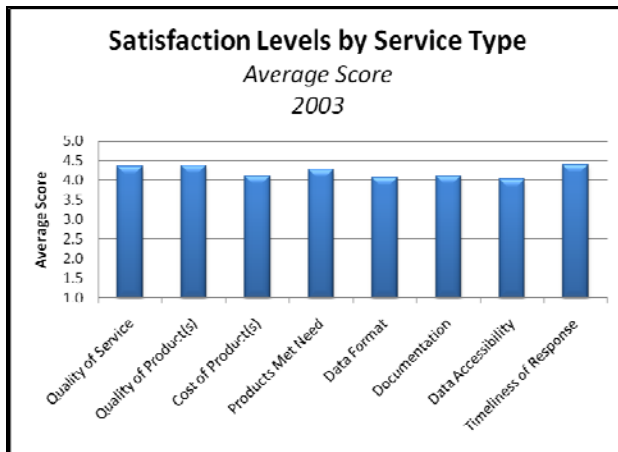


Figure 1a. Average satisfaction level for questions 1 through 8 in 2003.



Figure 1b. Average satisfaction level for questions 9 through 11 in 2003.



Figure 2a. Average satisfaction level for questions 1 through 7 in 2008.



Figure 2b. Average satisfaction level for questions 8 through 10 in 2008.

The rest of the survey asked the user to identify their affiliation, how frequently they typically request data and products, the type of data and products they obtained, how the information benefited their company or organization, and the ease of obtaining the information.

Approximately 46% and 48% (2003 and 2008, respectively) of the users who responded to the survey were from business industries. The next largest user groups were individuals and those who did not fit into any user group listed and responded as "other."

Approximately 60% of users, in both 2003 and 2008, were repeat users who request data only once or twice a year. Only 14.2% and 23.9% of users were first-time users during the year prior to 2003 or 2008, respectively.

The options for the type of data obtained were expanded significantly from 2003 to 2008. For the 2008 survey, the Data Centers were interested in learning what specific digital products users were requesting from their center. Digital data was the most popular response in both surveys, resulting in a total of 41.2% and 61.5% of all responses (2003 and 2008, respectively). By far, the most popular digital option selected in 2008 was surface weather/climate data with 37% of the responses. Printed copy of data was the second most popular response (38.2% in 2003 and 25.8% in 2008).

The primary use of the data in both surveys was for legal and business purposes (over 60% of responses combined in both 2003 and 2008). Scientific research was the third-most frequently selected option. In 2003, the primary benefit of the data obtained was for increased revenue and decreased risk. In 2008, additional options were provided and the most popular selection was that the data obtained aided research. In both surveys, "not applicable" was a popular response as well, indicating that users often may act as intermediaries of the data and don't know how others are using the data.

With the popularity of the internet, more and more users are obtaining data from the NESDIS Data Center web sites. Those who do use the internet to obtain their data primarily use a web interface as opposed to other web services like GIS/Map Services or FTP. While the NESDIS Data Centers are constantly working on improving their web sites, approximately 26% of users in both surveys said that it was difficult or very difficult to find the needed information. While those who are familiar with the web site provided positive comments, difficulty with the web site is the most popular complaint listed in the additional comments section.

4. Conclusion

Overall, user satisfaction changed very little between 2003 and 2008. Users who responded to the surveys were primarily from business industries and were repeat users. While a majority of users were satisfied or extremely satisfied with the products and services they received, some users continue to have difficulties finding the information they are looking for. Future surveys would continue to be useful to determine if new data access tools would better fulfill user needs.