



US Army Corps
of Engineers



National Customer Satisfaction Comment Card Results for Corps of Engineers Projects: Year 1

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Purpose

This technical note provides a summary of a national sample of customer satisfaction surveys conducted across the country during the 1996 recreation season at recreation sites on Corps projects. The survey results represent the first agency-wide look at the Corps' performance in providing for its recreational customers' basic needs. The customer satisfaction survey instruments and procedures used have been developed as part of a national study, initiated in 1995, under the Natural Resources Research Program (now known as the Recreation Research Program, RRP). This was in response to President Clinton's Executive Order 12862 requiring government agencies to set customer service standards based on performance.

Background

One of the first tasks completed within the national study was the pilot testing and development by the Waterways Experiment Station (WES) of a standard set of "core" survey questions. These questions address the basic facility and service needs of Corps customers and permit comparison from year to year and across projects. They have been used to construct the Comment Card (Figure 1), which was distributed with implementation guidance in May 1996 to Corps projects. This management tool is intended to encourage *continuous improvement* in the provision of facilities and services and to *empower project employees* to respond to customer needs. The national study will continue in 1997 and 1998. The two additional years of surveying will provide a more definitive national sample. In addition, expanded surveys and procedures are being developed under the RRP to meet the present and future needs of Corps customers.



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Comment Card

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Please give us a minute of your time to help us serve you better. How would you rate our facilities and services at _____ ?

Please check one for each:

	Very Good	Good	Average	Poor	Very Poor	Don't Know
Safety and security	<input type="checkbox"/>					
Park appearance	<input type="checkbox"/>					
Restroom cleanliness	<input type="checkbox"/>					
Staff helpfulness	<input type="checkbox"/>					
Condition of facilities	<input type="checkbox"/>					
General park information	<input type="checkbox"/>					
Water safety information	<input type="checkbox"/>					
Value for fee paid	<input type="checkbox"/>					
Overall quality of facilities and services	<input type="checkbox"/>					

What improvements would you like to see in this area? _____

Figure 1. Comment Card distributed to Corps projects

The Comment Card contains the “top ten” questions for measuring customer satisfaction. Using the card, visitors rate the project’s performance on eight facility and service-related items using a five-point “very good” to “very poor” scale of responses for each. The ninth question asks survey respondents to rate the overall quality of facilities and services using the same scale. The tenth question requests that they write down any suggestions they may have for improvements.

Establishing a National Baseline

During May 1996, Operations Project Managers were provided with a “Customer Care Kit” containing an initial supply of 400 comment cards and instructions for administering them. The distribution of the cards during the 1996 summer recreation season represents the first time that satisfaction surveys were conducted on a nationwide basis at Corps projects. A sample of 24 of those projects was identified based on criteria that represent a range of conditions at multiple-use projects. These projects are referred to as Recreation Research Demonstration Units (RRDUs). Seventeen of the 24 RRDU projects participated in the 1996 survey (Figure 2). Appendix A provides further description of the national sample.

The RRDU projects were provided 80 comment cards printed on blue stock in addition to 400 yellow comment cards for their own use. Projects distributed the cards together, keeping any of the yellow comment cards returned and conducting their own data analysis using a compiled program disk (developed by Samuel Franco of WES and provided in the Customer Care Kit).

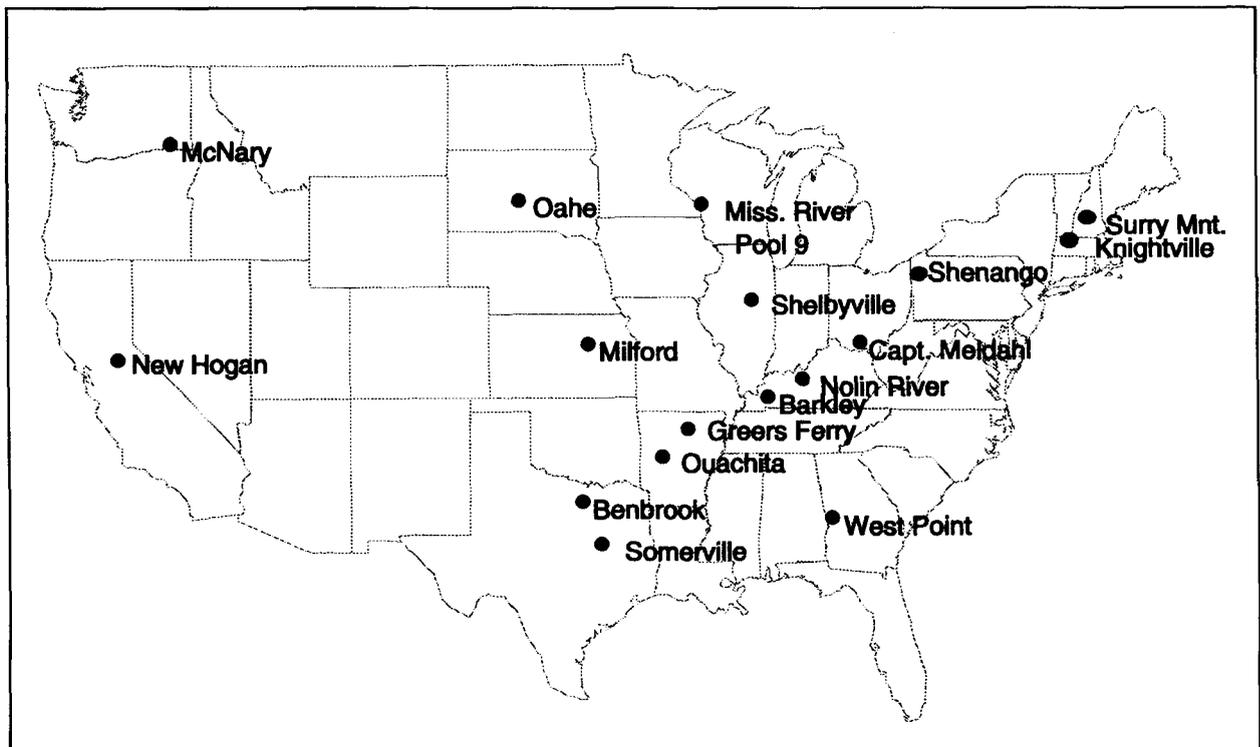


Figure 2. Seventeen RRDU projects included in the Year 1 national sample

The blue cards were sent to WES for analysis. The 496 blue cards returned represent an overall rate of return of 46.2 percent. This is a good response rate, considering that there were no opportunities to use follow-up reminders, which are frequently employed with surveys to boost the response rate.

Each RRDU unit distributed comment cards at *one recreation area only* of the projects' choosing. Cards were distributed at a variety of areas that included day-use sites, campgrounds, and areas with boat-launch facilities. The types of recreation areas were not differentiated in the national sample. (Possible effects of this on the survey results are discussed in Appendix A.)

The following sections provide a summary of RRDU project visitors' ratings of the comment card items and the written comments and suggestions for improvements they provided. The first year of data represents an initial baseline against which results from subsequent years can be compared. RRDU projects will also administer comment cards during the 1997 and 1998 recreation seasons (survey years 2 and 3) to provide trend data that will allow projects to benchmark their progress against national results.

RRDU Comment Card Survey Results

Respondents to the survey chose from six responses on the comment card: Very good, Good, Average, Poor, Very poor, and Don't know. The responses were converted for analysis into numerical scores, with 5 representing "very good" and 1 representing "very poor." All "don't know" responses and nonresponses were scored as "0" and were treated as missing data in the subsequent analysis. Results for the "overall quality of facilities and services" item are discussed separately from the individual items because these responses were meant to summarize

respondents' overall perception, after they had first considered the eight individual items. Further analysis describing the RRDU results is provided and discussed in Appendix B.

Figure 3 presents the mean scores for the eight individual and the "overall quality" comment card items. Perhaps the most basic result to point out is that the **average scores for all items were above 4.0 out of a possible 5.0 points**. This indicates that the RRDU visitors rated the projects' performance for all items, on average, as "good" or "very good." The range in average scores is quite narrow with only slightly more than one-half point separating the highest rated item (Staff Helpfulness) from the lowest rated item (Water Safety Information). The mean score for Overall Quality of Facilities and Services fell about midway between the mean scores for the individual items. This result suggests that this item, as intended, measured RRDU visitors' overall perceptions.

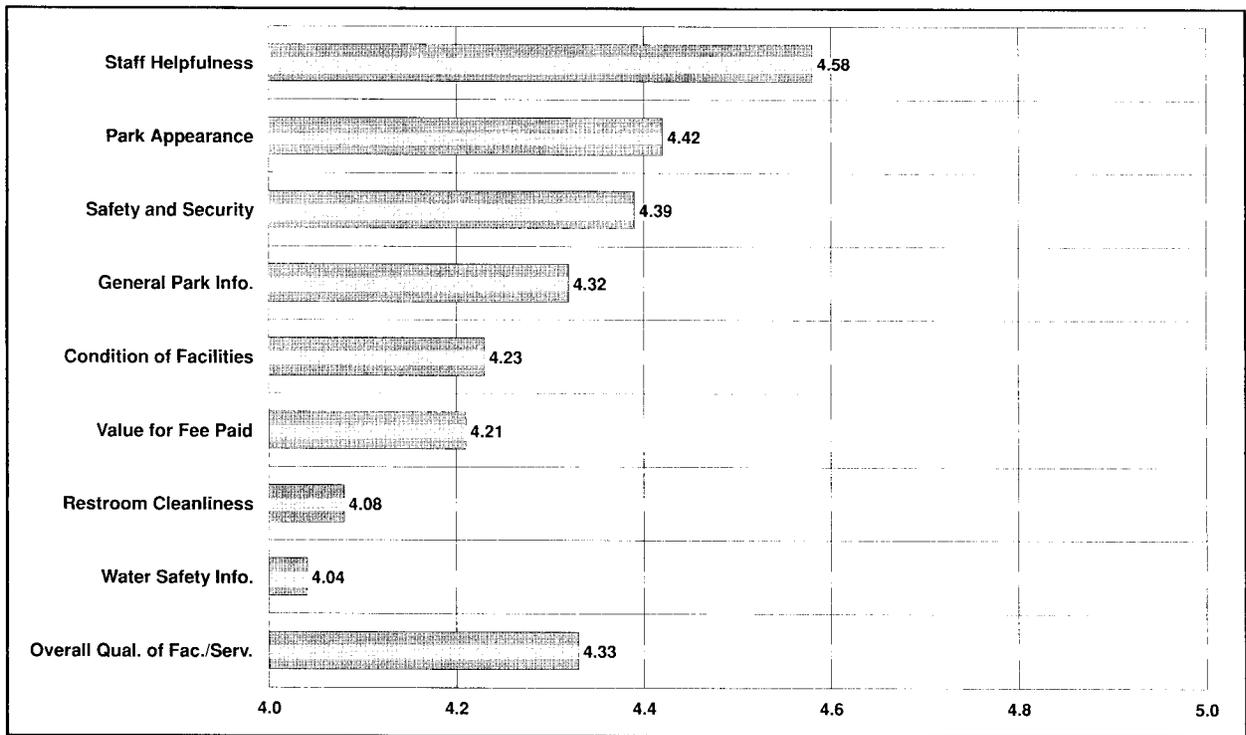


Figure 3. Mean scores for comment card items (items shown in rank order)

Figure 4 presents the percentage of respondents who rated the projects' performance on each item as "good" or "very good." Differences in the scores received for each item may be more apparent here than in the mean scores because there is a much greater range of results between the items. **Eighty percent "good/very good" ratings** is suggested as a convenient dividing line between the higher and lower rated items that can be used to intuitively group them based on the RRDU projects' performance. For the purpose of this discussion, **four out of five survey respondents (80 percent) giving the project a rating of "good" or better is proposed as a performance standard for all items**, although improvements can certainly be sought for items that exceed this rating.

As shown in Figure 4, the five top-scoring items, based on the percentage of "good" and "very good" responses, were (1) Staff Helpfulness, (2) Safety and Security, (3) Park Appearance,

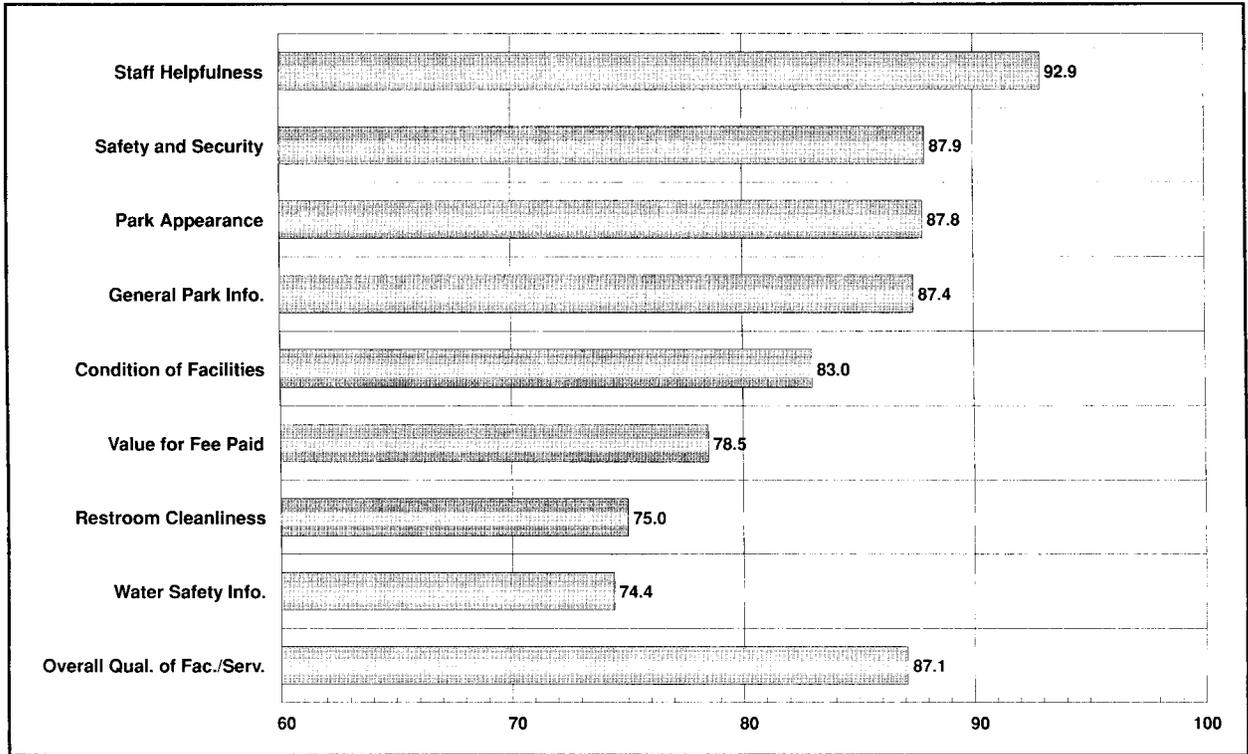


Figure 4. Percentage of "Good/Very Good" ratings for comment card items (shown in rank order)

(4) General Park Information, and (5) Condition of Facilities. For these five items as well as for Overall Quality of Facilities and Services, more than four out of five (80 percent) of the survey respondents felt the projects' performance was "good" or "very good." With the exception of Condition of Facilities, the scores for each item exceeded the 80 percent "good/very good" standard by a considerable amount. (The same items comprise the top five in performance ratings if the mean scores are used to rank them, with a very similar rank order. The only change in rank order when using the mean scores is that Safety and Security slightly edges out Park Appearance for the second highest ranking.)

Evaluation of National Results

The following sections place the comment card items into three evaluative categories based on the RRDU scores (see tabulation below). This categorization is based on the standard of 80 percent "good" or "very good" ratings for each item, below which room for improvement most clearly exists. It is recommended that efforts to improve basic facilities and services be concentrated on the below-standard items, although opportunities and suggestions for improvements in other areas should not be overlooked.

Very Good Performance	Some Room for Improvement	Considerable Room for Improvement
Staff Helpfulness Safety and Security Park Appearance General Park Information	Condition of Facilities Value for Fee Paid	Restroom Cleanliness Water Safety Information

Very Good Performance

Based on the RRDU sample, the Corps' performance should be considered very good in the area of Staff Helpfulness, with nearly 93 percent of the respondents rating the projects' performance as "good" or "very good." Performance can also be considered very good in the areas of Safety and Security, Park Appearance, and General Park Information, with the scores indicating that nearly 9 out of 10 respondents felt the projects were doing a good job on these items. The percentage of RRDU visitors rating projects' performance on these three items as either "good" or "very good" is nearly equal, with the percentage approaching 88 percent for all three items, and only 0.5 percent separating them.

Some Room for Improvement

The RRDU comment card results suggest that **customers feel there is some room for improvement in the condition of project facilities and in the value they are receiving for the fee paid.** Although still quite good (and above the 80 percent standard), agency performance for the condition of facilities did not match the three previously discussed items, as indicated by the over 4-percent drop in the percentage of respondents rating projects' performance as "good" or "very good." Still, more than 4 out of 5 respondents gave the projects a "good" or better rating for Condition of Facilities. This is not true for the next lower ranked item, Value for Fee Paid, where only 78.5 percent gave a "good" or "very good" rating. (Ratings for the value for fee paid item may improve as improvements are made in other areas.)

Considerable Room for Improvement

Lastly, the RRDU comment card results indicate that **customers feel there is considerable room for improvement in ensuring restroom cleanliness and in providing water safety information.** They rated projects' performance for these two lowest ranked items substantially lower than the other items. The mean scores were only slightly above 4.0 (an average rating of "good"). Also, only about 3 out of 4 survey respondents, as compared to 4 out of 5 for most other items, gave a rating of "good" or "very good" for these items. Of course, this signifies that about 1 in 4 respondents felt the project was doing an "average" or worse job at these tasks.

The Water Safety Information item is unique in that nearly 20 percent of those who returned the cards checked "don't know" for that item or gave no response (the range of "don't know" responses for the other items was 2.4 to 8.3 percent). Although information about the respondents is insufficient to make a determination, the high percentage of these "0" scores may be due to many of the respondents' visits being unrelated to water-based activities (e.g., boating, swimming). These visitors may not have had any interest or expectations regarding water safety messages, and effectively removed themselves from the sample for this item by answering "don't know" or leaving the item unanswered.

Written Requests for Improvements and Other Comments

A total of 508 written requests and other comments were given by the 496 RRDU comment card respondents. Sixty-two percent (309/496) provided at least one comment. Some individuals had as many as five comments or requests. As expected, the large majority (69 percent) of the responses given were **facility-related complaints or requests.**

Requests for a wide variety of *additional* facilities and services comprised approximately 42 percent of the facility- and services-related responses. Some typical requests of this type:

- “need boat dock in park”
- “(need) fish cleaning station”
- “another boat ramp”
- “trash cans at beach”
- “sewer hook-ups for all motor homes”
- “concession with sun lotion and snacks”

The remaining 28 percent of facility- and services-related comments were requests for *improvements to or better maintenance* of existing facilities. Typical complaints and requests of this type include:

- “level the parking for RVs”
- “showers and toilets dirty”
- “trail walkway needs work”
- “ladies restroom has leaky toilet”
- “clean trash from beach and rocks”

Other categories of comments, listed in order of frequency with a few representative responses, include:

Positive comments on the area (10.2 percent):

- “nice park”
- “nice and helpful gate attendants”
- “clean and safe”
- “it was all good”
- “will recommend to others”

Complaints about and requests for **changes in management of the area** (10.0 percent):

- “stop closing dumping station”
- “end reservation system”
- “make area legal for swimming”
- “people with generators not allowed in with campers”
- “allow longer term stays”

Comments and requests concerning **patrol, safety, and security** (3.5 percent):

- “need more water patrol”
- “speeding in park controlled by rangers”
- “need better security”

Comments or complaints on **user fees** (2.8 percent):

- “no price increases”
- “no charge to launch boats”
- “highest fee I have ever paid in AR, MO, and KS”

Another 4.3% of the responses were categorized as “**miscellaneous**”:

- “water condition not very good”
- “camp area availability - crowds, full sites”
- “attitudes with staff”

Using the Comment Card Results for Decision-Making

The best use of the comment card results is to “red flag” items that deserve praise or management attention. They should not be used to support controversial decisions or decisions that involve significant changes in facilities and services. Other information is needed to place managers in a defensible position and to support a particular decision. For example, analysis of the RRDU data revealed that the scores for water safety information are lowest among the eight comment card items. While this provides some cause for alarm, nothing is known about the types of people who are responding to this question and, more importantly, the reasons some are not giving projects high marks for water safety information. Further investigation would be needed to learn what deficiencies exist in the water safety information program, both in the type of information being provided and whether the information is being received.

For all comment card items, managers are encouraged to:

- **Consider the ranking of the item** among the eight on the card. Is the item in the top or bottom half? If in the bottom half, is it one of the two lowest scoring items? etc.
- **Review the written comments** for those that might relate to or explain low scores. For example, particular complaints about facilities may relate to low scores for restroom cleanliness or condition of facilities.
- **Identify other sources of information** that would confirm or challenge the results (e.g., incident reports, ranger patrol observations, conversations with gate-house personnel).

In comparing project results to national statistics, it must be remembered that the national sample provides a single-year “snapshot” of a moving event. For that reason, 2 more years of data analysis are needed to establish a trend line and permit a true comparison. As mentioned earlier, a cornerstone of addressing quality is continuous improvement. The commitment to making things better for our customers and improving project management is a job that has no finish line. The comment card and the national results aid a journey that rests in the hands of the Operations Project Manager and his or her team members. Additional surveys that target to the needs of particular market segments and training materials are being developed with the help of field personnel that will help make that journey easier and exciting.

Appendix A: Description of the National Sample

Recreation Research and Demonstration System

A Recreation Research and Demonstration System, consisting of 24 Recreation Research and Demonstration Units, was established under the Natural Resources Research Program. The purpose of the demonstration system has been to provide permanently designated outdoor laboratories for conducting research in the physiographic, social, economic, and institutional aspects of recreation and related natural resources.

The 24 projects represent a stratified 6-percent sample of Corps water resource development projects for which the Corps exercises operational control over the recreation and related natural resources. The sample accurately mirrors the size, geographic distribution, attendance, and administrative mode found in the Corps-wide system of recreation projects. A WES publication (Hart 1981) contains a detailed explanation of the RRDU's and their selection. Specific criteria for sample selection are provided below:

- Full range of activities.
- Spectrum of resource characteristics.
- Nationwide distribution of units.
- Range of conditions at multipurpose projects.
- Planning, design, and management tasks.

Limitations of the Sample

Corps researchers are encouraged to use the RRDU System whenever possible to take advantage of longitudinal campground data and established research/manager relationships, and to avoid duplicating efforts to achieve national representativeness. Because 15 years has passed since the units were designated, one might ask: Do the 24 projects still represent the Corps? This can only be answered by examining information on how projects have changed in terms of the established criteria listed above. We suggest that changes have been minor and are offset by unknown changes in other criteria affecting all projects.

More importantly, we believe that Corps visitors' expectations and preferences for basic facilities and services (the topic area addressed by the comment cards) are essentially consistent between projects. The assumption is made that the importance of and visitors' expectations regarding items such as restroom cleanliness vary little among locations. People expect and deserve clean restrooms at Milford Lake in Kansas just as they do at Greers Ferry Lake in Arkansas or Oahe Lake in South Dakota. In this regard, then, the representativeness of the participating projects may be less important.

A more significant limitation may be the fact that the comment cards were distributed at a variety of day-use areas and campgrounds that would likely host different types of visitors. These different types of users (e.g., boaters versus nonboaters) most likely would have different levels of interest in some comment card items (such as water safety information).

Appendix B: Descriptive Statistics for RRDU Results

A survey sample (e.g., the RRDU comment card respondents) is a small-scale observation used to represent a larger group called a population (e.g., visitors to Corps facilities). If the sample is representative, observations (statistics) shown to be true of the survey sample will also be true of the target population parameters. If survey responses are assigned numerical scores, a *sample mean* can be calculated by summing the scores for an item (2 + 3 + 1 + 5...) and dividing the sum by the number of responses. Scores of "0" ("don't know" or blank) are treated as missing values (dropped from the sample). The sample mean for a survey item, such as the RRDU mean of 4.39 for safety and security (Table 1), is a statistic that numerically describes how people in this sample feel, on the average, about that item. The mean score of 4.39 represents an average rating about midway between "good" and "very good."

However, it is necessary to go beyond mean scores to determine how much variability (difference) there was in the scores the respondents in the sample gave (statistically speaking, we want to know how the values are distributed about the mean). The term *standard deviation* is used to characterize this "spread" of values in a sample. The more dispersion or spread of values about the mean, the greater the standard deviation. A higher standard deviation implies less agreement, and thus more variability, in how customers rated projects for a comment card item. Table 1 shows that the largest standard deviations, and the greatest variability, tended to be associated with the items with lower mean scores. (Restroom cleanliness and water safety information, the two lowest ranked items, also had the largest standard deviations.)

To be helpful for decision purposes, any estimate of customer satisfaction should measure how well the estimate represents the population. One such measure is called the *confidence interval about the mean*. The 95-percent confidence interval (C.I.) was selected and is graphically portrayed in Figure 5 for each comment card item. (Confidence intervals in the range of 80 to 95 percent are typically used.) This implies that the range of *sample* (RRDU) mean scores within the upper and lower bounds of the C.I. (see Table 1) would include the true mean score for the *population* parameter approximately 95 percent of the time. For the 95-percent C.I., these bounds are approximately two (1.97) *standard errors* above and below the mean. (The standard error is equal to the standard deviation divided by the square root of the sample size.) The confidence intervals for the RRDU comment card data (the sample) indicate very good estimates of the population parameters.

Returning to the RRDU comment card results, the 95-percent C.I. for Staff Helpfulness has an upper bound of 4.65, a lower bound of 4.52, and a sample mean of 4.58 (Table 1). (This can be interpreted that we are 95 percent confident that the population mean falls between 4.52 and 4.65.) In contrast, the bounds for Restroom Cleanliness at the 95-percent C.I. are the wider spaced scores of 4.00 and 4.17. This suggests greater variability (and less agreement) in how Corps customers rate the cleanliness of the restrooms as compared to how they rate staff helpfulness. Figure 5 illustrates this range in variability in how the Corps' customers rated the RRDU projects on different items. It is suggested that managers use Figure 5 as a general guide in examining the mean scores achieved at their projects in the context of the national scores. Regardless of the scores achieved, the goal remains to exceed the customer satisfaction standard of 80 percent "good" or "very good" ratings while striving for continual improvement, especially for the lowest scoring items.

Comment Card Item	N	Mean	Std. Dev.	Lower Bound	Upper Bound
Staff Helpfulness	465	4.58	0.71	4.52	4.65
Park Appearance	484	4.42	0.75	4.35	4.48
Safety and Security	470	4.39	0.77	4.32	4.46
General Park Information	459	4.32	0.74	4.25	4.39
Condition of Facilities	483	4.23	0.81	4.16	4.30
Value for Fee Paid	455	4.21	0.91	4.13	4.29
Restroom Cleanliness	460	4.08	0.96	4.00	4.17
Water Safety Information	399	4.04	0.92	3.95	4.13
Overall Quality of Facilities and Services	458	4.33	0.72	4.26	4.39

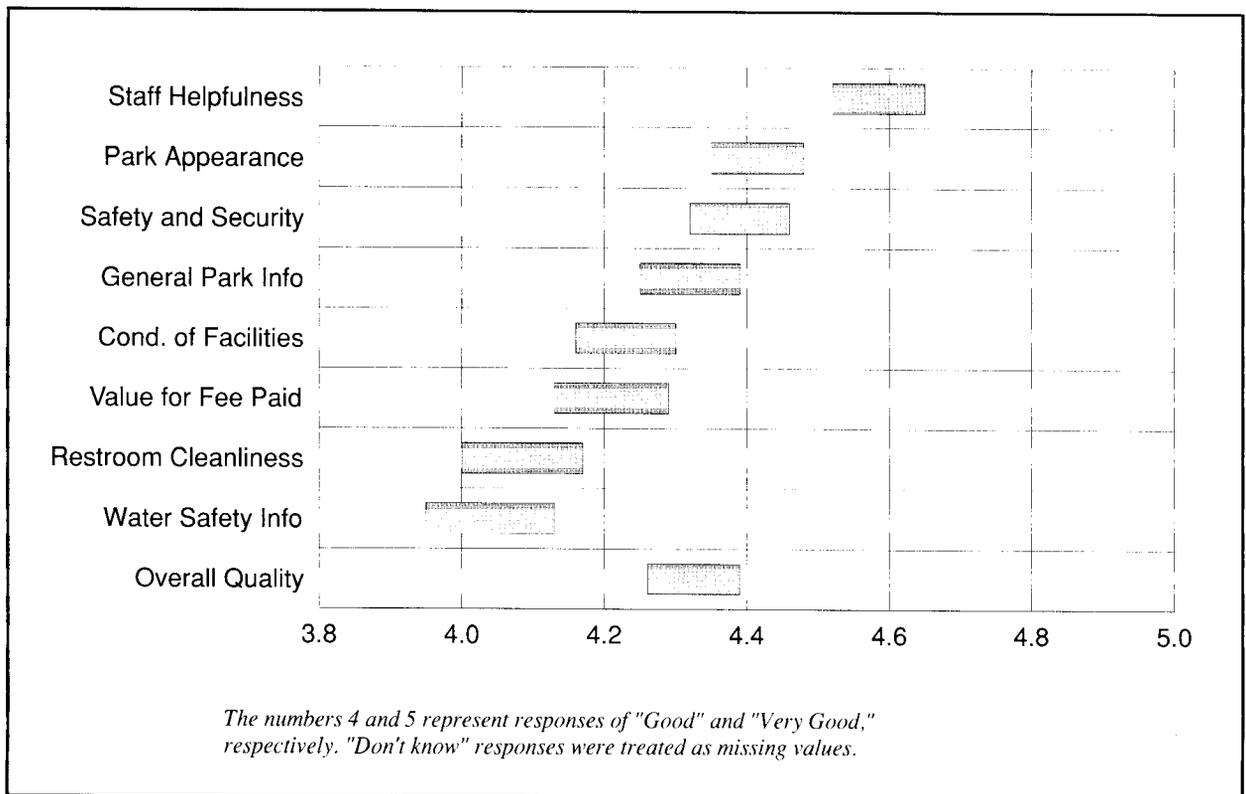


Figure 5. Confidence interval about the mean for comment card items (95-percent C.I.)

The following bar charts (Figures 6-14) indicate the responses given for each comment card item. ("Don't know" responses are treated as missing values and are not shown.)

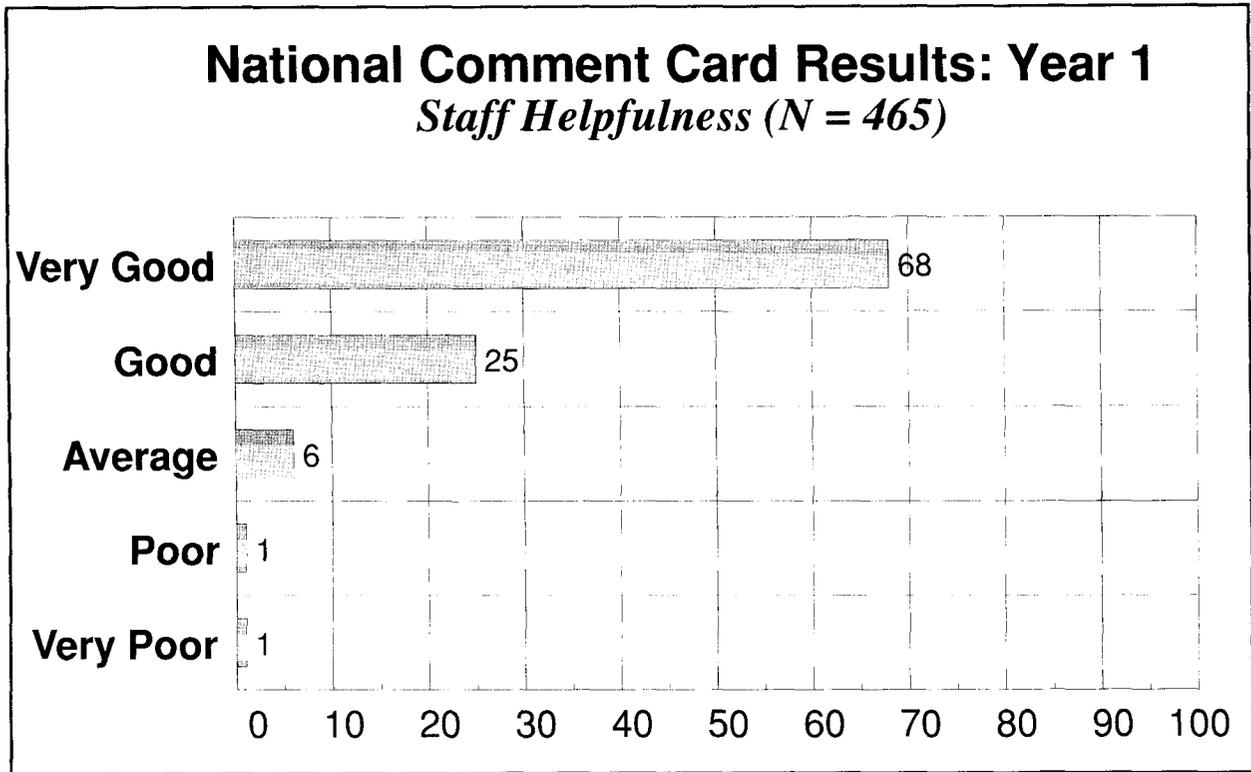


Figure 6. Summary of comments — Staff Helpfulness

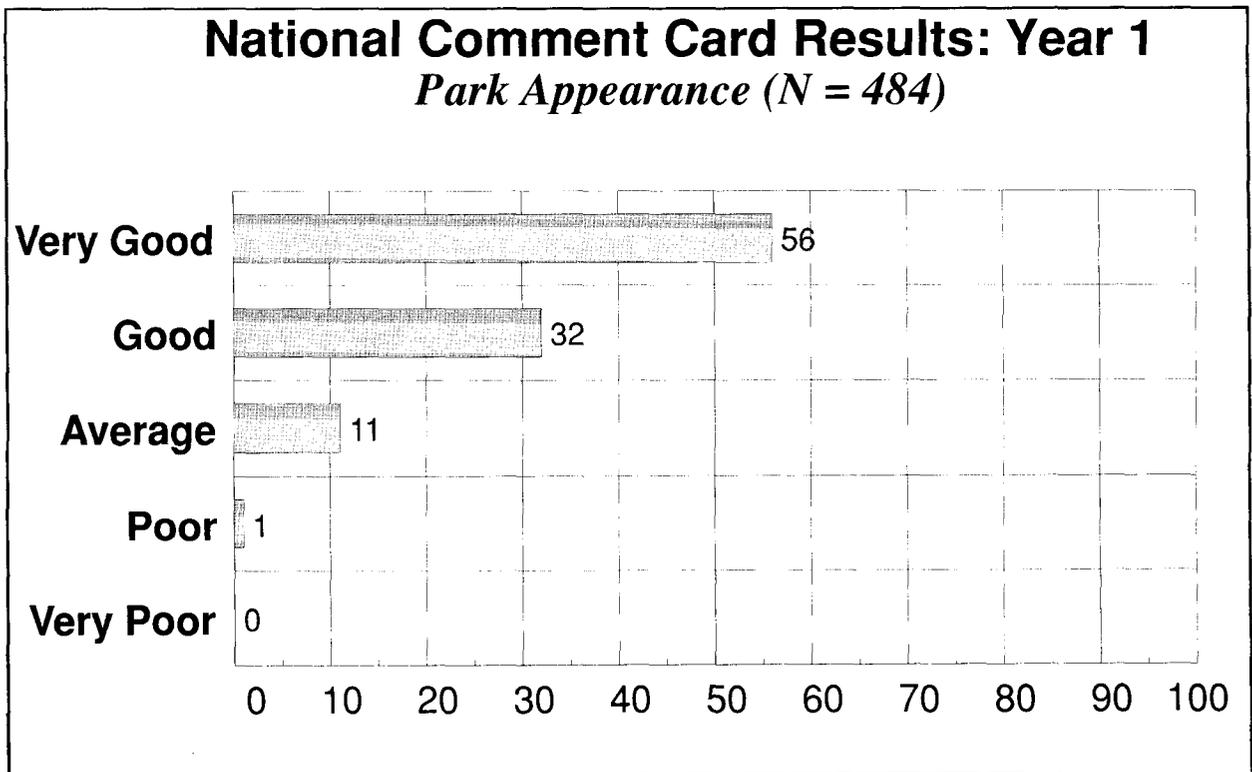


Figure 7. Summary of comments — Park Appearance

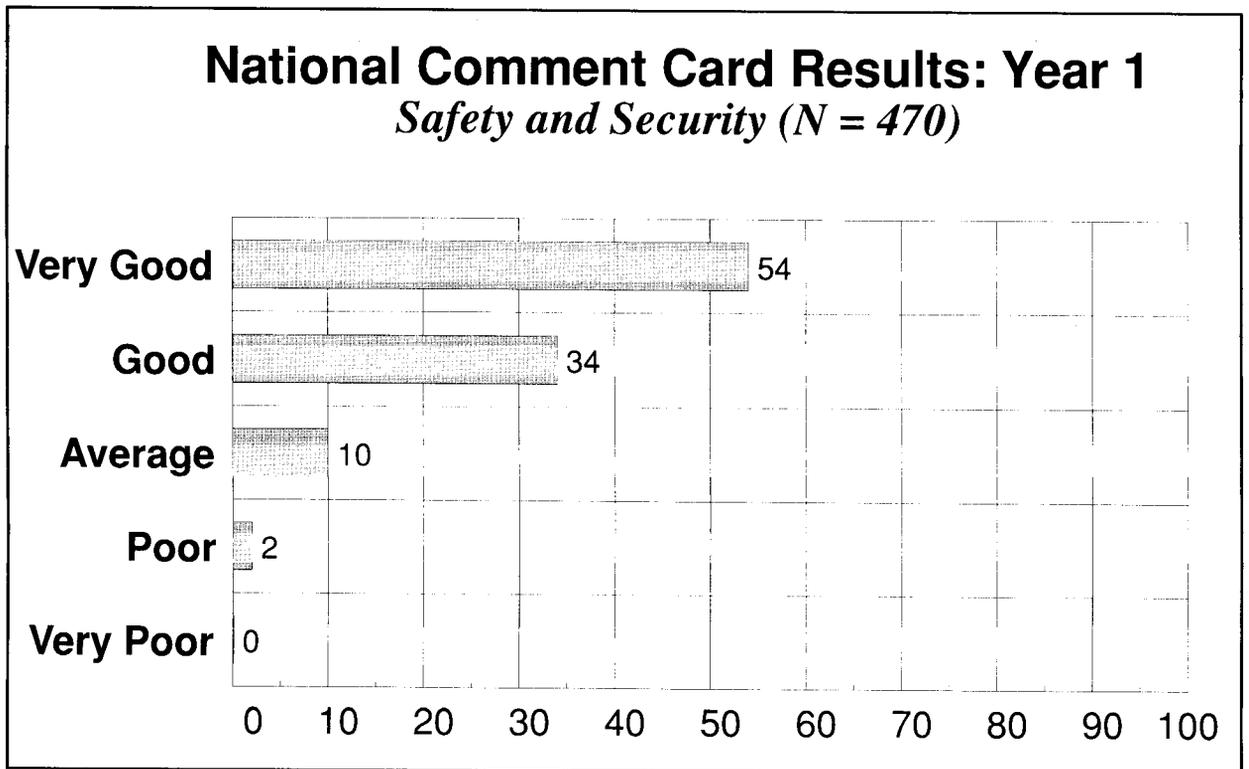


Figure 8. Summary of comments — Safety and Security

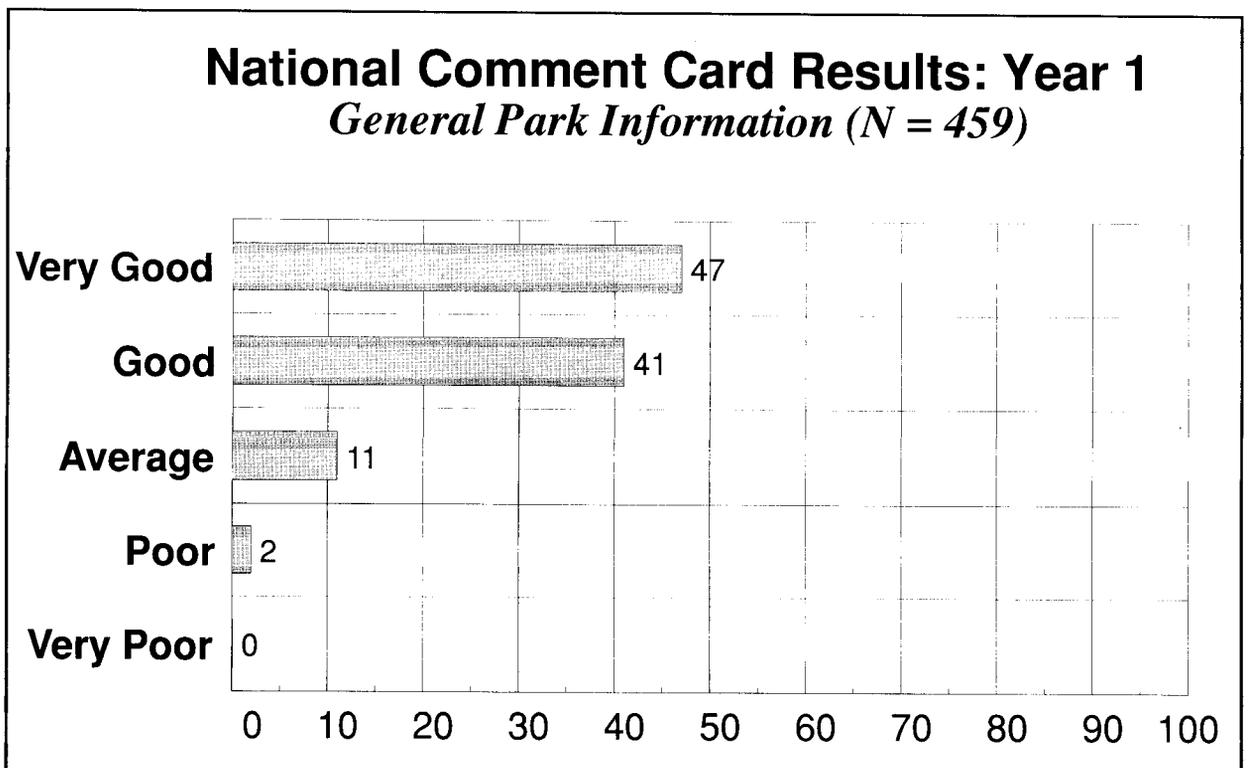


Figure 9. Summary of comments — General Park Information

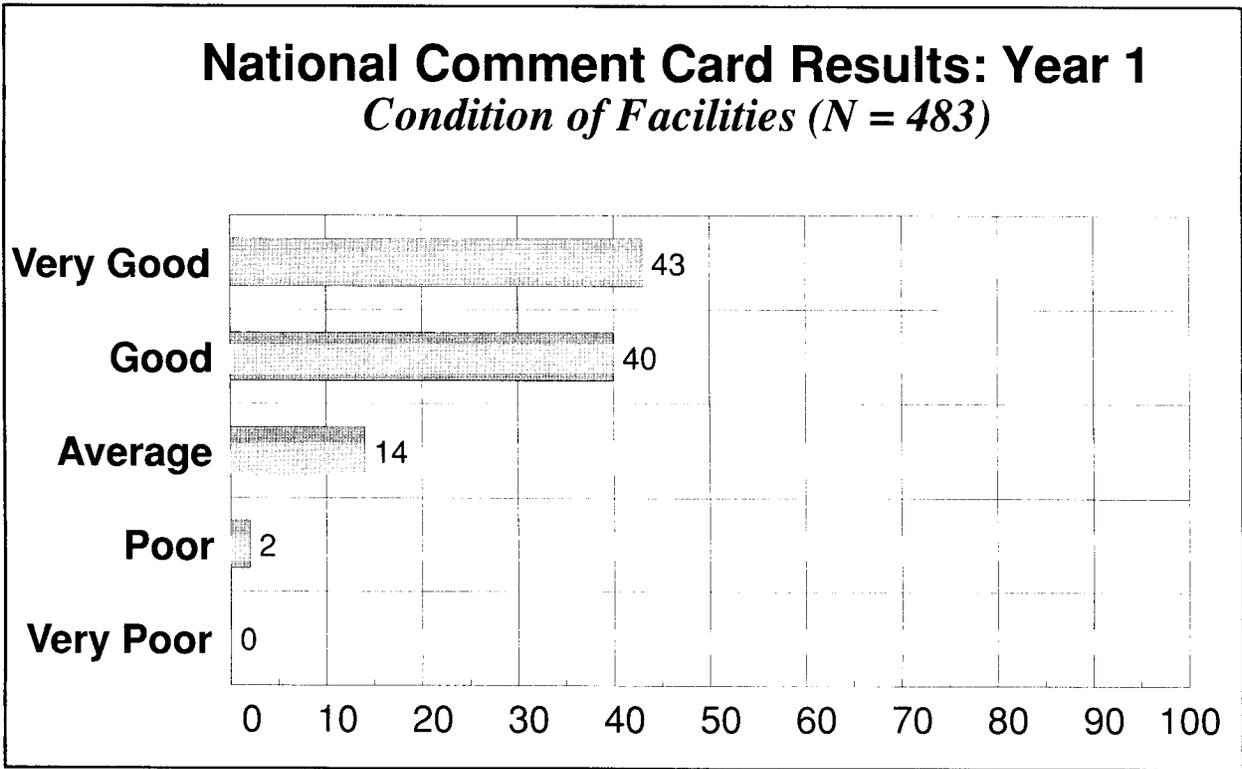


Figure 10. Summary of comments — Condition of Facilities

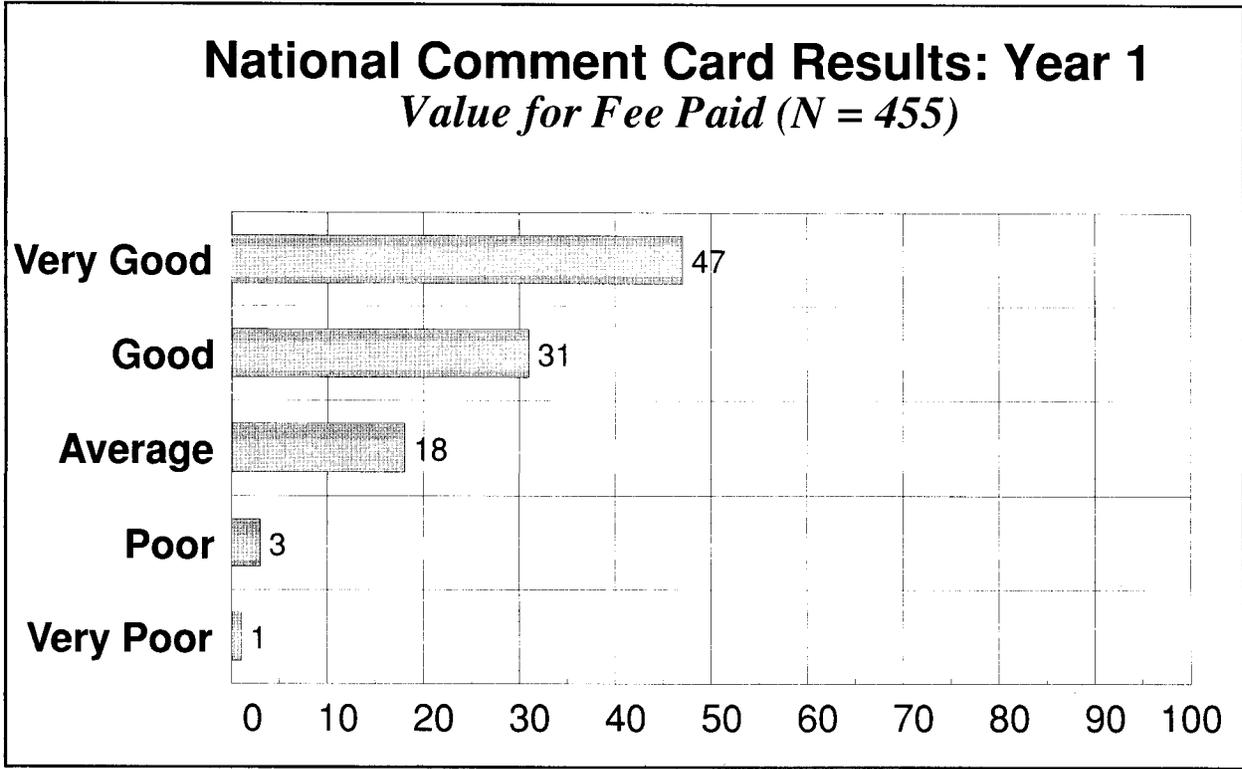


Figure 11. Summary of comments — Value for Fee Paid

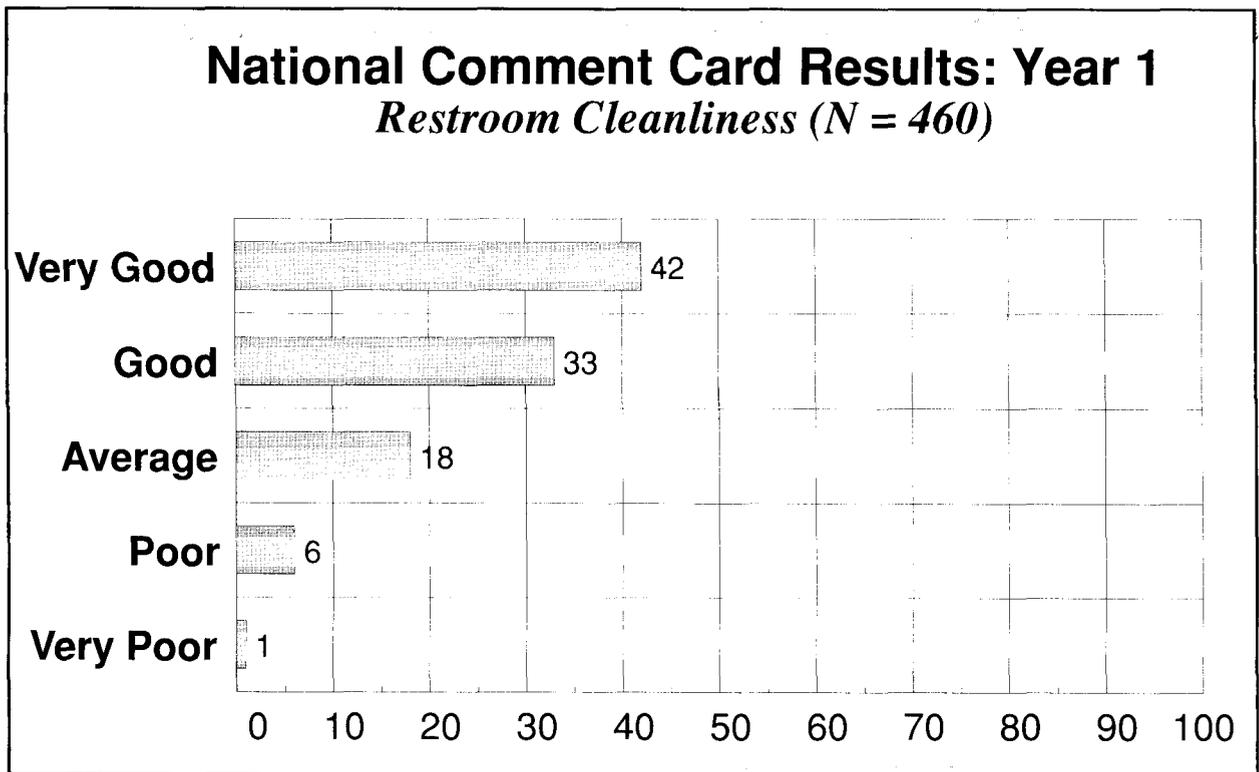


Figure 12. Summary of comments — Restroom Cleanliness

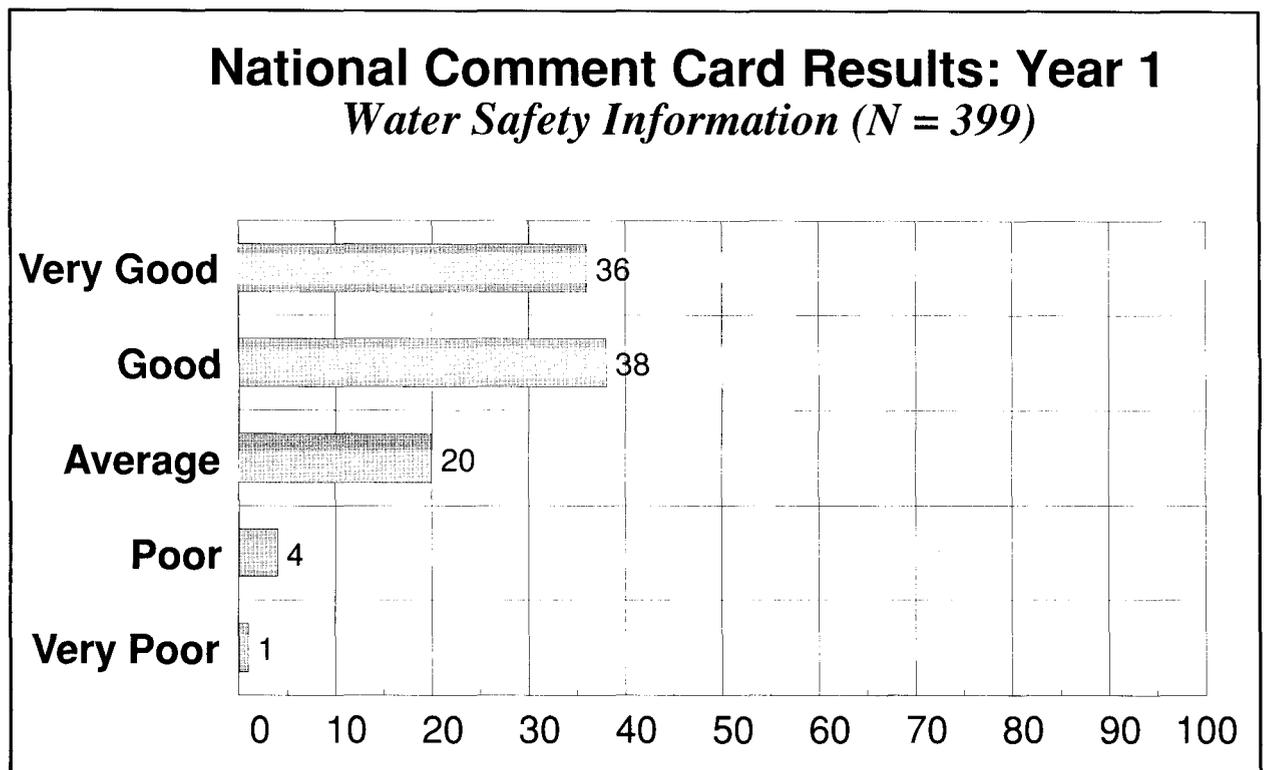


Figure 13. Summary of comments — Water Safety Information

National Comment Card Results: Year 1

Overall Quality of Facilities & Services (N = 458)

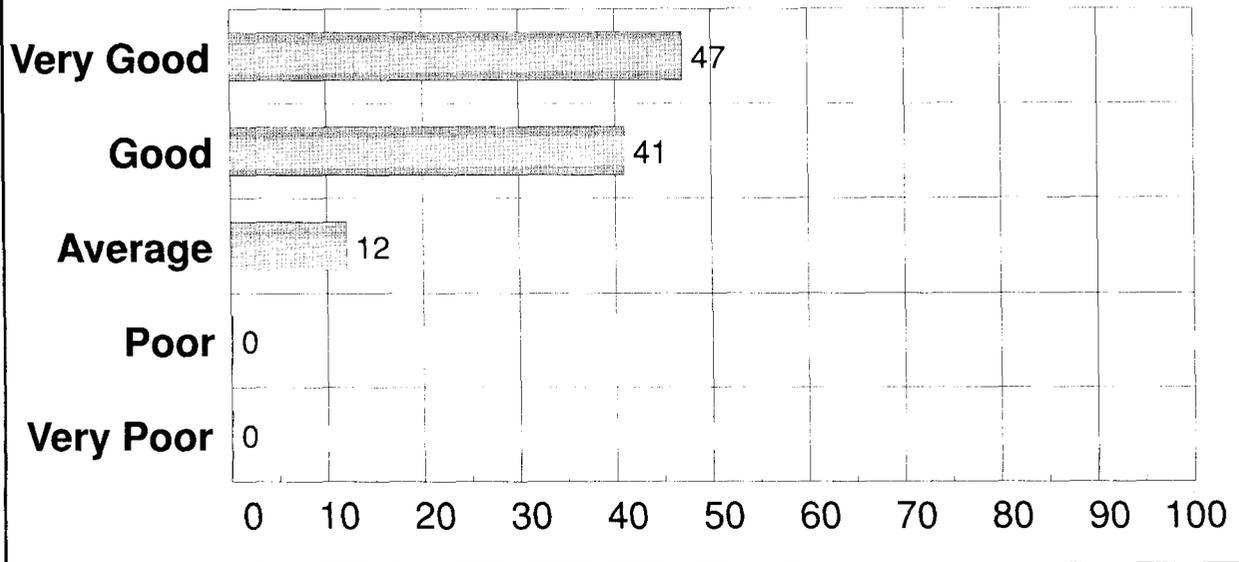


Figure 14. Summary of comments — Overall Quality of Facilities and Services

References

Hart, William J. (1981). "Recreation Research and Demonstration System: Its selection, operation, and potential utility," Technical Report R-81-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS (NTIS AD No. A099751).

Point of Contact

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