

**US ARMY CORPS OF ENGINEERS**

**FY02 AIR FORCE PROGRAMS  
CUSTOMER SATISFACTION  
SURVEY**

**JULY 2003**

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## USACE Organization Symbols

Division	Div Name	District	Dist Name
LRD	Great Lakes/OhioRiver	LRB	Buffalo
		LRC	Chicago
		LRE	Detroit
		LRH	Huntington
		LRL	Louisville
		LRN	Nashville
		LRP	Pittsburgh
MVD	Mississippi Valley	MVM	Memphis
		MVN	New Orleans
		MVR	Rock Island
		MVS	St Louis
		MVP	St Paul
		MVK	Vicksburg
NAD	North Atlantic	NAB	Baltimore
		NAN	New York
		NAO	Norfolk
		NAP	Philadelphia
		NAE	New England
		NAU	Europe
NWD	North West	NWK	Kansas City
		NWO	Omaha
		NWP	Portland
		NWS	Seattle
		NWW	Walla Walla
POD	Pacific Ocean	POA	Alaska
		POF	Far East
		POH	Honolulu
		POJ	Japan
SAD	South Atlantic	SAC	Charleston
		SAJ	Jacksonville
		SAM	Mobile
		SAS	Savannah
		SAW	Wilmington
SPD	South Pacific	SPA	Albuquerque
		SPL	Los Angeles
		SPK	Sacramento
		SPN	San Francisco
SWD	South West	SWF	Fort Worth
		SWG	Galveston
		SWL	Little Rock
		SWT	Tulsa
		HQ	HeadQuarters
		TAC	TransAtlantic Prog Ctr

## **EXECUTIVE SUMMARY**

The eighth Annual Military Programs Customer Satisfaction Survey has been completed. The objective of this report is to present a corporate analysis of FY02 Air Force customer satisfaction ratings, a comparison of Air Force vs. Army customer ratings and the 8-year trends in customer ratings since the survey began in 1995. A total of 442 Air Force and Army customers participated in the FY02 survey. Army customers comprise the largest proportion of the FY02 sample at 58 percent and Air Force at 42 percent. The greatest number of Air Force customers fall under ACC (48 customers) and AETC (44 customers) commands. Over half of Air Force customers (66.%) rated construction services and 20 percent rated environmental services as the primary category of service they received from the Corps.

The survey consists of two customer feedback sections. The first section contains customer demographic information (name, organization, DoD command and primary category of services received). Section two contains 32 satisfaction questions. For each service rated, customers were also asked to rate the level of importance of the particular service so that a gap analysis could be performed comparing satisfaction rating vs. importance rating for each item. Questions 1-11 are of a general nature and also address customer relationship dynamics. Items 12-32 assess specific services and their level of importance.

Air Force customers are generally satisfied with products and services provided by the Corps of Engineers. The two most highly rated items in this year's survey were 'Treats You as a Team Member' and 'Seeks Your Requirements'. The two indices that elicited the most negative responses were; 'Reasonable Cost' and 'Provides Timely Services'. Two of the more critical items in the survey as 'bottom line' indicators of customer satisfaction are Items 10: 'Would be Your Choice for Future Services' and Item 11: 'Your Overall Level of Customer Satisfaction'. Seventy-seven percent of Air Force customers indicated the Corps would be their choice in the future. Conversely, a total of six percent responded USACE would NOT be their choice for future projects and 17% were non-committal. For customers' overall level of satisfaction 84% responded positively, five percent negatively and 12% fell in the mid-range category

The overall tenor of customers' opinions of the specific services items (Items 12-32) was approximately the same as the general satisfaction items. The top two most highly rated items were 'Job Order Contracts' and 'End-User Satisfaction'<sup>1</sup>. The specific services that received the lowest ratings were 'Studies & Investigations' (non-environmental), and 'Timely Construction' and 'Warranty Support'

This report presents several comparative analyses between various customer subgroup ratings for FY02 and historically. Analyses of customer feedback by breaking down the aggregate data into demographic or other categories can often lead to identification of pockets of very well-satisfied

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<sup>1</sup> 'BRAC', 'Privatization Support' and 'IS Checkbook Services' were excluded from comparative analyses due to low response rates.

or dissatisfied customers. Follow-up contacts with these subgroups may reveal areas of outstanding performance that should be continued or poor performance that needs to be remedied. The three subgroup factors examined here are ratings by Air Force vs. Army customers, ratings by Air Force customers' primary work category and ratings by Air Force command organization.

Ratings between Air Force and Army were statistically comparable for all but three satisfaction indicators. In two areas of services Air Force customers were statistically significantly more satisfied than Army. These were 'Reasonable Cost' and 'Construction Maintainability'. In the area of (non-environmental) 'Studies & Investigations' Army customers were significantly more satisfied than Air Force.

Additionally, the eight-year trends in customer ratings by Air Force vs. Army are presented. Results show that in general, there has been a gradual upward trend at least over the first three years of the survey for both customer groups. That is, for almost every indicator, customer satisfaction has improved since 1995. Army customers' ratings are moving upward in a very consistent pattern over the eight-year survey period. The pattern of Air Force customers' ratings is not quite as consistent. During FY99-FY01 Air Force ratings begin to stabilize or move downward for a number of satisfaction indicators. However, in FY02 ratings moved higher, meeting or exceeding FY99 levels. It is important to note that for most satisfaction indices, the mean scores for Air Force are higher than Army during the earlier years of the survey administration. That is, there was greater room for improvement in Army ratings than Air Force customer ratings.

Statistical comparisons were performed to detect any statistically significant differences between the work categories<sup>2</sup> with respect to the General Satisfaction questions plus 'Project Management' and 'Funds Management'. A very definitive pattern emerged. Ratings by Environmental customer were consistently higher than 'Construction and Other' across all satisfaction indicators examined. The only areas where ratings by work category were the same were 'Seeks Your Requirements' and 'Funds Management'. For every other item 'Environmental' customers were statistically significantly more satisfied than 'Construction' customers.

A final comparative analysis investigated whether there may be a difference in customer service depending on the particular Air Force command organization to which the services are delivered. Ratings for customers under AETC and ACC were almost always higher than 'AFMC, AMC and Other' across nearly all satisfaction indicators. For most items ratings provided by the 'AETC command group were statistically significantly higher than 'Other'<sup>3</sup> command.

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<sup>2</sup> For the purpose of this analysis work categories 'Real Estate', 'O&M' and 'Other' were combined and denoted 'Other'.

<sup>3</sup> Most customers who selected 'AF-Other' command specified AFRC, AFSPC & PACAF as their command.

Customers were given the opportunity to provide comments or suggestions for improvement of Corps' services. A total of 107 (58%) customers submitted comments. Of these, 45 (42%) made favorable comments, 17 (16%) made negative comments, 35 (33%) customers' comments contained mixed information (positive and negative statements) and 10 (9%) respondents' comments were purely informational in nature, neither positive nor negative. The two most frequently cited comments were 'Compliments to individuals/staff' (42 customers) and 'Overall good job' (21 customers). The most frequent negative comments were 'Corps understaffed to accomplish work' (10 customers), 'Corps too slow / schedules not met' and 'Poor coordination / communications with customer' (8 customers each).

## **§1. INTRODUCTION**

### **§1.1 BACKGROUND**

On 21 November 1994, LTG Williams issued a memorandum to all District and Division components directing them to perform a customer satisfaction survey of all their military and civil works customers as part of the USACE Customer Service Initiative. This initiative supports the Corps' goal of close customer/partner coordination and was in accordance with Executive Order 12826 which required all federal agencies to develop a customer service plan and service standards. Executive Order 12826 (FY95) also required agencies to survey their customers annually for three years to verify the extent to which these standards are being met. HQUSACE has decided to continue the customer survey process beyond the requisite 3-year period for military customers.

HQUSACE is the coordinating office for the Corps' survey. An e-mail memorandum from CEMP-MP to all Major Subordinate Commands<sup>4</sup>, dated 6 March 2003, contained general instructions for administration of the FY02 military customer survey. Corps Districts were to complete administration of their military customer survey by 30 April 2003. All districts were again instructed to include SFO customers in this year's survey. Each District was required to develop a plan to identify the organizations and individuals to be surveyed and a procedure to inform customers of the purpose and process of the survey. Each district is responsible for integrating the survey process into ongoing management activities involving the District and its customers. Districts were instructed to survey installation level customers and Headquarters was to survey their command level equivalents. Individual components were encouraged to perform their own analyses and take action as necessary in response to customer feedback.

### **§1.2. SURVEY METHODOLOGY**

As last year, the survey instrument was posted on the Corps of Engineers Military Programs Division Homepage. Each customer was to be sent an e-mail memo announcing the survey and explaining the survey purpose and process. Customers were to be told they would soon receive an e-mail message containing a URL link that would take them directly to the survey and were given instructions on completing the survey with a requested return date of 30 April 2003.

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<sup>4</sup> TransAtlantic Center also participates in the Military Programs Survey and is included in this analysis.

The standardized military customer survey instrument consists of two sections. The first section contains customer demographic information (name, organization, DoD Command, and primary category of services received). Section two contains 32 satisfaction questions in a structured response format in which customer satisfaction is measured on a 5-point Likert scale from 'Very Low' (1) to 'Very High' (5). For each service rated, customers were also asked to rate the level of importance of the particular service. Questions 1-12 are of a general nature whereas items 12-32 assess specific services and their level of importance. The final portion of the survey solicits customer comments. The survey instrument may be viewed at the following website:

**<https://ppdscivil.usace.army.mil/hecsurv/survfrm.asp>**

## §2. RESULTS OF FY02 AIR FORCE CUSTOMER SURVEY

### §2.1 CUSTOMER DEMOGRAPHICS

A total of 442 Air Force and Army customers participated in the FY02 survey. Army customers comprise the largest proportion of the FY02 sample at 58 percent and Air Force at 42 percent. Customers were asked to identify their DoD Command. Air Force customers could select from five categories: ACC, AETC, AFMC, AMC and 'Air Force-Other'. The greatest number of Air Force customers fall under ACC (48 customers) or AETC (44 customers) commands. The commands specified by the 54 customers who selected 'Air Force-Other' included AFRC, AFSPC and PACAF.

**Table 1: Customer Group FY02**

<u>CUSTOMER GROUP</u>	<u>#</u>	<u>%</u>
Air Force	186	42.1
Army	256	57.9
Total	442	100.0

**Table 2: Air Force Command FY02**

<u>Command</u>	<u>#</u>	<u>%</u>
Air Force - ACC	48	25.8
Air Force - AETC	44	23.7
Air Force - AFMC	26	14.0
Air Force - AMC	14	7.5
Air Force - Other	54	29.0
Total	186	100

<u>Air Force-Other Command</u>	#	%
61ABG	1	1.9
AFCEE	2	3.7
AFOTEC	1	1.9
AFRC	11	20.4
AFSPC	12	22.2
AFSV	1	1.9
Elmendorf AFB	5	9.3
HFO_ER	1	1.9
Niagra Falls	1	1.9
PACAF	10	18.5
Patrick AFB	1	1.9
Real Property Agency	2	3.7
SOUTHCOM	1	1.9
Surgeon General	1	1.9
USAF Academy	1	1.9
USAFE	1	1.9
USJFCOM	1	1.9
Westover ARB	1	1.9
Total	54	100.0

Customers were asked to identify the primary category of service they received from the Corps organization they rated. Over half of Air Force customers (66.1%) rated construction services; 20.4 percent rated environmental services.

**Table 3: Air Force Primary Category of Work FY02**

WORK CATEGORY	#	%
1 Construction	123	66.1
2 Environmental	38	20.4
3 O&M	4	2.2
4 Real Estate	11	5.9
5 Other	10	5.4
Total	186	100.0

<u>Air Force Work Category 'Other'</u>	<u>#</u>	<u>%</u>
Blank	2	20.0
Air Force Museum	1	10.0
Design-Build Management	1	10.0
Design mgmt	1	10.0
Design, Construction, PM	1	10.0
MILCON Design	1	10.0
Planning & Design	1	10.0
Presentation	1	10.0
Real Estate & O&M	1	10.0
Total	10	100.0

The survey included 21 of the 22 Districts who serve military customers<sup>5</sup> and TransAtlantic Center. These districts work within seven Corps Divisions. The greatest proportion of responses was received from customers served by North West Division at 36 percent followed by Southwest Division at 18 percent. Omaha, Seattle and Mobile and had the greatest number of valid responses (43, 20 and 19 customers respectively).

**Table 4: Air Force Customers by Corps Division FY02**

<u>Division</u>	<u>#</u>	<u>%</u>
LRD	4	2.2
NAD	17	9.3
NWD	65	35.5
POD	15	8.2
SAD	26	14.2
SPD	23	12.6
SWD	33	18.0
Total	183	100.0

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<sup>5</sup> NAP also serves a small number of military customers but had zero responses to its survey this year.

**Table 5: Air Force Customers by Corps District FY02**

<u>District</u>	#	%
LRL	4	2.2
NAB	1	0.5
NAN	3	1.6
NAO	5	2.7
NAE	5	2.7
NAU	3	1.6
NWK	2	1.1
NWO	43	23.1
NWS	20	10.8
POA	9	4.8
POF	2	1.1
POH	1	0.5
POJ	3	1.6
SAM	19	10.2
SAS	7	3.8
SPA	8	4.3
SPL	6	3.2
SPK	9	4.8
SWF	13	7.0
SWL	2	1.1
SWT	18	9.7
HQ	1	0.5
TAC	2	1.1
Total	186	100.0

## **§2.2 GENERAL SATISFACTION ITEMS FY02**

For purposes of the following discussion, response categories 1 ('Very Low') and 2 ('Low') will be collapsed and referred to as the 'Low' category representing negative responses. Similarly, categories 4 ('High') and 5 ('Very High') will be collapsed and designated the 'High' category, representing positive responses. A score of '3' may be interpreted as mid-range, average or noncommittal. The following table depicts Corps-wide customers' responses to the 11 general satisfaction indicators. All data summary tables in this report show only the number of valid responses i.e., the percentage of responses of all participants who answered the question. Since customers left certain fields blank, the totals for each summary are not the same as the total number of survey participants. The first column beneath each response category represents the number of valid responses and the second column shows the percentage of valid responses. The detailed responses (before collapsing categories) to the 11 general satisfaction indicators are in Appendix B, Table B-1.

Air Force customers are generally satisfied with products and services provided by the Corps of Engineers. All general satisfaction items received a median score of at least '4' ('High' to 'Very High'). Two items ('Treats You as a Team Member' and 'Displays Flexibility') each received a median score of '5' ('Very High'). The majority of responses (67 percent or more) were positive for all eleven general performance questions. The two most highly rated items in this year's survey were 'Treats You as a Team Member' rated positively by 89 percent of respondents and 'Seeks Your Requirements' (87%). The two indices that elicited the most negative responses were; 'Reasonable Cost' rated low by 12 percent of customers and 'Provides Timely Services' by eight percent.

Two of the more critical items in the survey as 'bottom line' indicators of customer satisfaction are Items 10: 'Would be Your Choice for Future Services' and Item 11: 'Your Overall Level of Customer Satisfaction'. With respect to Item 10, 77 percent of customers in the sample indicated the Corps would be their choice in the future. Conversely, a total of six percent responded USACE would NOT be their choice for future projects and 17% were non-committal. For customers' overall level of satisfaction (Item 11), 84% responded positively, five percent negatively and 12% fell in the mid-range category. It is worthwhile to note that the noncommittal customers represent a critical subgroup of customers deserving attention. These customers may migrate to either the satisfied or dissatisfied category depending on their future experiences with the Corps organization serving them.

**Table 6: FY02 General Satisfaction Items**

General Items	Low		Mid-range		High		Total	
	#	%	#	%	#	%	#	%
1 Seeks Your Requirements	7	3.9	16	8.9	157	87.2	180	100.0
2 Manages Effectively	11	6.0	25	13.7	146	80.2	182	100.0
3 Treats You as a Team Member	7	3.8	13	7.1	163	89.1	183	100.0
4 Resolves Your Concerns	11	5.9	26	14.1	148	80.0	185	100.0
5 Timely Service	15	8.1	39	21.1	131	70.8	185	100.0
6 Quality Product	10	5.4	31	16.8	143	77.7	184	100.0
7 Reasonable Costs	22	12.0	39	21.3	122	66.7	183	100.0
8 Displays Flexibility	9	4.9	23	12.5	152	82.6	184	100.0
9 Keeps You Informed	11	6.0	22	12.0	151	82.1	184	100.0
10 Your Future Choice	11	6.1	31	17.2	138	76.7	180	100.0
11 Overall Satisfaction	9	4.9	21	11.5	153	83.6	183	100.0

Customers were also asked to rate the importance of each General Satisfaction item so that a gap analysis could be performed comparing satisfaction rating vs. importance rating for each item. The purpose of the gap analysis is to identify instances where the mean importance rating is notably higher than the satisfaction rating. A large disparity in these scores where ‘importance’ is much higher than ‘rating’ indicates that customer’s needs are not being properly met. A number of items evinced a notable disparity between ‘rating’ and ‘importance’. They include ‘Manages Effectively’, ‘Resolves Your Concerns’, ‘Timely Services’, ‘Quality Product’ and ‘Reasonable Cost’.

# FY02 AF Satisfaction Survey

## Ratings vs Importance of Service

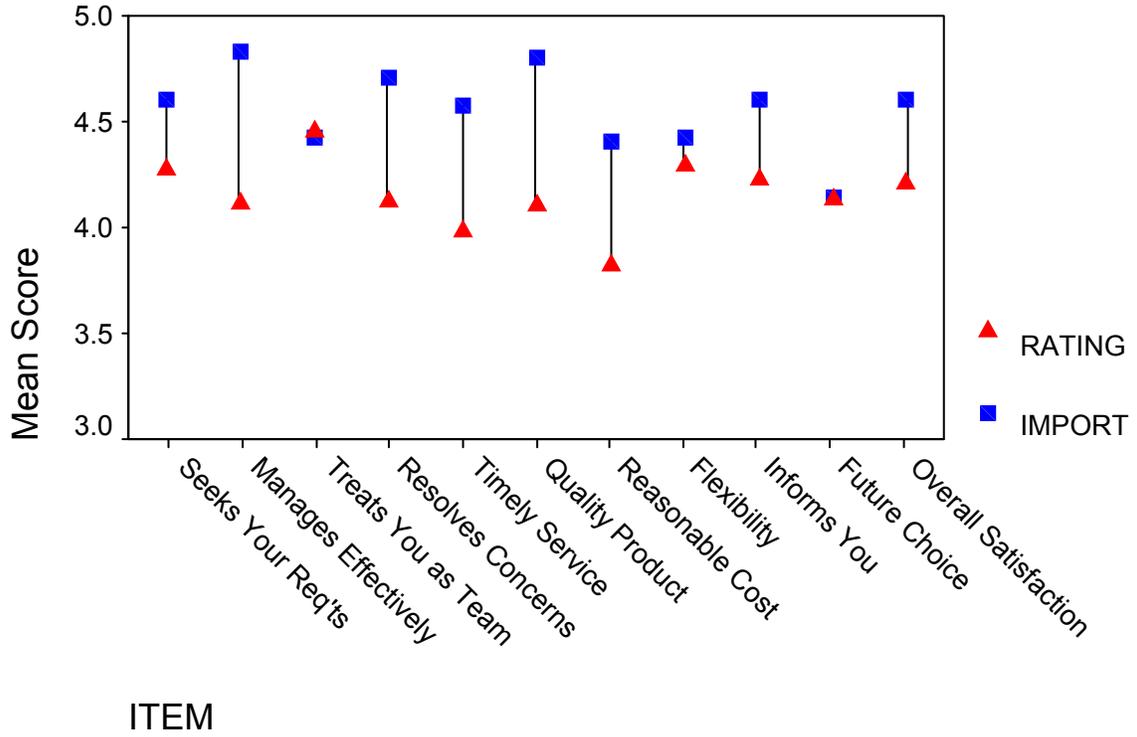


Figure 1: Items 1-11

### **§2.3 SPECIFIC SERVICES ITEMS FY02**

Items 12 through 32 of the Military Customer Survey solicit customers' opinions concerning 21 specific services and products. Again respondents could choose from response categories ranging from '1' for 'Very Low' to '5' for 'Very High.' Again, for discussion purposes, we will collapse the 'Low' with 'Very Low' and 'High' with 'Very High' categories into 'Low' and 'High' groupings, respectively. The percentages represent the proportions of valid responses, i.e., the percentage of responses of all participants who answered the question. The detailed responses to these 21 indicators (before collapsing categories) are displayed in Table B-2 of Appendix B. A large number of customers left one or more items blank in this section. The average percentage of non-response was 46 percent of the sample. The proportion of the sample who did not rate a specific service ranged from as low as 12 percent on Item 25: 'Timely Construction' to a high of 85 percent on Item 31: 'IS Checkbook Services. Due to the very low response rate on this item and Items 16 (BRAC) and Item 30: 'Privatization Support', these items will not be included in the following comparisons among specific services.

The overall tenor of customers' opinions of the specific services items (Items 12-32) was approximately the same as the general satisfaction items. All specific services items received median scores of '4' or higher. The proportion of high ratings for the specific services items (excluding 'BRAC', 'Privatization Support' & 'IS Checkbook Services'), ranged from 65 to 83 percent. The top two most highly rated items were 'Job Order Contracts' (82.7% high ratings) and 'End-User Satisfaction' (82.4%). The specific services that received the lowest ratings were 'Studies & Investigations' (non-environmental) rated low by 15 percent of respondents and 'Timely Construction' and 'Warranty Support' each rated low by 11 percent. Table 7 presents Air Force customer evaluations of USACE specific services.

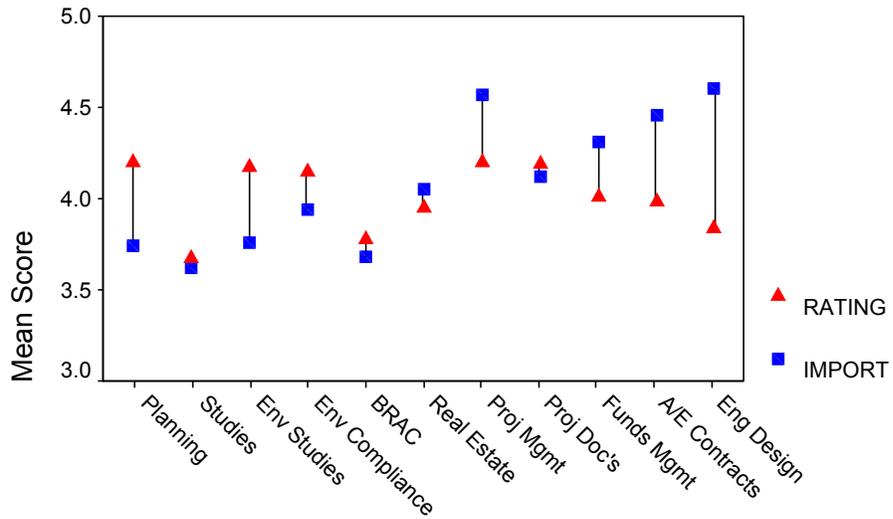
Customers were also asked to rate the importance of each Specific Services item. As was the case with the general satisfaction items, almost all items received a 'High' importance score. Significant disparities between satisfaction ratings and importance ratings were seen in several specific services areas. These disparities (rating lower than importance) were particularly striking on 'Engineering Design', 'Construction Quality', 'Timely Construction', and 'End-User Satisfaction'. These results are shown in the gap analyses following Table 7.

**Table 7: Specific Services Items**

Specific Services	Low		Mid-range		High		Total	
	#	%	#	%	#	%	#	%
12. Planning	4	5.8	11	15.9	54	78.3	69	100.0
13. Studies & Investigations	7	14.6	10	20.8	31	64.6	48	100.0
14. Environmental Studies	5	7.1	8	11.4	57	81.4	70	100.0
15. Environmental Compliance	6	9.0	7	10.4	54	80.6	67	100.0
16. BRAC	3	16.7	3	16.7	12	66.7	18	100.0
17. Real Estate	6	9.5	10	15.9	47	74.6	63	100.0
18. Project Management	6	3.8	25	16.0	125	80.1	156	100.0
19. Project Documentation	4	5.2	11	14.3	62	80.5	77	100.0
20. Funds Management	10	7.5	23	17.2	101	75.4	134	100.0
21. A/E Contracts	13	10.5	16	12.9	95	76.6	124	100.0
22. Engineering Design	16	10.5	29	19.1	107	70.4	152	100.0
23. Job Order Contracts	3	5.8	6	11.5	43	82.7	52	100.0
24. Construction Quality	11	6.9	20	12.5	129	80.6	160	100.0
25. Timely Construction	18	11.1	34	21.0	110	67.9	162	100.0
26. Construction Turnover	7	5.6	27	21.6	91	72.8	125	100.0
27. Warranty Support	13	11.2	13	11.2	90	77.6	116	100.0
28. End-user Satisfaction	10	6.3	18	11.3	131	82.4	159	100.0
29. Maintainability	6	4.4	21	15.3	110	80.3	137	100.0
30. Privatization Support	3	16.7	3	16.7	12	66.7	18	100.0
31. IS Checkbook	1	7.7	3	23.1	9	69.2	13	100.0
32. PM Forward	2	6.3	4	12.5	26	81.3	32	100.0

## FY02 AF Satisfaction Survey

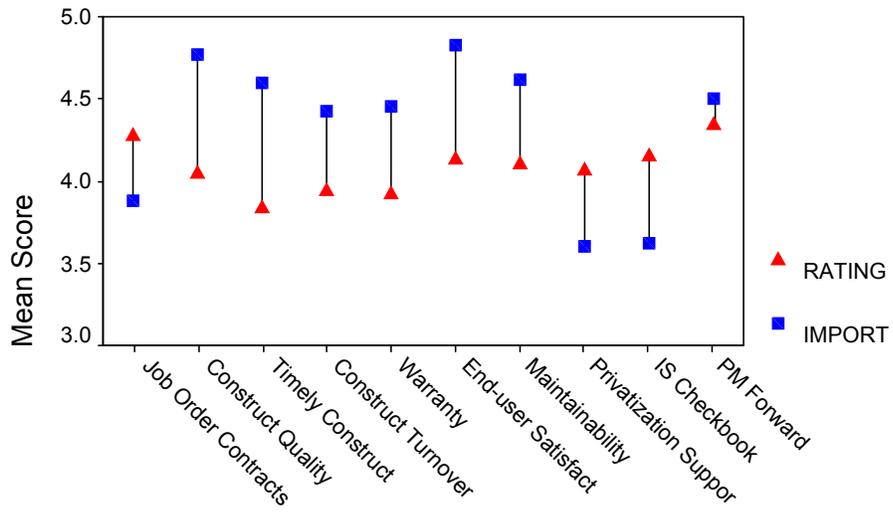
### Ratings vs Importance of Service



ITEM

## FY02 AF Satisfaction Survey

### Ratings vs Importance of Service



ITEM

Figure 2: Items 12 – 32

## §2.4 CUSTOMER COMMENTS FY02

Customers were given the opportunity to provide comments or suggestions for improvement of Corps' services. A total of 107 (58%) customers submitted comments. Of these, 45 (42%) made favorable comments, 17 (16%) made negative comments, 35 (33%) customers' comments contained mixed information (positive and negative statements) and 10 (9%) respondents' comments were purely informational in nature, neither positive nor negative. The two most frequently cited comments were 'Compliments to individuals/staff' (42 customers) and 'Overall good job' (21 customers). The most frequent negative comments were 'Corps understaffed to accomplish work' (10 customers), 'Corps too slow / schedules not met' and 'Poor coordination / communications with customer' (8 customers each).

A summary of all comments is shown below. Note that the total number of comments exceeds 107 as most customers cited several issues. The complete text of comments sorted by Air Force command is included in Appendix C.

**Table 8: Summary of Air Force Customer Comments FY02**

<b>Customer Satisfied with:</b>	<b>#</b>
Staff / Individuals Performance	42
Overall Performance	21
Improvement in Services	12
Responsive to Customer Needs	2
Customer Well Informed (status reports, meetings)	3
Product Quality	4
Teamwork	4
PM Forward Services	2
Schedule/Budget-Met	6
Project Mgmt	2
Customer Focused	6
Real Estate Services	1
Funds Mgmt	1
Flexibility	1
AE Services	1
Eng/Tech Services	1
Innovative Solutions	1
Design Services	1
Charrettes	1
Construction Services	2
Acquisition/Disposal Services	1
Communication/Coordination	1

<b>Customer Dissatisfied with:</b>	
Too Slow / Schedules not met	8
Communications / Coordination w/ Customer	8
Costs / Funds Mgmt	4
Design Quality	5
QA/QC Construction	6
Closeout (financial/punchlist items)	7
COE Understaffed to Accomplish Work	10
Mgmt Not Proactive / innovative	3
Mods / Changes (Customer needs excluded, too slow etc)	5
Contractor services	3
Contracting Services	3
Warranty Support	4
Hold Contractor Accountable	3
Provide detailed & Projected Cost Accounting	1
Technical / Mechanical Quality	2
Staff / Individuals Poor Performance	4
Flexibility	1
Construction Support	1
Designs / RFP's Don't Incorporate Customer Needs	5
OH / S&A too high	1
Poor Coordination Among District Functions	3
Will use other agencies than COE / District	1
HVAC Quality	1
Poor Coordination Between Districts	1
Project Mgmt Services	1
Real Estate Services	1
Roof Construction Quality	3
Staff Not Knowledgeable/Trained	1
Use Innovative Contracting Tools (SABER,IDIQ,Tool Box)	2
Legal Services	2
Small Project Designs	2
Design Charettes	1
Design/Construction deficiencies repeated	1
Have Regular Visitor's Badge Available	1
Land Survey Products	1
Pre-Design Surveys/Investigations	1
Scope of Services Doc's	1
Told by Other District That Fees Are Negotiable	1

### **§3.0 Comparison of Ratings by Customer Subgroups**

Analyses of customer feedback by breaking down the aggregate data into demographic or other categories can often lead to identification of pockets of very well-satisfied or dissatisfied customers. Follow-up contacts with these subgroups may reveal areas of outstanding performance that should be continued or poor performance that needs to be remedied. The three subgroup factors examined here are ratings by Air Force vs. Army customers, ratings by Air Force customers' primary work category and ratings by Air Force command organization.

#### **§3.1 Air Force vs. Army Ratings FY02**

Mean customer ratings by agency are depicted in the following graphs. This graphic analysis clearly shows that for all items except two Air Force ratings are the same or higher than Army. The two exceptions are 'BRAC' and (non-environmental) 'Studies and Investigations'. Statistical comparisons were performed to detect any statistically significant differences between Air Force and Army ratings. Ratings between the two groups were statistically comparable for all but three satisfaction indicators. In two areas of services Air Force customers were statistically significantly more satisfied than Army. These were 'Reasonable Cost' and 'Construction Maintainability'. In the area of (non-environmental) 'Studies & Investigations' Army customers were significantly more satisfied than Air Force. The following table summarizes these results. A detailed table presenting mean Air Force, Army item scores, sample sizes and p-values is located in Appendix Table B-3.

**Table 9: Summary of T-Tests of Ratings Air Force vs. Army**

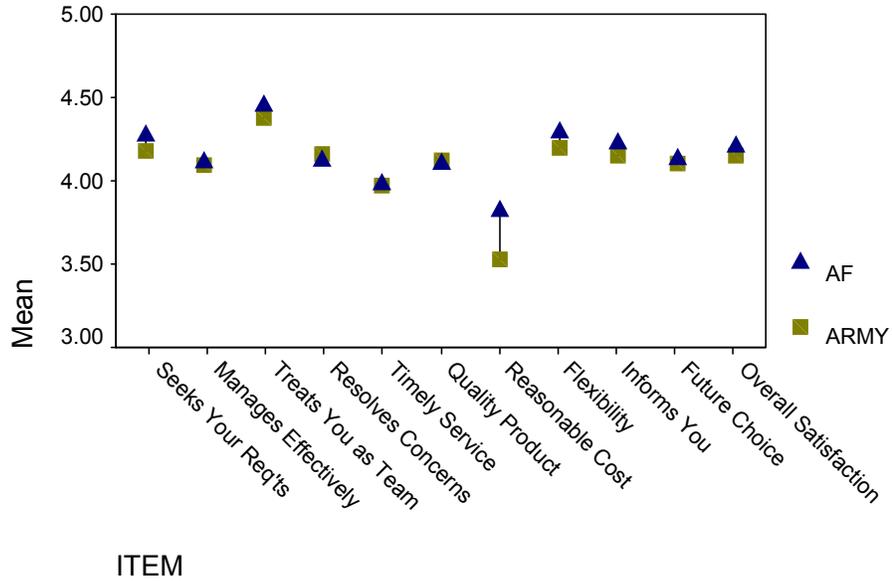
<u>Item</u>	<u>Statistically Significant Results<sup>6</sup></u>
7. Reasonable Cost	Air Force > Army
13. Studies & Investigations	Army > Air Force
29. Maintainability	Air Force > Army

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<sup>6</sup> Tests were performed at  $\alpha = .05$  level of significance.

## FY02 Military Customer Satisfaction Survey

### Air Force vs Army



## FY02 Military Customer Satisfaction Survey

### Air Force vs Army

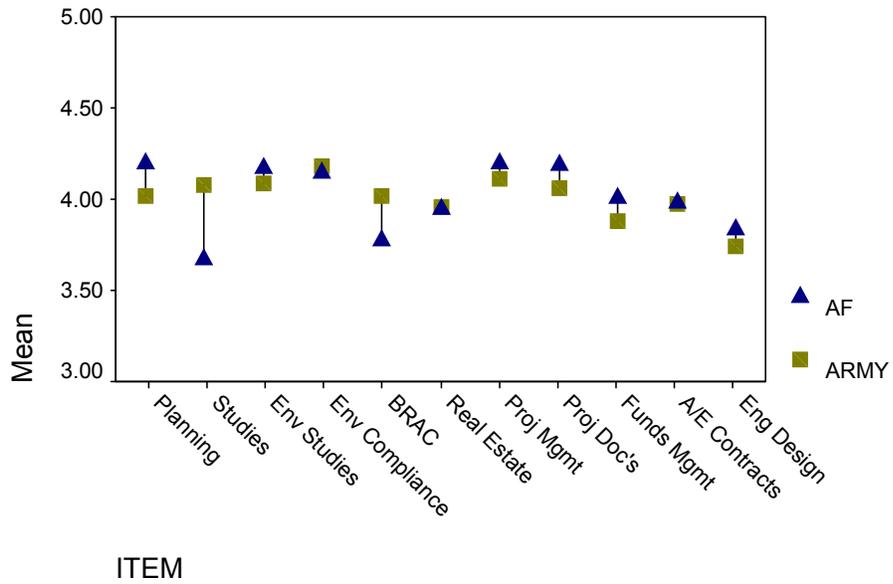
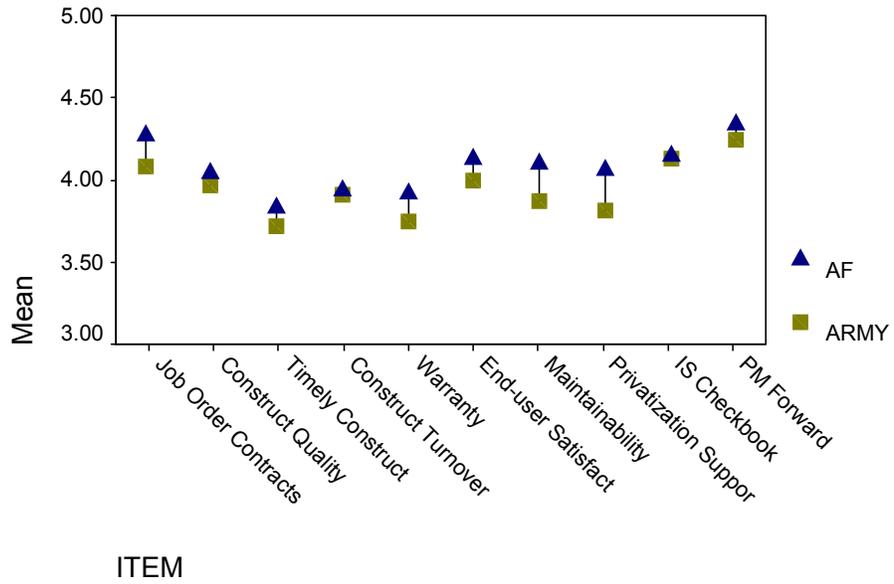


Figure 3: Air Force vs. Army Ratings FY02

# FY02 Military Customer Satisfaction Survey

## Air Force vs Army



### 3.2 Eight-Year Trends Air Force vs. Army

The Corps Military Customer Satisfaction Survey has been administered for a total of eight years. The following analysis tracks the eight-year trends in customers' assessment of Corps performance juxtaposing the trend in Air Force vs. Army customer ratings over time. This analysis summarizes up to 1,507 Air Force and 2,308 Army responses. The numbers of actual valid responses vary by item. The number of surveys received by customer group by year is displayed in Table 10. Additional demographic information, such as the number of responses by Division and District, is shown in Appendix Tables B-6 and B-7.

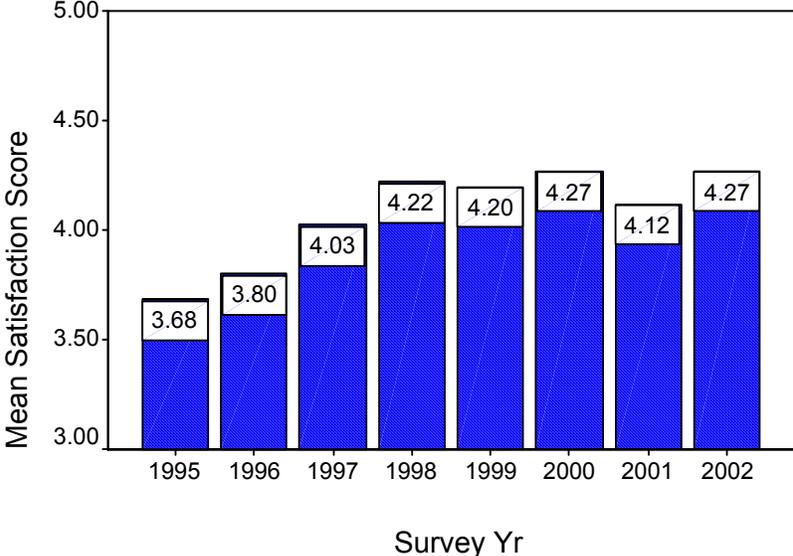
**Table 10: Responses by Group & Survey Year 1995-02**

	1995	1996	1997	1998	1999	2000	2001	2002	Total
Air Force	139	169	241	193	190	184	205	186	1507
Army	243	209	326	341	405	302	226	256	2308
Total	382	378	567	534	595	486	431	442	3815

Results show that in general, there has been a gradual upward trend at least over the first three years of the survey for all customer groups. That is, for almost every indicator, customer satisfaction has improved since 1995. Army customers' ratings are moving upward in a very consistent pattern over the eight-year survey period. The pattern of Air Force customers' ratings is not quite as consistent. During FY99-FY01 Air Force ratings begin to stabilize or move downward for a number of satisfaction indicators. However, in FY02 ratings moved higher, meeting or exceeding FY99 levels. It is important to note that for most satisfaction indices, the mean scores for Air Force are higher than Army during the earlier years of the survey administration. That is, there was greater room for improvement in Army ratings than Air Force customer ratings. The graphs of mean customer responses by year for each customer satisfaction measure follow.

### Item 1: Seeks Your Requirements

#### AF Customers



### Item 1: Seeks Your Requirements

#### Army Customers

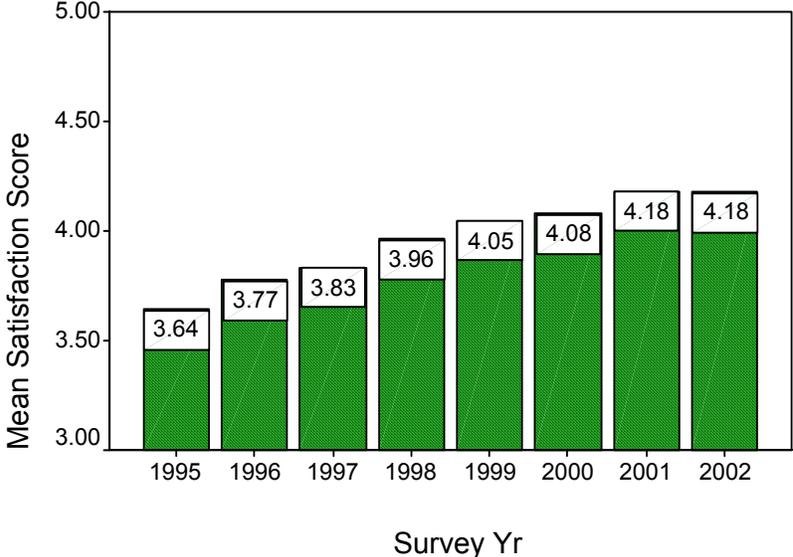
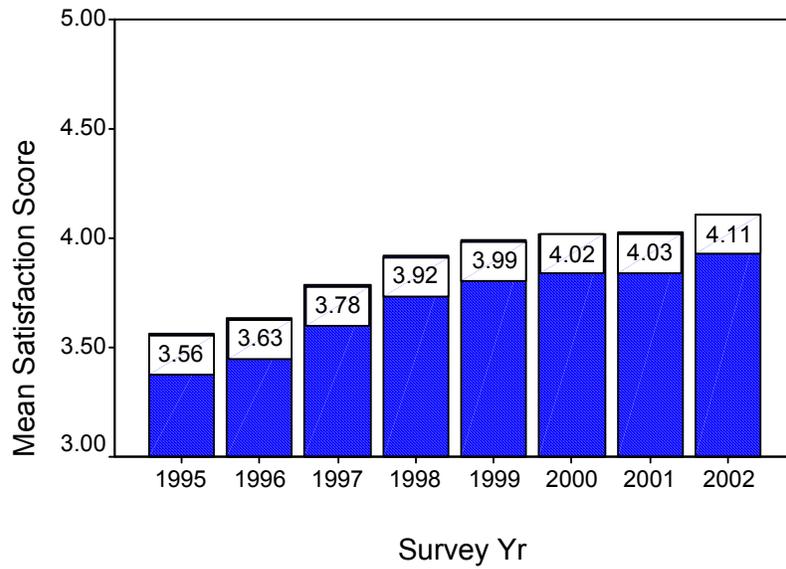


Figure 4: Eight-Year Trends Air Force vs. Army

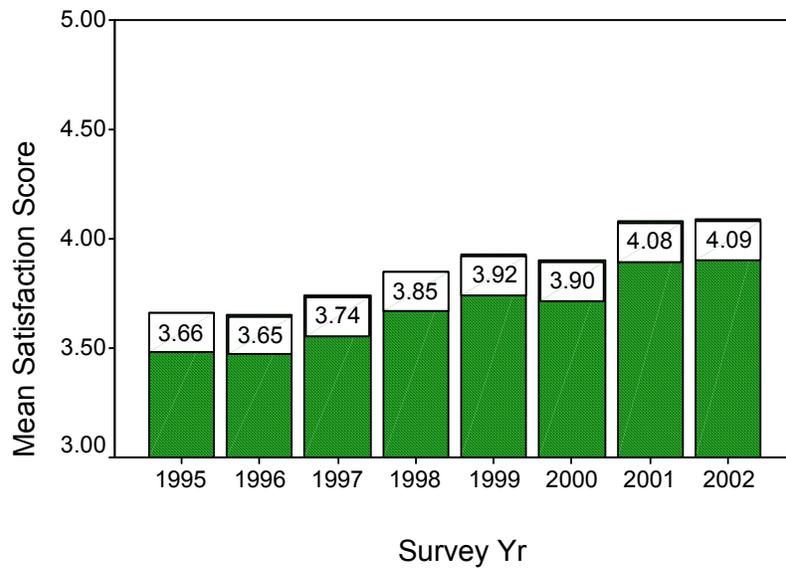
## Item 2: Manages Effectively

### AF Customers



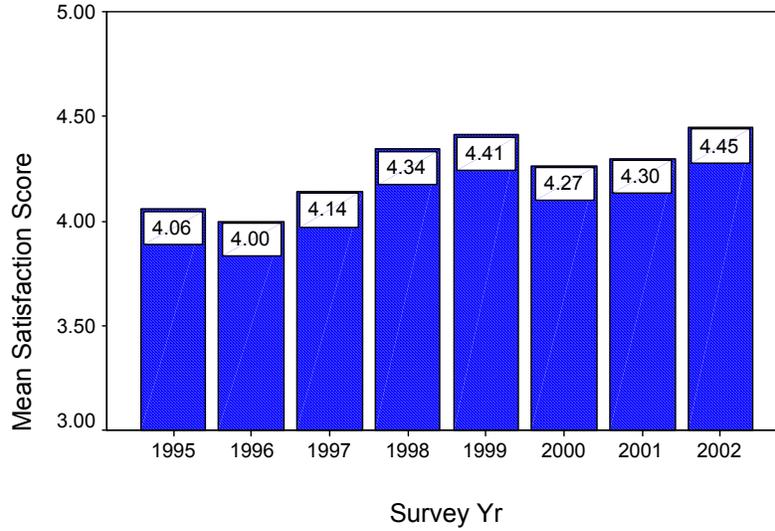
## Item 2: Manages Effectively

### Army Customers



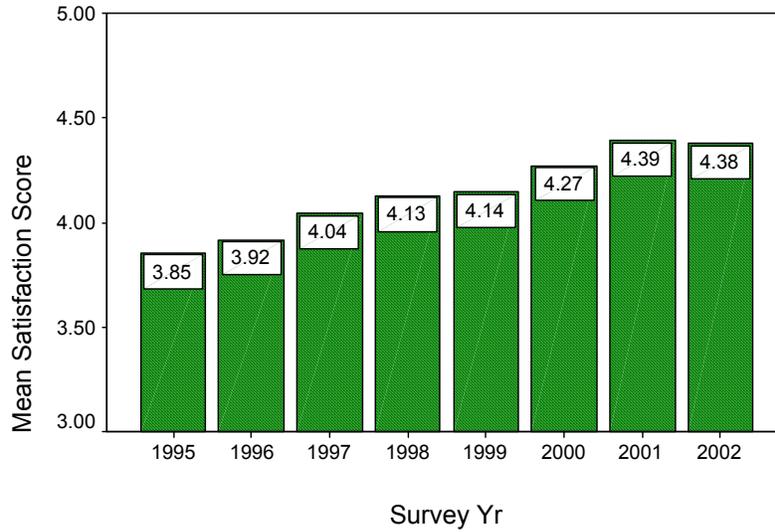
### Item 3: Treats You as Team Member

#### AF Customers



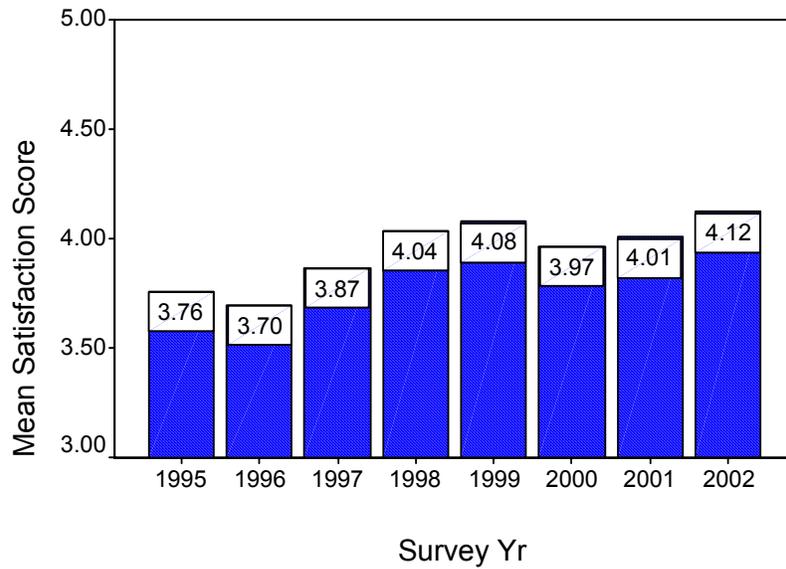
### Item 3: Treats You as Team Member

#### Army Customers



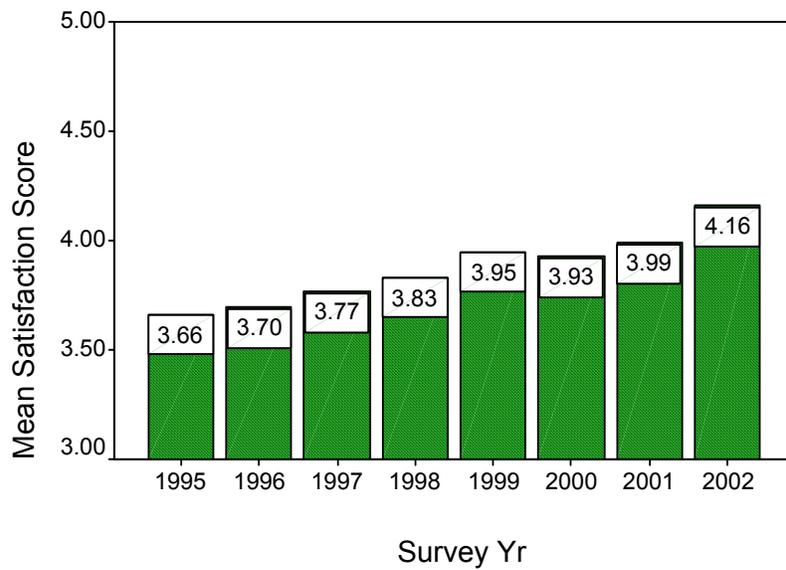
## Item 4: Resolves Your Concerns

### AF Customers



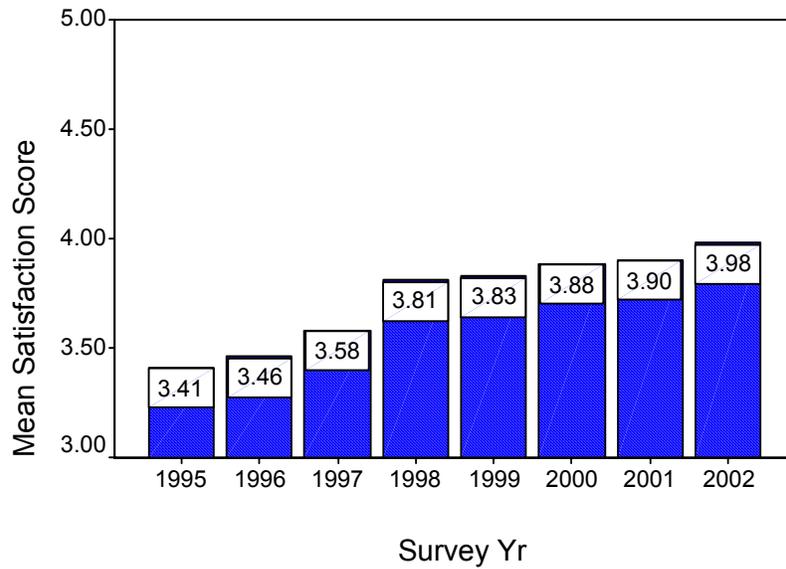
## Item 4: Resolves Your Concerns

### Army Customers



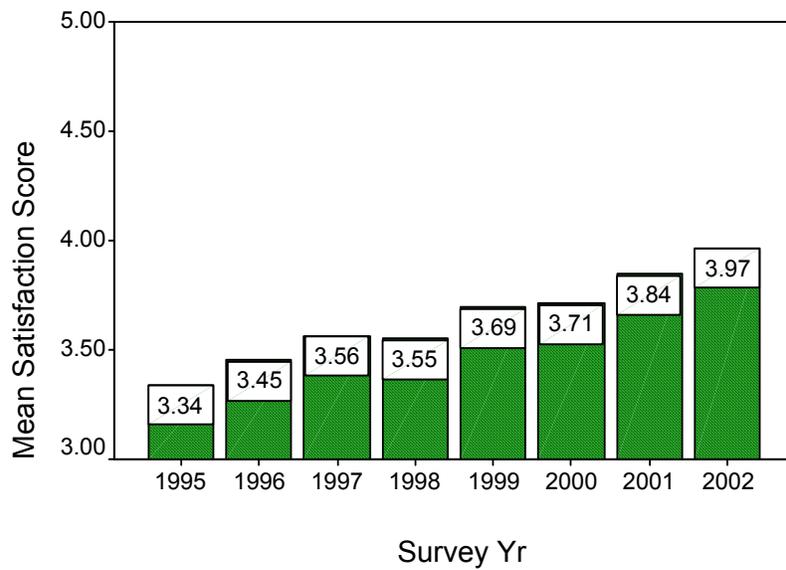
## Item 5: Provides Timely Services

### AF Customers



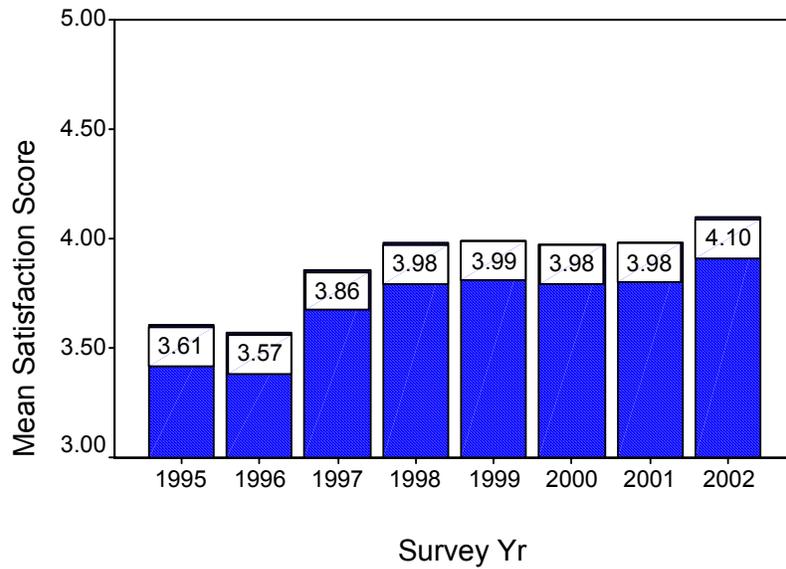
## Item 5: Provides Timely Services

### Army Customers



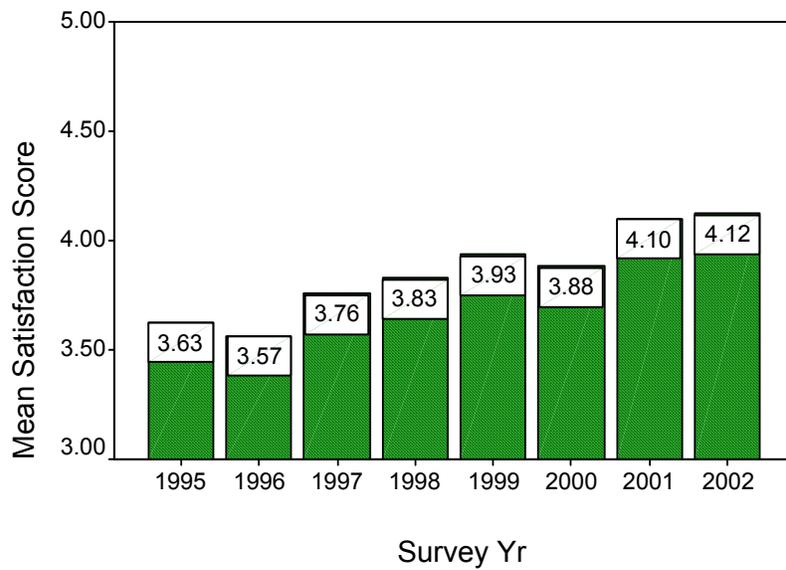
## Item 6: Delivers Quality Products

### AF Customers



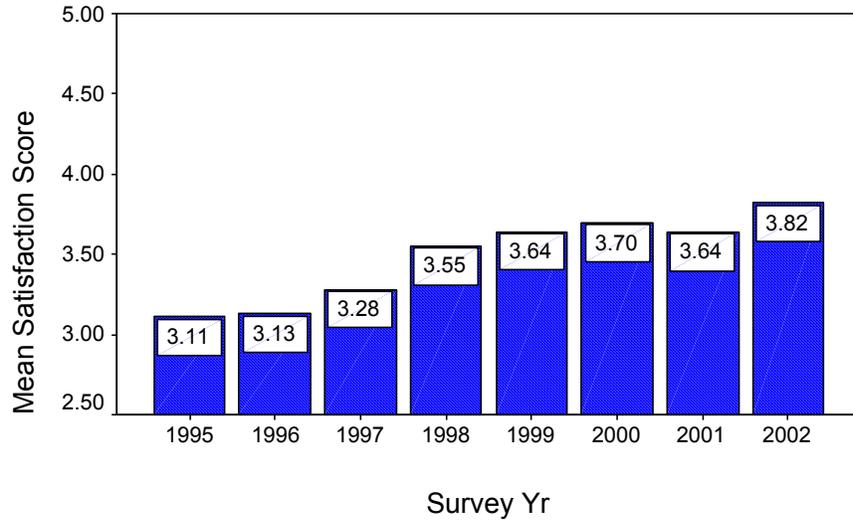
## Item 6: Delivers Quality Products

### Army Customers



## Item 7: Reasonable Costs

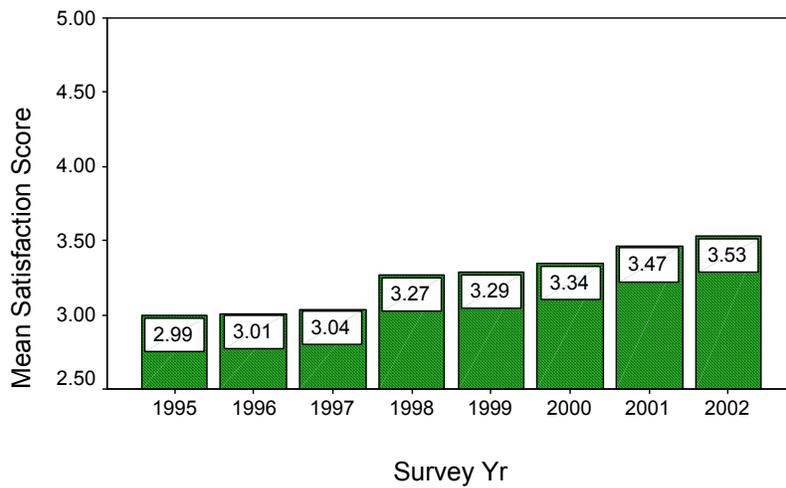
### AF Customers



Note: Change in Scale

## Item 7: Reasonable Costs

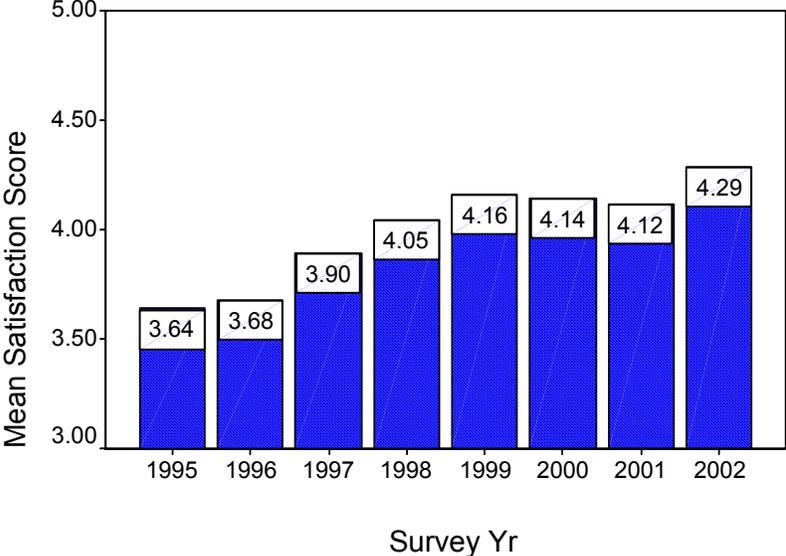
### Army Customers



Note: Change in Scale

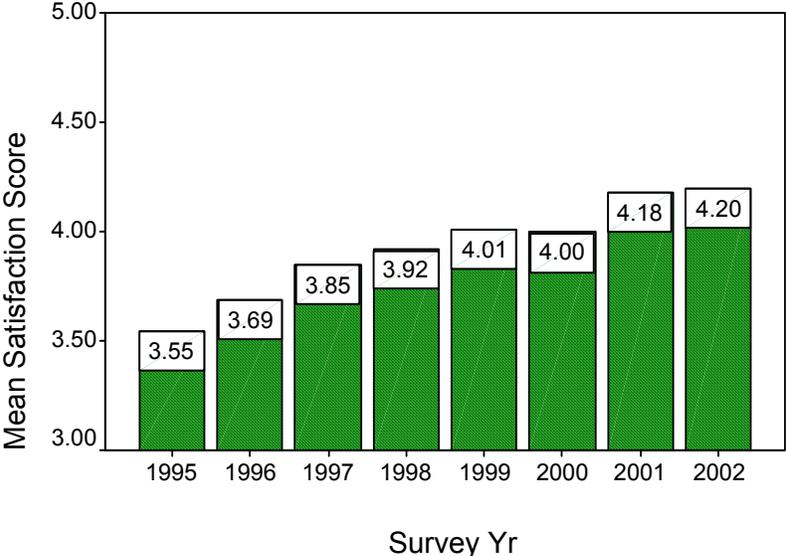
### Item 8: Flexible to Your Needs

#### AF Customers



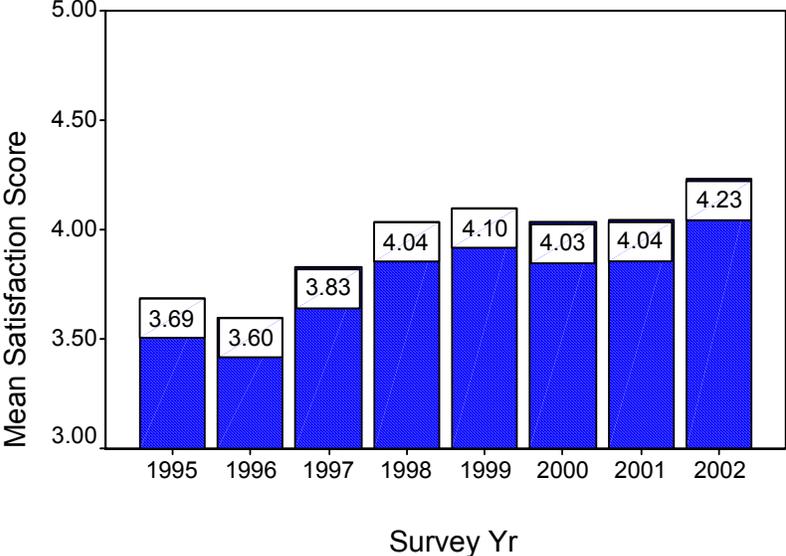
### Item 8: Flexible to Your Needs

#### Army Customers



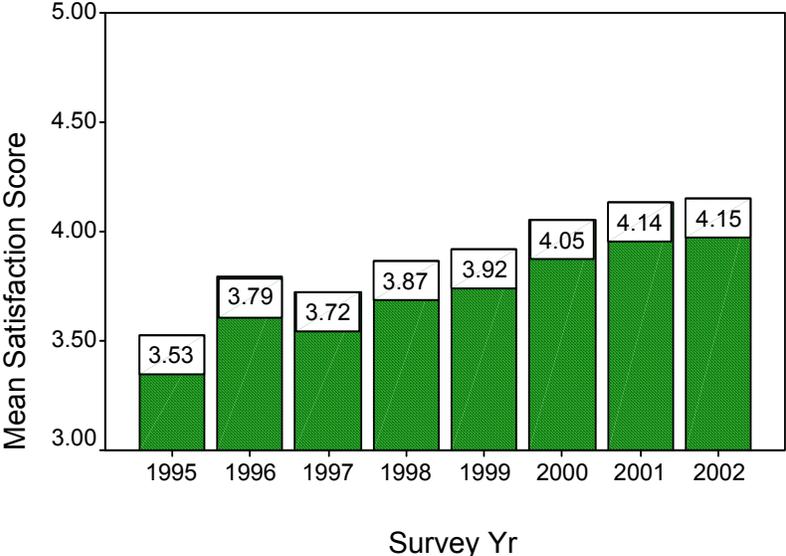
### Item 9: Keeps You Informed

#### AF Customers

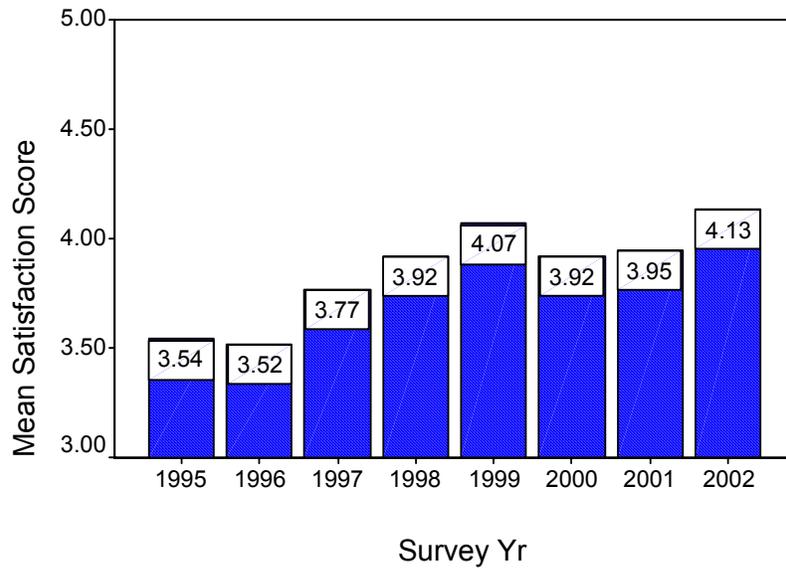


### Item 9: Keeps You Informed

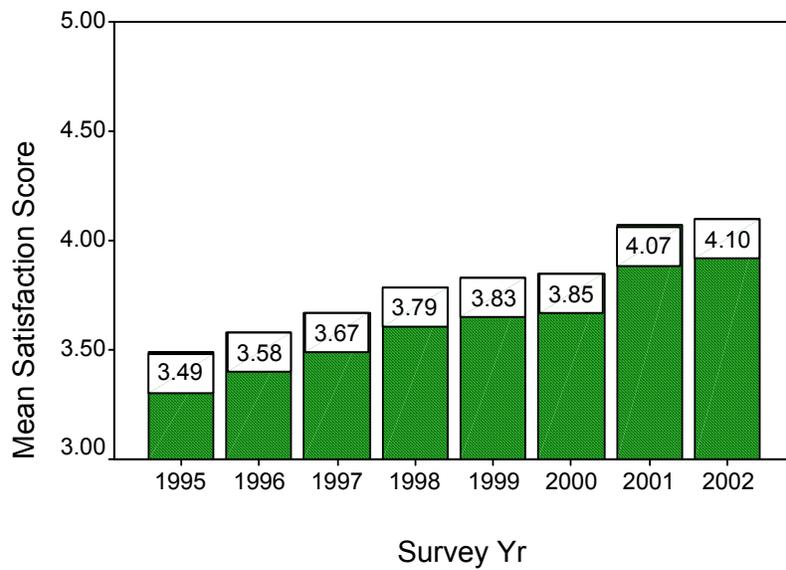
#### Army Customers



## Item 10: Your Choice in the Future AF Customers

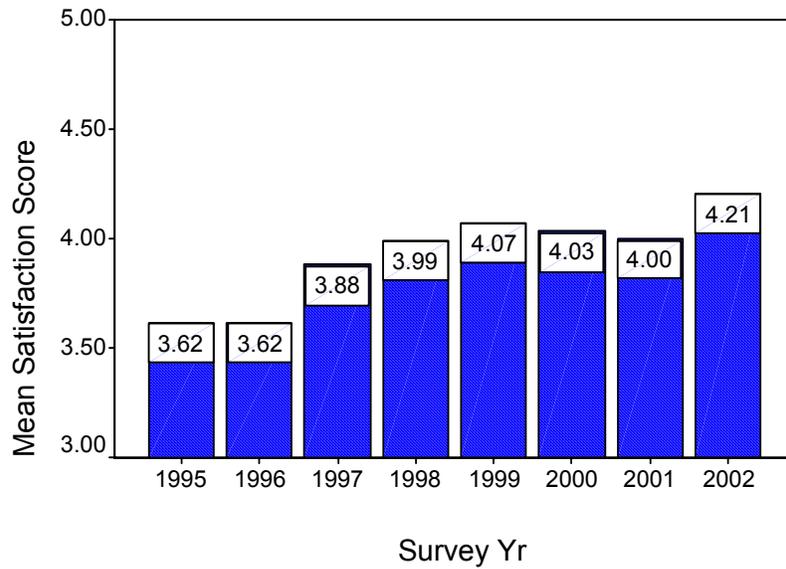


## Item 10: Your Choice in the Future Army Customers



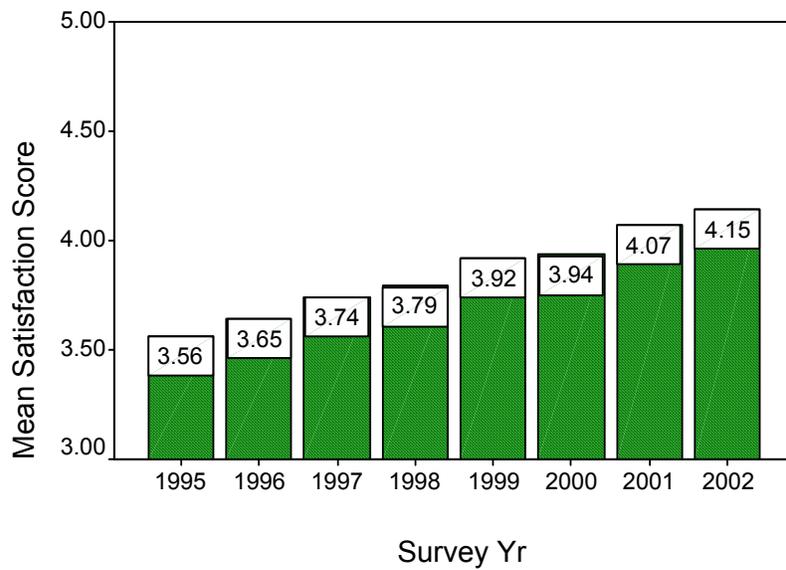
## Item 11: Your Overall Satisfaction

### AF Customers



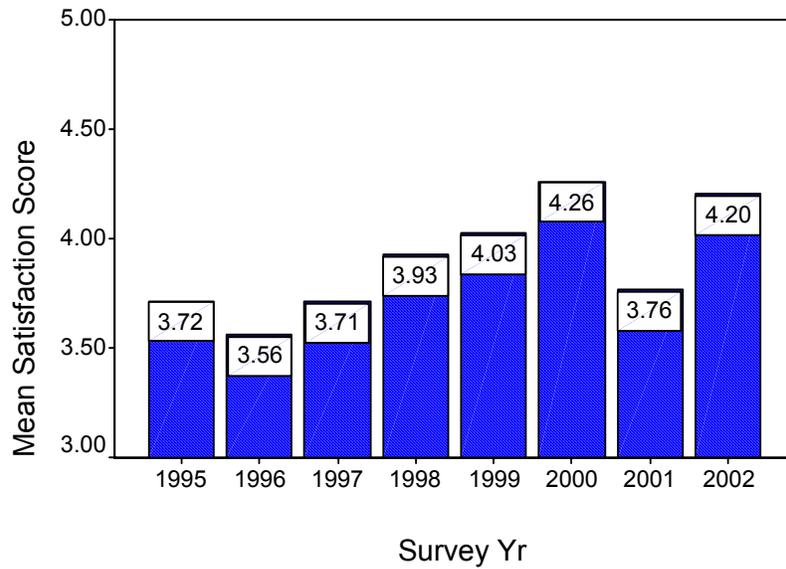
## Item 11: Your Overall Satisfaction

### Army Customers



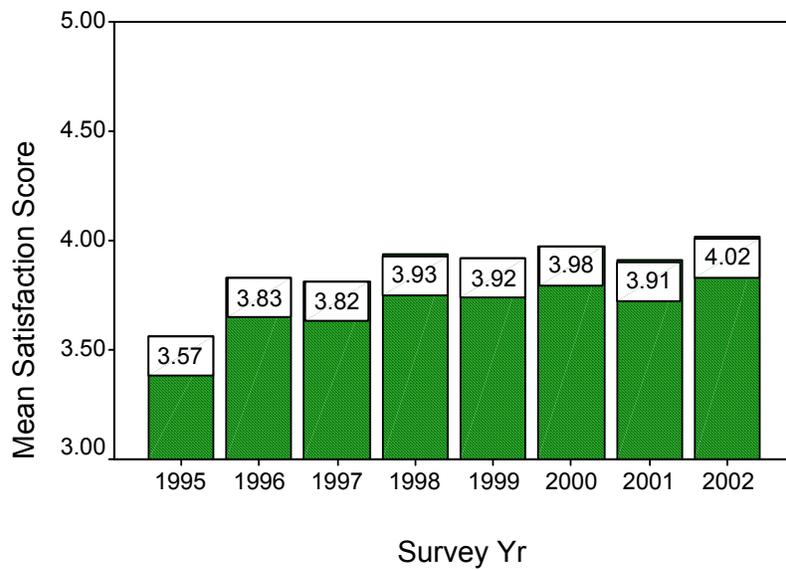
## Item 12: Planning Services

### AF Customers



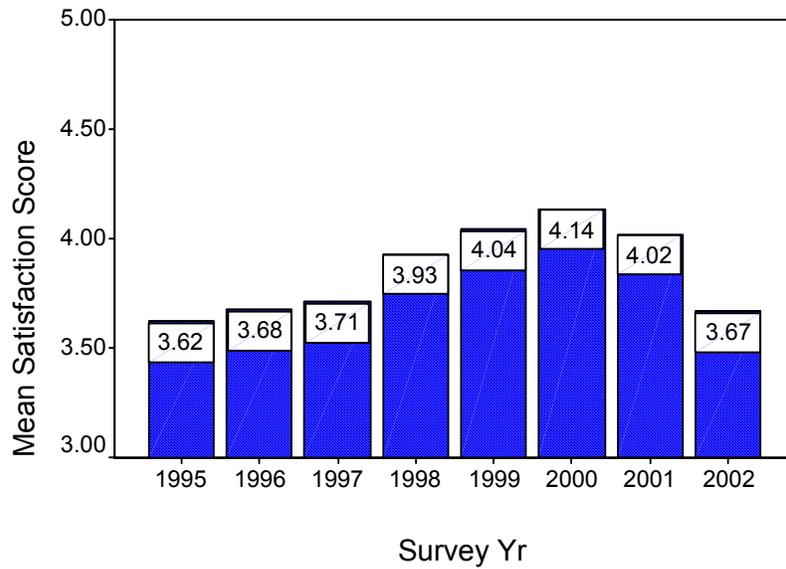
## Item 12: Planning Services

### Army Customers



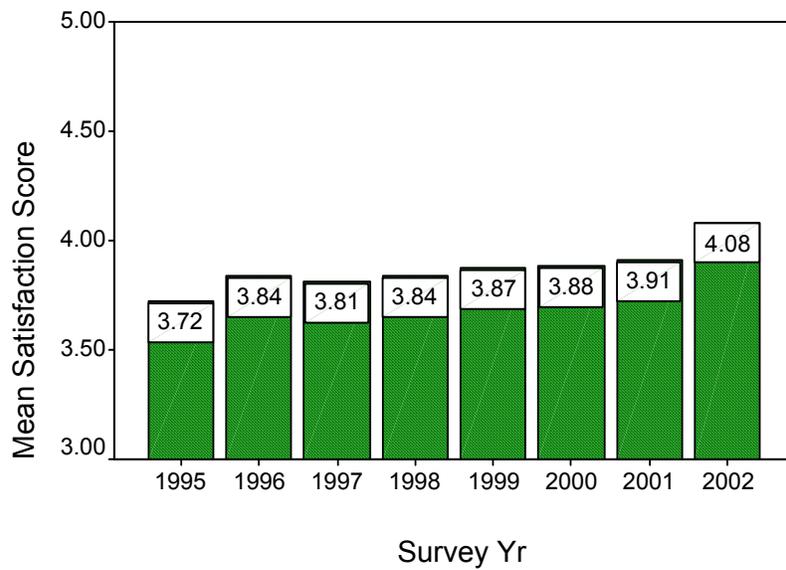
## Item 13: Studies & Investigations

### AF Customers



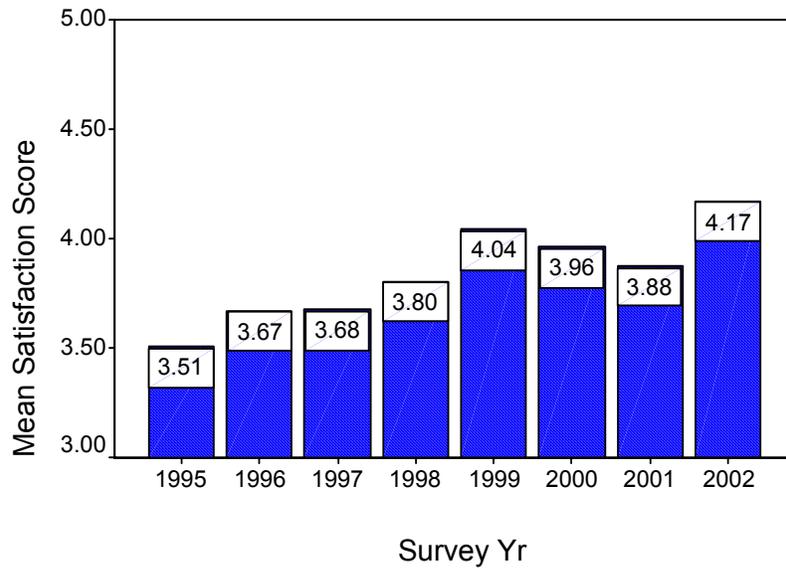
## Item 13: Studies & Investigations

### Army Customers



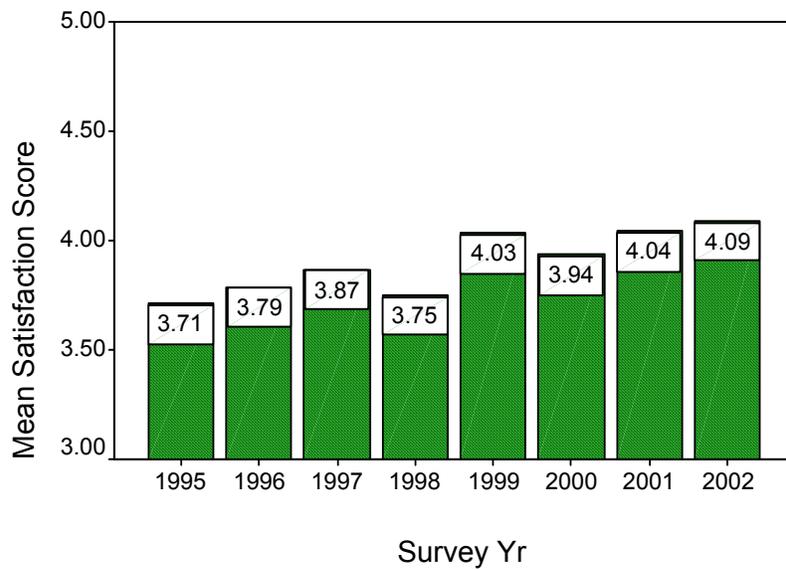
## Item 14: Environmental Studies

### AF Customers



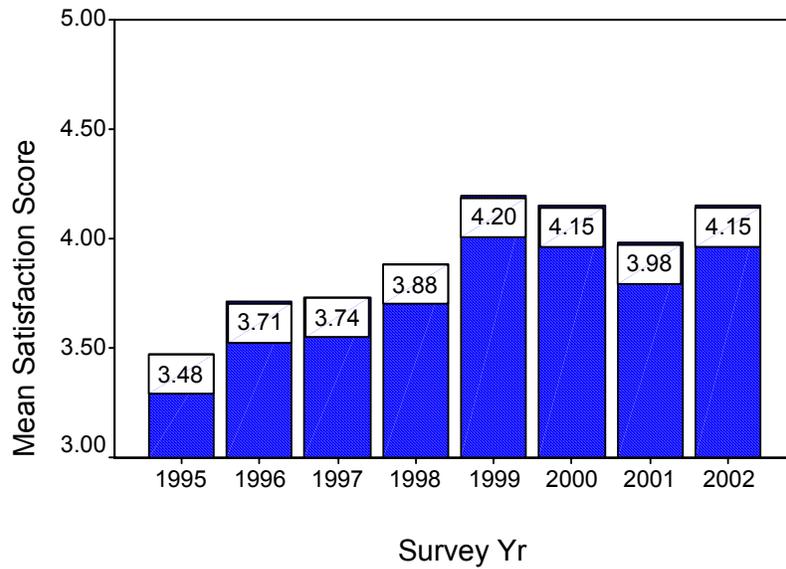
## Item 14: Environmental Studies

### Army Customers



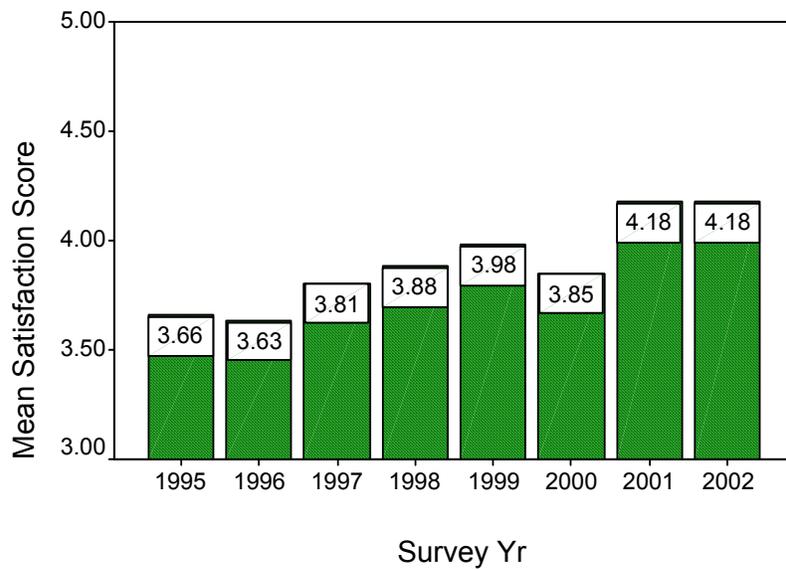
## Item 15: Environmental Compliance

### AF Customers



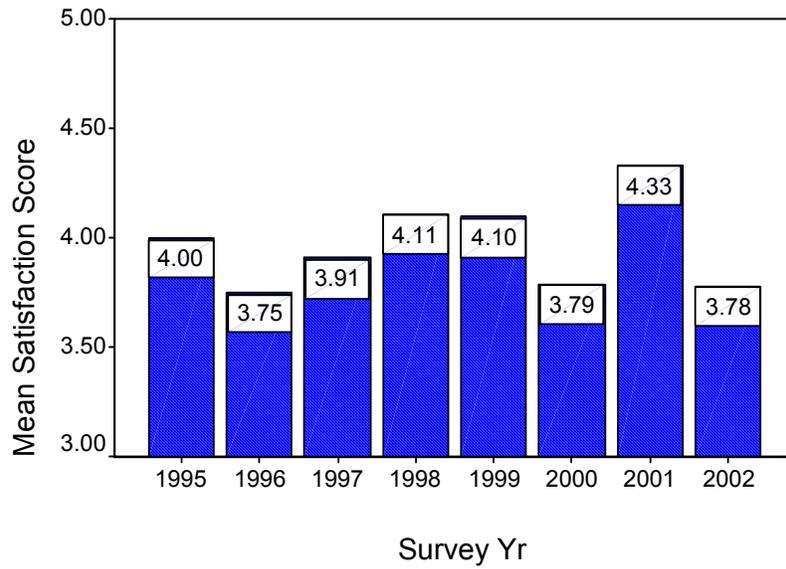
## Item 15: Environmental Compliance

### Army Customers



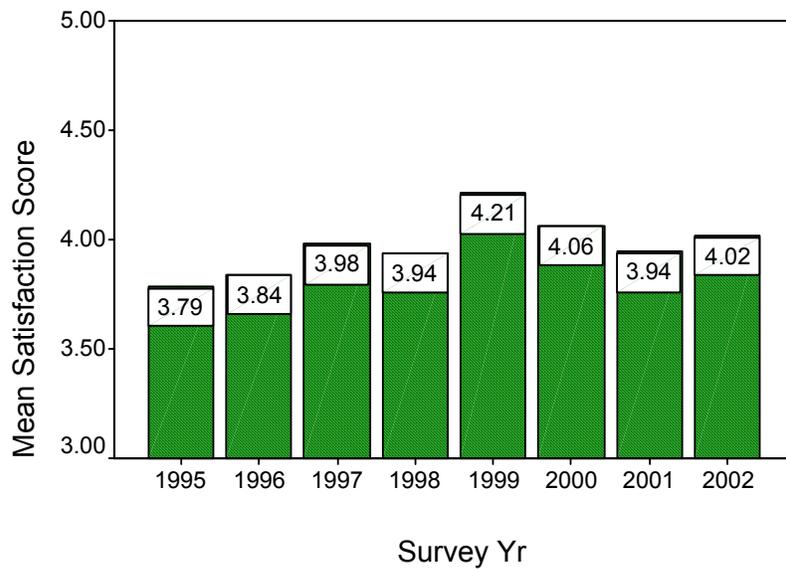
## Item 16: BRAC

### AF Customers



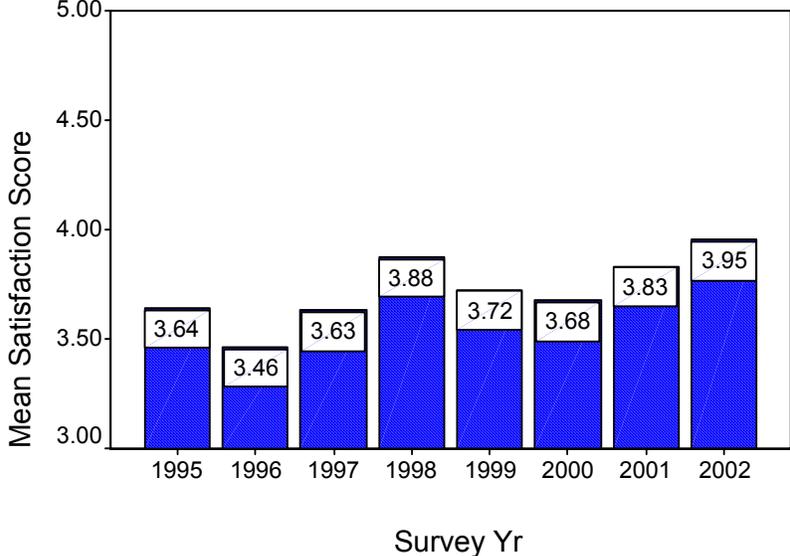
## Item 16: BRAC

### Army Customers



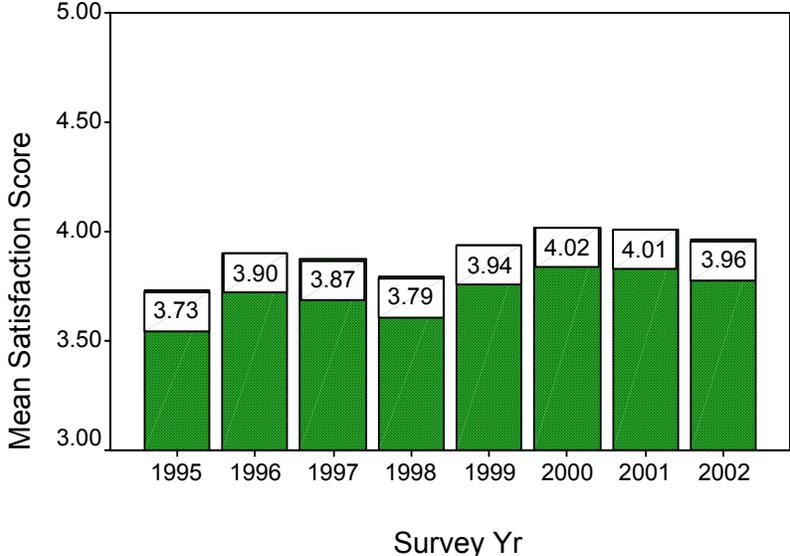
# Item 17: Real Estate Services

## AF Customers



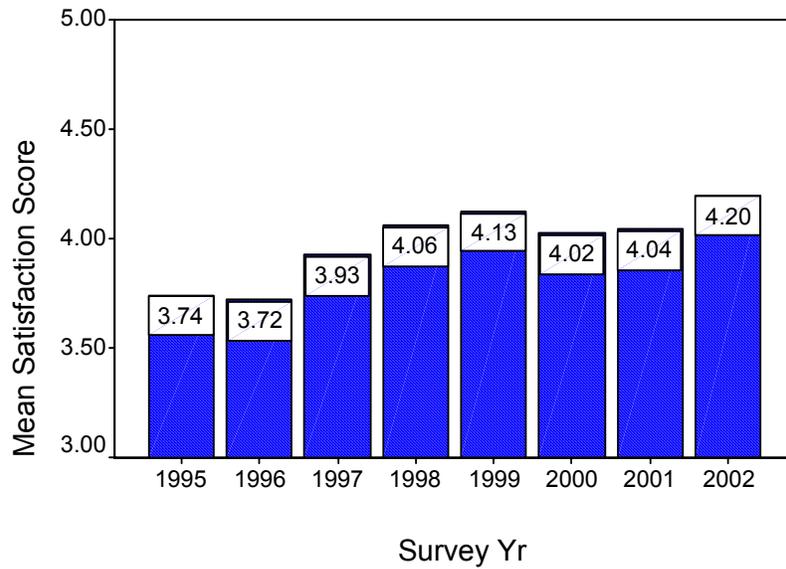
# Item 17: Real Estate Services

## Army Customers



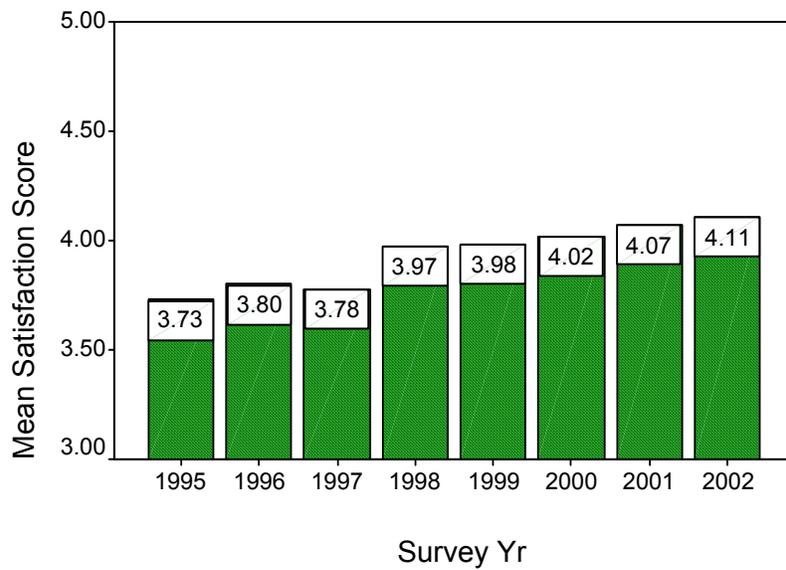
## Item 18: Project Management

### AF Customers



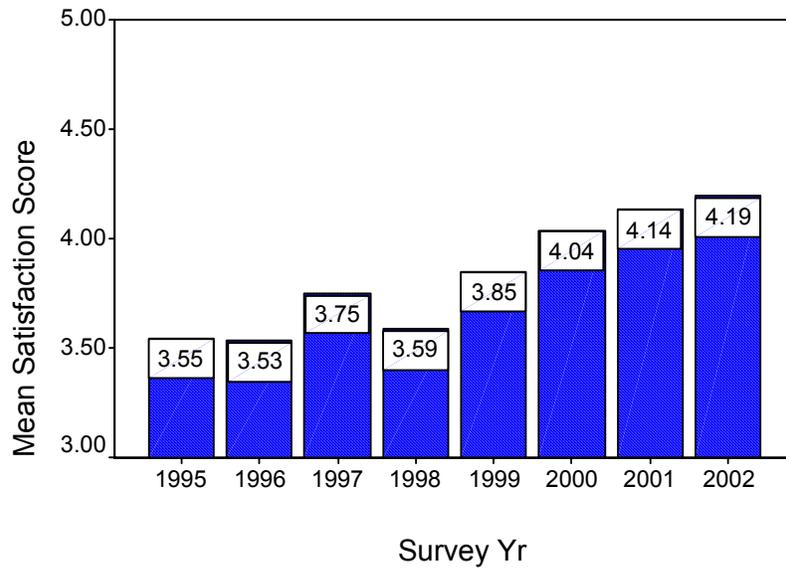
## Item 18: Project Management

### Army Customers



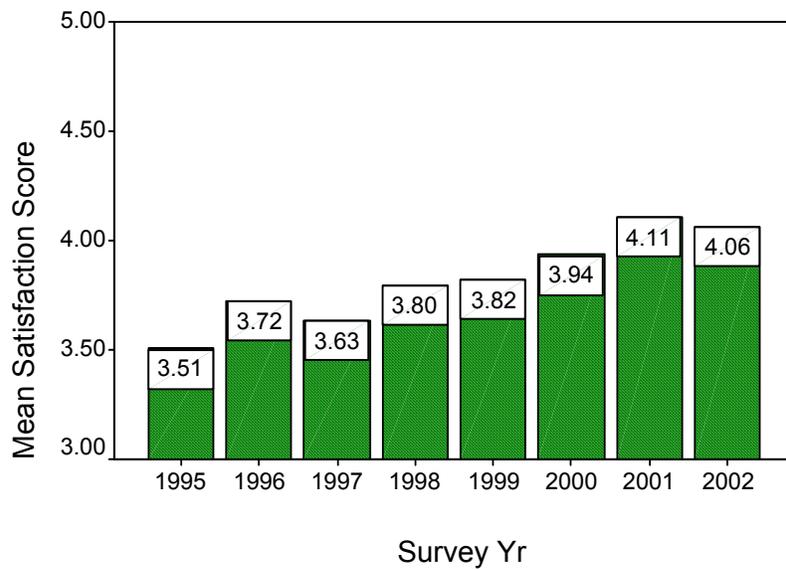
## Item 19: Project Documents

### AF Customers



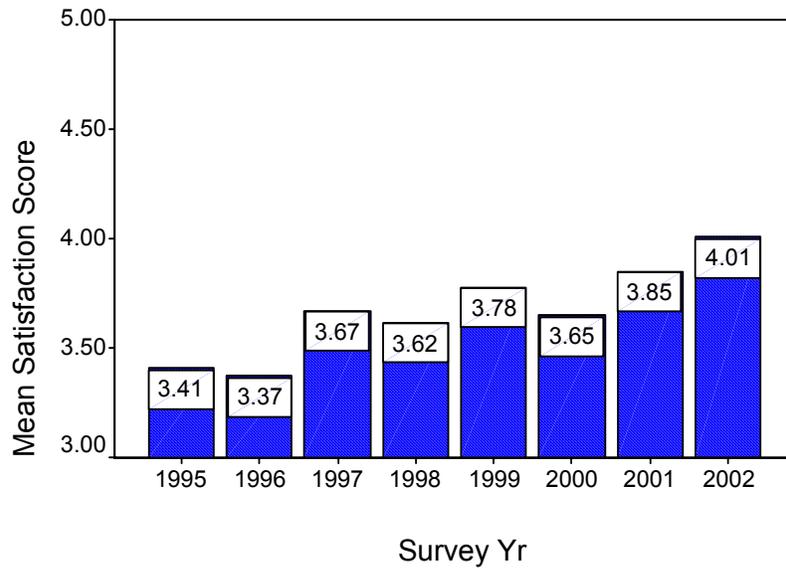
## Item 19: Project Documents

### Army Customers



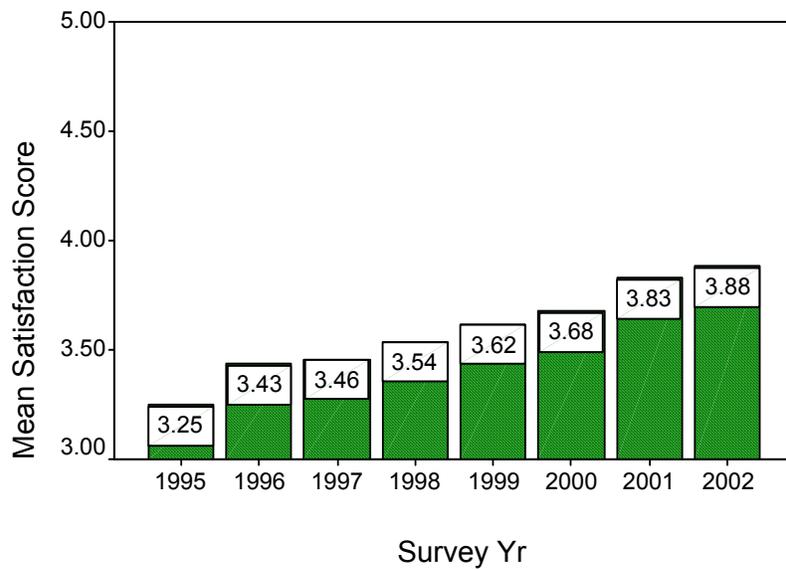
## Item 20: Funds Management

### AF Customers



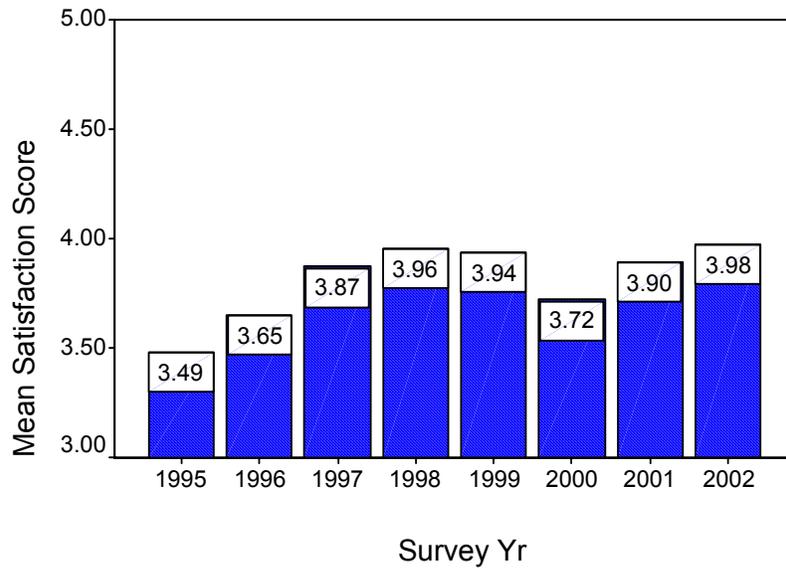
## Item 20: Funds Management

### Army Customers



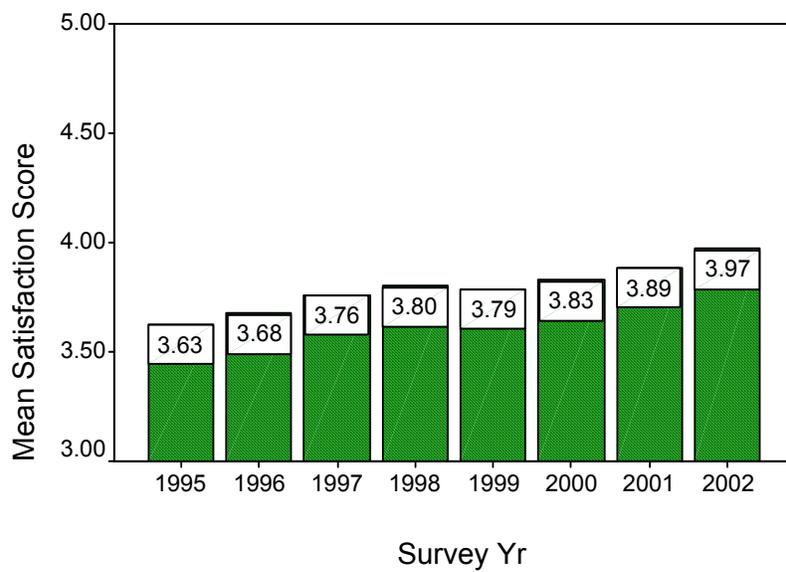
## Item 21: A/E Contracts

### AF Customers



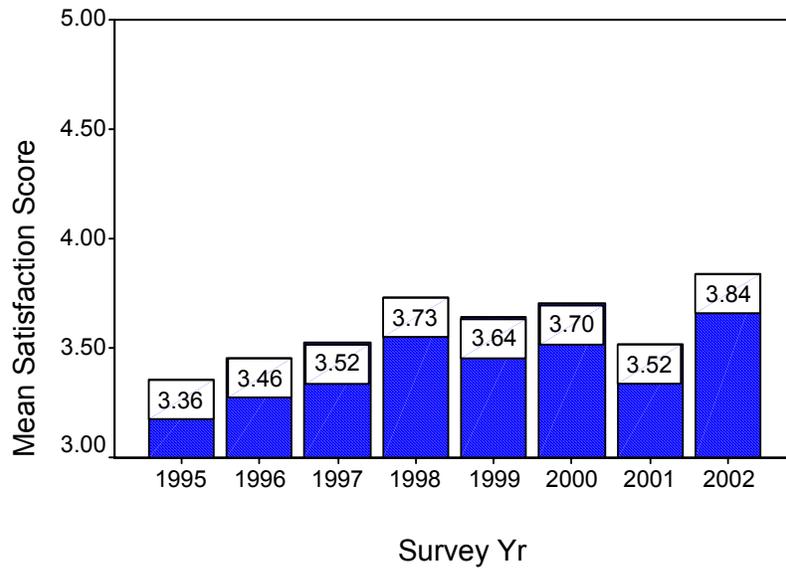
## Item 21: A/E Contracts

### Army Customers



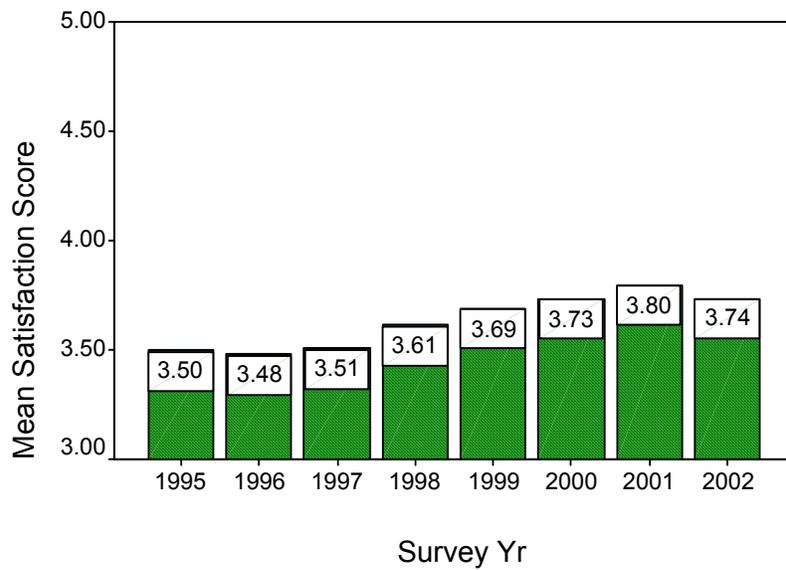
## Item 22: Engineering Design Quality

### AF Customers



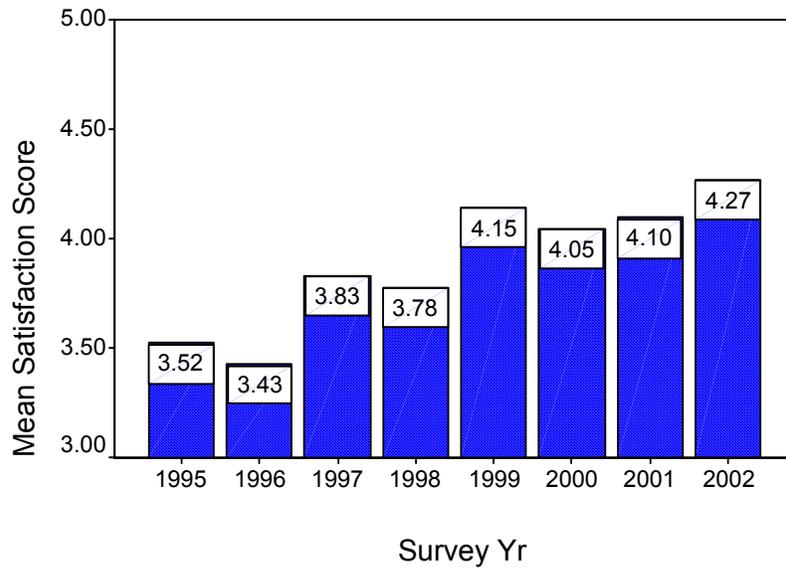
## Item 22: Engineering Design Quality

### Army Customers



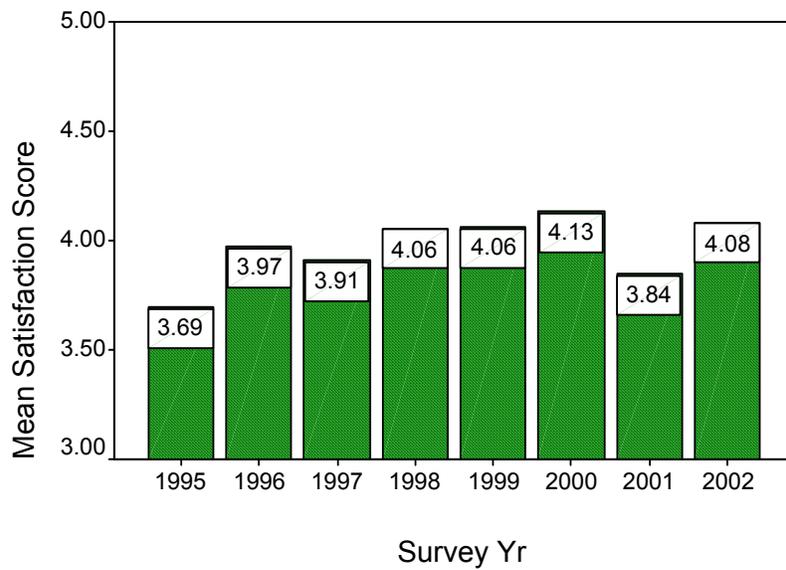
## Item 23: Job Order Contracts

### AF Customers



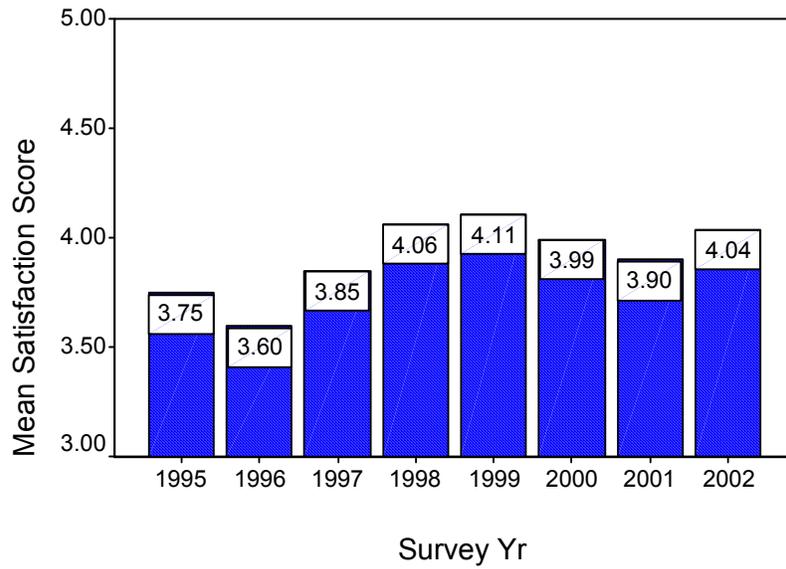
## Item 23: Job Order Contracts

### Army Customers



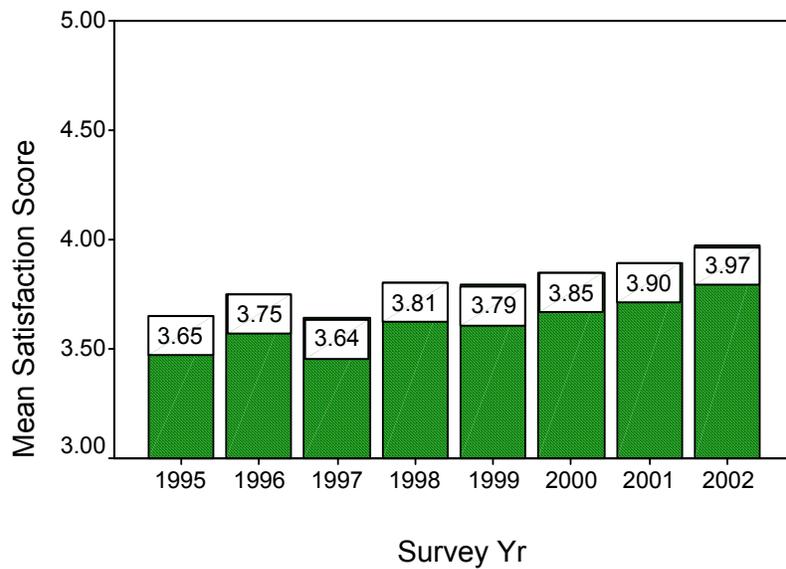
## Item 24: Construction Quality

### AF Customers



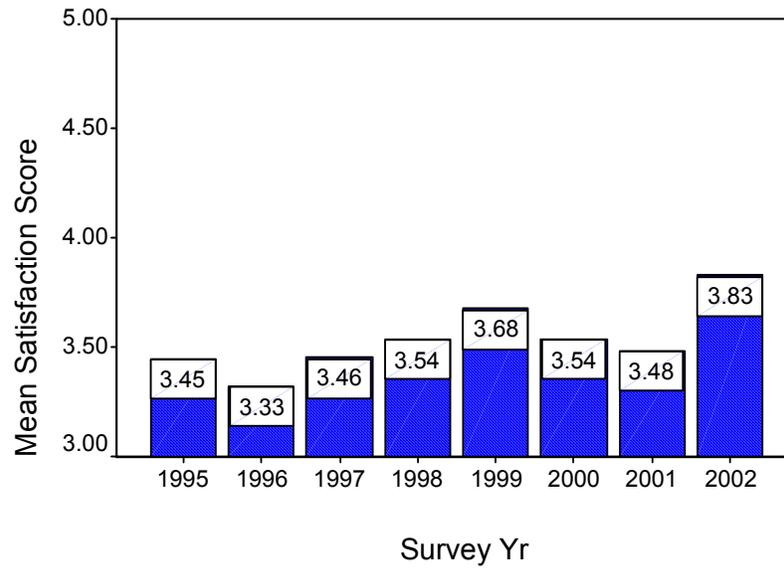
## Item 24: Construction Quality

### Army Customers



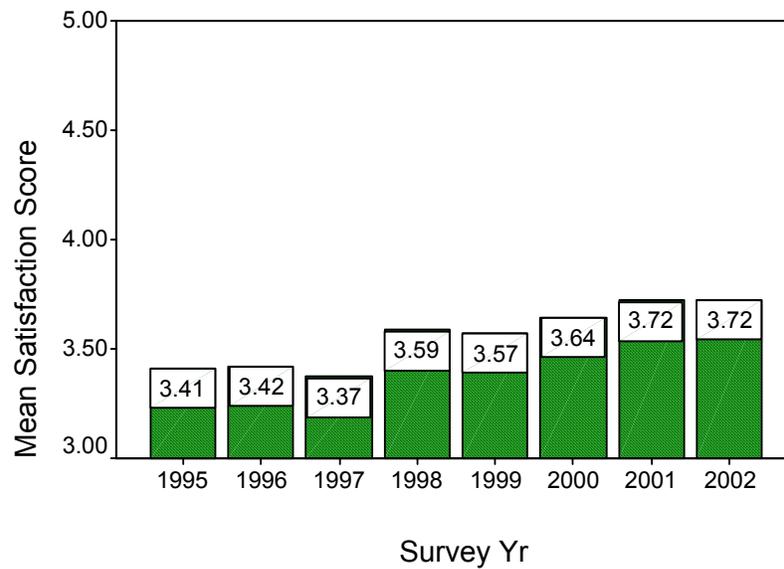
## Item 25: Timely Construction

### AF Customers



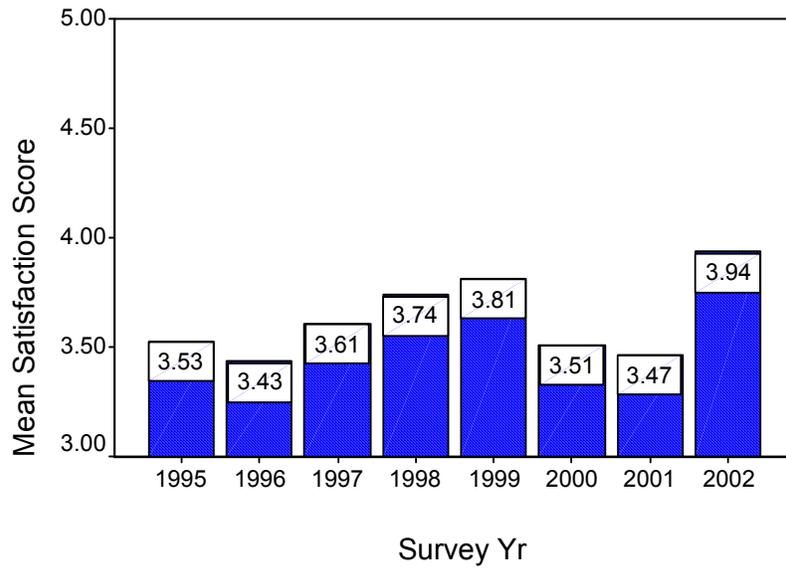
## Item 25: Timely Construction

### Army Customers



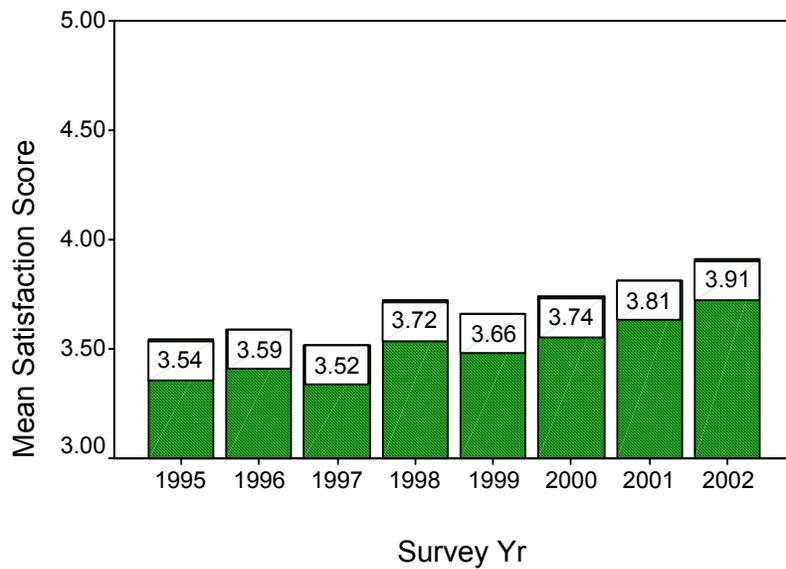
## Item 26: Construction Turnover

### AF Customers



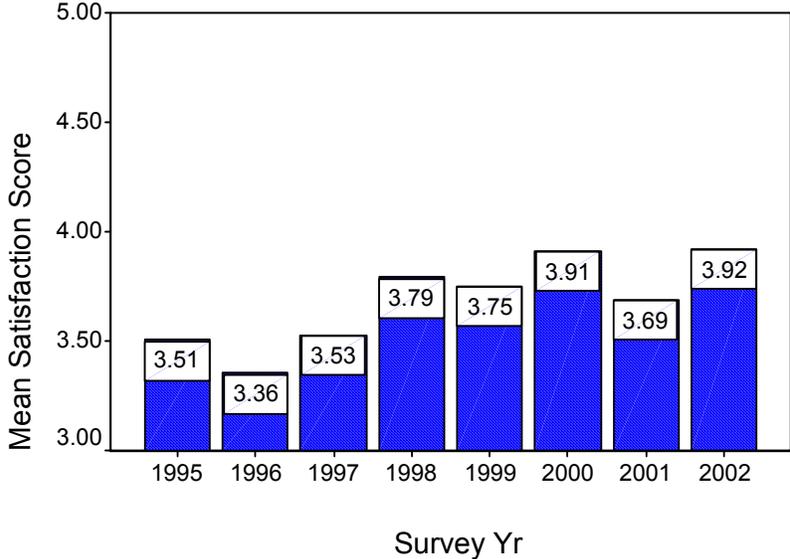
## Item 26: Construction Turnover

### Army Customers



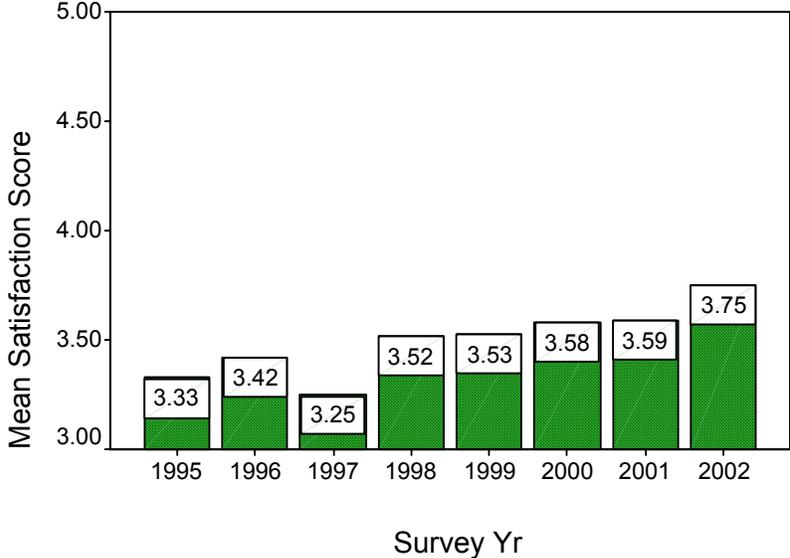
Item 27: Contract Warranty Support

AF Customers



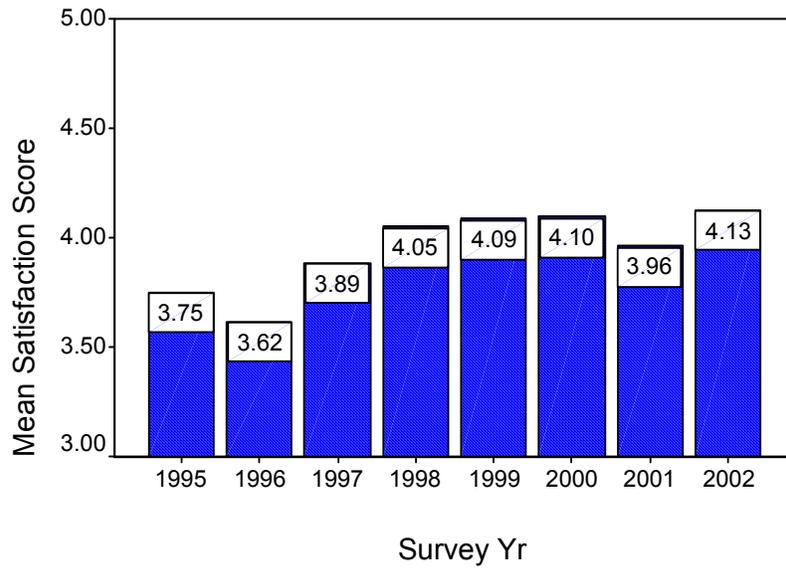
Item 27: Contract Warranty Support

Army Customers



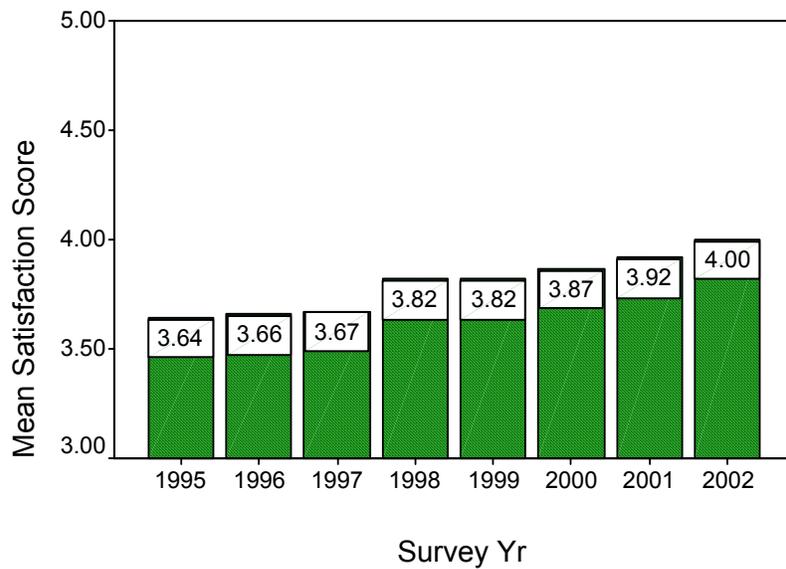
## Item 28: End-User Satisfaction

### AF Customers



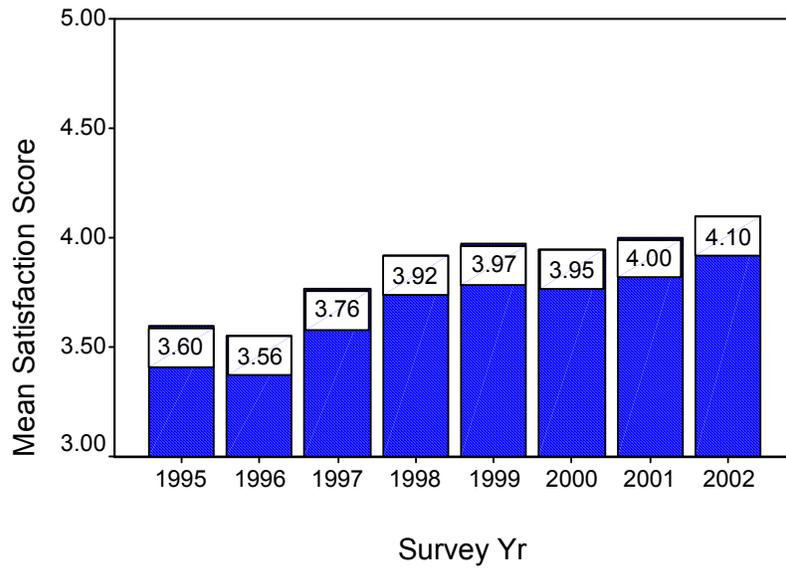
## Item 28: End-User Satisfaction

### Army Customers



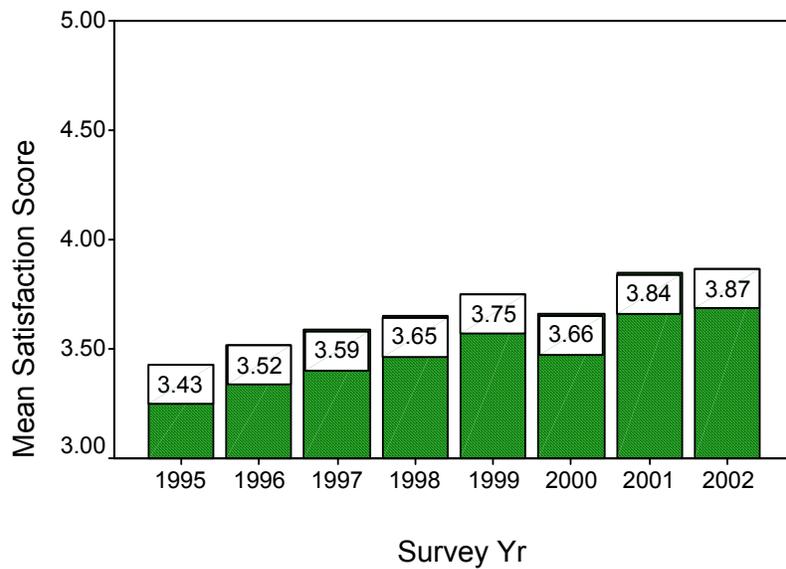
## Item 29: Construction Maintainability

### AF Customers



## Item 29: Construction Maintainability

### Army Customers



### 3.3 Air Force Ratings by Primary Category of Work

Customers were asked to identify the primary category of services (work) they receive from the Corps. This data provides the District a more in-depth context in which to evaluate customer ratings individually and in the aggregate. The following analysis looks only at the General Satisfaction Questions plus two of the Specific Services items that are applicable to all areas of work: ‘Project Management’ and ‘Funds Management’. For the purpose of this analysis work categories ‘Real Estate’, ‘O&M’ and ‘Other’ were combined and denoted ‘Other’.

Statistical comparisons were performed to detect any statistically significant differences between the work categories. A very clear pattern emerged. Ratings by Environmental customer were consistently higher than ‘Construction’ and ‘Other’ across all satisfaction indicators examined. And in every ratings comparison except ‘Project Management’, Construction customer ratings were the lowest of the work categories. Statistically significant differences in ratings were found for almost every satisfaction indicator. The only areas where ratings by work category were the same were ‘Seeks Your Requirements’ and ‘Funds Management’. In every case ratings provided by the ‘Environmental’ customer group were statistically significantly higher than ‘Construction’ customers. Recall that construction customers comprise 66 percent of the customer base, environmental 20 percent. The following table summarizes these results. Mean customer ratings by work category are depicted in the graphs that follow. Table B-4 in Appendix B displays mean subgroup scores, sample sizes and p-values associated with each ANOVA.

**Table 11: Summary of ANOVA’s of Ratings by Work Category**

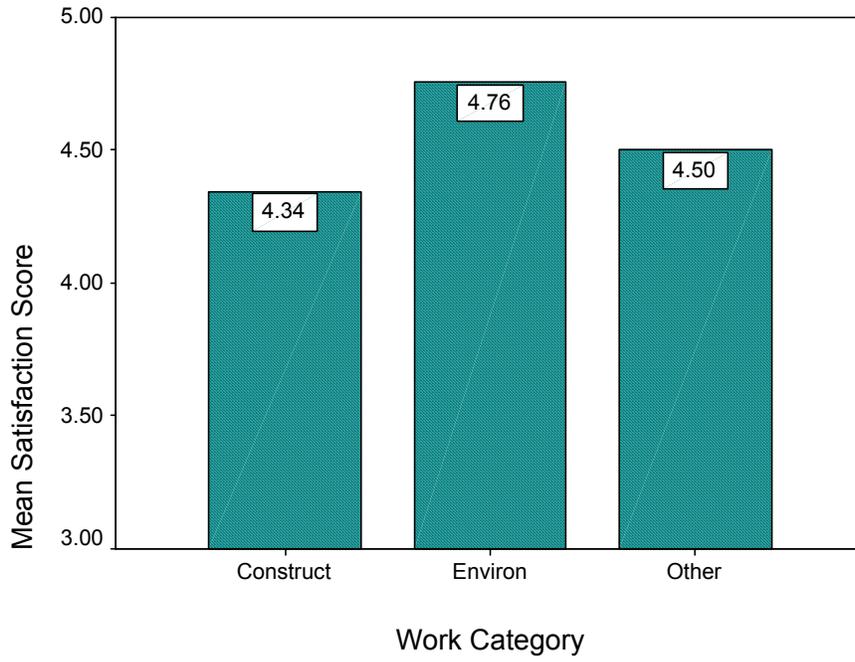
Item	Statistically Significant Results <sup>7</sup>
S2 Manages Effectively	Environ > Construct
S3 Treats You as Team	Environ > Construct
S4 Resolves Your Concerns	Environ > Construct
S5 Timely Service	Environ > Construct
S6 Quality Product	Environ > Construct
S7 Reasonable Cost	Environ > Construct
S8 Flexibility	Environ > Construct
S9 Keeps You Informed	Environ > Construct
S10 Your Future Choice	Environ > Construct
S11 Overall Satisfaction	Environ > Construct
S18 Project Management	Environ > Construct

<sup>7</sup> Results were statistically significant at  $\alpha = .05$ .

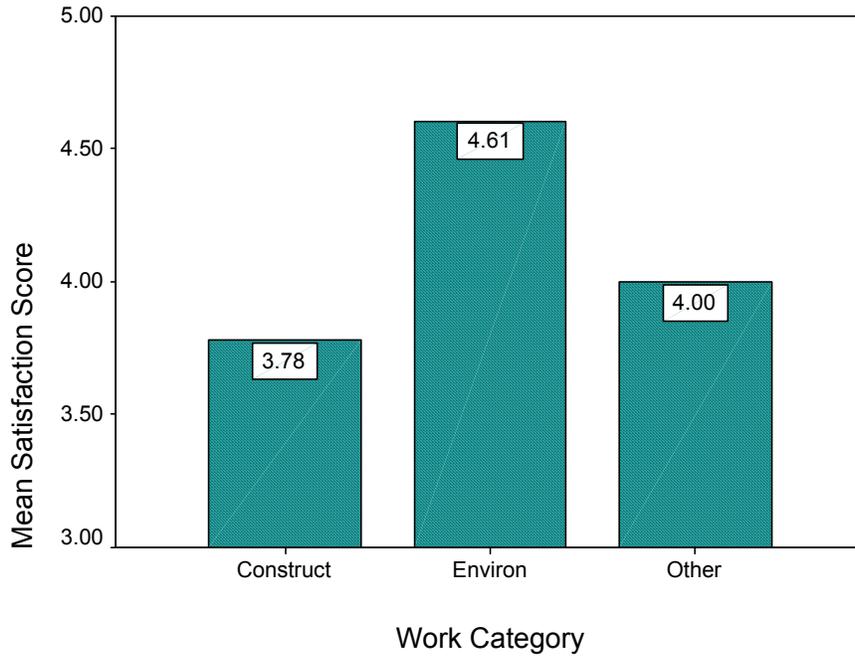


**Figure 5: Ratings by Category of Work**

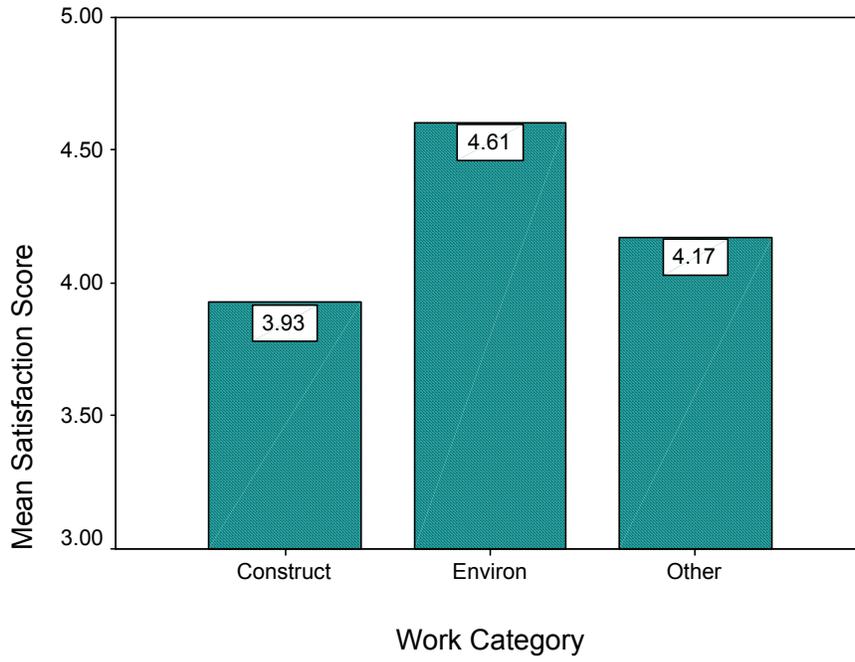
### Treats You as Team Member



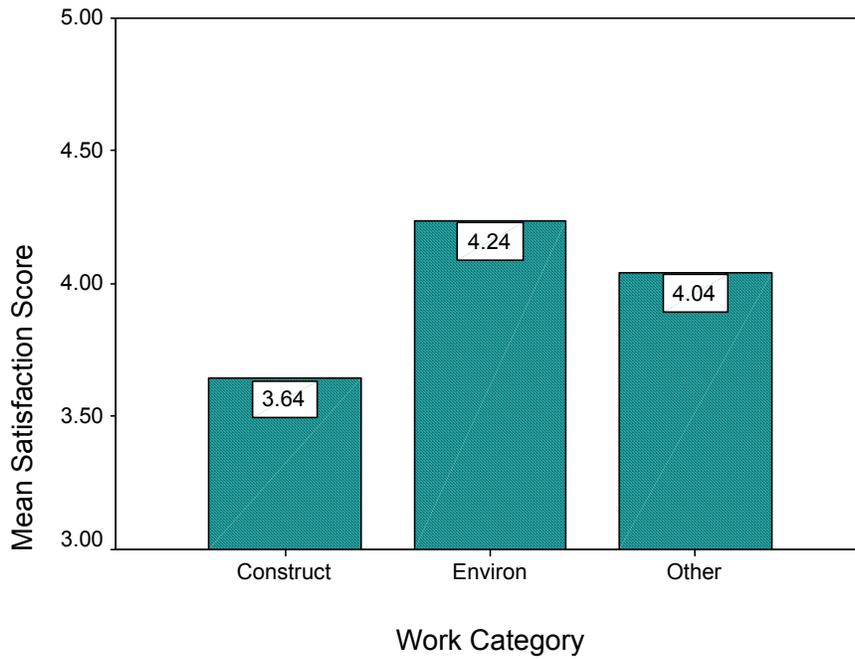
### Provides Timely Services



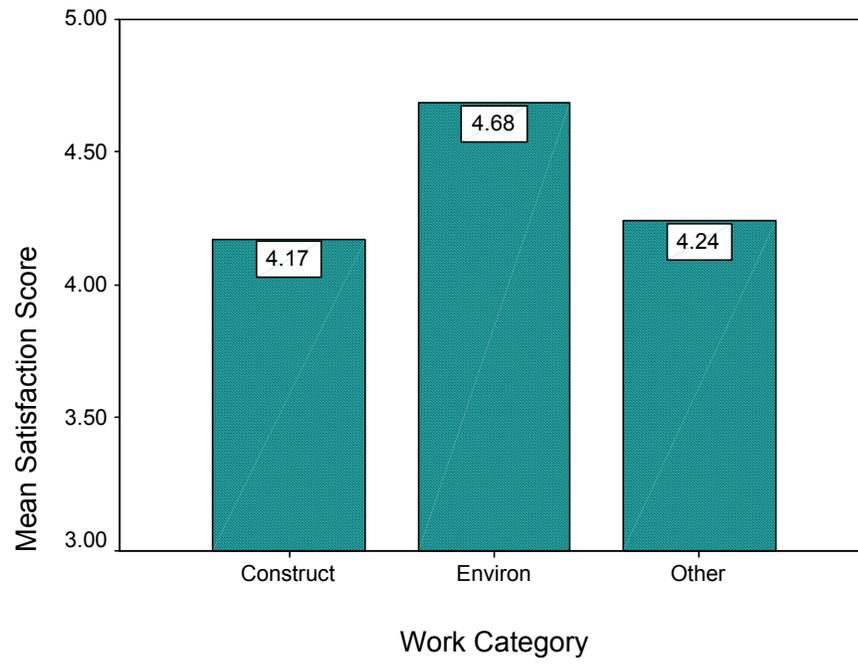
### Delivers Quality Products



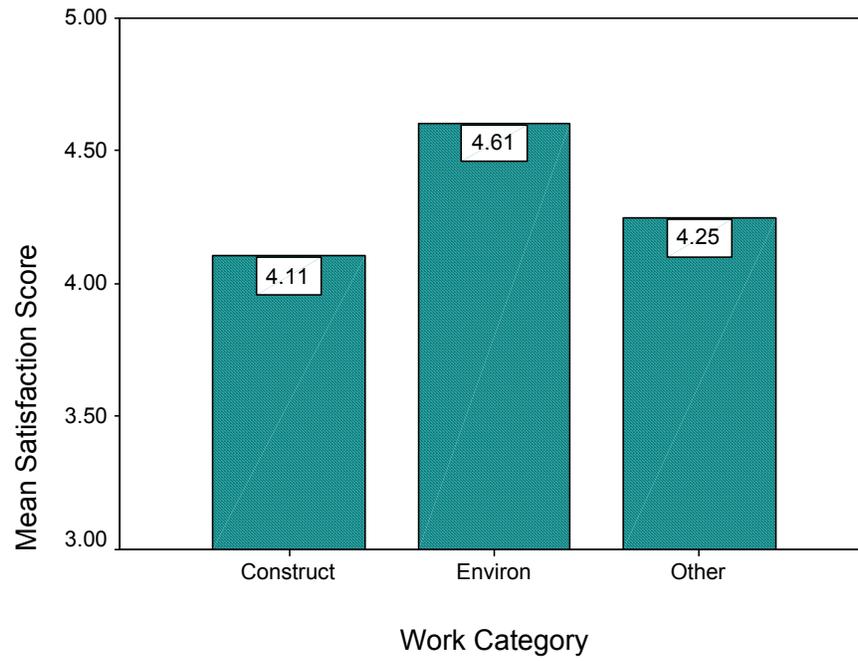
### Products at Reasonable Cost



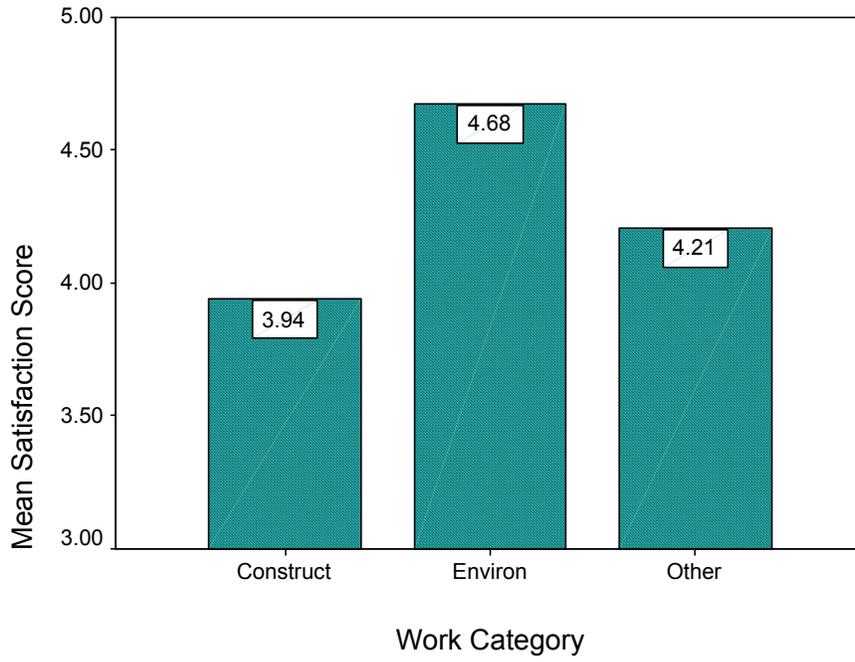
### Flexible to Your Needs



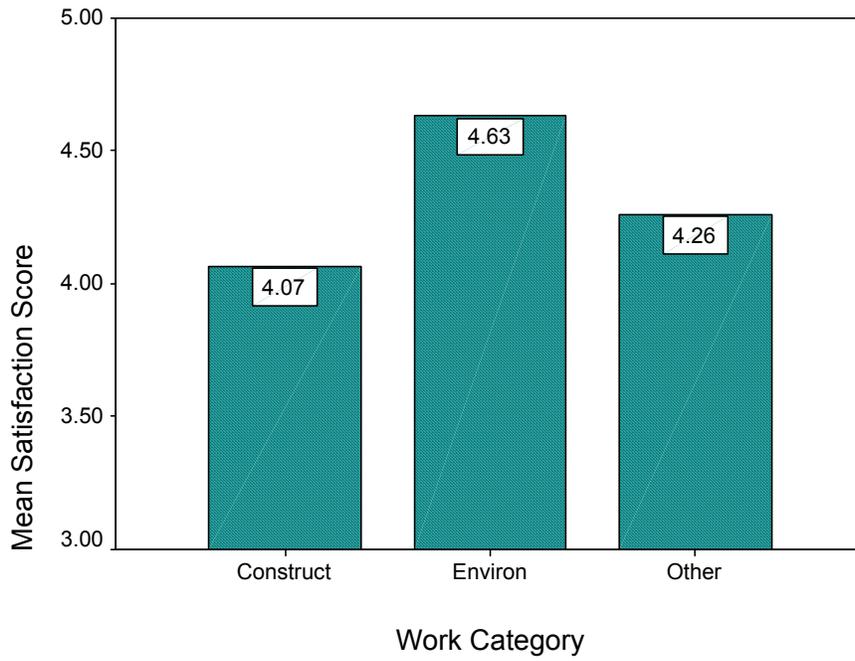
### Keeps You Informed



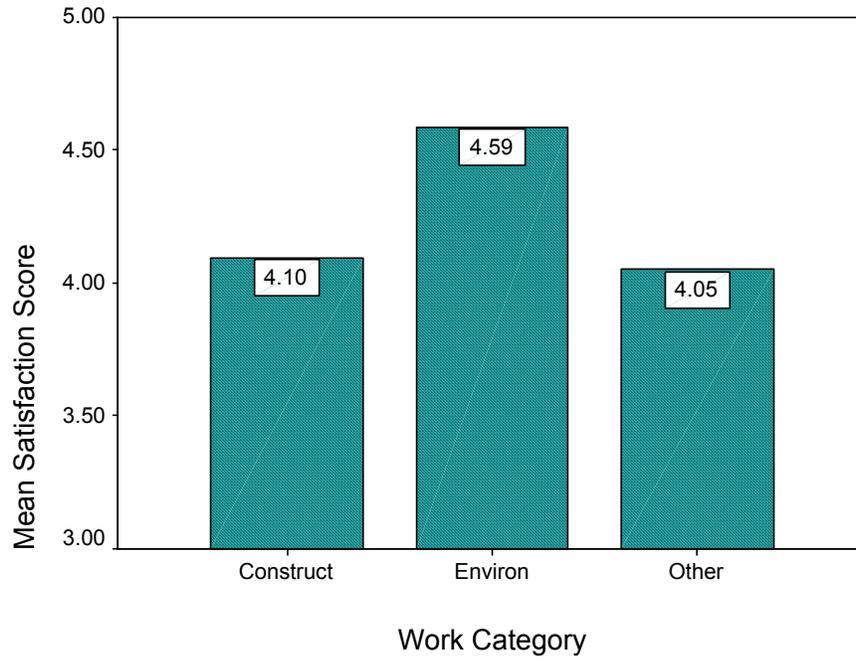
### Your Choice in the Future



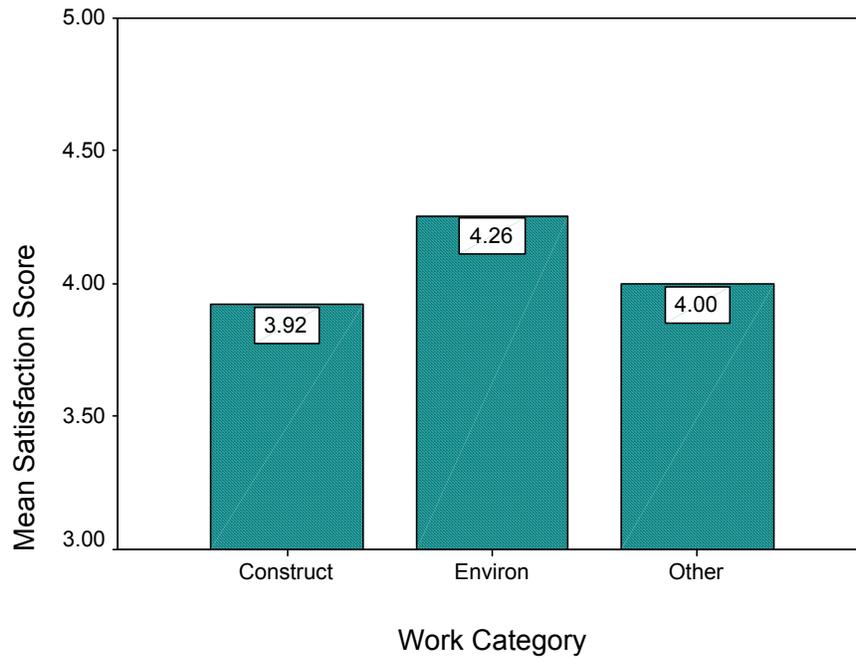
### Overall Satisfaction



## Project Management



## Funds Management



### 3.4 Ratings by Air Force Command

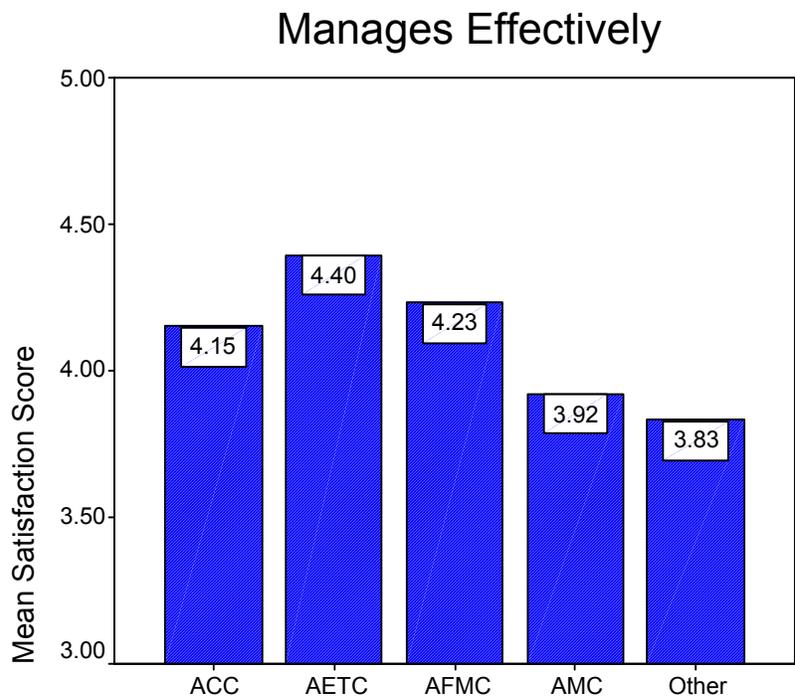
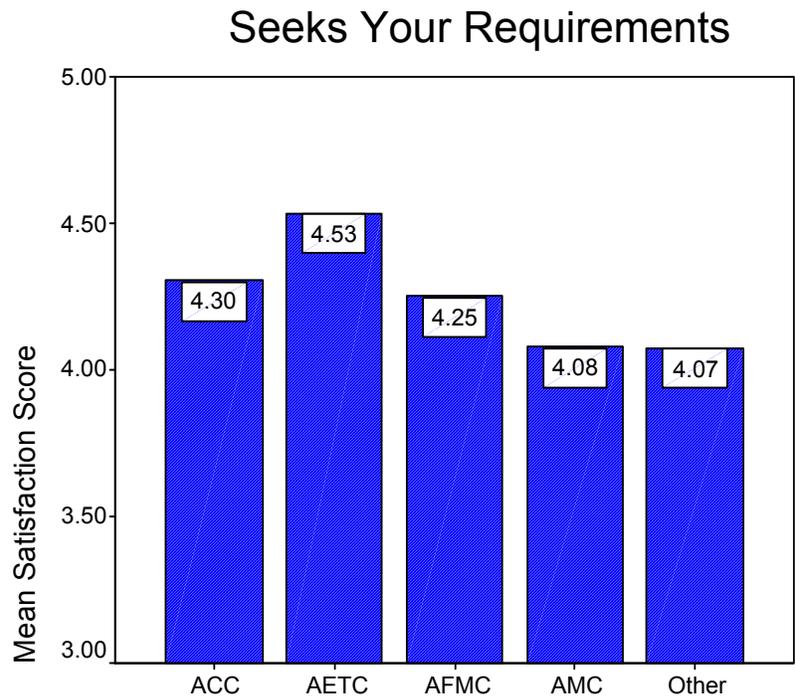
Customers were asked to identify the Air Force Command under which they work. Recall the largest proportion (29%) of customers selected ‘Air Force – Other’ as their command. The commands specified by the 54 customers who selected ‘Air Force - Other’ included AFRC, AFSPC and PACAF. The next two largest groups were ACC (26%) and AETC (24%). The following analysis examines whether there is a difference in customer service depending on the particular command organization to which the services are delivered.

Statistical comparisons were performed to detect any statistically significant differences between the commands. A very clear pattern emerged. Ratings for customers under AETC and ACC were consistently higher than ‘AFMC, AMC and ‘Other’ across nearly all satisfaction indicators examined. And in almost every ratings comparison ‘Other’ and AMC customer ratings were the lowest of the commands. In almost every case ratings provided by the ‘AETC command group were statistically significantly higher than ‘Other’ command. Table 12 summarizes these results. Table B-5 in Appendix B displays mean subgroup scores, sample sizes and p-values associated with each ANOVA. Graphic comparisons of mean ratings by Air Force command are presented below.

**Table 12: Summary of ANOVAs of Ratings by Air Force Command**

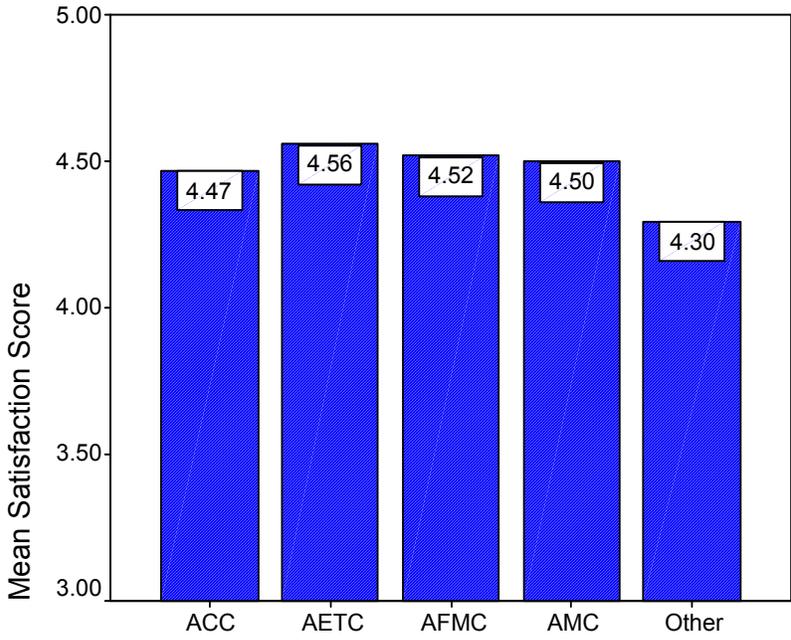
Item	Statistically Significant Results <sup>8</sup>
S2 Manages Effectively	AETC > Other
S4 Resolves Your Concerns	AETC > Other
S5 Timely Service	AETC > AMC, Other; ACC > Other
S6 Quality Product	ACC, AETC, AFMC > Other
S7 Reasonable Cost	ACC > Other
S8 Flexibility	ACC, AETC > Other
S9 Keeps You Informed	ACC > Other
S10 Your Future Choice	ACC, AETC > Other
S11 Overall Satisfaction	AETC > Other
S14 Environmental Studies	ACC, AETC > Other
S15 Environmental Compliance	ACC, AETC, AMC > Other
S17 Real Estate	AETC > Other
S18 Project Management	ACC, AETC > Other
S22 Engineering Design	ACC > Other
S26 Construct Turnover	AETC > Other
S28 End-user Satisfaction	ACC > Other
S32 PM Forward	ACC, AETC, Other > AFMC, AMC

<sup>8</sup> Results were statistically significant at  $\alpha = .05$ .

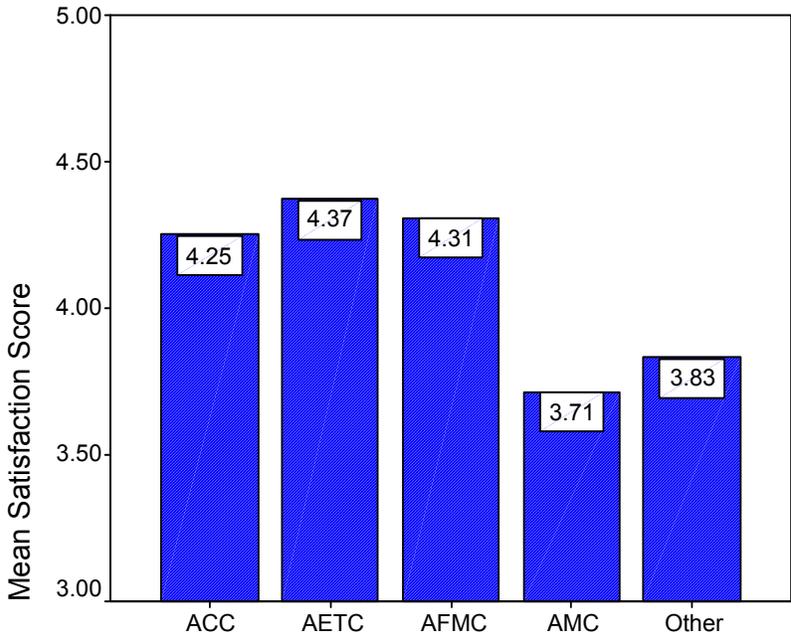


**Figure 6: Ratings by Air Force Command**

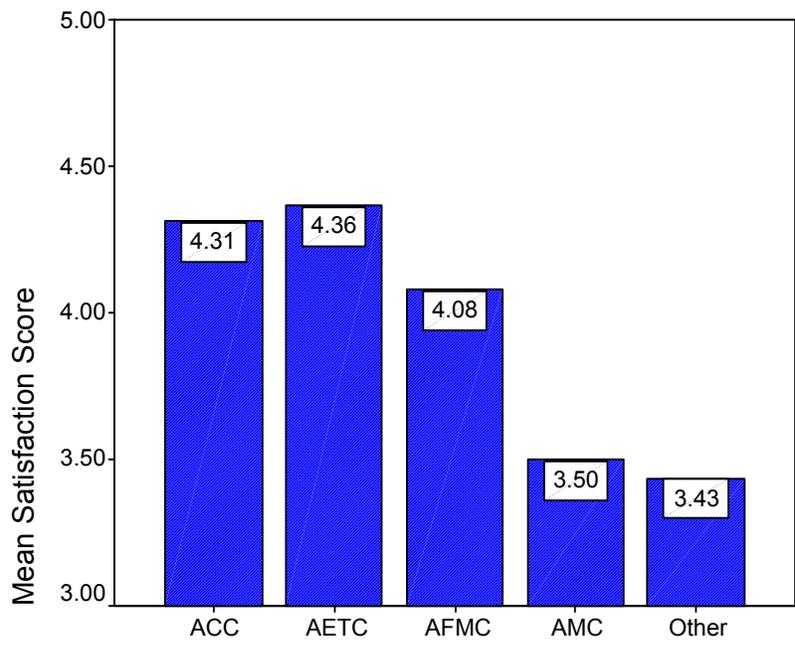
### Treats You as Team Member



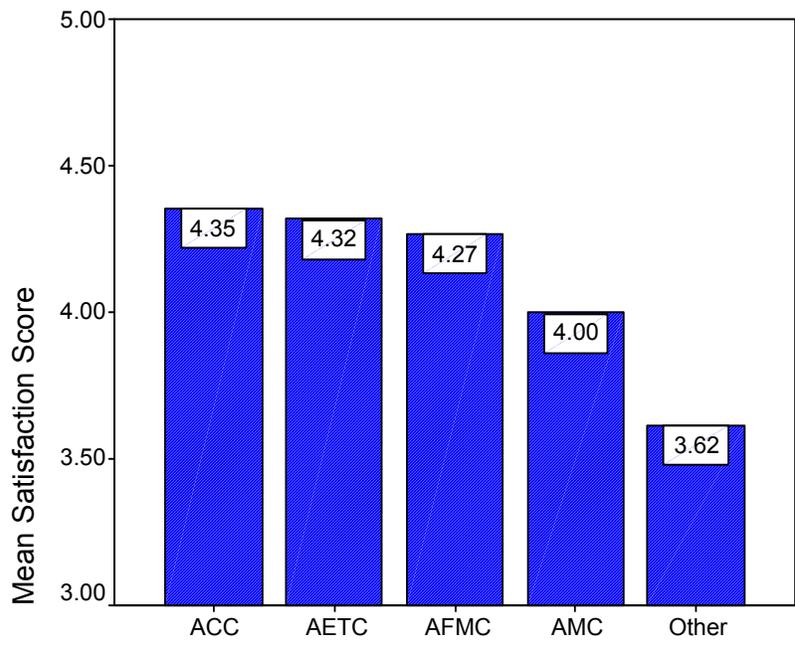
### Resolves Your Concerns



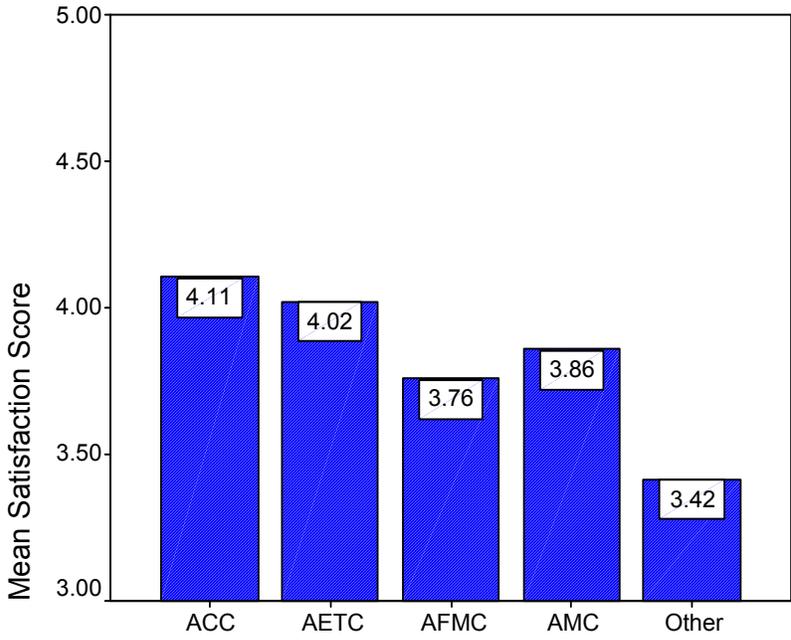
### Provides Timely Services



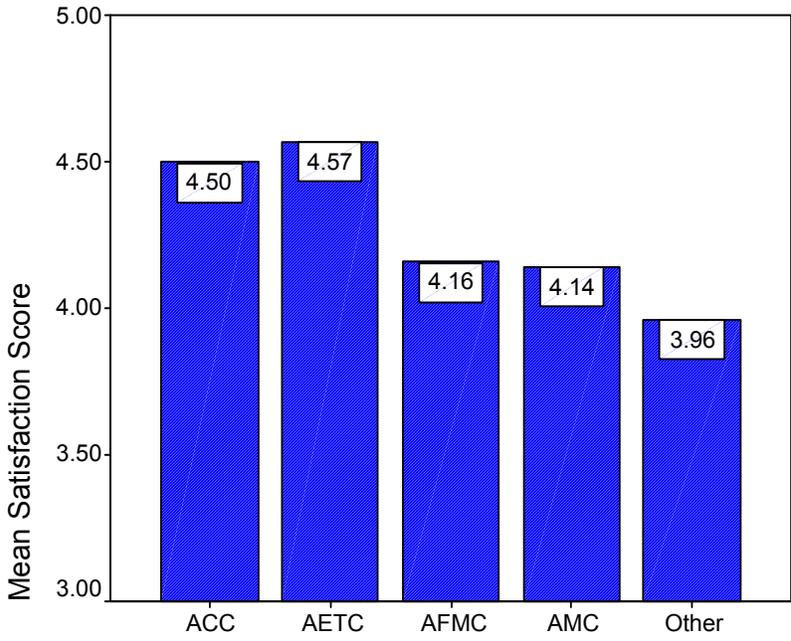
### Delivers Quality Products



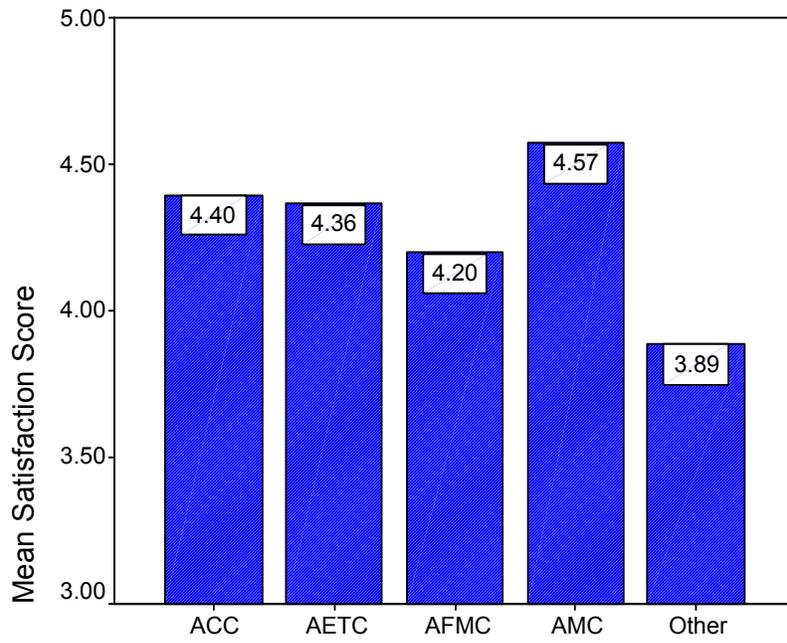
### Products at Reasonable Cost



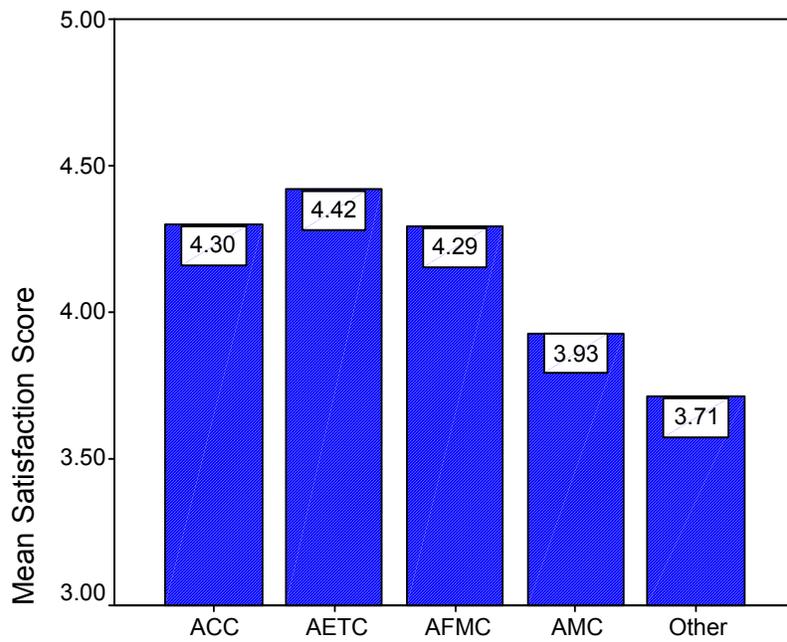
### Flexible to Your Needs



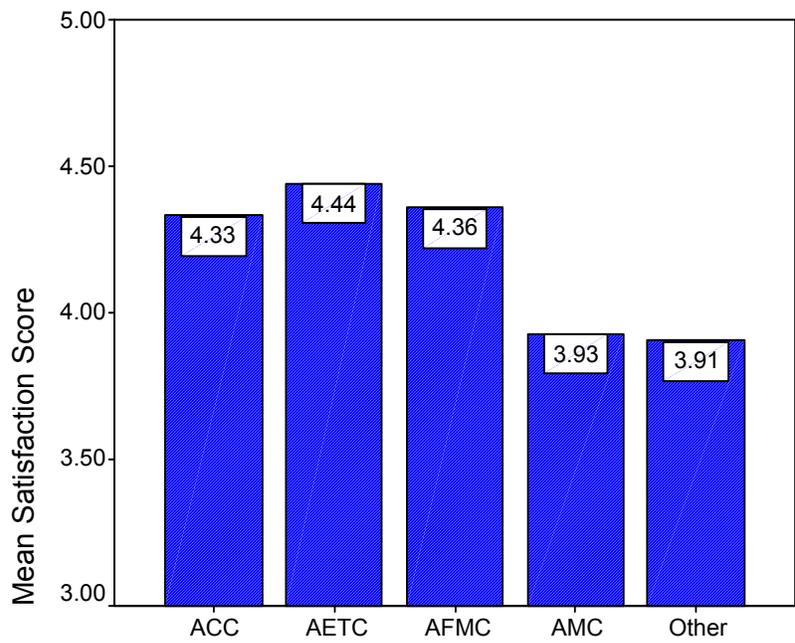
### Keeps You Informed



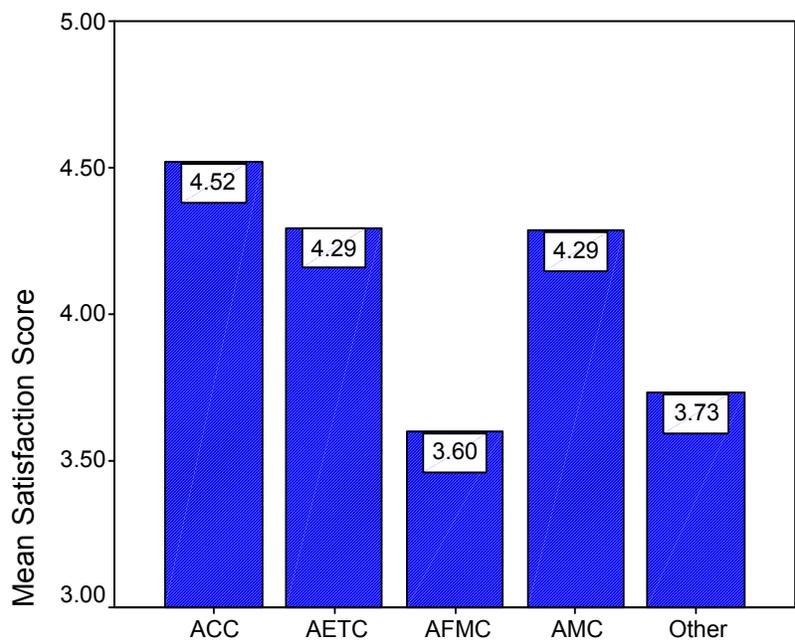
### Your Choice in the Future



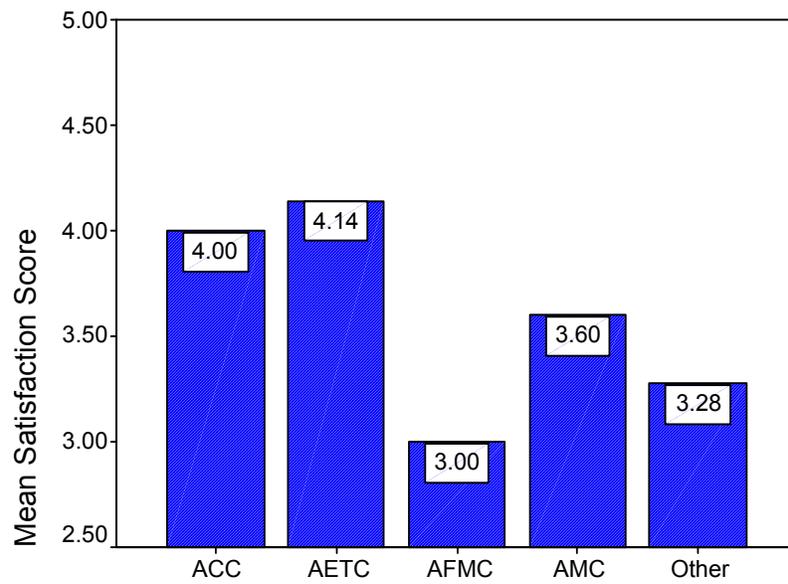
## Overall Satisfaction



## Planning Services

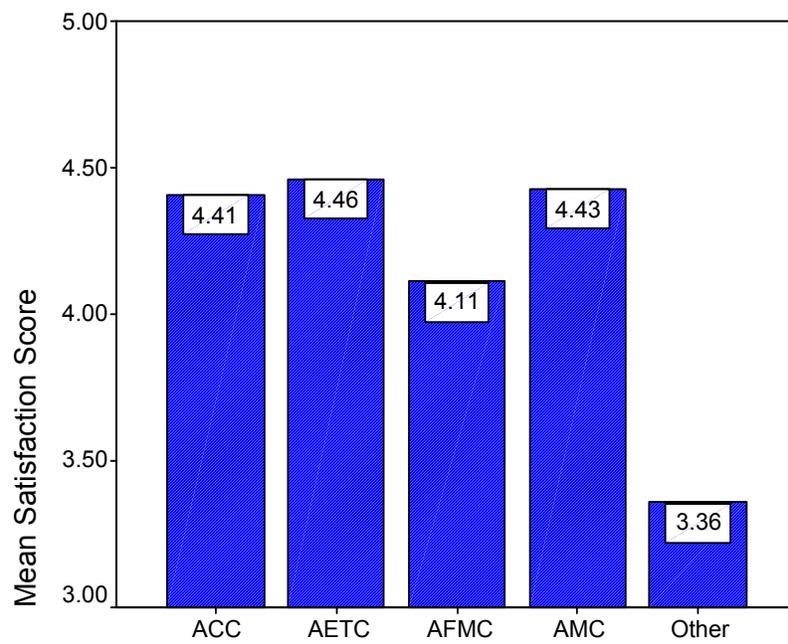


## Studies & Investigations

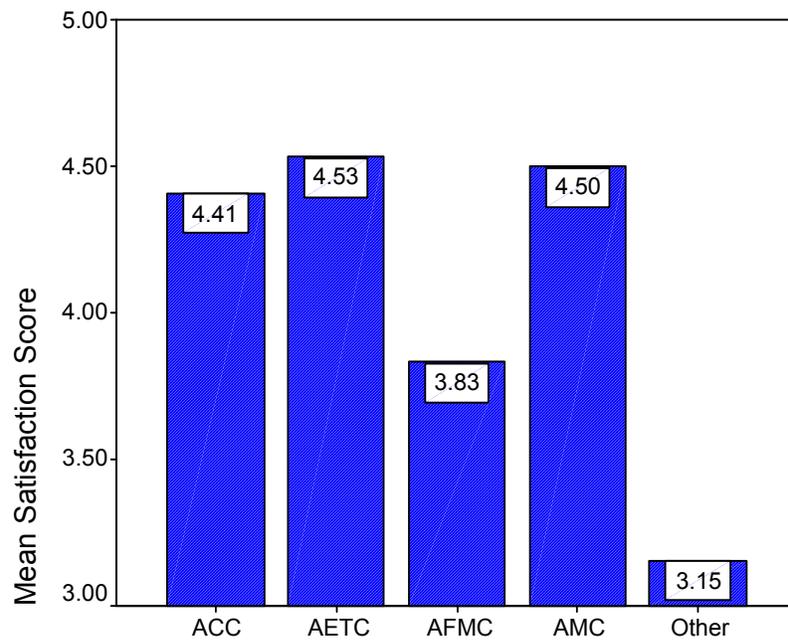


Note Change in Scale

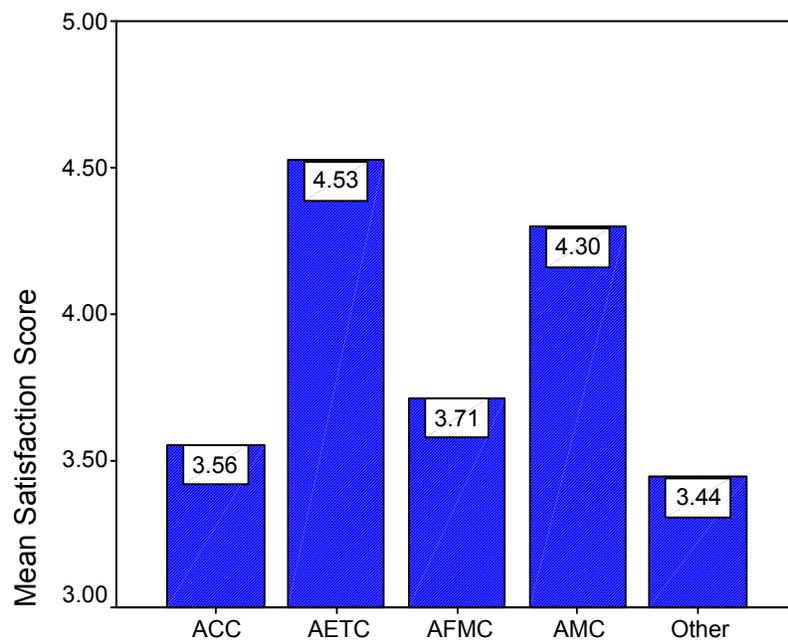
## Environmental Studies



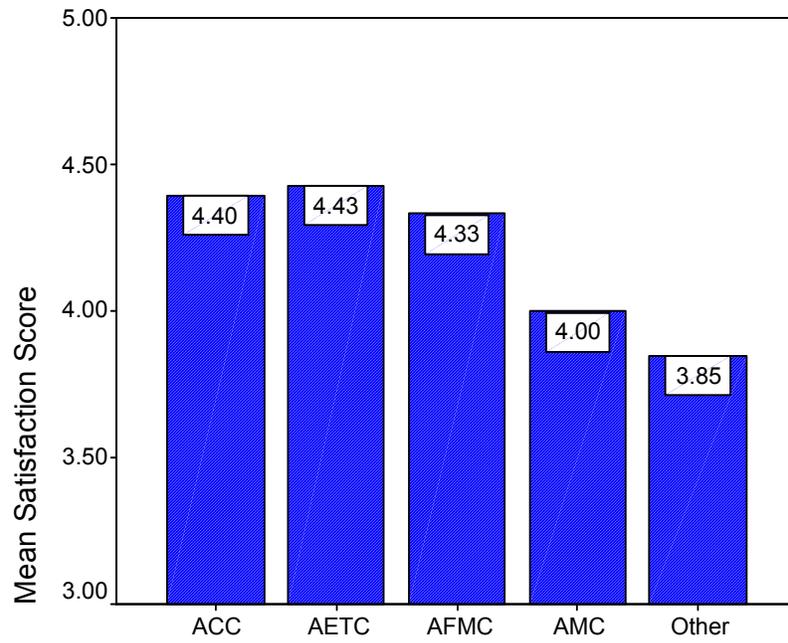
## Environmental Compliance



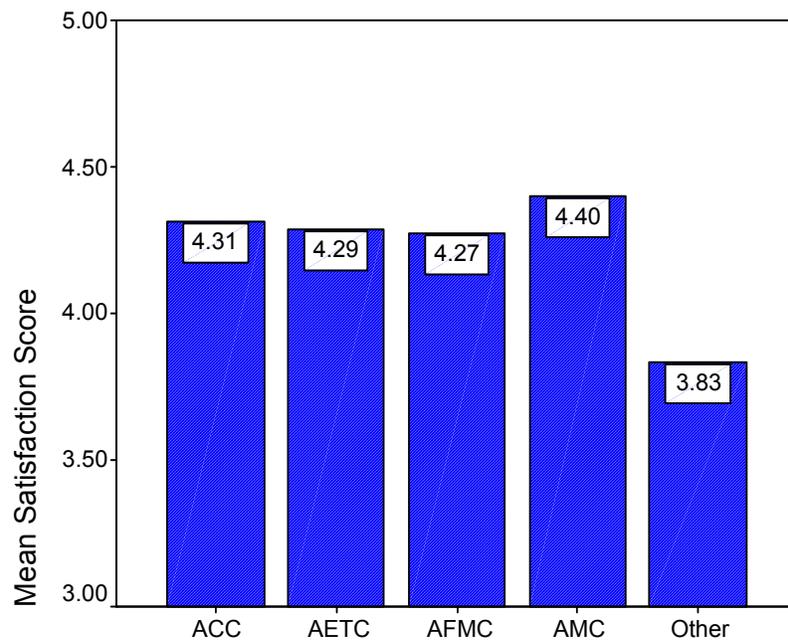
## Real Estate Services



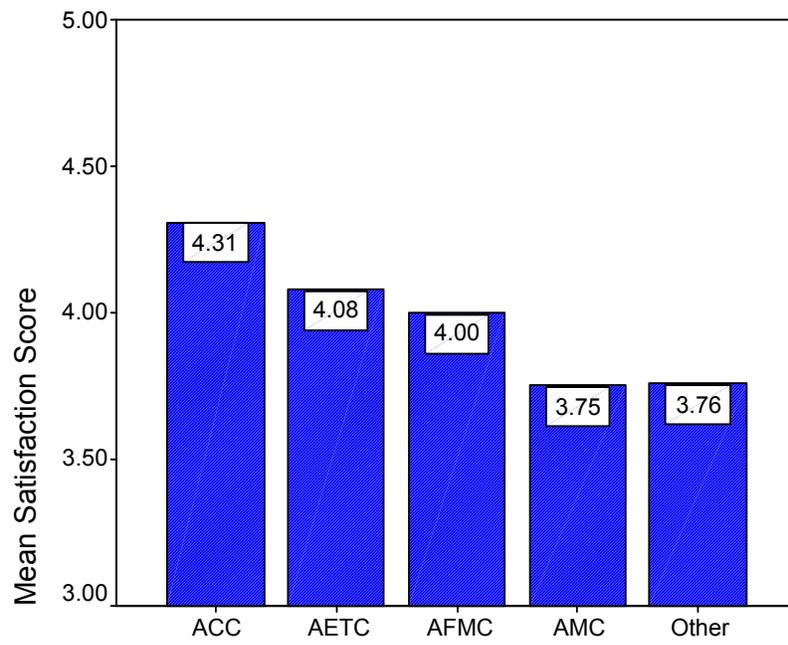
## Project Management



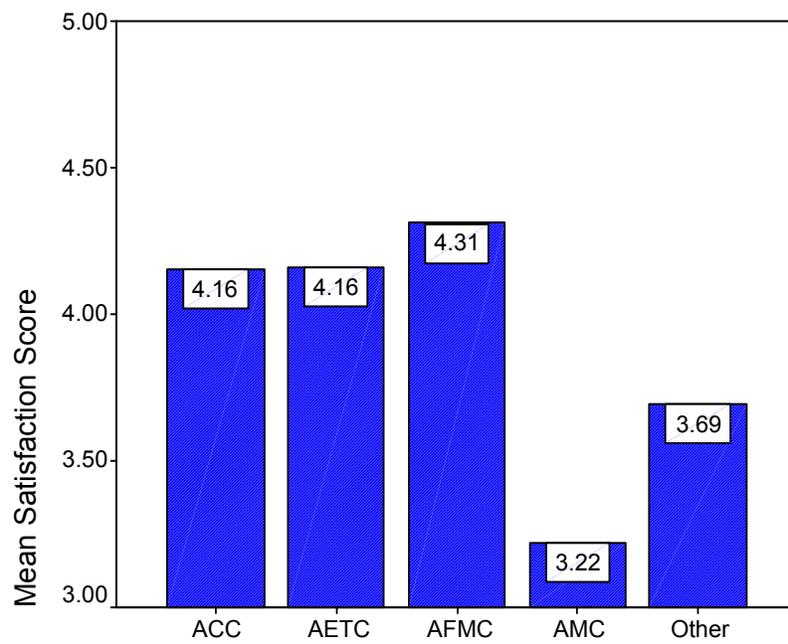
## Project Documents



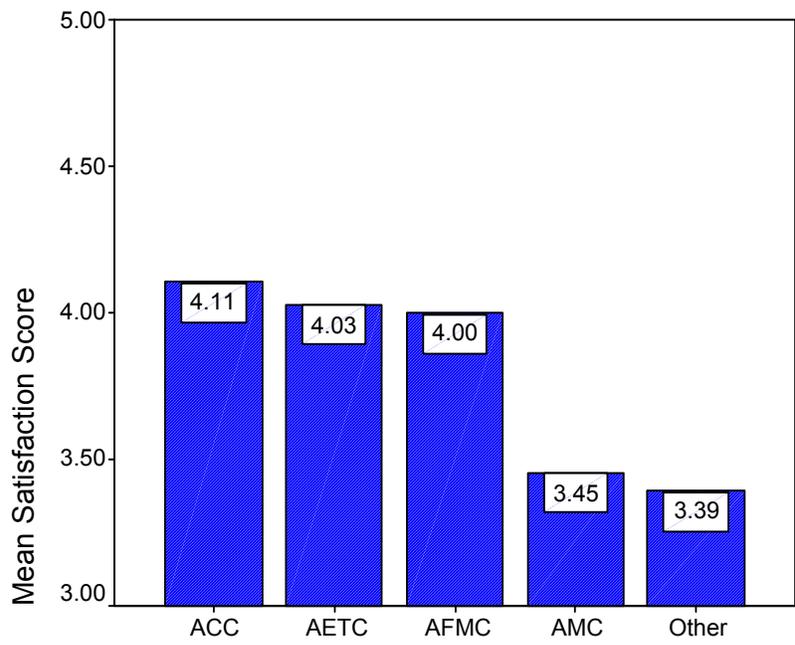
## Funds Management



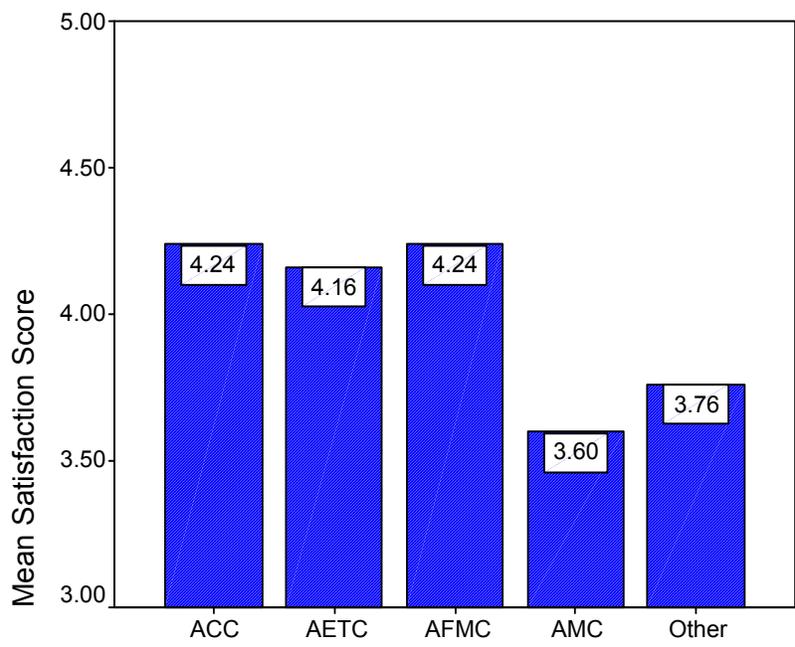
## A/E Contracts



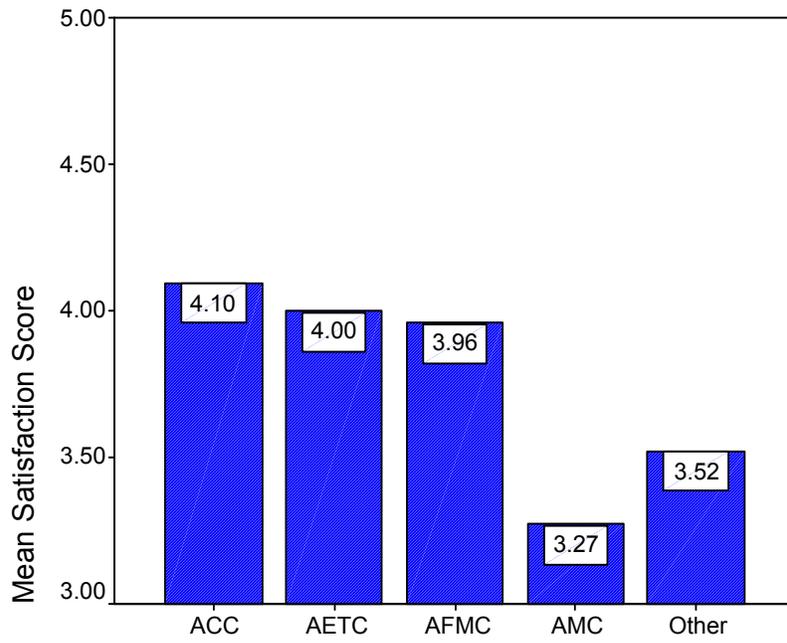
## Engineering Design Quality



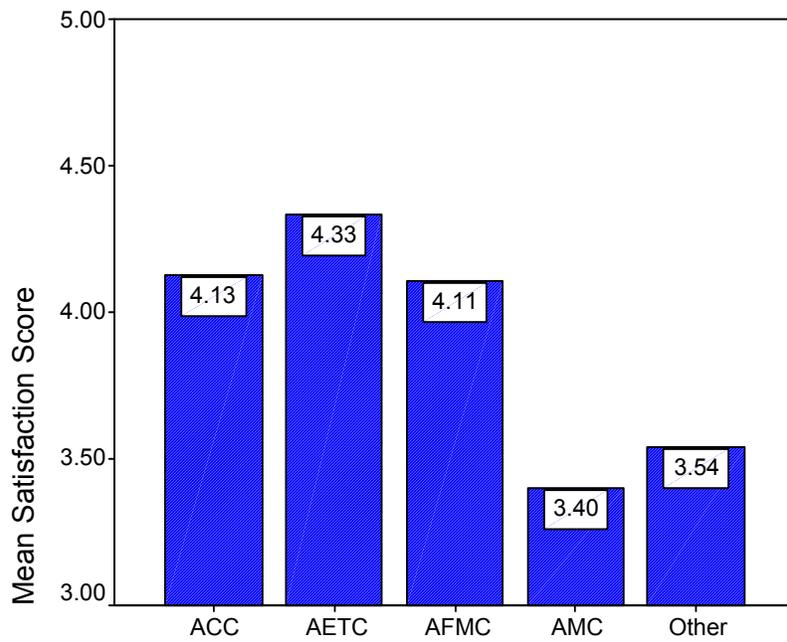
## Construction Quality



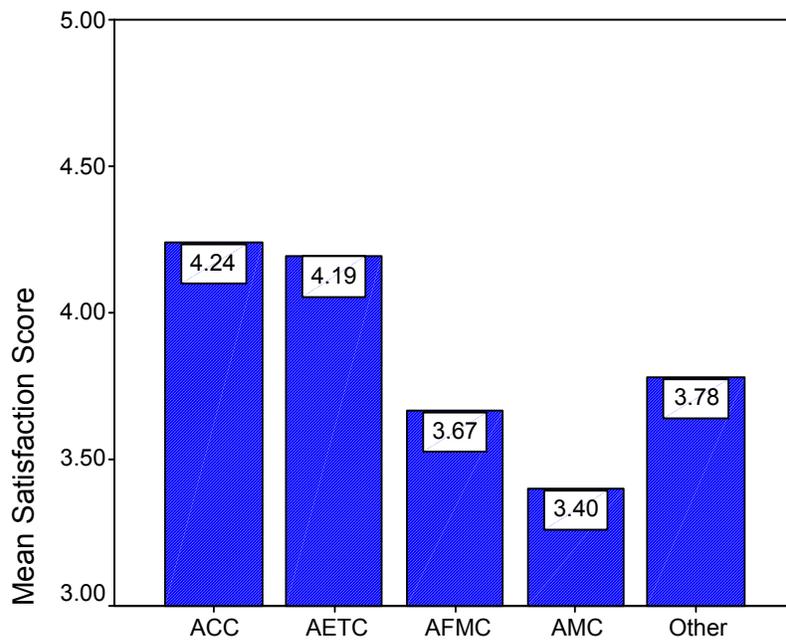
## Timely Construction



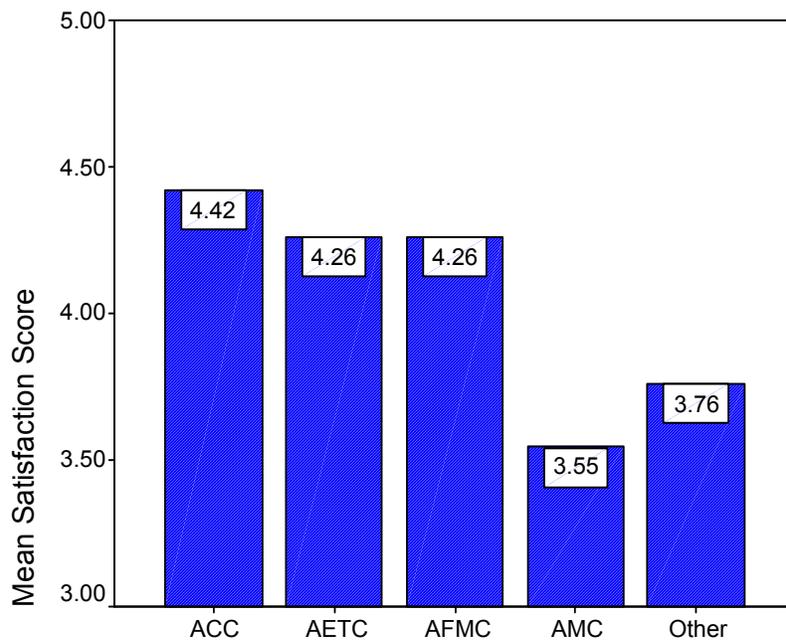
## Construction Turnover



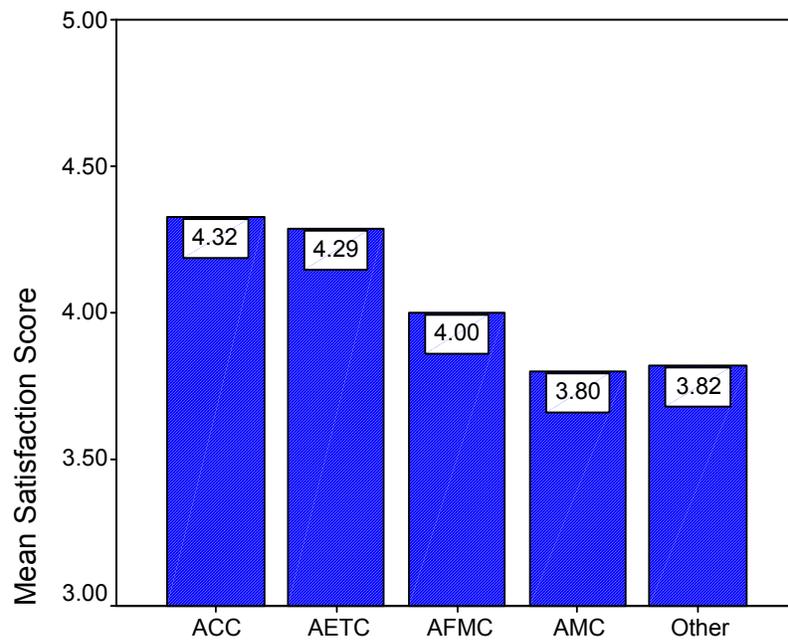
## Contract Warranty Support



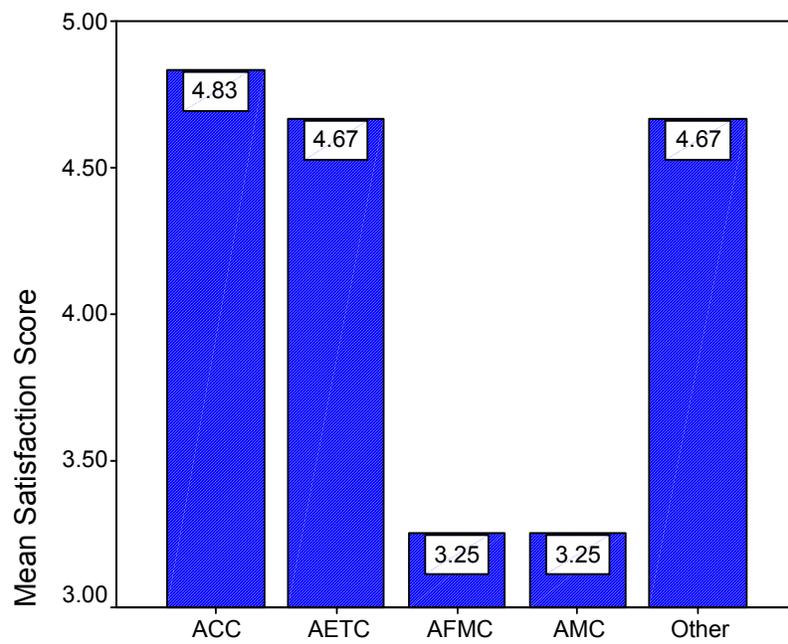
## End-User Satisfaction



## Construction Maintainability



## PM Forward



#### **§4. CONCLUSION**

The eighth Annual Military Programs Customer Satisfaction Survey has been completed. The objective of this report is to present a corporate analysis of FY02 Air Force customer satisfaction ratings, a comparison of Air Force vs. Army customer ratings and the 8-year trends in customer ratings since the survey began in 1995. A total of 442 Air Force and Army customers participated in the FY02 survey. Army customers comprise the largest proportion of the FY02 sample at 58 percent and Air Force at 42 percent. Customers were asked to identify their DoD Command. Air Force customers could select from five categories: ACC, AETC, AFMC, AMC and 'Air Force-Other'. The greatest number of Air Force customers fall under ACC (48 customers) and AETC (44 customers) commands. The commands specified by the 54 customers who selected 'Air Force-Other' included AFRC, AFSPC and PACAF.

Customers were asked to identify the primary category of service they received from the Corps organization they rated. Over half of Air Force customers (66%) rated construction services and 20 percent rated environmental services. The remainder rated either O&M, Real Estate or design services. The survey included 21 of the 22 Districts who serve military customers<sup>9</sup> and TransAtlantic Center. These districts work within seven Corps Divisions. The greatest proportion of responses was received from customers served by North West Division at 36 percent followed by Southwest Division at 18 percent. Omaha, Seattle and Mobile had the greatest number of valid responses (43, 20 and 19 customers respectively).

The survey consists of two customer feedback sections. The first section contains customer demographic information (name, organization, DoD command and primary category of services received). Section two contains 32 satisfaction questions. For each service rated, customers were also asked to rate the level of importance of the particular service. Questions 1-11 are of a general nature and also address customer relationship dynamics. Items 12-32 assess specific services and their level of importance.

Air Force customers are generally satisfied with products and services provided by the Corps of Engineers. All general satisfaction items received a median score of at least '4' ('High' to 'Very High'). Two items ('Treats You as a Team Member' and 'Displays Flexibility' each received a median score of '5' ('Very High'). The majority of responses (67 percent or more) were positive for all eleven general performance questions. The two most highly rated items in this year's survey were 'Treats You as a Team Member' rated positively by 89 percent of respondents and 'Seeks Your Requirements' (87%). The two indices that elicited the most negative responses were; 'Reasonable Cost' rated low by 12 percent of customers and 'Provides Timely Services' by eight percent.

Two of the more critical items in the survey as 'bottom line' indicators of customer satisfaction are Items 10: 'Would be Your Choice for Future Services' and Item 11: 'Your

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<sup>9</sup> NAP also serves a small number of military customers but had zero responses to its survey this year.

Overall Level of Customer Satisfaction'. With respect to Item 10, 77 percent of customers in the sample indicated the Corps would be their choice in the future. Conversely, a total of six percent responded USACE would NOT be their choice for future projects and 17% were non-committal. For customers' overall level of satisfaction (Item 11), 84% responded positively, five percent negatively and 12% fell in the mid-range category. It is worthwhile to note that the noncommittal customers represent a critical subgroup of customers deserving attention. These customers may migrate to either the satisfied or dissatisfied category depending on their future experiences with the Corps organization serving them.

Customers were also asked to rate the importance of each General Satisfaction item so that a gap analysis could be performed comparing satisfaction rating vs. importance rating for each item. The purpose of the gap analysis is to identify instances where the mean importance rating is notably higher than the satisfaction rating. A large disparity in these scores where 'importance' is much higher than 'rating' indicates that customer's needs are not being properly met. A number of items evinced a notable disparity between 'rating' and 'importance'. They include 'Manages Effectively', 'Resolves Your Concerns', 'Timely Services', 'Quality Product' and 'Reasonable Cost'.

The overall tenor of customers' opinions of the specific services items (Items 12-32) was approximately the same as the general satisfaction items. A large number of customers left one or more items blank in this section. The average percentage of non-response was 46 percent of the sample. The proportion of the sample who did not rate a specific service ranged from as low as 12 percent on Item 25: 'Timely Construction' to a high of 85 percent on Item 31: 'IS Checkbook Services'. Due to the very low response rate on this item and Items 16 (BRAC) and Item 30: 'Privatization Support', these items will not be included in comparisons among specific services.

All specific services items received median scores of '4' or higher. The proportion of high ratings for the specific services items (excluding 'BRAC', 'Privatization Support' & 'IS Checkbook Services') ranged from 65 to 83 percent. The top two most highly rated items were 'Job Order Contracts' (83% high ratings) and 'End-User Satisfaction' (82%). The specific services that received the lowest ratings were 'Studies & Investigations' (non-environmental) rated low by 15 percent of respondents and 'Timely Construction' and 'Warranty Support' each rated low by 11 percent. Customers were also asked to rate the importance of each Specific Services item. As was the case with the general satisfaction items, most items received a 'High' importance score. Significant disparities between satisfaction ratings and importance ratings were seen in several specific services areas. These disparities (rating lower than importance) were particularly striking on 'Engineering Design', 'Construction Quality', 'Timely Construction', and 'End-User Satisfaction'.

This report presents several comparative analyses between various customer subgroup ratings for FY02 and historically. Analyses of customer feedback by breaking down the aggregate data into

demographic or other categories can often lead to identification of pockets of very well-satisfied or dissatisfied customers. Follow-up contacts with these subgroups may reveal areas of outstanding performance that should be continued or poor performance that needs to be remedied. The three subgroup factors examined here are ratings by Air Force vs. Army customers, ratings by Air Force customers' primary work category and ratings by Air Force command organization.

A comparison of mean Air Force vs. Army ratings clearly shows that for all items except two, Air Force ratings are the same or higher than Army. The two exceptions are 'BRAC' and (non-environmental) 'Studies and Investigations'. Statistical comparisons were performed to detect any statistically significant differences between Air Force and Army customers for all satisfaction indicators. Ratings between the two groups were statistically comparable for all but three satisfaction indicators. In two areas of services Air Force customers were statistically significantly more satisfied than Army. These were 'Reasonable Cost' and 'Construction Maintainability'. In the area of (non-environmental) 'Studies & Investigations' Army customers were significantly more satisfied than Air Force.

Additionally, the eight-year trends in customer ratings by Air Force vs. Army are presented. Results show that in general, there has been a gradual upward trend at least over the first three years of the survey for both customer groups. That is, for almost every indicator, customer satisfaction has improved since 1995. Army customers' ratings are moving upward in a very consistent pattern over the eight-year survey period. The pattern of Air Force customers' ratings is not quite as consistent. During FY99-FY01 Air Force ratings begin to stabilize or move downward for a number of satisfaction indicators. However, in FY02 ratings moved higher, meeting or exceeding FY99 levels. It is important to note that for most satisfaction indices, the mean scores for Air Force are higher than Army during the earlier years of the survey administration. That is, there was greater room for improvement in Army ratings than Air Force customer ratings.

Statistical comparisons were performed to detect any statistically significant differences between the work categories<sup>10</sup>. This analysis looks only at the General Satisfaction questions plus two of the Specific Services items that are applicable to all areas of work: 'Project Management' and 'Funds Management'. A very definitive pattern emerged. Ratings by Environmental customer were consistently higher than 'Construction' and 'Other' across all satisfaction indicators examined. And in every ratings comparison except 'Project Management', Construction customer ratings were the lowest of the work categories. Statistically significant differences in ratings were found for almost every satisfaction indicator. The only areas where ratings by work category were the same were 'Seeks Your Requirements' and 'Funds Management'. In every case ratings provided by the 'Environmental' customer group were statistically significantly higher than 'Construction' customers.

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<sup>10</sup> For the purpose of this analysis work categories 'Real Estate', 'O&M' and 'Other' were combined and denoted 'Other'.

A final comparative analysis investigated whether there may be a difference in customer service depending on the particular Air Force command organization to which the services are delivered. Statistical comparisons were performed to detect any statistically significant differences between the commands. A fairly clear pattern was noted. Ratings for customers under AETC and ACC were almost always higher than 'AFMC, AMC and 'Other' across nearly all satisfaction indicators examined. And in almost every ratings comparison 'Other and AMC customer ratings were the lowest of the commands. Statistically significant differences in ratings were found for most satisfaction indicators. In almost every case ratings provided by the 'AETC command group were statistically significantly higher than 'Other' command.

Customers were given the opportunity to provide comments or suggestions for improvement of Corps' services. A total of 107 (58%) customers submitted comments. Of these, 45 (42%) made favorable comments, 17 (16%) made negative comments, 35 (33%) customers' comments contained mixed information (positive and negative statements) and 10 (9%) respondents' comments were purely informational in nature, neither positive nor negative. The two most frequently cited comments were 'Compliments to individuals/staff' (42 customers) and 'Overall good job' (21 customers). The most frequent negative comments were 'Corps understaffed to accomplish work' (10 customers), 'Corps too slow / schedules not met' and 'Poor coordination / communications with customer' (8 customers each). All comments made by a number of individuals should be reviewed carefully. Survey respondents rarely take the time to write comments. When they do, this usually means they feel very strongly about the issue on which they are commenting. In addition, each comment may likely represent up to eight other customers who feel the same but simply didn't take the time to record their opinions.

## **APPENDIX A**

### **Customer Demographics**

**Table A-1: List of Air Force Customer Organizations FY02**

CUSTOMER ORGANIZATION	#	%
61 ABG	1	0.5
914 AW, Niagra Falls	1	0.5
ACC	2	1.1
ACC, 366 CES	1	0.5
ACC, Avon Park AFB	1	0.5
ACC, Beale AFB	4	2.2
ACC, Cannon AFB	3	1.6
ACC, Davis-Montham AFB	1	0.5
ACC, Dyess AFB	3	1.6
ACC, Ellsworth AFB	1	0.5
ACC, Holloman AFB	2	1.1
ACC, Kirtland AFB	1	0.5
ACC, Langley AFB	11	5.9
ACC, Minot AFB	2	1.1
ACC, Moody AFB	2	1.1
ACC, Mt. Home AFB	1	0.5
ACC, Nellis AFB	4	2.2
ACC, NRLAM	1	0.5
ACC, Offut AFB	2	1.1
ACC, Seymour Johnson AFB	2	1.1
ACC, Shaw AFB	2	1.1
ACC, Soto Cano AB	1	0.5
ACC, Whiteman AFB	1	0.5
AETC, Little Rock AFB	2	1.1
AETC, Vance AFB	2	1.1
AETC, Altus AFB	6	3.2
AETC, Columbus AFB	2	1.1
AETC, Former Lowry Training Annex	1	0.5
AETC, Ft Sill	1	0.5
AETC, Goodfellow AFB	1	0.5
AETC, Lackland AFB	1	0.5
AETC, Laughlin AFB	2	1.1
AETC, Little Rock AFB	1	0.5
AETC, Maxwell AFB	3	1.6
AETC, Randolph AFB	13	7.0
AETC, Sheppard AFB	3	1.6
AETC, Tyndall AFB	2	1.1
AETC, USAF Recruiting	2	1.1
AETC, Vance AFB	2	1.1
AFCEE, Brooks AFB	2	1.1
AFMC, Arnold AFB	2	1.1
AFMC, Brooks City Base	1	0.5
AFMC, Eglin AFB	3	1.6
AFMC, Hanscom AFB	1	0.5

CUSTOMER ORGANIZATION	#	%
AFMC, Hill AFB	5	2.7
AFMC, Kirtland AFB	5	2.7
AFMC, Offut AFB	1	0.5
AFMC, Tinker AFB	2	1.1
AFMC, Wright Patterson AFB	5	2.7
AFMC, Wright Patterson AFB Museum	1	0.5
AFOTEC, Kirtland AFB	1	0.5
AFRC	1	0.5
AFRC 939 ARW, Portland	1	0.5
AFRC Europe	1	0.5
AFRC, 440th Airlift Wing	1	0.5
AFRC, 452MSG March ARB	1	0.5
AFRC, Dobbins AFB	1	0.5
AFRC, Robins AFB	1	0.5
AFRC, Westover ARB	1	0.5
AFRPA	2	1.1
AFSPC	2	1.1
AFSPC, Buckley AFB	2	1.1
AFSPC, Cape Cod AFS	1	0.5
AFSPC, Malmstrom AFB	1	0.5
AFSPC, New Boston AFS	1	0.5
AFSPC, Peterson AFB	2	1.1
AFSPC, Schriever AFB	2	1.1
AFSPC, Warren AFB	1	0.5
AFSV	1	0.5
Alaskan Cmd, Elmendorf AFB	1	0.5
AMC, Fairchild AFB	3	1.6
AMC, MacDill AFB	2	1.1
AMC, McChord AFB	1	0.5
AMC, McGuire AFB	1	0.5
AMC, Pope AFB	1	0.5
AMC, Scott AFB	4	2.2
AMC,McConnell AFB	2	1.1
Elmendorf AFB	1	0.5
HFO-ER, Brooks AFB	1	0.5
HQ AFRC	3	1.6
Osan AB	2	1.1
PACAF, Eielson	1	0.5
PACAF, Elmendorf AFB	5	2.7
PACAF, Hickam AFB	2	1.1
PACAF, Misawa AB	1	0.5
PACAF, Osan AB	1	0.5
PACAF, Yokota AB, Japan	1	0.5

CUSTOMER ORGANIZATION	#	%
Patrick AFB	1	0.5
SOUTHCOM	1	0.5
Surgeon General, Ramstein AB	1	0.5
USAF Academy	1	0.5
USAFE, Ramstein AB	1	0.5
USJFCOM, Fairchild AFB	1	0.5
Westover ARB	1	0.5
Total	186	100.0

## **APPENDIX B**

### **Statistical Details**

**Table B-1: General Satisfaction Items FY02 – Details**

	Very Low		Low		Mid-range		High		Very High		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
General Services Items												
1 Seeks Your Requirements	2	1.1	5	2.8	16	8.9	77	42.8	80	44.4	180	100.0
2 Manages Effectively	3	1.6	8	4.4	25	13.7	76	41.8	70	38.5	182	100.0
3 Treats You as a Team Member	1	0.5	6	3.3	13	7.1	53	29.0	110	60.1	183	100.0
4 Resolves Your Concerns	4	2.2	7	3.8	26	14.1	73	39.5	75	40.5	185	100.0
5 Timely Service	5	2.7	10	5.4	39	21.1	61	33.0	70	37.8	185	100.0
6 Quality Product	4	2.2	6	3.3	31	16.8	70	38.0	73	39.7	184	100.0
7 Reasonable Costs	7	3.8	15	8.2	39	21.3	65	35.5	57	31.1	183	100.0
8 Displays Flexibility	2	1.1	7	3.8	23	12.5	56	30.4	96	52.2	184	100.0
9 Keeps You Informed	2	1.1	9	4.9	22	12.0	63	34.2	88	47.8	184	100.0
10 Your Future Choice	4	2.2	7	3.9	31	17.2	58	32.2	80	44.4	180	100.0
11 Overall Satisfaction	2	1.1	7	3.8	21	11.5	74	40.4	79	43.2	183	100.0

**Table B-2: Specific Services Items FY02– Details**

	Very Low		Low		Mid-range		High		Very High		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Specific Services Items												
12. Planning	1	1.4	3	4.3	11	15.9	20	29.0	34	49.3	69	100.0
13. Studies & Investigations	2	4.2	5	10.4	10	20.8	21	43.8	10	20.8	48	100.0
14. Environmental Studies	2	2.9	3	4.3	8	11.4	25	35.7	32	45.7	70	100.0
15. Environmental Compliance	3	4.5	3	4.5	7	10.4	22	32.8	32	47.8	67	100.0
16. BRAC	2	11.1	1	5.6	3	16.7	5	27.8	7	38.9	18	100.0
17. Real Estate	3	4.8	3	4.8	10	15.9	25	39.7	22	34.9	63	100.0
18. Project Management	1	0.6	5	3.2	25	16.0	56	35.9	69	44.2	156	100.0
19. Project Documentation	2	2.6	2	2.6	11	14.3	26	33.8	36	46.8	77	100.0
20. Funds Management	2	1.5	8	6.0	23	17.2	54	40.3	47	35.1	134	100.0
21. A/E Contracts	4	3.2	9	7.3	16	12.9	52	41.9	43	34.7	124	100.0
22. Engineering Design	5	3.3	11	7.2	29	19.1	66	43.4	41	27.0	152	100.0
23. Job Order Contracts	1	1.9	2	3.8	6	11.5	16	30.8	27	51.9	52	100.0
24. Construction Quality	4	2.5	7	4.4	20	12.5	76	47.5	53	33.1	160	100.0
25. Timely Construction	10	6.2	8	4.9	34	21.0	57	35.2	53	32.7	162	100.0
26. Construction Turnover	3	2.4	4	3.2	27	21.6	55	44.0	36	28.8	125	100.0
27. Warranty Support	5	4.3	8	6.9	13	11.2	55	47.4	35	30.2	116	100.0
28. End-user Satisfaction	5	3.1	5	3.1	18	11.3	68	42.8	63	39.6	159	100.0
29. Maintainability	1	0.7	5	3.6	21	15.3	62	45.3	48	35.0	137	100.0
30. Privatization Support	0	0.0	3	16.7	3	16.7	2	11.1	10	55.6	18	100.0
31. IS Checkbook	0	0.0	1	7.7	3	23.1	2	15.4	7	53.8	13	100.0
32. PM Forward	0	0.0	2	6.3	4	12.5	7	21.9	19	59.4	32	100.0

**Table B-3: Mean Ratings Air Force vs. Army FY02**

<u>Satisfaction Item</u>	Air Force		Army		Total		p-value
	Mean	#	Mean	#	Mean	#	
S1 Seeks Your Requirements	4.27	180	4.18	249	4.21	429	0.290
S2 Manages Effectively	4.11	182	4.09	250	4.10	432	0.802
S3 Treats You as Team	4.45	183	4.38	253	4.41	436	0.363
S4 Resolves Your Concerns	4.12	185	4.16	253	4.15	438	0.672
S5 Timely Service	3.98	185	3.97	254	3.97	439	0.916
S6 Quality Product	4.10	184	4.12	253	4.11	437	0.770
S7 Products at Reasonable Cost	3.82	183	3.53	247	3.65	430	0.006
S8 Flexibility	4.29	184	4.20	254	4.24	438	0.326
S9 Informs You	4.23	184	4.15	255	4.18	439	0.388
S10 Your Future Choice	4.13	180	4.10	243	4.11	423	0.769
S11 Overall Satisfaction	4.21	183	4.15	252	4.17	435	0.468
S12 Planning	4.20	69	4.02	120	4.08	189	0.199
S13 Studies & Investigations	3.67	48	4.08	132	3.97	180	0.019
S14 Environmental Studies	4.17	70	4.09	158	4.11	228	0.515
S15 Environmental Compliance	4.15	67	4.18	140	4.17	207	0.828
S16 BRAC	3.78	18	4.02	56	3.96	74	0.426
S17 Real Estate	3.95	63	3.96	132	3.96	195	0.949
S18 Project Management	4.20	156	4.11	205	4.15	361	0.370
S19 Project Documentation	4.19	77	4.06	157	4.10	234	0.287
S20 Funds Management	4.01	134	3.88	186	3.93	320	0.195
S21 A/E Contracts	3.98	124	3.97	176	3.97	300	0.970
S22 Engineering Design	3.84	152	3.74	187	3.78	339	0.393
S23 Job Order Contracts	4.27	52	4.08	100	4.14	152	0.250
S24 Construction Quality	4.04	160	3.97	186	4.01	346	0.463
S25 Timely Construction	3.83	162	3.72	181	3.78	343	0.336
S26 Construction Turnover	3.94	125	3.91	163	3.92	288	0.787
S27 Warranty Support	3.92	116	3.75	161	3.82	277	0.185
S28 End-user Satisfaction	4.13	159	4.00	182	4.06	341	0.203
S29 Maintainability	4.10	137	3.87	169	3.97	306	0.018
S30 Privatization Support	4.06	18	3.81	53	3.87	71	0.448
S31 IS Checkbook Services	4.15	13	4.13	80	4.13	93	0.922
S32 PM Forward	4.34	32	4.24	107	4.27	139	0.625

**Table B-4: Air Force Ratings by Work Category FY02–**

	Construction		Environmental		Other		Total		p-value
	Mean	N	Mean	N	Mean	N	Mean	N	
S1 Seeks Your Requirements	4.20	121	4.49	35	4.29	24	4.27	180	0.189
S2 Manages Effectively	3.94	122	4.63	35	4.20	25	4.11	182	<.001
S3 Treats You as Team	4.34	122	4.76	37	4.50	24	4.45	183	0.014
S4 Resolves Your Concerns	3.98	123	4.63	38	4.08	24	4.12	185	0.001
S5 Timely Service	3.78	122	4.61	38	4.00	25	3.98	185	<.001
S6 Quality Product	3.93	123	4.61	38	4.17	23	4.10	184	<.001
S7 Reasonable Cost	3.64	121	4.24	38	4.04	24	3.82	183	0.007
S8 Flexibility	4.17	121	4.68	38	4.24	25	4.29	184	0.009
S9 Keeps You Informed	4.11	122	4.61	38	4.25	24	4.23	184	0.013
S10 Your Future Choice	3.94	119	4.68	37	4.21	24	4.13	180	<.001
S11 Overall Satisfaction	4.07	122	4.63	38	4.26	23	4.21	183	0.002
S18 Project Management	4.10	103	4.59	34	4.05	19	4.20	156	0.011
S20 Funds Management	3.92	89	4.26	35	4.00	10	4.01	134	0.331

**Table B-5: Mean Ratings by Air Force Command**

	ACC		AETC		AFMC		AMC		Other		Total		p-value
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	
S1 Seeks Your Requirements	4.30	46	4.53	43	4.25	24	4.08	13	4.07	54	4.27	180	0.079
S2 Manages Effectively	4.15	46	4.40	43	4.23	26	3.92	13	3.83	54	4.11	182	0.044
S3 Treats You as Team	4.47	47	4.56	43	4.52	25	4.50	14	4.30	54	4.45	183	0.566
S4 Resolves Your Concerns	4.25	48	4.37	43	4.31	26	3.71	14	3.83	54	4.12	185	0.012
S5 Timely Service	4.31	48	4.36	44	4.08	26	3.50	14	3.43	53	3.98	185	0.000
S6 Quality Product	4.35	48	4.32	44	4.27	26	4.00	14	3.62	52	4.10	184	0.000
S7 Reasonable Cost	4.11	47	4.02	44	3.76	25	3.86	14	3.42	53	3.82	183	0.014
S8 Flexibility	4.50	48	4.57	44	4.16	25	4.14	14	3.96	53	4.29	184	0.005
S9 Keeps You Informed	4.40	48	4.36	44	4.20	25	4.57	14	3.89	53	4.23	184	0.017
S10 Your Future Choice	4.30	47	4.42	43	4.29	24	3.93	14	3.71	52	4.13	180	0.003
S11 Overall Satisfaction	4.33	48	4.44	43	4.36	25	3.93	14	3.91	53	4.21	183	0.012
S12 Planning	4.52	25	4.29	17	3.60	5	4.29	7	3.73	15	4.20	69	0.072
S13 Studies & Investigation	4.00	8	4.14	14	3.00	3	3.60	5	3.28	18	3.67	48	Insuff data
S14 Environmental Studies	4.41	27	4.46	13	4.11	9	4.43	7	3.36	14	4.17	70	0.010
S15 Environmental Compliance	4.41	27	4.53	15	3.83	6	4.50	6	3.15	13	4.15	67	0.018
S17 Real Estate	3.56	9	4.53	19	3.71	7	4.30	10	3.44	18	3.95	63	0.017
S18 Project Management	4.40	43	4.43	35	4.33	18	4.00	14	3.85	46	4.20	156	0.008
S19 Project Documentation	4.31	29	4.29	14	4.27	11	4.40	5	3.83	18	4.19	77	0.503
S20 Funds Management	4.31	39	4.08	26	4.00	20	3.75	12	3.76	37	4.01	134	0.110
S21 A/E Contracts	4.16	32	4.16	31	4.31	16	3.22	9	3.69	36	3.98	124	0.022
S22 Engineering Design	4.11	47	4.03	34	4.00	19	3.45	11	3.39	41	3.84	152	0.005
S23 Job Order Contracts	4.29	14	4.50	16	3.86	7	5.00	3	4.00	12	4.27	52	0.294
S24 Construction Quality	4.24	42	4.16	37	4.24	25	3.60	10	3.76	46	4.04	160	0.041
S25 Timely Construction	4.10	42	4.00	38	3.96	25	3.27	11	3.52	46	3.83	162	0.045
S26 Construct Turnover	4.13	24	4.33	33	4.11	19	3.40	10	3.54	39	3.94	125	0.001
S27 Warranty	4.24	21	4.19	31	3.67	18	3.40	10	3.78	36	3.92	116	0.076
S28 End-user Satisfaction	4.42	45	4.26	38	4.26	23	3.55	11	3.76	42	4.13	159	0.004
S29 Maintainability	4.32	37	4.29	35	4.00	22	3.80	10	3.82	33	4.10	137	0.045
S32 PM Forward	4.83	6	4.67	9	3.25	4	3.25	4	4.67	9	4.34	32	0.001

**Table B-6: 1995-02 # Responses by Division & Survey Year**

DIVISION	1995	1996	1997	1998	1999	2000	2001	2002	Total
LRD	2	11	25	9	8	7	7	4	73
NAD	6	21	34	18	12	14	15	17	137
NWD	44	34	41	46	47	58	94	65	429
POD	10	19	26	20	20	22	27	15	159
SAD	24	31	46	31	29	22	21	26	230
SPD	13	10	27	24	33	32	9	23	171
SWD	26	14	22	16	23	22	23	33	179
Total	125	140	221	164	172	177	196	183	1378

**Table B-7: 1995-02 # Responses by District & Survey Year**

DISTRICT	1995	1996	1997	1998	1999	2000	2001	2002	Total
LRL	2	11	25	9	8	7	7	4	73
NAB	2	2	2	4	2	1	0	1	14
NAN	3	8	6	1	2	3	5	3	31
NAO	0	5	9	8	3	3	6	5	39
NAP	0	3	2	3	1	1	0	0	10
NAE	0	0	0	0	0	1	2	5	8
NAU	1	3	15	2	4	5	2	3	35
NWK	3	4	2	2	4	1	4	2	22
NWO	29	17	16	16	18	40	49	43	228
NWS	12	13	23	28	25	17	41	20	179
POA	0	13	14	11	5	6	20	9	78
POF	0	0	3	1	5	5	1	2	17
POH	9	2	4	1	3	5	1	1	26
POJ	1	4	5	7	7	6	5	3	38
SAM	20	21	19	7	8	15	13	19	122
SAS	4	10	27	24	21	7	8	7	108
SPA	7	2	17	10	15	12	3	8	74
SPL	1	5	6	10	7	12	4	6	51
SPK	5	0	4	4	11	8	2	9	43
SPN	0	3	0	0	0	0	0	0	3
SWF	11	6	12	12	17	14	6	13	91
SWL	3	3	3	1	2	2	3	2	19
SWT	12	5	7	3	4	6	14	18	69
HQ	14	28	20	18	18	5	3	1	107
TAC	0	1	0	11	0	2	6	2	22
Total	139	169	241	193	190	184	205	186	1507

