

FOREWORD

The Acquisition Reform Survey team members spent the last four months asking the people most responsible for providing materiel and services to our armed forces about a number of acquisition reform change elements. The process used was somewhat formal - a structured questionnaire, gathering data about a number of change elements, which eventually was put in a database that generated figures used to support conclusions. The team members also took narrative comments about those change elements, about the managers' government counterparts, and about acquisition reform in general. All that information has been packaged and presented in this report.

During the course of conducting the survey, there were occasions when the numbers and the narratives came together and really told a story. You could see it - it almost spoke to you. Typically, it was a picture of success - things were really coming together, either at the program level or at a company. The normal control mechanisms DoD uses to attempt to ensure reasonable price, on time delivery, product quality and superior performance were going away. Certifications, voluminous proposals, formal procedures, audits, CDRLs, in-plant oversight, specs and standards and even DoD configuration management control were being replaced with dialogue, open exchange of information, IPTs, use of electronic commerce and electronic data interchange to foster communications, DoD access to contractor information systems, use of contractor processes and data formats, and even contractor configuration control. At some sites a little of this was happening on a few programs. Typically, we sensed frustration on the part of the managers we interviewed at these sites. But at others, it was getting to be the norm - and you could sense it. Managers were upbeat, positive - and ready to provide a product to their customer at the best price, on time (or better), that epitomized quality and top performance. What we sensed went beyond change elements and initiatives - it had a lot to do with environment. It also had a lot to do with the presence or absence of strong leadership - leadership that had the courage to change the environment in which the program, company or industry existed.

Acquisition reform is more than just initiatives, change elements, policy memos and rule changes. Acquisition reform is open communications, trust, teaming, partnering, giving the managers at these contractor sites the opportunity to do what they were hired to do - manage. Acquisition reform is leaders creating an environment for success.

Report Outline - Background

This annotated briefing summarizes the findings of a study conducted by Coopers & Lybrand L.L.P., with the assistance of Syracuse Research Corporation, to assess the implementation of acquisition reform in DoD contracts. The study was performed during the period of April to September 1997, at the request of the Service Acquisition Executives, and with the endorsement of the Secretary of Defense.

A major emphasis of the Department of Defense over the past four years has been centered on streamlining the acquisition process either through reform legislation or policy change aimed at compressing cycle times, reducing program costs, and more effectively leveraging commercially available technologies and practices. Departmental initiatives have generated many significant results, such as: passage of the Federal Acquisition Streamlining Act (FASA), the Federal Acquisition Reform Act (FARA), the elimination or revision of many military specifications and standards, major revision of DoDD 5000.1 and DoDI 5000.2, and several other legislative and regulatory changes and revisions.

Clearly, acquisition reform has achieved success at the policy level; however, the overall impact of this reform activity across the spectrum of DoD programs, apart from documented successes with certain more visible programs, has been difficult to discern. Accordingly, the purpose of this study is to provide an assessment of how well DoD is implementing these reform measures as seen from the perspective of defense contractor program managers, contract managers, finance managers, engineering managers and other company executives who have day-to-day responsibility for complying with specific acquisition regulations and contract provisions, and who are uniquely positioned to observe the effectiveness of acquisition reform at the individual contract level.

This study has involved the participation of ten leading U.S. defense contractors and use of a structured interview methodology to obtain contractor personnel responses to a battery of questions covering over 50 change elements of DoD's acquisition reform initiative. At each contractor site, as many as twelve active contracts were designated for study. Program managers as well as functional managers impacted by acquisition regulation and policy were asked to assess the level of implementation and estimate the impact of each reform measure on the instant contract while identifying impediments to full implementation.

This report summarizes the results of a total of 430 interviews with members of participating contractor organizations. It is hoped that the analysis presented and the viewpoints expressed will provide the reader with a reasonably clear picture of acquisition reform implementation at the DoD contract level while identifying areas of opportunity for further streamlining and improvement of the DoD acquisition process in the future.

It should be emphasized that this report is based totally on the perceptions of industry participants and the Study Team's subsequent analysis. There has been no effort made by the government sponsors to insinuate themselves in the data analysis/interpretation.

The Study Team extends its sincere thanks to the ten firms that participated in this project. Each of them contributed considerable time and effort to accommodate the orderly and effective completion of data collection at their particular facility. Their enthusiastic, public spirited support was especially appreciated during a time when several are undergoing turbulent change as part of the on-going defense industry restructuring.

Report Outline

- Executive Summary
- Background 
- Survey Results - Summary Analysis
 - Industry Awareness
 - Implementation Analysis
 - Estimated Impact
 - Barriers
- Industry Recommendations
- Conclusions
- Appendices
 - Appendix A - Survey Results By Change Element
 - Appendix B - Further Explanation Of Barriers
 - Appendix C - Project Team
 - Appendix D - Industry Contacts
- Exhibits
 - Exhibit 1 - Catalog Of Acquisition Reform Change Elements
 - Exhibit 2 - Interview Matrix
 - Exhibit 3 - Acquisition Reform Survey Protocol
 - Exhibit 4 - Acquisition Reform Categories Matrix

Background

Study Objectives

This study called for a contractor survey team to conduct detailed, structured interviews with contractor personnel at ten or more industrial facilities having significant involvement in performing under DoD acquisition programs for the purpose of documenting recent changes in compliance practices and assessing their impact on program costs and timelines. In accordance with the study objectives shown here, this survey effort was designed to provide a systematic framework for recording contract level implementation of acquisition reform measures, as seen from an industry perspective, as well as an empirical basis for assessing the impact of these measures. Where barriers remain to full implementation of a reform measure, these were documented along with industry recommendations for future DoD acquisition reform action.

Study Objectives

- Document contract-level implementation of DoD's acquisition reform change elements
- Assess the impact of acquisition reform measures on cycle-time, contract costs, performance and commercial content
- Identify remaining barriers to full implementation
- Identify significant industry recommendations for future DoD acquisition reform action

Study Methodology

Catalog

As a first step in preparing to conduct this survey, the Study Team assembled a catalog of significant acquisition reform measures promulgated since January 1993. These measures, collected from various written sources, including material made available to the team from client sources and various DoD offices, as well as drawn from team member experience, are hereafter referred to in this report as acquisition reform change elements. The catalog, a copy of which is provided as Exhibit #1, is organized by functional discipline (contracting, engineering, finance, etc.). The catalog provides descriptions of each change element, cites legal authority or administrative reference governing its issuance, shows the date of implementation and lists expected outcome factors applicable to its implementation (cycle time reduction, cost reduction, quality or performance improvement, and greater access to commercial products or practices). A total of 53 change elements are contained in this catalog.

Twelve of the change elements are grouped under a functional category called “plant-wide.” These are measures that do not lend themselves to contract-by-contract examination, but rather need to be addressed on a plant-wide basis with managers most cognizant of their application to compliance practices.

Interview Matrix

In recognition of the need to tailor individual interviews around change elements most closely related to program responsibilities assigned to a particular respondent, a matrix was developed to cross-reference catalog change elements to program roles. This matrix is illustrated in Exhibit #2. As the matrix shows, program manager interviews covered over 30 of the change elements, contract managers were asked about slightly less than that number, while program manufacturing managers, for example, were queried on only 7. Generally, the Study Team conducted up to 5 interviews for every contract or program. Plant-wide interviews were conducted with various company officials as shown on the accompanying chart. These interviews varied depending on the responsibilities of the individual interviewed; for some of these sessions the interview was individually tailored to cover a number of change elements while, for others, the interview centered around one change element only (government property managers, for example). Consistent with the survey plan, ten major contractors participated in the study. Participating companies identified 90 contracts for coverage by the survey, which resulted in 430 structured interviews.

Study Methodology

- Develop and employ catalog of acquisition reform change elements
- Tailor individual interviews around change elements relating to the respondent's program role: program manager, contract manager, finance manager, engineering manager, manufacturing manager, etc.
- Interview, as available, senior management as well as plant-wide managers with responsibilities for: government property, pricing, accounts receivable, purchasing, packing and shipping, industrial security, and others
- Address tailored selection of change elements across ten active contracts at each contractor facility

Study Methodology Cont'd

Survey Protocol

To complete the structure of the survey process and to provide a uniform basis for collecting and registering responses, a protocol was developed for every team member to follow in guiding the respondent through discussions of each change element. The protocol, a copy of which is provided in Exhibit #3, covers seven categories of inquiry: the respondent's awareness of a particular change element and the primary source of that awareness; the applicability of a given change element to the particular contract under consideration; the degree of implementation and barriers to full implementation; outcomes (where some degree of implementation has been achieved) expressed in terms of cycle time reduction, cost reduction, quality or performance improvement, and greater access to commercial products or practices; unexpected outcomes defined by the same units of measurement; narrative comments regarding exceptionally favorable or unfavorable performances by DoD buying commands or support agencies; and, suggestions for where emphasis needs to be placed in the future in acquisition reform activities.

Sec. A: Awareness

After describing a particular change element to a respondent, the interviewer asked the respondent to identify his/her level of awareness of the change element, selecting among the five choices listed. The range of awareness levels was between 0-4, where zero represented complete unawareness and 4 represented full awareness. The respondent was then asked to identify his/her principal source of awareness of the change element, using choices that were provided. If a respondent indicated total unawareness, then the interviewer made note of it and proceeded to the next change element.

Sec. B: Applicability

Next, the respondent was asked to attribute a measure of the applicability of the change element to the contract in question. Applicability is defined in terms of whether there was an opportunity for use of the change element. Again, the level of applicability was based on a range of 0-4, with 4 representing a change element that was greatly applicable to the contract in question. Where the change element was not applicable, the survey respondent was asked to identify the prime factor that limited its applicability. If a respondent indicated that a change element was not applicable to the contract in question, the interviewer would make note of it and proceed to the next change element after identifying the factor limiting applicability.

Sec. C: Implementation

Where the change element was considered applicable to the contract, the respondent was asked to characterize its level of implementation based again on the 0-4 point range. Where the level of implementation for a change element was considered to be less than full implementation, the respondent was then asked to identify a barrier or barriers to full implementation. Where multiple barriers were selected, the respondent was asked to weigh the choices using a total of ten points. Where a respondent noted that a change element was not implemented at all, the barriers were recorded, and the interviewer proceeded to the next change element.

Sec. D: Expected Outcomes

Next, where some degree of implementation had been ascribed to a change element, the respondent was asked to estimate the impact of that implementation in terms of four possible expected outcomes (time/schedule savings, cost savings, quality/performance improvement, and greater access to commercial products or practices). Each specific change element was identified as having its own relevant combination of expected outcomes which can be observed by viewing the catalog in Exhibit #1. The respondent was asked to attribute a percentage of impact from a scale identified in the protocol to each relevant expected outcome. Any amplifying comments offered by the respondent that could contribute to greater understanding of how the change element is affecting program costs or performance were recorded in narrative form.

Sec. E: Unexpected Outcomes

The survey protocol also makes provision for capturing any unexpected outcomes that might have impacted a contractor's operations. This provided the ability to capture situations where a particular change element had an effect that was the opposite of what was intended. It also provided the opportunity to record favorable impacts in terms of time savings, cost savings, quality improvements, and enhanced access to commercial goods that were unintended consequences of a given change element. Any comments offered by the respondent that tended to further describe the nature and extent of an unexpected outcome were recorded in narrative form.

Sec. F: Government Agencies - Action/Inaction

At the end of each interview, the person surveyed was invited to comment on DoD performance relative to effectuating acquisition reform. Individuals were asked to identify any DoD buying commands or support agencies who in their view deserved special mention either because of their laudable efforts to promote acquisition reform or, in the alternative, because of their inaction with regard to acquisition reform matters.

Sec. G: Suggestions

Lastly, respondents were given the opportunity to identify any issues which have either not received any attention in the past or that need further emphasis in the future. Individuals were asked not only to address any issues that may have been raised during the interview process relating directly to change elements discussed, but also to address any other areas of concern that may not have been reflected through the interview process.

Study Methodology Cont'd

- Use survey protocol to facilitate interchange on each change element in order to pulse:
 - awareness of the change element
 - source of the interviewee's awareness
 - applicability to the relevant contract
 - implementation level
 - barriers to full implementation
 - estimate of outcome (cycle time, cost, performance and commercial access)
 - unexpected outcomes
 - government agency performance
 - additional suggestions for reform
- Use pre-printed data collection sheets for input of survey results to relational database

Company Sites

The data analyzed in this report were obtained from interviews conducted with acquisitions officials at the following ten defense contractors:

AlliedSignal Aerospace

- McDonnell Aircraft & Missile Systems (a division of Boeing)
- General Dynamics Land Systems
- Hughes Missile Systems
- Lockheed Martin Electronics & Missiles Division/Lockheed Martin Information Systems
- Motorola Space & Technology Systems Group
- Northrop Grumman (Electronics Systems & Sensors Division)
- Rockwell Collins (Collins Avionics & Communications Division)
- Bell Helicopter (a subsidiary of Textron)
- UNC Aviation Services

The study team proposed candidate sites for the review and final approval of the government sponsors. The primary objective of the site selection process was to develop a diverse cross-section of contractors with regard to industry sector, product orientation, military service customer, and tier position. An important consideration was to develop a slate of candidate contractors who could offer for study analysis a selection of reasonably large dollar, active contracts representing varying phases of the acquisition cycle as well as mix of contract types. It was also important that the contracts selected portray both sides of the acquisition reform story. In other words, the study team wanted to be able to document “opportunity seized” as well as “opportunity missed” in terms of reform implementation. To facilitate this approach, contractors were asked to identify active contracts awarded after January 1, 1993, a nominal threshold date for DoD’s acquisition reform process. Another key factor was the willingness of the contractor to make available for interviews those program managers, contract managers, and other functional team members associated with the selected contracts, as well as senior management officials and other key managers having an involvement with the DoD acquisition process (each of these interviews ranged in time from 10-15 minutes up to two hours). Contractors also were asked to arrange the interview schedule and to assign a company representative for study coordination for the duration of the study team visit (such visits varied in length, but in the majority of cases averaged close to two weeks each). The study team executed proprietary information agreements with each of the participating companies and agreed not to provide any company or site-specific information to the government sponsors or other third parties.

Company Sites

Company Site	State	Contract Value Addressed (in millions)	Interviews Conducted	Military Products
AlliedSignal Aerospace	AZ	\$100	21	Engines
Boeing McDonnell Aircraft & Missile Systems	MO	\$4,029	56	Aircraft/Missiles
General Dynamics Land Systems	MI	\$2,827	45	Tracked Vehicles
Hughes Missile Systems	AZ	\$1,752	52	Missiles
Lockheed Martin Electronics & Missiles/LMIS	FL	\$1,168	49	Electronics/Missiles
Motorola Space & Technology Systems Group	AZ	\$372	53	Comm./Electronics
Northrop Grumman ESSD	MD	\$1,089	59	Radars/Sensors
Rockwell Collins CACD	IA	\$357	59	Comm./Avionics
Textron Bell Helicopter	TX	\$4,925	23	Helicopters
UNC Aviation Services	MD	\$752	13	Aircraft Repair/Training

Profile of Surveyed Personnel

A total of 430 contractor personnel were interviewed during this study representing more than a half dozen different functional disciplines. The number of interviews conducted at any particular contractor facility ranged from a low of 13 at one site to nearly 60 at another. The great majority were conducted in person, although at least eight telephone interviews were performed where personnel were working off-site. Most of the interviews were conducted with personnel whose responses were based on their experience with a specific contract; however, close to 15 percent of the interviews were with either senior management who provided their perspective on acquisition reform as seen across multiple programs or plant-wide subject matter experts. The latter ranged from government property managers, packaging and shipping managers, purchasing and subcontracts managers, pricing managers to business development managers and industrial security specialists. Team members also met with senior executives (typically Vice President level) at most of the locations visited. Although formal interviews for the purpose of gathering data to put into the database were not done, the discussions did provide valuable company related information. This information, and the views of these key executives regarding acquisition reform, helped put in context the information gained through formal interviews.

The range in interview count across the various functions is attributable to program support being centralized in some cases rather than matrixed support provided at the program level. This, we found, was often the case with financial support or in quality assurance. There also were instances where a functional team member had responsibilities for two or more of the programs being addressed under the study. In those cases where responses differed across programs, we prepared separate data entry sheets and treated those as separate interviews. Otherwise, we only prepared one data sheet and treated it as a surrogate for the multiple programs being supported by that individual.

Profile of Surveyed Personnel

<u><i>Individual Function</i></u>	<u><i>V.P./Director</i></u>	<u><i>Manager</i></u>
Contracting	5	90
Engineering		57
Finance	5	47
Manufacturing	1	26
Plant-Wide	8	56
Program Mgt.	7	80
QA	2	46

Contract Profile

This slide profiles the mix of contracts covered by the study. It details the various dimensions of this mix, revealing, we believe, a reasonably balanced representation and significant dollar volume of DoD contracts by which to assess acquisition reform implementation. While the study was aimed at examining ten contracts at each of ten contractor sites, the 90 contracts selected for review represent, in our judgement, an adequate sampling for achieving the study objectives.

Contract Profile

Total Contract Dollar Value	\$17.4B	Program Phase:	
Total Contracts Reviewed	90	Concept Exploration	1
Contract Type:		Program Definition and Risk Reduction	8
Cost Reimbursement (Incl. T&M)	37	Engineering & Manufacturing Development/LRIP	24
Fixed Price	53	Production (Incl. Product Improvement	43
Year of Award:		Operations & Support	14
1994 and Prior	21	Customer Profile:	
1995	24	Army	28
1996	27	Air Force	31
1997	18	Navy/USMC	28
New Starts vs. Reprocurement:		Other DoD	3
New Starts	67		
Reprocurement	23		
Competitive Status:			
Competitive	35		
Non-Competitive	55		
Prime/Sub Status:			
Prime	73		
Subcontractor	17		

Summary Analysis

This section of the report provides summary analysis of the survey results. These results are grouped by the four principal areas of inquiry under our structured survey approach: (1) awareness level and source of awareness of an interviewee to the individual acquisition reform change element; (2) degree to which the change element was implemented in the instant contract; (3) estimated impact of the change element, where implemented; and (4) perceived barriers to implementation.

The various graphs and tables of data shown in this section are a roll-up of results at the individual change element level. Those detailed results are provided in Appendix A.

A brief explanation of how the summary calculations shown in the following pages were derived is provided as follows:

- - Awareness - consistent with the survey protocol (see Exhibit 3), the respondent was provided a range of possible awareness choices between 0 and 4, where zero represented complete unawareness and 4 represented full awareness, for each change element covered in the interview. The values represented by choices of awareness levels could then be totaled and divided by the number of change elements covered by the interview to determine an individual respondent's average awareness level. Using a relational database, these results could then be aggregated and averaged by manager category, by contractor site, by change element and by overall study total.
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 - Implementation - similarly, the survey protocol provided a range of possible implementation choices between 0 and 4, where zero represented no implementation and 4 represented full implementation. Compiling responses in a relational database allowed selected values to be aggregated, averaged and displayed in numerous ways - by change element, contractor site, contract year, new start vs. procurement, prime contract vs. subcontract, military service, producer category, etc
 -
 - Outcome - for each change element addressed and where implementation of some degree had been achieved, the respondent was asked to estimate the outcome of implementation, expressed as a percentage where applied to a time, cost or quality/performance impact, or as a choice on a 0 to 4 point scale in the case of an increase in access to commercial products or practices, with zero representing no impact and 4 connoting a major impact. This allowed for averaging and aggregation of outcomes, but limited only to the change element level. Further explanation is provided in the narrative discussion accompanying the next slide.

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Survey Results

Summary Results

This slide provides an overview of survey results. This survey was designed to gather responses from participating members of industry on three basic levels: individual awareness of particular change elements comprising DoD's acquisition reform initiative; the degree to which these change elements are being implemented in DoD contracts; and, if implemented, the estimated impact of such implementation, be it an impact on cycle time, cost reduction or cost avoidance, a quality or performance improvement, or an ability to have greater access to commercial products or practices. It needs to be emphasized that these results represent the collective responses of various members of ten participating contractor organizations. The study is aimed at providing DoD with a general sense of industry's assessment of acquisition reform implementation. There should be no inference of statistical validity attached to these values.

These results are briefly discussed below and analyzed more fully in subsequent pages of this report:

- Awareness - the survey results show that across a total of 430 interviews, the level of awareness of these change elements, on a 0-4 point scale, is 2.6, or squarely between "Fairly Aware" and "Moderately Aware." This shows that awareness levels can be further expanded. The results are more fully explored on the next slide.
- Implementation - again, the results are based on a 0-4 point scale and indicate that, where a change element had a potential application to a given contract (or plant-wide situation), the level of implementation of that change element, on average, fell just short of "moderate implementation" at 2.9. The Team views this as an indicator of encouraging progress in the reform process, especially considering that 23 of the 90 contracts reviewed were procurements and 21 of the 90 were issued prior to or during 1994, the first year in which the bulk of reform measures, as known today, were available for contract roll-out.
- Outcome - because the change elements have varying reference points from which the impact of implementation has been estimated, it would be meaningless to attempt to summarize estimated outcomes above the specific change element level. Accordingly, the report provides summary results of outcomes at the specific change element level only and adopts an entirely different approach for data presentation than the simple averaging technique used in showing respondent awareness levels and implementation. Outcome results are captured in one of three categories - significant, minor or none. A significant impact is defined as one where the individual responses estimated that cycle times, cost, or quality/performance unique to the change element process itself were reduced/improved, on average, by 25% or greater, or average contract related cost, schedule or quality/performance improvement of 10% or greater was achieved, or there was a major increase in access to commercial-oriented techniques, products or facilities. In turn, a minor impact accounts for all other outcomes where the average outcome is greater than zero. The outcomes are then tabulated by percentage of responses falling into one of the three outcome categories defined above. Survey results show that a majority of respondents estimate significant impacts are being realized as follows:
 - time - the highest percentage of respondents estimated significant savings in an opens systems approach, concurrent DT/OT testing and quick prototyping in software
 - cost - the highest percentage of respondents estimated significant savings in elimination of milspecs, commercial exemption to cost or pricing data and open systems approach
 - quality - only for open systems approach did majority of respondents estimate significant savings. The results are closely linked to industry convictions that products of the highest quality have historically been delivered to DoD customers and, secondly, they reflect the collective view that a shift from a military quality standard to an international standard has little to do with product quality but is rather a program administration matter. The reader may view this as a positive outcome in the sense that the shift to more commercial-based solutions to military requirements has an objective of maintaining quality at reduced costs, not necessarily one of achieving higher quality or better performance. While it remains for the government customer to provide the final word on the general impact of acquisition reform on quality and performance, it can be said, on the basis of this survey, that industry feels quality levels are at least being maintained.
 - commercial access - There were no change elements where a majority reported a major increase in access to commercial practices or products. This, in part, appears mainly attributable to the inherent nature of military requirements. There is also considerable reluctance on the government's part to consider new sources of part changes (e.g., plastic parts in lieu of ceramic) during the course of production, except perhaps under a separate product improvement contract.

Summary Results

- Demonstrable progress being achieved:
 - Awareness - Moderate (2.6)
 - Implementation - Moderate (2.9)
 - Significant Outcomes:
 - nine change elements where majority of respondents estimated significant outcomes
 - most savings/avoidance attributable to time and cost

Awareness

This chart summarizes the results of that portion of the survey designed to determine the level of awareness within the defense industry of specific components of DoD's acquisition reform initiative as well as the source of that awareness.

The chart shows that, across the 430 interviews conducted, the average response fell roughly half way between "moderately aware" and "fairly aware" in accordance with the 0-4 scale applied from the Survey Protocol (see Exhibit 3).

The chart also shows that Q.A. managers and contracting managers exhibited the highest familiarity with acquisition reform change elements while finance and manufacturing managers registered the lowest levels of awareness.

Some caution should be exercised before drawing conclusions too quickly from these results. While it obviously can be expected that contracting managers would register relatively high in acquisition reform awareness, it may be surprising to some that Q.A. managers had the highest recognition and finance and manufacturing managers had the lowest. Part of the explanation may reside in the matrix provided as Exhibit 2 that cross-references change elements addressed to manager discipline or program role of the interviewee. As the matrix shows, the combination of change elements employed in any given interview varied widely from over 30 change elements used in program manager interviews to only seven for manufacturing managers. While the study team took considerable care to tailor the interviews to match areas of inquiry (i.e., change elements) to functional disciplines, the matching process was not perfect. For example, manufacturing managers were asked about commercial standards/practices for calibration; in some of the cases, calibration matters do not fall under manufacturing but Q.A. instead. We also found that program finance managers, in many cases, do not get involved in the program until after award of the contract; in those cases, they are not very familiar with reform measures related to cost or pricing data such as those emanating from FASA that provided relief from the provisions of the Truth in Negotiations Act (TINA).

With respect to their source of awareness, the numbers in each column represent the totals of change element queries posed to the respective manager categories, where some level of awareness was recorded. Column E, Discussions with DoD, was a slightly greater source of awareness (2,311 responses) than company information and training (2,161 responses). The prominence of internal company channels as a source of acquisition reform awareness has been influenced by the assignment of a single point of contact for acquisition reform at a number of these participating contractor sites. Training programs do exist, of course, and are a source of awareness. But, reading materials distributed within the company as well as informal discussions within the company were also included in crediting the company as the respondent's predominant source of awareness.

It is of interest that program managers cited discussions with DoD as a predominant source of awareness over sixty percent of the time. This would appear to suggest that the lines of communication between company program managers and their government counterparts are effective. Many company program managers indicated such was the case. The data suggest that no other manager discipline has the level of direct dialogue with the government on acquisition reform matters that the program managers enjoy.

Overall, the results show that there is growth opportunity in terms of increasing awareness levels among managers involved with DoD contracts.

Industry Awareness Of Acquisition Reform Change Elements

<i>Manager Discipline</i>	<i>Average Awareness</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>
Contracting	2.8	78	8	191	719	576	9
Engineering	2.5	3	1	21	230	270	1
Finance	2.2	2		14	225	102	1
Manufacturing	2.4			3	88	58	1
Plant Wide	2.5	4	1	2	63	48	1
Program Mgt	2.6	35	11	48	609	1132	9
QA	3.2	2	1	2	227	125	2
<i>Industry Average:</i>	<i>2.6</i>						

Source of Awareness:

A - Conferences

B - DoD Road Shows

C - Professional Journals/Publications

D - Company Information/Training

E - Discussions with DoD/Going through Contract Process/Personal Experience on Program

F - Other

Implementation By Functional Grouping

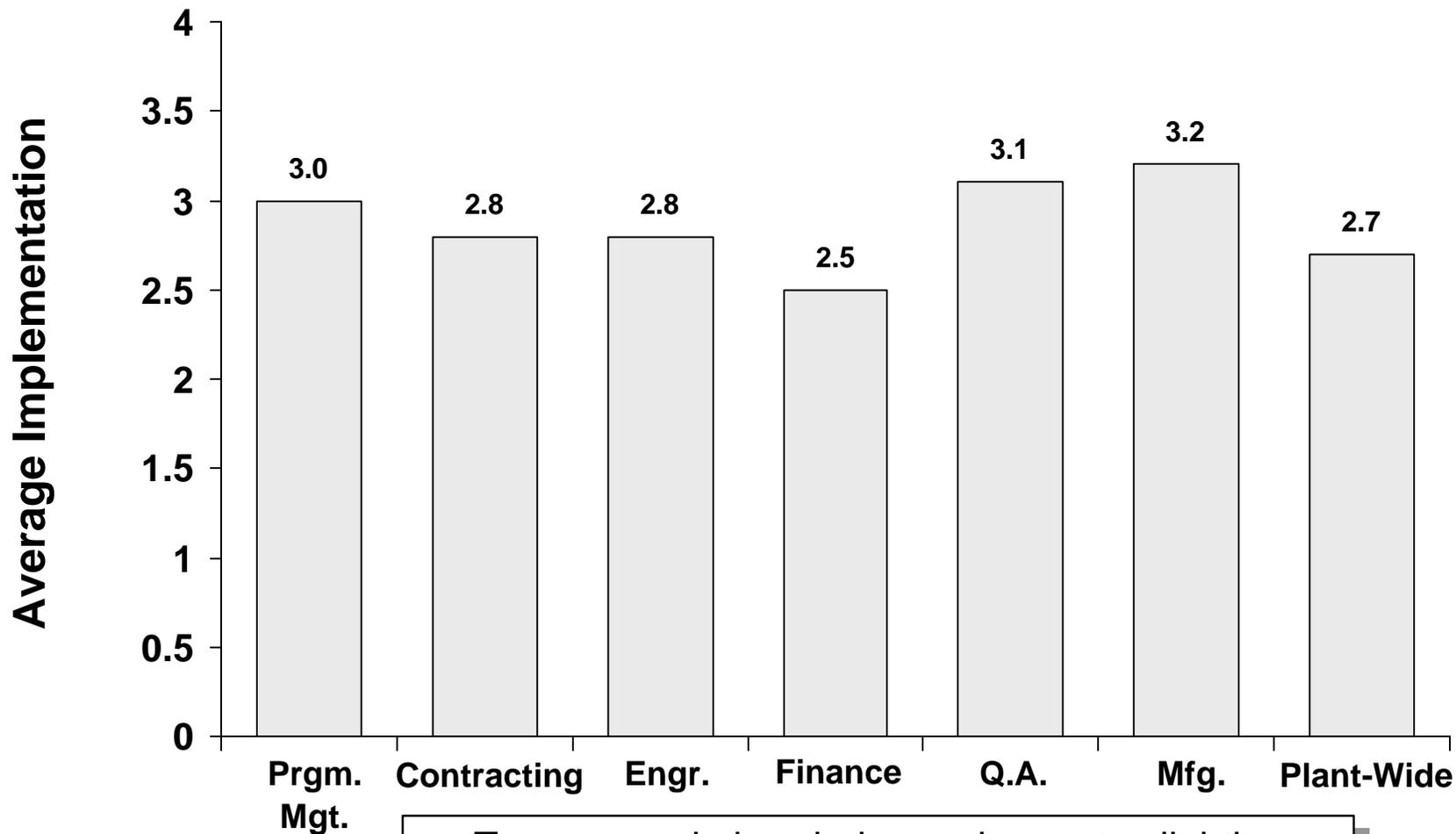
This chart displays average implementation levels corresponding to the functional grouping of change elements around which the survey catalog (Exhibit 1) is organized.

Implementation is highest in Manufacturing, a small, two element category that addresses commercial soldering and commercial practices for calibration, followed by Quality Assurance, another small, narrowly focused grouping and Program Management, a grouping containing seven change elements.

Perhaps most noteworthy here is the relatively low average implementation level of the Finance grouping which contains the TINA-related change elements, such as the FASA-provided commercial exemption to cost or pricing data and the emphasis on favoring price analysis and other sources of pricing support, where appropriate, in lieu of certified cost or pricing data. Clearly, this is an area that warrants special emphasis in efforts to increase implementation levels in the future.

Implementation levels of each specific change element within the functional grouping are shown in Appendix A.

Degree Of Implementation By Functional Grouping Of Change Elements

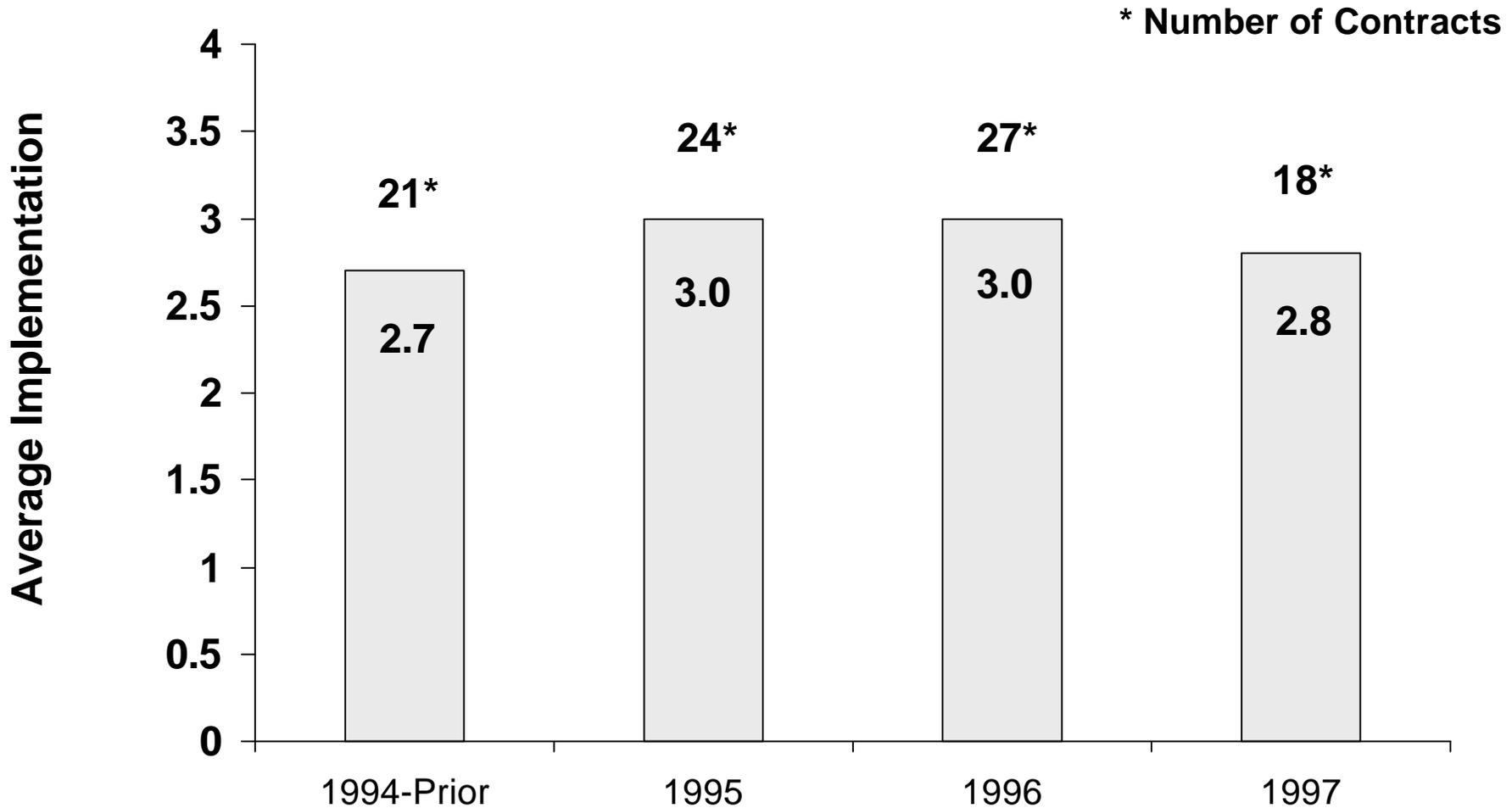


Two, narrowly-banded groupings rate slightly above others; least implementation in Finance area

Implementation By Contract Year

This graph shows the average degree of implementation involved with the 90 contracts surveyed, grouped by year of award. As would be expected, there is an upward trend in reform implementation between 1994 and 1996; however, there is an unexpected drop in average implementation in 1997. The major reason for this drop-off relates to the mix of contract awards in 1997 compared to the prior year. In 1997, there were none of the pilot program awards and fewer of those programs with a breadth of reformation features. More specifically, of the twenty seven contract awards in 1996, eleven were EMD or PDRR phase contracts whereas, in 1997, out of the eighteen contracts surveyed only 4 are for EMD requirements, and there are no PDRR phase contracts. The balance are production buys or operations and support contracts, where requirements tend to be less flexible and less susceptible to reform measures. Further, in several instances, there was an exemption to certified cost or pricing data granted in the FY96 buy only to have a certified, bottom-up cost package re-imposed in the FY97 procurement.

Degree Of Implementation By Contract Year



Slight drop-off in 1997 attributable to contract mix,
higher proportion of mature production programs

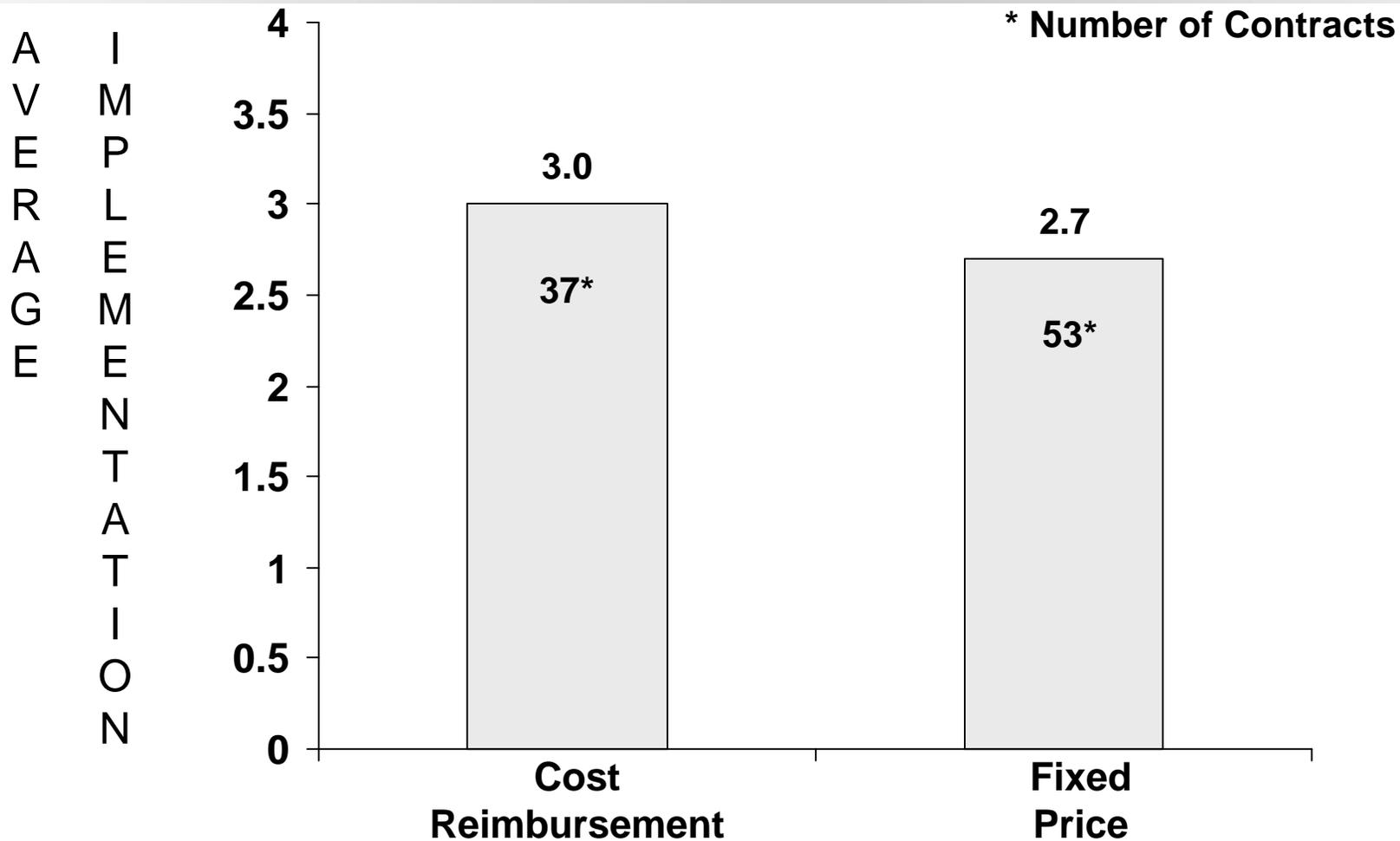
Implementation By Contract Type

This graph shows that contract type may not be a significant discriminator in terms of the level of acquisition reform implemented in DoD contracts. For this survey, cost reimbursement contracts (3.0) reflect only a slightly higher degree of acquisition reform implementation than fixed price types (2.7) of contracts.

Realizing that the survey sampling of contracts covered a number of mature production programs, some of which even originated prior to 1993, it may be surprising that this difference isn't greater. Cost reimbursement contracts are normally associated with programs early in the acquisition cycle or with new starts which, in this case, would have been recently awarded and thus more likely to be subject to the influences of acquisition reform than fixed price production programs with origins preceding the acquisition reform movement. Yet, it is of interest that the comparison of implementation levels between new starts and reprocurments, found later in the report, correlates closely to these results.

This suggests that fixed price legacy programs are not, of themselves, a deterrent to acquisition reform. IPTs, for example, can and are effectively used to streamline contractual requirements and reduce the pre-award phase of the contract cycle, and post award IPTs are being employed to solve program issues as they arise. At the same time, some of the engineering-related change elements, such as an open systems approach, simulation in lieu of testing or rapid prototyping, are less likely to be implemented once design baselines have been frozen, programs reach a production phase and fixed price contracts are used to shift risk to the contractor.

Degree Of Implementation By Type Of Contract



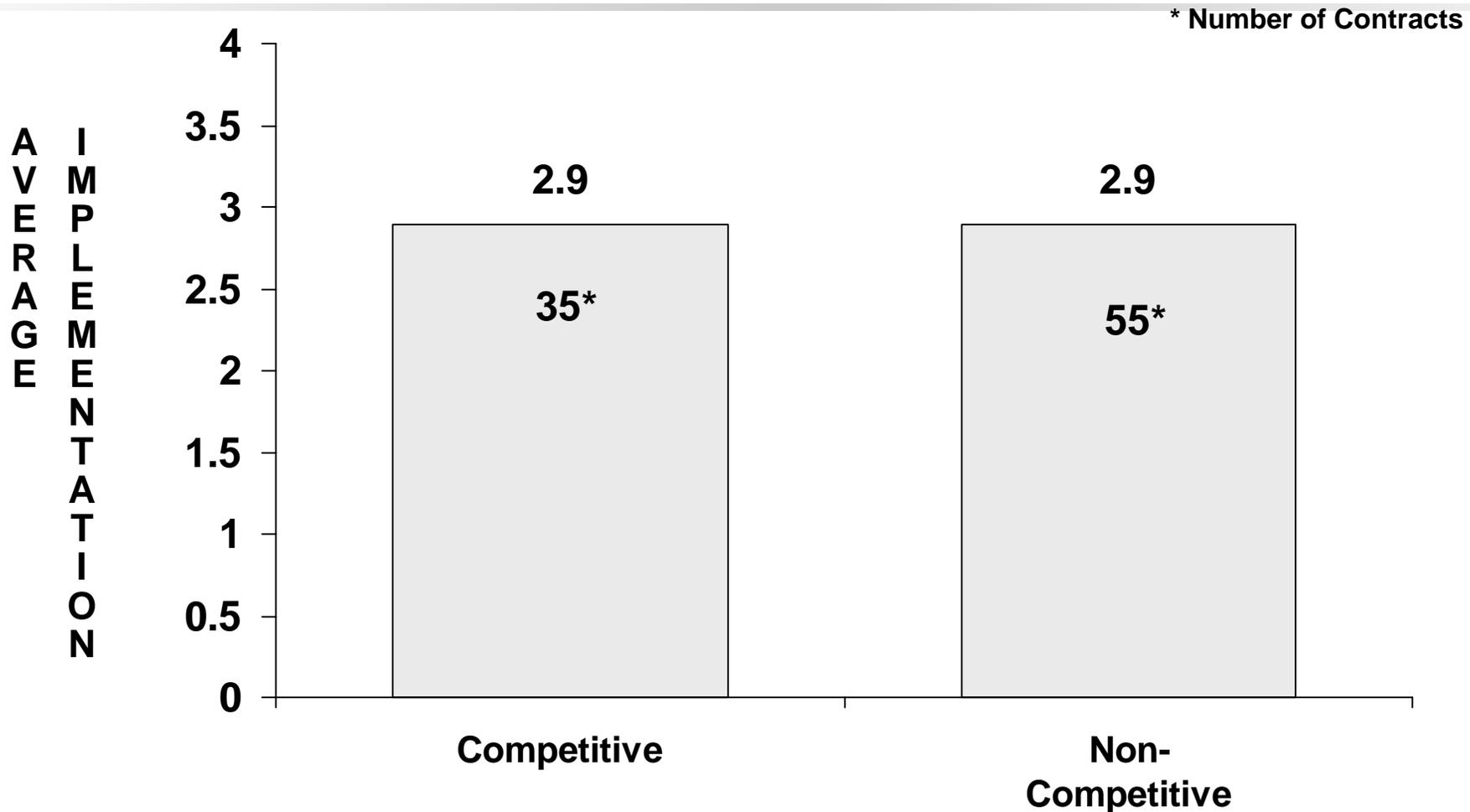
Contract type is not a significant discriminator in implementation of acquisition reform

Implementation By Competitive Status

This graph compares the average level of implementation for the 35 competitively awarded contracts to the average implementation level of the 55 non-competitive contracts. Only those change elements that were applicable to competitive and non-competitive awards, respectively, were considered in the tabulated results.

While the difference is so small it is obscured by rounding, barrier information in the database provides some differentiation. Barriers to implementation are covered later in the report. Also, Appendix B provides explanations and examples of each barrier cited in this report. The database shows that respondents made greater reference to “cultural resistance” as a barrier to full implementation in non-competitive awards. It also shows that “proven system not in place” (“too early”) was cited more frequently as a barrier in non-competitive awards. In this latter case, it indicates that the change action was in the process of being implemented, but only partial or limited implementation had been realized thus far.

Degree Of Implementation By Competitive Status



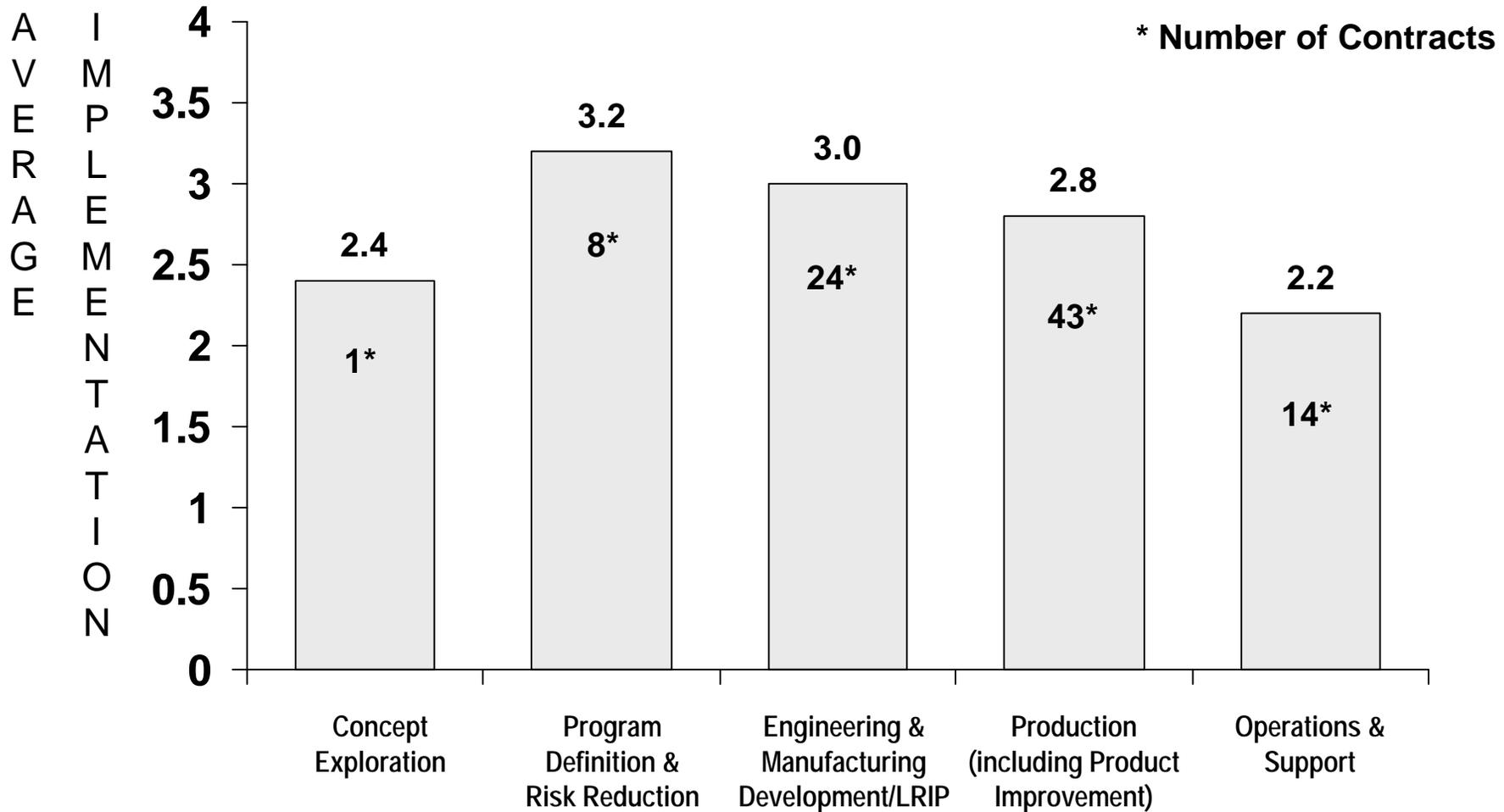
The competitive nature of the procurement has no discernible effect on the degree of acquisition reform implementation

Implementation By Program Phase

This chart shows a comparison of reform implementation levels through the various phases of the acquisition cycle for those contracts included in the survey.

Allowing for the fact that the survey included only one contract from the Concept Formulation phase, the results show the greatest success in implementing acquisition reform to date has been within those programs still in the definition and risk reduction phase followed by those in EMD or low rate production, with succeeding less opportunity for change once full production has started. Nonetheless, excluding Operations and Support contracts, in those contracts surveyed, there is no precipitous drop-off in reform implementation activities across the various phases of the acquisition cycle.

Degree Of Implementation By Program Phase



By a small margin, the greatest success in implementing acquisition reform has occurred to date in the PDRR phase

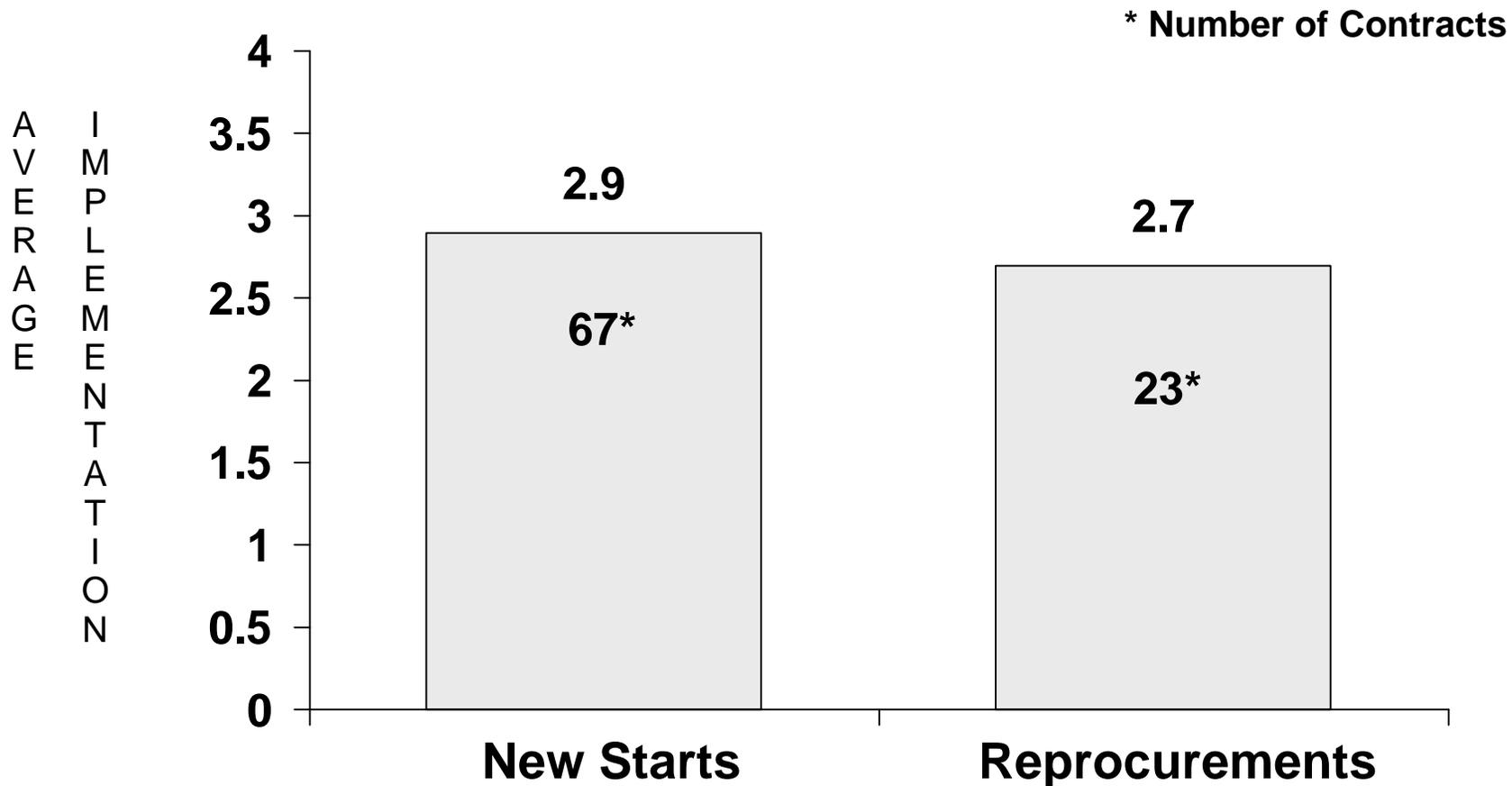
Implementation: New Starts vs. Reprocurements

This chart shows a comparison of implementation levels of acquisition reform between new starts and reprocurements. Reprocurements are follow-on production buys. Note that the number of new starts in the survey outnumbered reprocurements by about 3 to 1.

The level of implementation in new starts (2.9) exceeds that in reprocurements (2.7), a predictable outcome if not a less striking difference than might have been expected. This shows that while reprocurements may, in theory, offer some lesser degree of opportunity to implement change, i.e., “build to print” programs where process is dictated by originally established requirements, reform is being pursued in these instances almost as aggressively as in new starts.

Although barrier G (Cultural resistance) was most frequently cited in both cases, it is interesting to note that three barriers - A (Insufficient guidance how to implement), D (Increases contractor risk), and I (Proven system not in place) had a proportionately greater impact on new starts than on reprocurements.

Degree Of Implementation: New Starts vs. Reprocurements



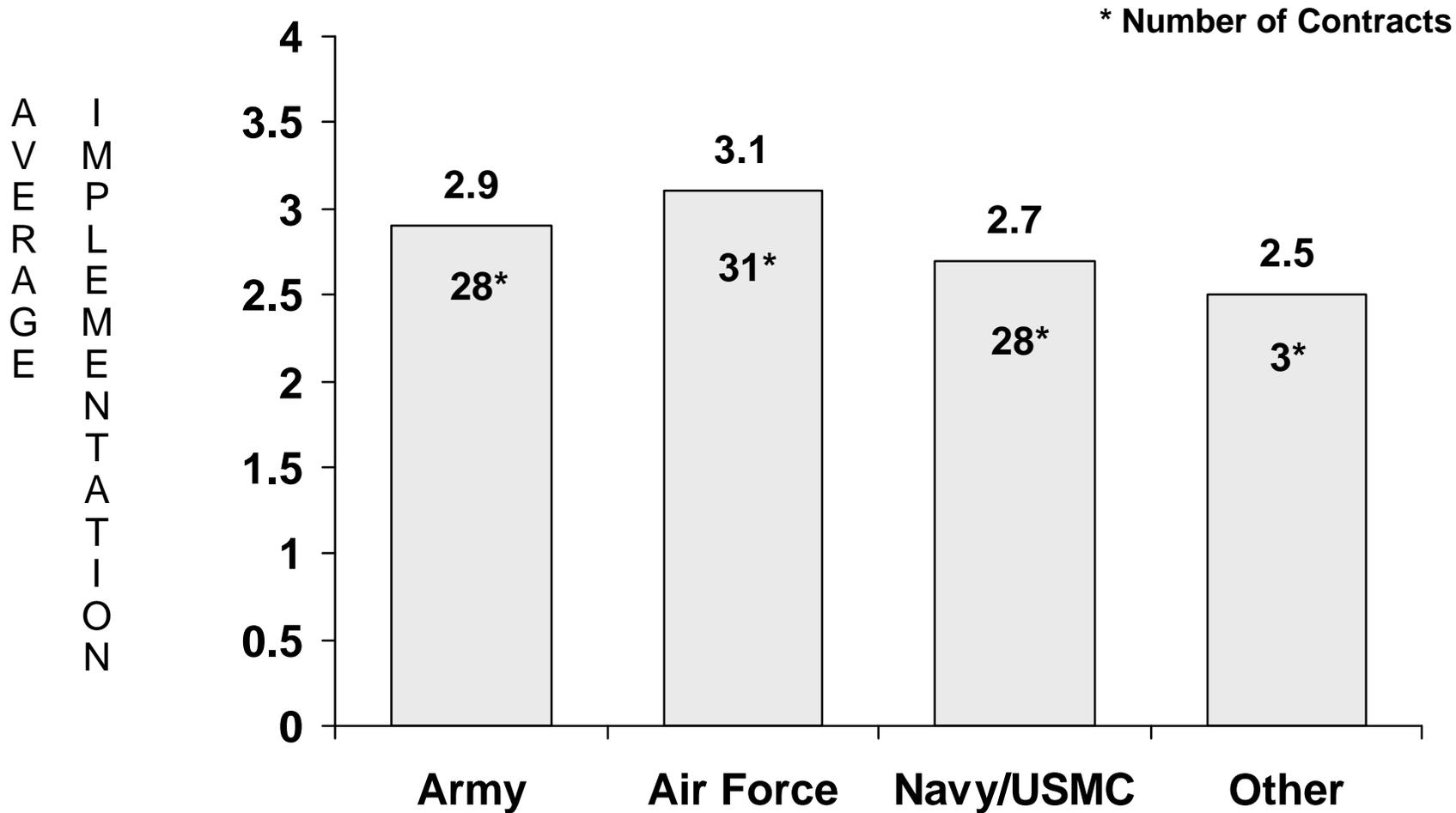
Predictably, acquisition reform implementation is higher among new starts; however, the difference is modest

Implementation By Program Phase

This graph arrays average implementation levels of acquisition reform change elements across the 90 contracts surveyed by military service. For those several contracts that cover joint programs, they are accounted for under the lead service or service with contracting responsibility.

While this shows some differentiation in acquisition reform implementation across the military services, the reader is cautioned against drawing any specific conclusions from the data. Interviews with contractor personnel indicated that considerable differences in change element awareness and implementation emphasis exist not only within a given military service, but even within buying commands.

Degree Of Implementation By Customer Grouping



Interviews suggest varying success both across and within service buying commands

Implementation: Prime vs. Subcontractor

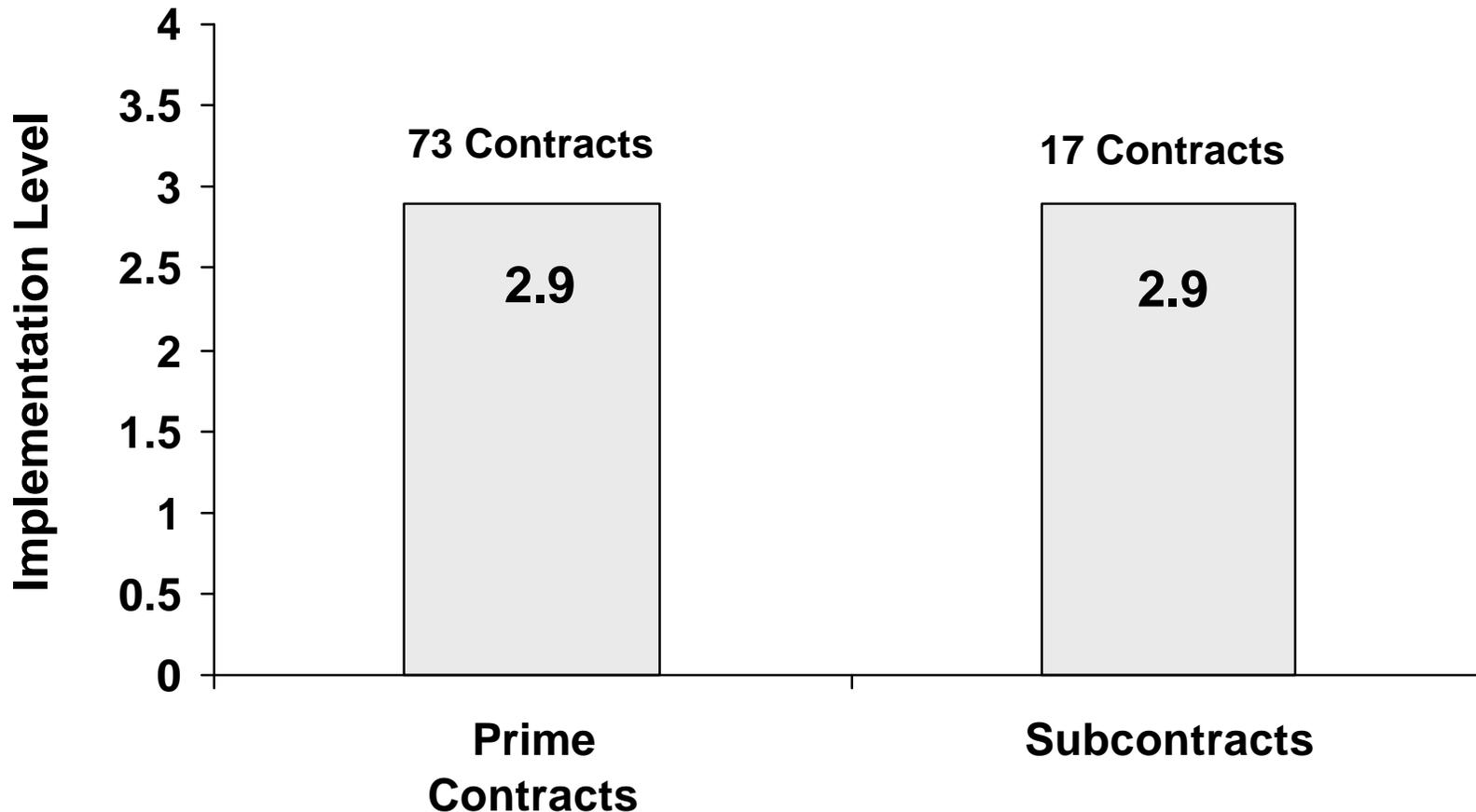
This chart shows virtually no difference in implementation levels between those contracts where the contractor was the prime contractor and those where it was in a subcontractor capacity.

Expecting change to be more prevalent in prime contracts, the reader may be struck by the lack of a measurable difference in the survey results. This is perhaps attributable to the interchanging roles of many of these contractors that participated in the survey. In some of the contracts reviewed, they were the primes, in others they were the subcontractor. Their awareness of DoD's acquisition reform initiatives and ability to serve as an agent for change are no less developed because they are a subcontractor. They are the government's prime contractor in many other instances.

However, a closer look at the data reveals that implementation levels tended to group at either end of the scale - some high, some low. Although factors such as program maturity and risk may influence implementation, the relationship between prime and sub, especially in terms of trust, cooperation, communication and common goals, is critical, as it is critical between the government and its prime contractors.

The process changes these contractors are making under the aegis of the SPI process are getting coordinated with both the government and their primes (although, while approving these process changes, some of the primes are attaching their own addendums or variations to these changes, adding a new dimension of difficulty to these "single processes"). Likewise, some primes are including subcontractors in various IPTs formed between the government and the prime, thus adding to the convergence of acquisition reform implementation between prime and subcontractor. More, of course, needs to be done to drive acquisition streamlining down to the second and lower tier contractor. Given the high percentage of cost of prime contracts in material and subcontracted items, it is absolutely critical that primes foster acquisition reform among their suppliers, as DoD is attempting to do with its suppliers.

Degree Of Implementation By Prime/Subcontractor Relationship



Implementation levels tend to group at both ends of scale - some high, others low - - reflecting significant variation in relationships between prime and subcontractor

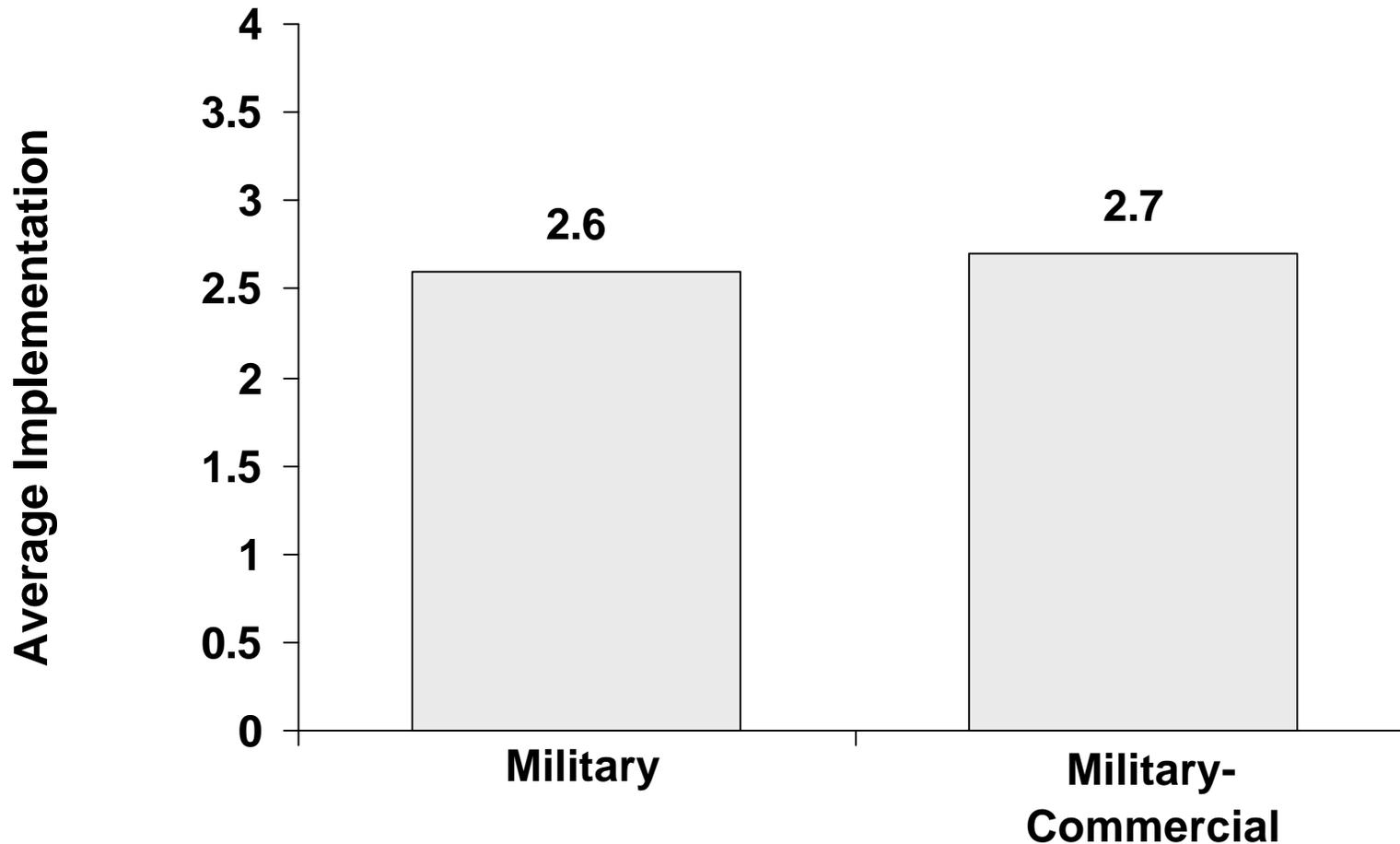
Implementation By Producer Category

Using the average level of implementation across survey responses at the ten contractors visited, the Team grouped the companies in two categories: military-only producers and combined military-commercial producers. The results are shown in this graph.

The analysis might have been expected to show a higher level of implementation among those companies with part of their business base in the commercial market, where, logically, there would be a greater likelihood of commercial practices being adopted and commercial products available to meet military requirements. Surprisingly, the results show only a slightly higher level of implementation among the four military-commercial producers used for this comparison.

This, in large part, is explained by the fact that the slate of contracts chosen for this study was designed to draw both from programs where opportunity for acquisition reform was “seized” as well as those where opportunity had been “missed”. When looking at implementation at the program level, successful military programs sit at the top of the list along with successful military-commercial programs. The same happens at the bottom. A look at barrier analysis gives us an indication of one difference. While barrier E (Government decided not to implement) is a major barrier for both, military-commercial sources tended to cite barrier A (Insufficient guidance how to implement) proportionately more often than military-only.

Degree Of Implementation By Producer Type: Military-Only vs. Military-Commercial



A more significant difference might have been expected; however, the studied contracts represent both opportunity seized and opportunity missed

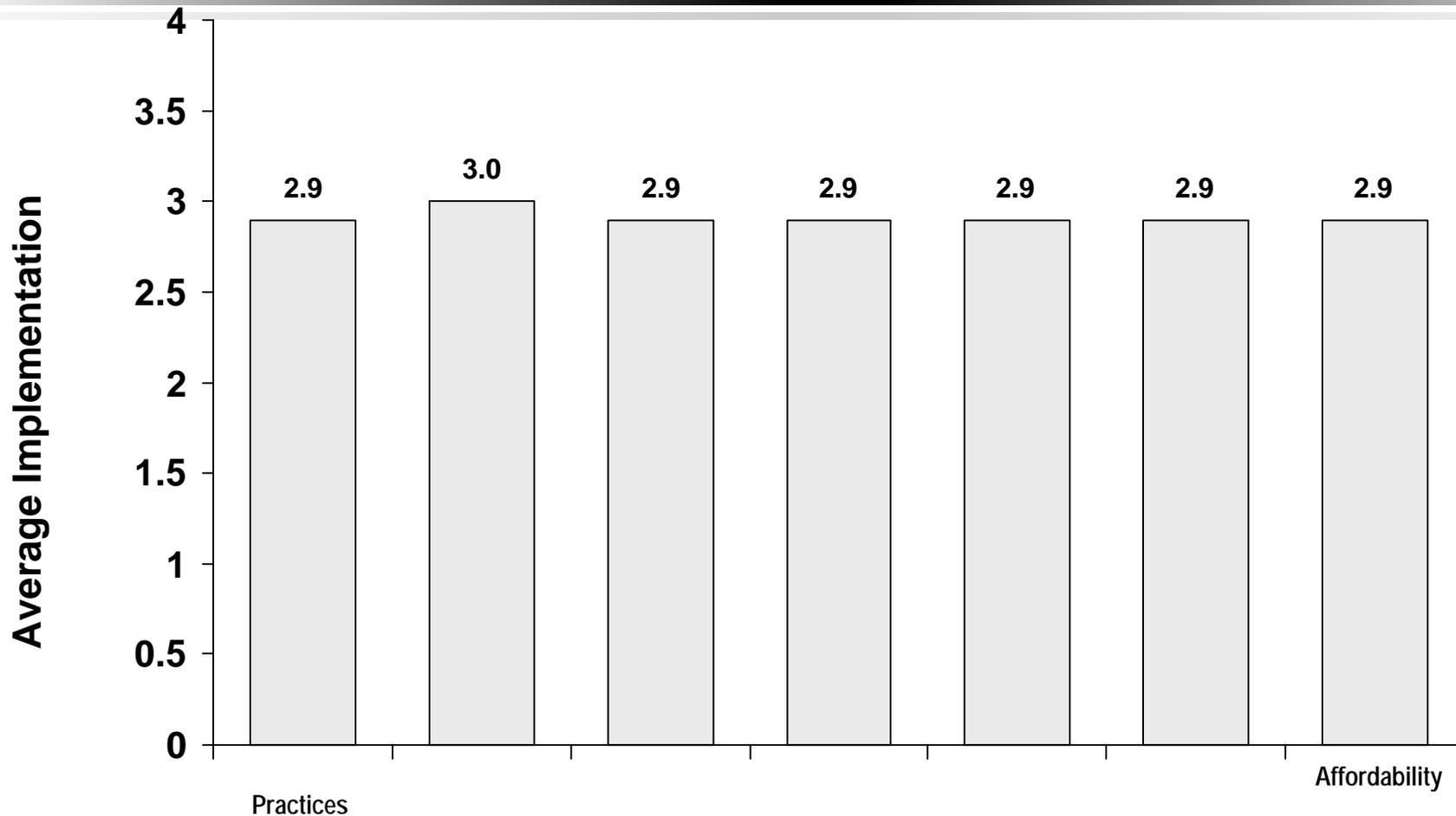
Implementation By Acquisition Reform Category

This chart displays the results of measuring average implementation levels when change elements are grouped by those acquisition reform categories or themes identified by the SAE Steering Group guiding this study (see Exhibit 4 for the matrix of change elements to these categories).

No one area stands out, according to the survey, with all categories being approximately comparable - an indication that acquisition reform progress is rather evenly distributed when viewed in this manner.

A look at the barrier analysis for each of these categories appears later in the report.

Degree Of Implementation By Acquisition Reform Category



No meaningful differentiation exists among these categorical groupings

Most Fully Implemented Change Elements

This slide shows the ten most fully implemented change elements according to survey results. The listing is based on the calculation of the average level of implementation from all recorded responses.

Comments contained in the change element summaries, found in Appendix A, reflect some of the reasoning respondents cited in rating implementation levels so high for these particular elements.

An important point to be made is that the most significant outcomes in terms of cycle time and cost savings/avoidance, quality or performance improvement or increased access to commercial practices or products are not being realized in these particular change elements. A later slide shows where significant impacts are being realized according to survey participants.

Most Fully Implemented Change Elements

<u>Acquisition Reform Change Elements</u>		<u>Average Implementation Level</u>
W10	Use of commercial procedures and EDI related to shipping documentation, GBLs, etc.	4.0
W03	Streamlining procedures/controls related to administration of Defense Industrial Security Program	3.8
C05	Use of Past Performance/Best Value Evaluation Criteria	3.7
P05	Use of EDI to facilitate information between Government and contractor	3.4
P01	Use of Joint Government Industry IPTs	3.4
W05	More thorough post award debriefings	3.3
M01	Use of commercial soldering/other commercial manufacturing practices	3.3
Q01	Use of commercially accepted quality program standards (e.g., ISO 9000 series)	3.3
F03	Direct submission of cost vouchers to DFAS	3.2
W12	Reduction of multiple SCEs	3.2

Implementation Results Keyed To OSD Cost Driver Study

This slide lists the top ten cost drivers identified in the 1994 study conducted by C&L for OSD of the regulatory cost premium paid by DoD in acquiring goods and services in the commercial marketplace. The corresponding change element(s) developed to address such costs are shown along with corresponding implementation levels. It shows that in four cases the implementation level exceeds the average, all change elements considered. The remaining change elements have implementation levels in the 2.6-2.9 range with the exception of government property, where surveyed personnel indicated virtually no streamlining has taken place. The Industry Recommendations section of the report details industry concerns with respect to government property.

Implementation Results Keyed To Top Cost Drivers Identified In Prior OSD Study

<u>Cost Driver</u>	<u>Change Element</u>	<u>Average Implementation Level</u>
1 MIL-Q-9858A	Commercial Standard (Q01)	3.3
2 TINA	Commercial Exemption (F04)	3.1
3 C/SCS	Tailored reporting to industry guidelines (P04)	3.0
4 Configuration Management	Contractor maintained (E03)	3.0
5 Contract Specific Requirements	RFP Streamlining (C02)	2.6
	Performance based requirements (C03)	2.8
6 DCAA/DCMAO Interface	DCAA risk based oversight (F01)	2.6
	DCMC risk based oversight (P03)	2.9
7 Cost Accounting Standards	none	
8 MMAS	none	
9 Engineering Drawings	Commercial drawing practices (E08)	2.6
10 Government Property Administration	Streamlined property management (W06)	0.5

Least Implemented Change Elements

This slide shows the ten least implemented change elements as reported by those participating in the survey.

Some insight as to why members of industry imputed relatively low levels of implementation to these particular change elements can be found in the respective narrative sections of the change element summaries contained in Appendix A.

A concluding section of this report - Industry Recommendations - lists specific actions that survey respondents consider important to improve implementation levels in such areas as government property, program stability, and alternatives to the requirement to provide certified cost or pricing data.

Least Implemented Change Elements

<u>Acquisition Reform Change Elements</u>		Average Implementation Level
W06	Streamlined Government Property Management	0.5
W02	Program Stability	1.1
W09	Elimination of non-value added packaging requirements	1.1
C07	Use of EDI to streamline procurement process	1.6
W08	Streamlined Contract Close-Out	1.9
F05	New order of priority for information/Adjustment of TINA threshold	2.0
F06	Use of parametric cost estimating	2.2
F08	Use of performance-based progress payments	2.2
F07	Reduced number of TINA sweeps	2.3
E04	Streamlined procedures for review/approval of engineering change proposals (ECPs)	2.5

Impact Of Most Fully Implemented Change Elements

This and the following slide address the estimated impact of reform implementation. The reader should be mindful that the data is drawn from estimates of impact provided by survey participants expressing varying levels of confidence with the reasonableness of their inputs. Further, it is possible that some estimates of impact related to one change element may not have been totally isolated from the estimate of impact on another, as in the case of keeping the impact of Improved Pre-Solicitation Phase Communication (C01) separate from Pre-Award Streamlining (C03). Thus, double counting could have occurred in some instances. Also, simple averages were calculated; no effort was made to weigh results by contract value. Nonetheless, and despite the very subjective nature of the estimates, the data is considered indicative of the survey participants' collective assessment of the general impact being realized from implementing various change elements. That these data must be viewed in a relative and approximate sense only, cannot be stressed too strongly.

With that disclaimer, it bears repeating that there has been no effort made to roll-up these data to any summary level above the change element level. It would provide no meaningful information to do so. Rather, as explained earlier in the report, impact results have been captured in one of three categories - significant, minor or none. Again, a significant impact is defined as one where the individual responses estimated that cycle times, cost or quality/performance unique to the change element process itself were reduced/improved, on average, by 25 percent or greater or average contract related cost, schedule or quality improvement of 10 percent or greater was achieved, or there was a major increase in access to commercial-oriented techniques, products or facilities. Minor impacts then account for all other average outcomes greater than zero.

This chart lists the same ten most fully implemented change elements shown earlier and displays their corresponding average impact estimated by survey participants, expressed in adjectival terms, within a combination of expected outcomes relevant to a particular change element. In other words, within the survey methodology the Team identified a set of expected outcomes for each change element comprised of one or more of the following: cycle time reduction, cost reduction, improved quality or performance and greater access to commercial content and practices. These expected outcomes are included on the slide to show the baseline from which the estimate of change has been made.

As the chart shows, except for the use of IPTs, the impact of the most fully implemented change elements has been minor.

Impact Of Most Fully Implemented Acquisition Reform Change Elements

<u>Change Element</u>	<u>Expected Outcome</u>	<u>Time Reduction</u>	<u>Cost Reduction</u>	<u>Quality Improvement</u>	<u>Greater Commercial Access</u>
1 (W10) Use of commercial procedures & EDI related to; shipping documentation, GBLs, etc.	Reduced time and cost related to preparing and processing shipping documents	minor	minor		
2 (W03) Streamlining procedures/controls related to administration of Defense Industrial Security Program	Reduction of costs related to preparation of detailed industrial security policies & procedures, incident reports & records, and costs related to DIS audits		minor		
3 (C05) Use of Past Performance/Best Value Evaluation Criteria	Better quality products and services purchases by DoD; More contract awards for contractors with superior performance records			none	
4 (P05) Use of EDI to facilitate information between Government and contractor	Reduced contract cost		minor		
5 (P01) Use of Joint Government Industry IPTs	Reduced contract schedule; reduced contract cost	significant	significant		
6 (W05) More thorough post award debriefings	Reduction in contractor time/costs related to protests	none	none		
7 (M01) Use of commercial soldering/other commercial manufacturing practices	Reduced contract schedule; reduced contract cost; increased quality; increased commercial access	minor	minor	minor	moderate
8 (Q01) Use of commercially accepted quality program standards (e.g. ISO 9000 series)	Reduced contract cost; increased quality; increased commercial access		minor	minor	moderate
9 (F03) Direct submission of cost vouchers to DFAS	Reduced time related to cash flow cycle	minor			
10 (W12) Reduction of multiple SCEs	Reduction in contractor time/costs related to multiple SCEs	minor	minor		

Change Elements With Significant Outcomes

Where survey participants indicated that some degree of implementation had been achieved, they were asked to estimate a percent of savings/avoidance/improvement in terms of time, cost and quality change and to characterize change in access to commercial practices or products on the basis of a 0-4 point scale, beginning with no increase to a major increase.

This slide shows those change elements where at least 50 percent of the survey participants indicated that significant savings had been realized in their programs. For the seven of the listed change elements, change was measured on the basis of the contract itself - what the conditions would have been without the reform measure versus the implemented condition. In these cases, a significant outcome is defined as estimated savings/avoidance exceeding 10 percent for time, cost and quality responses and a major increase in commercial access (in accordance with choices provided within the survey protocol). In the remaining cases, where the baseline or expected outcome is process-based (i.e., the contracting process), a significant outcome is defined as estimated savings/avoidance exceeding 25 percent for time, cost and quality and a major increase in commercial access.

Again, these are not the most fully implemented change elements; however, where implemented, they yielded, or are yielding, the largest impacts, according to the survey participants.

Change Elements With Significant Outcomes

(Where estimated by at least 50% of respondents)

Change Element	Expected Outcome	Time Reduction	Cost Reduction	Quality Improvement
Use of Open System Approach	Reduced contract schedule; reduced contract cost; increased quality; increased access to commercial	X	X	X
Elimination of Military Specs. and Standards/Use of Performance Based Requirements	Reduced contract schedule; reduced contract cost; increased access to commercial	X	X	
Use of quick (rapid) prototyping in software development	Reduced contract schedule; reduced contract cost; increased quality	X	X	
Concurrent development testing (DT)/operational testing (OT)	Reduced contract schedule; reduced contract cost	X		
Use of commercial and other exemptions for cost or pricing data	Reduced PALT; reduced B&P costs; increased access to commercial	X	X	
Government encouragement of contractor-proposed cost/performance tradeoffs	Reduced contract schedule; reduced contract cost		X	
Contractor maintains configuration of the design solution	Reduced contract schedule; reduced contract cost; increased quality; increased access to commercial	X	X	
Streamlined procedures for review/approval of ECPs	Reduced cycle time; reduced cycle costs	X		
Program Stability	Reduced contract cost		X	

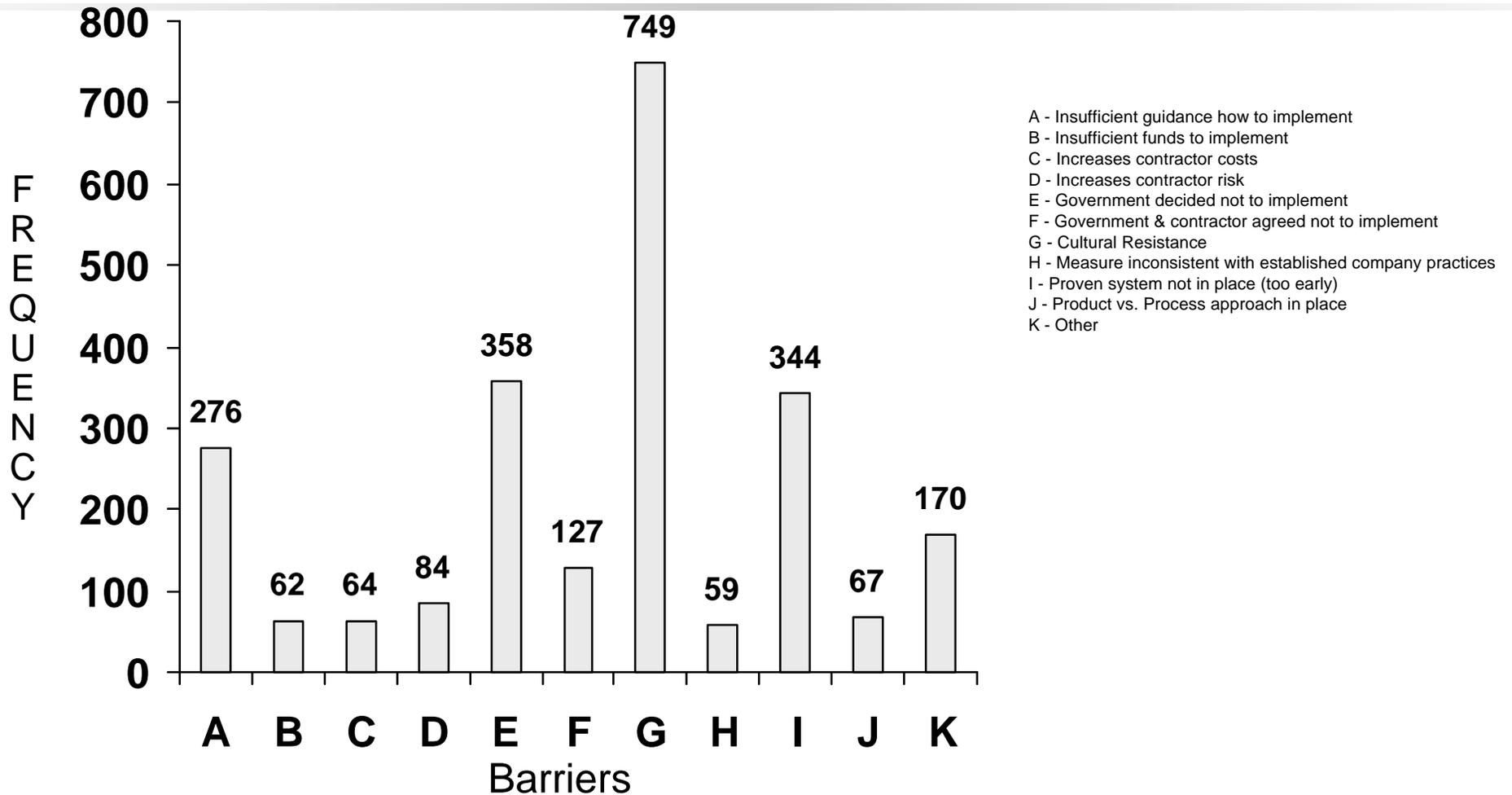
Barriers To Full Implementation

Where survey participants indicated that there was less than full implementation of the change element in the contract, they were asked to identify one or more barriers to full implementation. This slide shows the frequency with which the various barriers listed in the survey protocol were cited as impediments to full implementation. By a wide margin, cultural resistance was mentioned most frequently as a barrier. This should be read as government resistance rather than contractor, although in some instances cultural resistance really resided with both parties. As applied to this survey, the term essentially is defined as an implicit aversion to change, either institutional or individual. It is about environment and mindset rather than process. It concerns, in some cases, job security or preservation of technical cognizance, i.e., “rice bowls.” It is an absence of conditions that make change possible. As some said, “the possibility never came up.”

The next most frequently cited barrier was: Government decided not to implement. In this case, an explicit recommendation for change was tendered by a contractor, but for various reasons, it was rejected. Another barrier frequently selected by survey respondents was, “Proven system not in place” (too early). This barrier was used when a change element was in the process of being implemented but only partial results had been realized, or it was too early to determine what the impact would be. It should be noted that the last barrier - barrier (k) - was an “Other” category and was used to capture a range of different impediments from an intransigent Congress to legacy programs. Because of such divergent reasons, it will be omitted from the remainder of the barrier analysis.

Appendix B contains a further delineation of barrier categories including examples of situations where there were applied.

Barriers To Full Implementation By Frequency



Cultural resistance was most frequently cited as a barrier to change

Barriers To Full Implementation - Relative Significance (Weight) Considered

The survey protocol allowed the respondents to make a multiple selection of barriers to implementation from among a pre-established listing. The respondent was then asked to weight the choices distributing a total of ten points across the selected barriers.

This chart displays the ranking of these barriers having accounted for the weightings and after applying a simple multiplier aimed at rationalizing the effect of the barriers in relationship to the level of implementation accorded the change element. That is, barriers associated with only a slight degree of implementation should theoretically be much more imposing than those standing between moderate and full implementation. Thus, the multiplier has been applied in inverse proportion to the level of implementation using the same 0-4 point scale.

This results in a notably different picture than the one shown in the preceding slide. Now, Barrier (E), Government decided not to implement, emerges as the highest barrier to acquisition reform, followed by (F), the Government and contractor mutually agreed not to implement.

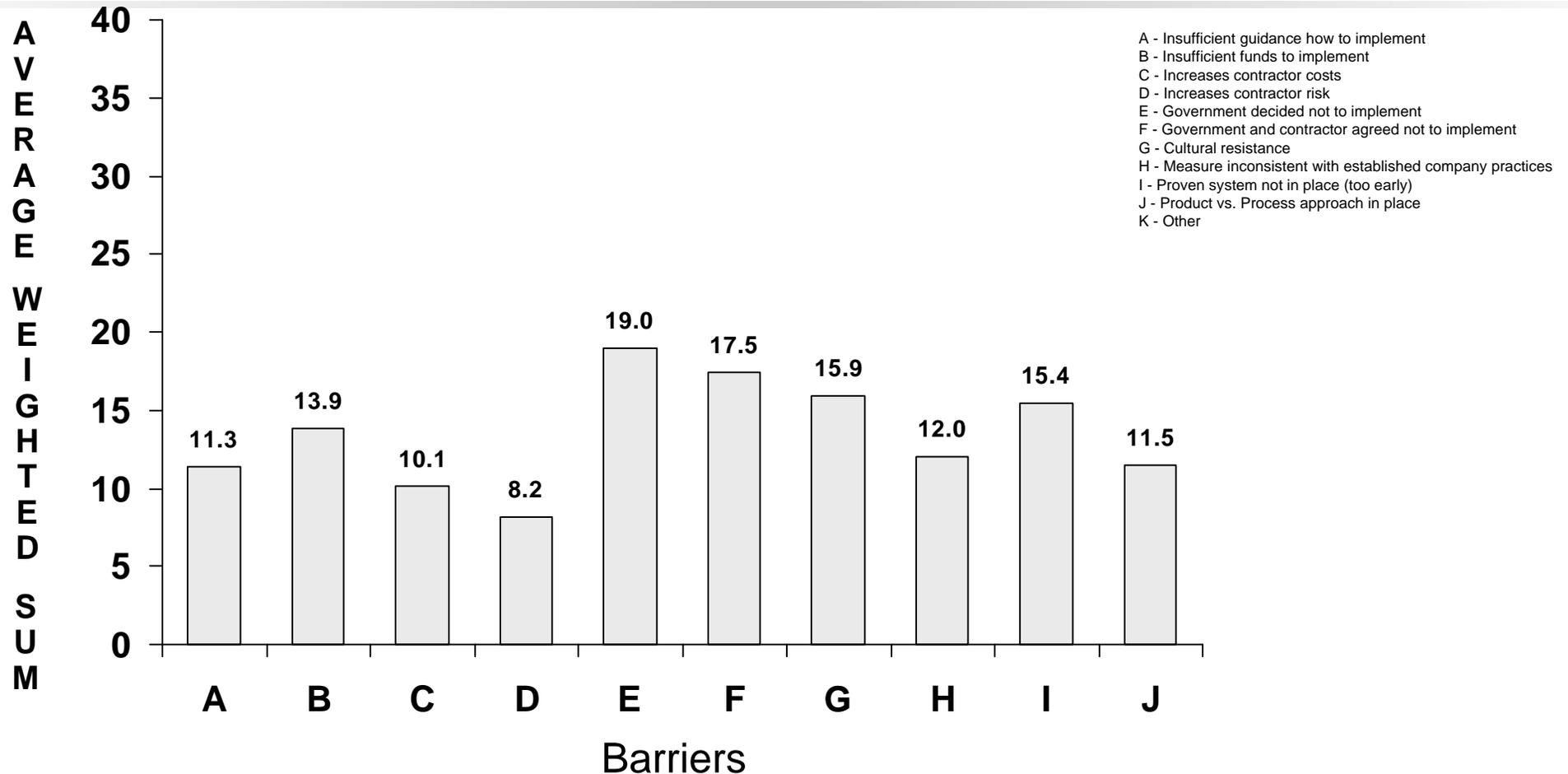
The top barrier - Government decided not to implement - connotes an explicit decision on the part of the government not to implement a change element although the opportunity existed to do so. It implies discussion of the issue between the government and the contractor. It may or may not suggest that the government's decision not to implement the change was a good business decision. It may involve some element of resistance to change, at least as perceived by the contractor. An example is provided by the Alpha contracting process. The government contracting officer initiated an IPT approach to the contract formation, but the DCAA auditor was not involved in the process. This impeded the effectiveness of the Alpha contracting process, although some level of implementation was effected.

An example of the second leading barrier - Government and contractor agreed not to implement - is represented by a joint inability to agree on milestone events for performance-based progress payments. This barrier was also cited in the case of the change element concerning use of EDI to streamline engineering design and testing. The message for the reader is that acquisition reform implementation is not necessarily a unilateral action on the part of the government. The contractor has to perceive change to be in its interest. Where it is deemed not to be in the contractor's interest the contractor will resist change.

Again, Appendix B contains additional discussion of these barriers. It also provides an example to illustrate the weighting process implicit in this barrier analysis.

The next slide examines the relative effects of these barriers according to the various acquisition reform category groupings identified by the steering group to this study.

Barriers To Full Implementation - Relative Significance (Weight) Considered

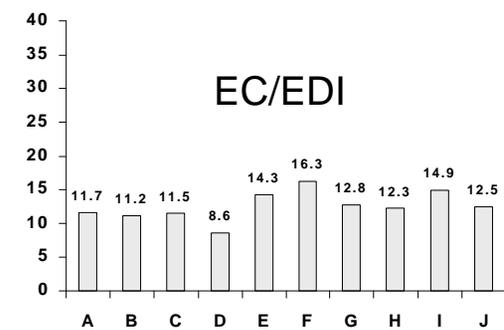
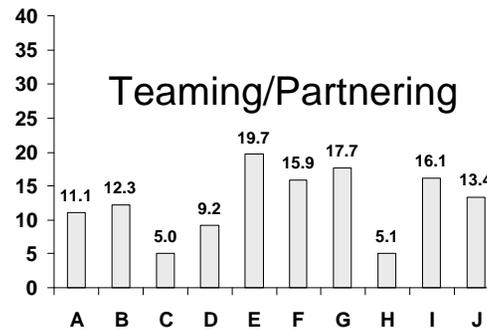
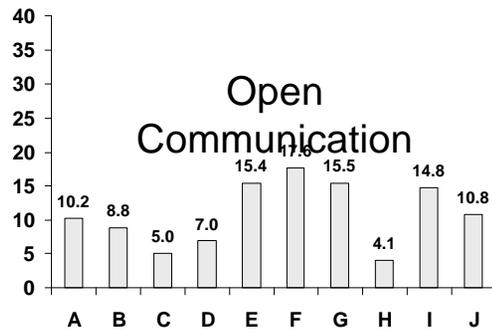
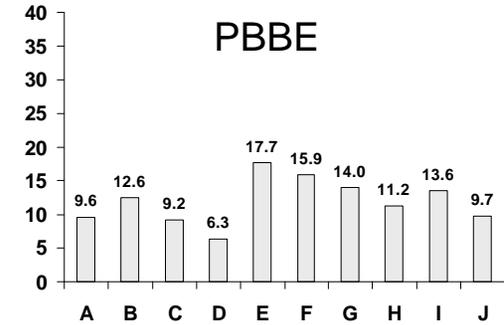
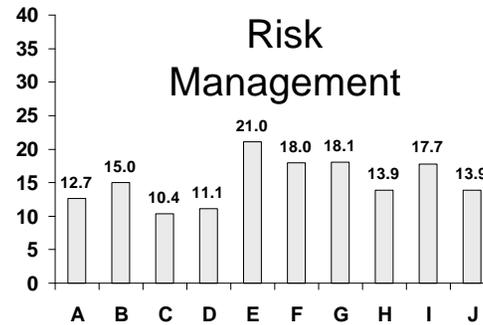
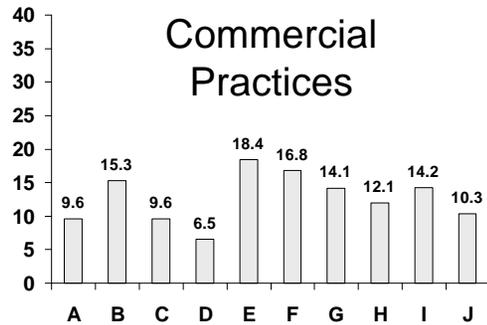


“Government decided not to implement” carried the greatest weight among impediments to change

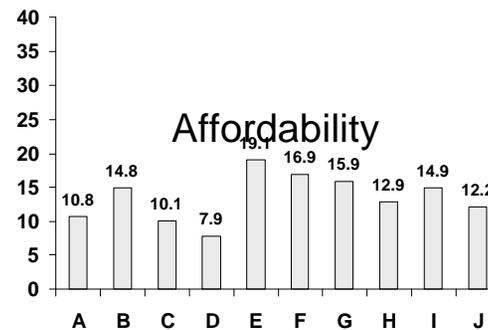
Barriers To Full Implementation By Acquisition Reform Category

This slide shows a profile of barriers for each of the seven acquisition reform categories. There are some significant variations among these categories, but the “Government decided not to implement” barrier appears as the most significant in the majority of cases.

Barriers To Full Implementation By Acquisition Reform Category



- A - Insufficient guidance how to implement
- B - Insufficient funds to implement
- C - Increases contractor costs
- D - Increases contractor risk
- E - Government decided not to implement
- F - Government and contractor agreed not to implement
- G - Cultural resistance
- H - Measure inconsistent with established company practices
- I - Proven system not in place (too early)
- J - Product vs. Process approach in place
- K - Other



Snapshots Of Success

Part of the value of a study of this nature is embodied in the narrative comments obtained during interview sessions relating to specific experiences with acquisition reform implementation, either favorable or otherwise.

The next two slides contain extracts from the change element data summaries found in Appendix A, highlighting very favorable experiences of respondents to acquisition reform.

Snapshots Of Success

- (C01) Presolicitation: Allows government to explore alternative, cost effective NDI/COTS solutions with industry before developing specs
- (C02) Streamlined RFPs: Forty percent reduction in page volume between RFP for previous buy and this one
- (C03) Specs/Std: Sixty one specs/stds reduced to 13; balance retained deal with explosives
- (C07) EDI Procurements: Big positive - keeps good track of “was” and “is” with bolding and underlining...saves time in negotiations
- (C08) Performance based services: Performance based SOW resulted in 25% schedule improvement in end item repairs and spares processing
- (E01) Open Systems: Had profound positive impact on cost - new functionality at no cost increase
- (E03) Contractor configuration control: Cost reduced 15% - simplifies design process, reduces parts, permits manufacturing technique changes to reduce complexity; MTBF increased from 10 to 120 hours
- (E04) Streamlined ECP approval: Paperless ECP - time cycle reduced from one year to six months - 55 people assigned reduced by 20

Snapshots Of Success Cont'd

- (E05) Simulation testing: Contract costs reduced 60-65% by using simulation instead of engineering tests
- (E07) Concurrent DT & OT: Combined DT/OT improved government/industry testing synergy from having government military user involved earlier
- (E09) EDI engineering design: Using all CAD - Program savings \$1 million
- (M01) Commercial soldering: Vendor prices reduced 60-65%
- (P01) IPTs: Government more receptive to team based approach to problem solving; DCMC very open and facilitates team building
- (P05) EDI Program information flow: Reviews reduced dramatically; using digital cameras to take pictures of prototypes and electronically distribute
- (P06) Non-value added CDRLs: CDRLs reduced from 86 to 22 - big savings in using contractor formats
- (W01) SPI: DCMC is active booster of SPI

Snapshots Of Opportunity

This slide contains selected extracts of narrative comments from Appendix A which indicate potential areas for improvement in execution of the acquisition reform initiative.

Snapshots Of Opportunities

- (C01) Presolicitation: Was implemented but government kept changing requirements; little result from the measure
- (C03) Specs/Std: Callouts in RFP were significantly reduced but reappeared in other documents as references and requirements
- (E05) Simulation testing: Testing community is blocking simulation in lieu of testing - rice bowl issue
- (E08) Commercial drawings: Government continues to require drawing changes until they are done just like MIL-STD-100 requirements
- (F07) Reduced TINA sweeps: There is little evidence that government PCOs are willing to agree to cut-off dates to reduce TINA sweeps
- (Q01) Commercial quality programs: Conversion to ISO resulted in an increase in quality audits and more written procedures than 9858A
- (W01) SPI: Source of frustration is that block change requests referred to government for legal review tend to disappear from view; status never provided
- (W05) Post award debriefs: Quality of debriefings has not improved even though greater willingness of government to provide them
- (W08) Contract close-out: Critical path in close-out is often government property issues

Report Outline

- Executive Summary
- Background
- Survey Results - Summary Analysis
 - Industry Awareness
 - Implementation Analysis
 - Estimated Impact
 - Barriers
- Industry Recommendations 
- Conclusions
- Appendices
 - Appendix A - Survey Results By Change Element
 - Appendix B - Further Explanation Of Barriers
 - Appendix C - Project Team
 - Appendix D - Industry Contacts
- Exhibits
 - Exhibit 1 - Catalog Of Acquisition Reform Change Elements
 - Exhibit 2 - Interview Matrix
 - Exhibit 3 - Acquisition Reform Survey Protocol
 - Exhibit 4 - Acquisition Reform Categories Matrix

Industry Recommendations

Industry Recommendations

This penultimate section of the report contains what the Study Team considers to be industry's principal recommendations to DoD for furthering the implementation of reform in future DoD contracts.

Alpha or One Pass Contracting - the defense industry as a whole heartily endorses this form of partnering aimed at substantially reducing lead-times involved in formulating and awarding contracts, lead-times which in the past have been too long. Industry's experience in participating in these so-called Integrated Product Team (IPT) activities, while becoming increasingly positive over time, still raise concerns. They feel that the sharing of data is not as consistently equitable as it should be, that contractors are expected to share everything with the government while, in turn, the government is often reluctant to share budgetary or cost data with them. Industry feels this is an impediment to the trust building that is so necessary for such relationships to succeed. At the same time, many in industry feel their willingness to share data shouldn't be at the risk of later sanctions resulting from defective pricing reviews; "We could do more with IPTs, but we are unwilling to do so and risk getting clobbered later by the auditors", is the way one respondent put it. Industry feels there is a need to improve the consistency and quality of this type of contracting. They feel there has been a great deal more success achieved in developing the technical aspects of the transaction than in developing the price. They attribute this to a lack of implementing guidelines that define roles, expectations and limitations of this type of IPT activity. They also cite the inconsistency with which DCAA auditors participate in these negotiations despite guidelines for their participation issued by DCAA headquarters. Industry also suggests that government team members be more empowered to execute the results emanating from these activities. They feel that the time involved in reviews and approvals serves to negate, in many cases, the reduction of contracting lead-time achieved by the IPT. They feel buying commands need to place greater emphasis on cycle time reduction in performance measurement programs.

TINA-Related Exemptions/Processes - while industry recognizes the requirements of TINA are necessary to ensure the integrity of DoD expenditures for military goods and services, they do not believe that contracting officers are taking full advantage of the exemption provisions to cost or pricing data provided for under FASA. A significant number of those interviewed noted that DoD contracting officers are reluctant to apply other than certified cost or pricing data as support for fair and reasonable price determinations because they fear the potential of criticism if they do otherwise. Others participating in the survey felt that contracting officers are not sufficiently aware of FASA-related exemptions to cost or pricing data. Industry feels that certified cost or pricing data requirements are being imposed, in certain instances, on mature programs rather than basing cost estimates on historical documentation. There is also a feeling that the commercial product exemption is subject to broad and inconsistent interpretation by contracting officers warranting clearer definition of a commercial product and uniform guidance as to the application of established commercial pricing. In one case a company official complained that a commercial exemption had been denied by the contracting officer on the basis that the great majority of commercial sales had been made abroad, not domestically. In another case, an exemption was denied, despite established commercial sales, because it was essentially a dual source item and the government had shared some portion of the development costs. Industry wants government contracting officers to have a better grasp of priced based systems, to take greater advantage of parametric estimating techniques and a sufficiently high comfort level to use them. They want PCOs and contract specialists to be more attuned to commercial buying and selling practices. Where a transaction is made on the basis of catalog pricing, the industry seller does not want to be put in a position of responding to requests for data that show how the catalog price was constructed or customer data related to past sales of the product. Rather, they want recognition and acceptance that the pricing has been determined by market forces, and to the extent that there is a need for market research, for the government contract specialists to perform that research and not ask that the contractor do it for them. Finally, they want PCOs to have better awareness that cut-off dates can be established for cost or pricing certification purposes that help to minimize the number of "sweeps" needed to maintain a cost proposal's completeness, currency and accuracy, and to allow for them.

Commercial Pricing - industry considers that one of the most important elements in acquisition reform is a shift from cost-based to commercial pricing. While the necessary regulatory changes have been made, education and guidance at the working level is inadequate in terms of commercial pricing techniques. There is a lack of understanding concerning what costs a contractor must recover in a commercial market environment and therefore, what constitutes a reasonable price. Strong emphasis by senior DoD management on developing adequate policy guidance and training is essential to make commercial pricing viable.

Industry Recommendations

- Improve quality and consistency of “ALPHA” or “one pass” contracting:
 - better understanding on data sharing
 - clearer definition of roles, expectations and limitations with respect to pricing
 - greater empowerment of government team members
 - focus on cycle time reduction
- Increase contracting officer understanding and utilization of TINA-related exemptions/processes:
 - greater use of pricing information, market research, etc.
 - more effective use of commercial exemption
 - expanded application of parametric estimating
 - use of cut-off dates for certification purposes
- Provide education and guidance to government contracting personnel related to commercial pricing techniques

Industry Recommendations Cont'd

Single Process Initiative (SPI) - this survey demonstrated that SPI can be an effective mechanism for executing change and reform in existing DoD contracts. Generally, industry views SPI as a positive enterprise and has applied considerable resources and effort to pursue change through this medium. Industry wants to see the momentum associated with SPI maintained. But, they want SPI to be viewed more as a government-contractor team coordinated effort than a government-prime contractor proposition, recognizing the significant percentage of cost savings to be realized at the second and third subcontractor tiers. They want primes to hold out to their subcontractors the same level of flexibility they desire for themselves in their contract relationships with the government. In this regard, it will probably be necessary for the government to accept some level of responsibility at the contractor level for SPIs it has approved for subcontractors. They also feel that SPI block changes so far have tended to address the “low hanging” fruit and want issues of real consequence to be addressed in the future. Recent DFARS guidance has only addressed application of approved SPIs for developed system follow-on procurements. No direction has been given with respect to SPI applicability for new development contracts. At the same time, they do not want an inability to identify instant contract savings to be an impediment to approval of such a change. Further, they want timely negotiation of equitable adjustments, where indicated, not to become protracted by fact-finding and audits. Finally, industry wants prompt action taken on those issues passed to the Headquarters for resolution. They do not want these relegated to some “twilight zone” where there is no clear indication given as to the government’s intended course of action.

Electronic commerce/Electronic Data Interchange - many of the managers interviewed cited lack of automation or lack of compatibility in government automation systems as an issue. Many cited the use of electronic means as a way to increase communication, thereby instilling trust between the DoD and its suppliers. They felt that, as DoD moves deeper into a performance based business environment, this increased communication and resulting trust will be essential to continuing that move. They also focused on its contribution to more timely and more informed decisions. Finally, they saw automation as a means to speed up cycle times, both within industry and within DoD, particularly when both are reducing manpower as a means to reduce costs.

Performance Based Requirements - the first step in the acquisition process is to define the requirement. How the requirement is defined drives how the requirement will be procured and how the subsequent contract will be administered. If DoD is going to move to a Performance Based Business Environment, it must get this first step correct.

Managers interviewed reported that there continues to be examples where DoD requirements are not performance based. In some of these cases, this is not obvious at first glance. But a closer look reveals that there is still a tendency to over specify in RFPs. The replacement of a MILSPEC with a Commercial spec is not performance based acquisition.

In some cases, although there is a performance based requirement in the contract, the contract is still administered with all the controls in a non-performance based environment. Configuration control, and the related configuration control boards still limit contractor performance. Reporting requirements related to monitoring/controlling performance still appear in RFPs and contracts, either as CDRLs or imbedded in statements of work. Inclusion of contractor processes in contracts limit contractor flexibility and, as a result, their ability to take responsibility for constantly seeking ways to ensure performance of their products.

The possible reasons identified by managers interviewed as examples of failure to move to performance based requirements fall into two general areas. The first is lack of training in that government personnel are not taught how to write performance based requirements, how to procure them and how to administer those contracts. Interviewees also cited, in some cases, a training deficiency in industry as well. The second reason is lack of motivation - requiring activities, or their related support activities, resist the change to performance based requirements. Possible reasons given for this include risk avoidance environment or job security concerns. In all cases, the most cited solution to this problem is strong leadership commitment to change, starting at the top, with plans for action all the way down to the working level.

Industry Recommendations Cont'd

- Continue application of the Single Process Initiative (SPI) with a view toward:
 - facilitating the prime-subcontractor change process accommodating block changes even where instant contract savings are not identifiable
 - timely negotiation of equitable adjustments where savings are identified
 - furnishing prompt status on change requests referred to Headquarters
- Accelerate the use of Electronic Commerce and Electronic Data Interchange in the acquisition process:
 - put resources in place to get automated solutions as soon as possible
 - make compatibility of various automated systems an absolute requirement
 - train/educate government personnel on automated solutions
 - eliminate redundant electronic and paper requirements
- Increase emphasis/understanding of performance based requirements:
 - increase use of RFP scrubs - non-performance based requirements still sneaking into statements of work, as well as CDRLs
 - train government personnel on how to write and acquire performance based requirements (as part of an education process on PBBE) and motivate them to use them
 - keep contractor processes out of contracts as requirements - requirements should be outcome oriented, not input oriented
 - address the liability issues related to use of performance based requirements

Industry Recommendations Cont'd

IPTs - form the cornerstone of efforts under the acquisition reform initiative to break down the adversarial relationships that have existed in the past between government and industry, to enhance communications between the parties and to build bonafide partnering arrangements that are based on trust and which work to address challenging programmatic issues in a responsive, mutually beneficial manner. Survey participants report that IPTs are being formed and are having the desired effect of fostering closer relationships and improving the exchange of information. However, they cite numerous difficulties in the execution of the IPT approach and feel through better education and training their effectiveness can be measurably improved and more uniformly realized.

Respondents cite the need to empower IPT members to carry out the implementation of agreed to courses of action. Some feel the process flounders either because the government members are not empowered to act or lack decisiveness or the motivation to act. There is also a feeling that IPTs lack discipline, that they attract numbers of people to meetings whose participation is of questionable added value or who serve to introduce matters that are tangential to the real issues under examination and therefore waste time. Others indicated that government members sometimes dominate IPT sessions to such an extent that the teaming or synergy value of the IPTs is virtually eliminated. Such sessions are essentially relegated to program reviews.

Government Property Administration - industry wants government property reform and does not believe that the formal draft re-write of Part 45 of the FAR accomplishes meaningful reform. Industry believes that a \$1,500 threshold for requiring property recordkeeping is too low, as is the \$2,500 level being studied for possible application to cost contracts. The government property officials interviewed during this survey want the threshold set at \$5,000 for both cost reimbursement and fixed price contracts and consistent with Generally Accepted Accounting Principles and IRS rulings on capitalization of company-owned fixed assets. Below this increased threshold, industry simply wants to tag and record the item in their own property system upon receipt and at the end of the contract sell the item and give the proceeds to the government, or expense it if lost. They want relief from the requirement to account for low value property at contract completion, which now requires the filing of a loss report where material cannot be located and actual replacement if the government wants the property.

At the same time, industry wants the government to establish some method of depreciation or revaluation of property over time. Currently, the contractor is required to pay for lost or damaged property at acquisition cost rather than at a cost reflecting intrinsic value at the time of replacement. While some replacements may be negotiated at less than original acquisition costs, those interviewed feel it is unrealistic to carry government property on the records at acquisition value. They want the government to approve a depreciation scheme that allows property records to be automatically updated to reflect current value.

Industry officials participating in this survey also expressed displeasure with the draft language that would require contractors to assign demilitarization codes and then perform the disposition of demilitarization property. Contractors are strongly opposed to accepting liability for this coding given the potential of a mis-coded piece of property falling into the hands of miscreants.

In general, industry feels there are opportunities for considerable cost savings by shifting more responsibility to the contractor for managing government-owned property and lifting the micromanagement and burdensome regulations which are now imposed,. They want to have blanket use of property across all programs on a rent-free, non-interference basis. They want to allow special tooling and special test equipment to be right-to-title rather than government-owned and limit reutilization screening of such property. They also want to be able to use their own approved MRP/MMAS systems as a source of recordation for government material without having to re-design these systems to add NSN, property classification and contract number to the MRP record. As it is, without these refinements, the contractor must maintain two separate systems.

Logistics Support - industry feels that acquisition reform has largely focused on major system acquisition to the exclusion of total life cycle support considerations. According to those interviewed, supporting acquired systems with a largely organic logistics support infrastructure introduces increasing complexities, if not diseconomies, in an acquisition environment characterized by performance-based requirements, contractor-maintained configurations, and open systems (all cost effective elements of acquiring modern weapons systems). Industry wants greater emphasis applied to addressing acquisition reform strategies in the future on a total life cycle basis. They believe there are large savings to be achieved from adopting a two level maintenance philosophy in future system acquisitions, relying on organizational maintainers to perform fault isolation and LRU replacement while the depot reworks the carcasses and returns ready-for-issue assets to the operating forces as needed. They feel system built-in-test and diagnostics capabilities render an intermediate maintenance level essentially obsolete and afford logistics planners an opportunity to reduce personnel costs, technical publications and other documentation costs. At the same time, they feel Desert Storm successfully proved that contractor logistics support can be effectively mobilized to support a war time operating tempo. They argue that placing greater reliance on contractor life cycle support not only makes good economic sense, but will actually enhance readiness and sustainability. They stress that such logistics support initiatives as "power by the hour", direct vendor deliveries of both repairable and consumable material, and other such programs designed to reduce inventory holding costs, should be properly pursued under the aegis of acquisition reform.

Industry Recommendations Cont'd

- Improve the effectiveness of Integrated Product Teams (IPTs)
 - empower IPT members
 - include only “value-added” personnel
 - ensure even exchange of ideas
 - eliminate informal contractual change
- Provide meaningful reform in Government Property Administration. As a minimum:
 - increase low value property threshold
 - use commercial write-off practices
 - develop method of depreciation
 - resolve demilitarization coding issue
- Increase emphasis on logistics support in future acquisition reform strategies:
 - consider 2-level maintenance
 - contractor life cycle support responsibility

Industry Recommendations Cont'd

Risk Based Oversight - industry comments were generally complimentary of DoD's efforts to execute a risk-based approach to contractor oversight whereby more responsibility is being shifted to the contractor to perform self-assessments in relatively low risk performance areas thereby preserving increasingly scarce government resources for assignment to areas of demonstrably higher risk. Industry generally considers that DCMC is being more successful in adapting to this management approach than DCAA. At the same time, they feel there are still pockets of overstaffing among the QAR ranks, where, according to some respondents, work requirements tend to expand to help justify the staffing. With respect to DCAA, many of those interviewed indicated they had observed little change in DCAA's approach to financial oversight. DCAA management should work with industry to address the perception at some of the sites visited that DCAA field audit teams are overstaffed. Industry believes both DCMC and DCAA, despite downward staffing trends, need to ensure that their field staffing is truly in balance with contractor risk considerations.

Diminishing Manufacturing Sources - in the wake of milspecs being eliminated, and the emerging use of performance-based specifications, sources of milspec parts are turning to more lucrative business opportunities. This dwindling vendor base of milspec parts is creating serious problems for prime and subcontractors still producing under legacy programs where these milspec parts are still required. Contractors are faced with the need to place "lifetime" orders for these parts and the problems tend to get addressed on a case-by-case basis by issuing product improvements/system reengineering contracts that push any solution to the problem well into the future. Industry views DMS as an urgent, systemic problem, one that warrants a coherent, DoD-wide plan of action.

Program Stability - a number of senior executives and program managers interviewed during this survey indicated that the largest source of cost savings on major defense programs lies with multi-year contracting. Where a contractor has a multi-year commitment from the government, it is in a position to commit to capital improvements aimed at enhancing productivity, lowering costs and taking advantage of technology advancements. A contractor is able to broaden its own competitive base for vendor-sourced components and materials that result in lower costs and facilitate quality improvement through an ability to foster long-term relationships with selected suppliers/vendors. Administrative costs are also reduced as well, and contractor work forces become more stabilized. Industry recommends continued emphasis on multi-year contracting as a means for fostering program stability and reducing acquisition costs.

Industry Recommendations

- Align field level staffing of contractor oversight organizations consistent with risk based management
- Address Diminishing Manufacturing Sources (DMS) as a department-wide, systemic issue
- Foster initiatives to improve program stability:
 - promote greater use of multi-year contracts
 - permit long-term commitments to suppliers/vendors

Report Outline

- Executive Summary
- Background
- Survey Results - Summary Analysis
 - Industry Awareness
 - Implementation Analysis
 - Estimated Impact
 - Barriers
- Industry Recommendations
- Conclusions 
- Appendices
 - Appendix A - Survey Results By Change Element
 - Appendix B - Further Explanation Of Barriers
 - Appendix C - Project Team
 - Appendix D - Industry Contacts
- Exhibits
 - Exhibit 1 - Catalog Of Acquisition Reform Change Elements
 - Exhibit 2 - Interview Matrix
 - Exhibit 3 - Acquisition Reform Survey Protocol
 - Exhibit 4 - Acquisition Reform Categories Matrix

Conclusions

Conclusions

This slide summarizes the high-level conclusions of the Survey Team.

The results of the survey provide a strong empirical basis for demonstrating that significant progress has been made over the past four years in the implementation of acquisition reform in DoD contracts. The interviews with industry participants cited numerous instances where the government has been successful in effecting cycle time reductions or cost savings or avoidance through improved communications between buyer and seller, better teamwork by forming Integrated Product Teams, streamlining the contract process, shifting away from design-oriented, “how to” specifications to performance-based requirements, adopting COTS or NDI solutions or by shifting more oversight responsibilities to the contractor on the basis of risk-oriented management approaches.

While industry is very supportive of DoD’s efforts to date, they feel there is a great deal more progress to be made, and they frankly feel the pace of progress should be accelerated. This view is reflected in the 2.9 average implementation level calculated in the overall survey results.

In their collective assessment of implementation progress, they point to the inconsistency in execution of reform components across respective service buying commands and even within those buying commands. They recognize that leadership at the program manager level is a significant variable in the equation, but question the adequacy of implementing guidance at the buying command level and the effectiveness of local training programs. This inconsistency may result from an initiative by initiative approach to acquisition reform, and the lack of an integrated, cohesive DoD/Service vision and strategic plan to pull the initiatives together, putting them in context to each other and to larger strategic goals.

A number of those interviewed feel their knowledge of acquisition reform issues may be superior to their government counterpart. Some expressed the view that they are “pulling” acquisition reform toward industry rather than having it pushed to them.

Based on the views expressed by survey participants, SAEs need to maintain a strong commitment toward providing the DoD acquisition workforce with the training and professional development necessary for them to pursue reform initiatives to full implementation. Industry members expressed particular interest in seeing more training emphasis placed on:

- performance of market research and preference, where appropriate, for other sources of pricing support over certified cost or pricing data
- use/acceptance of parametric estimating techniques
- understanding and applying commercial buying practices including how commercial products should be defined and commercial pricing used
- improving integrated product team practices
- acquisition in a performance-based business environment

Conclusions

- Significant acquisition reform has been achieved over the past four years
- Industry acknowledges progress, is committed to working with DoD to effect further change.....faster and better
- Implementation is uneven and inconsistent across and within military services and buying commands
- Continued commitment to training is vital. Special emphasis is needed in:
 - market research/exemptions to certified cost or pricing
 - parametric estimating
 - commercial product definition and pricing
 - integrated product team practices
 - performance-based business environment