

Defense Acquisition University

Graduate and Supervisor Survey Results

Volume I

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**Volume I
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Executive Summary

From January through April 1996, the Defense Acquisition University (DAU), U.S. Department of Defense (DoD), conducted two large telephone surveys to assess the impact of DAU training on graduates of DAU courses. Participating in one survey were course graduates who had been back in their jobs for two to three months. Supervisors of course graduates responded to the second survey. Interview subjects were randomly drawn from a sample of acquisition workforce members who had graduated from a DAU course between September 1995 and February 1996. Supervisors of graduates who completed interviews were contacted only with the graduates' consent. In total, more than 4,000 course graduates and 1,100 supervisors participated in the surveys.

Respondents were generally happy to answer questions and provided thoughtful, substantive answers. They were aware of the importance of the survey as a vehicle for expressing ideas and concerns, and that it could generate the data necessary to stimulate positive changes. As one graduate put it, "These surveys are very important; feedback is the only way to know what kind of job you are doing—do more [of them]."

The responses to the graduate survey demonstrated that students in the acquisition workforce are committed to training and consider it important for their own professional development. Students expect DAU training to deliver many of the tools necessary to perform their jobs, and to provide an understanding of the overall acquisition process and their organizations' role within it. They also see training as critically important in keeping them abreast of changes. Students want regular updates to course material, and they would like DAU to provide other methods of communicating changes in policy and procedures to ensure that they get the most current information (e.g., Internet updates or short seminars). According to one graduate, "... the currency of the materials presented at any level course is critical to the success of DAU training. With the new editions and revisions of the DoD 5000 series, it is imperative that current changes and new regulations be included."

Graduates tended to respond very positively to questions about the usefulness of their training. Overall, 92 percent of respondents said they found their training useful, and 56 percent said they currently refer to something specific from the course in their jobs. Some examples of the references obtained in courses include acronym definitions; case studies; acquisition life cycle charts; software; and resources on the Internet. Graduates were also asked if they had noticed an increase in their confidence as a result of training. Approximately 40 percent of graduates did not observe any change in confidence, while 60 percent said they did notice an increase in confidence. Respondents tended to cite overall increase in confidence due to increased depth and/or breadth of knowledge, which allowed them to speak about relevant issues with greater assurance and assertiveness.

The majority of respondents (58 percent) also said the training resulted in the government saving money. Students who responded positively generally said that after the training they were more

knowledgeable and more efficient in their jobs, and that this would, in the long run, save the government money. As one student said, “. . . [it] enhanced all my analytical capabilities. Decision making has very much improved.” Another important factor that led to savings was the increase in resources available to students in terms of knowing where to go and whom to ask when they have a question or task that they can’t address themselves. For example, one student said, “. . . [If] you know someone who knows how to test an item, you kind of refresh your memory and contact the person who can get the job done or can tell you how to do it. [It] saves me time and the government money.” Many students felt that the time savings in not having to research answers to questions was one of the most important benefits of their training. In some cases, respondents were able to cite specific situations where the application of knowledge obtained in a DAU course led directly to significant government cost savings:

“Cost accounting standards [are] something I use daily. [The course] has helped me tremendously in my day to day activity. . . . As a direct result of this course, I am now dealing with a contract whose numbers I don't agree with, and [I] am confident I will settle it to the government's benefit. If [this] situation is to be resolved, the government will save \$30 million.”

—A DAU course graduate

The survey data also reveal that supervisors believe that DAU courses result in positive changes in the performance of their employees. Overall, 59 percent of supervisors said their employee was noticeably more knowledgeable or confident in his or her work assignment as a result of the course, while 41 percent did not. Supervisors who noticed an improvement generally said that their employees demonstrated a greater understanding of their job responsibilities and needed less supervision because they were able to apply the course to their work. Many respondents also noticed that their employees were much more assertive, enthusiastic, self-motivated and/or willing to take the initiative. Several said that their employees’ communication skills had increased because of an increase in their “job vocabulary.” In addition, 75 percent of supervisors said that there is evidence that DAU courses improve the acquisition process and/or decision-making. As one supervisor put it, “There is a vast difference among those who have gone to training and those who have not had these courses.”

The survey also pointed to some areas of training in which graduates and supervisors would like to see changes. Most importantly, the survey data suggest that students often encounter difficulties in obtaining training opportunities. When asked if obstacles to training employees exist, 75 percent of supervisors responded positively. The most significant obstacles identified by supervisors are insufficient time and excessive workloads, course scheduling and availability problems, and the travel requirements associated with training. Similarly, of the graduates who had advice for DAU, approximately 30 percent cited administrative problems such as travel and excess demand for courses. Both students and supervisors would also like DAU to offer more courses on-site or via distance delivery to reduce the current pressures of time spent away from work and family while attending courses.

1.0 Introduction

From January through April 1996, the Defense Acquisition University (DAU), U.S. Department of Defense (DoD), conducted two large telephone surveys to assess the impact of DAU training on graduates of DAU courses. Participating in one survey were course graduates who had been back in their jobs from two to three months. Supervisors of course graduates responded to the second survey.

In total, more than 5,000 members of the acquisition workforce participated in the surveys. In general, respondents were happy to answer questions and provided thoughtful, substantive answers. They were aware of the importance of the survey as a vehicle for expressing ideas and concerns, and that it could generate the data necessary to stimulate positive changes. As one graduate put it, "These surveys are very important; feedback is the only way to know what kind of job you are doing—do more [of them]."

2.0 Methodology

The student and supervisor survey instruments were developed by social scientists at Walcoff & Associates, Inc., in cooperation with an academic team at DAU. The survey for graduates (see Appendix A) consisted of 12 questions, several of which combined binary scale or category questions with open-ended questions designed to elicit greater detail and anecdotes or clarification of issues relevant to the given question. Two questions elicited the respondents' current acquisition career field and acquisition career level. The supervisor survey consisted of nine combination binary scale and open-ended questions addressing the respondents' impressions of the effects of training on his or her employee (see Appendix B). Walcoff pre-tested the two survey instruments on approximately 100 students and their supervisors in November 1995, and based on the resulting pre-test data, made minor revisions to the category questions and added an open-ended question to each survey instrument.

In order to produce survey results within one year, the sample frame was limited to the roughly 9,000 students who graduated from a DAU course in the six month period from September 1995 to February 1996.¹ Students who did not graduate from courses and non-acquisition workforce members were excluded. The sample was stratified by the acquisition career field, and students were randomly drawn from each stratum; in some cases, however, the sample frame for a stratum was small, so all units for that stratum were drawn. In total, attempts were made to contact roughly 6,500 course graduates.

A large number of the graduates, 36 percent of those sampled, were unreachable because they were on temporary duty (TDY), because they had resigned or transferred, or because the surveyors had either an incorrect telephone number or no phone number at all. In addition, approximately 1 percent of those with whom contact was made were not asked to complete an interview because they said they were no longer in the acquisition workforce or had not graduated from the course (e.g., because they canceled at the last minute, or because they left early due to illness). Of the approximately 4,100 graduates who were reachable by telephone and who said they were acquisition workforce members, 4,026 (98 percent) completed interviews.

Selection bias in the graduate survey potentially included the following: employees who take courses from March through August; employees who are frequently away on travel or in training; employees who have moved to new jobs, positions, or offices; new employees who did not have a telephone number when they registered for training; disgruntled employees; and employees who have retired. Inclement weather and a government furlough during the months of December and January were also potential sources of bias because some classes were canceled or cut short.

¹ Each unique student/course combination was considered a sample unit, so that it was possible for a student to be interviewed more than once for different courses. If the student declined to be interviewed more than once, it was treated as a refusal.

Via a thirteenth survey question, Walcoff asked graduates for the identities and telephone numbers of their supervisors so they could be contacted for an interview. A supervisor was only contacted if the respondent consented. Of the 4,026 graduates who completed an interview, 301 (8 percent) refused to allow an interview of their supervisor, and 3,249 (92 percent) consented (the remaining 476 graduates did not respond to the question).

Walcoff attempted to contact all of the identified supervisors; however, because many students who completed surveys had the same supervisor, the sample actually contained approximately 2,600 unique names of supervisors (roughly 600 were duplicates). Although supervisors were contacted for every student who completed an interview, they were given the option of refusing subsequent interviews. Many supervisors were also unreachable by telephone; of the roughly 1,200 supervisors with whom contact was made, 1,173 (98 percent) completed interviews.

Selection bias in the supervisor survey potentially included the following: supervisors who are frequently away on travel or training; supervisors of poor employees; supervisors of disgruntled employees; poor supervisors; supervisors in situations where communication with employees is poor; and supervisors who are overly taxed or otherwise seen as inappropriate, undesirable, or poor respondents by their employees.

3.0 Survey Results²

Analysis of the graduate and supervisor survey data revealed five consistent, positive observations:

1. DAU students in general are highly committed to training.
2. Graduates find DAU training useful.
3. Students can and do improve their job performance by applying the skills, knowledge, and other tools obtained in training to their current positions.
4. Supervisors notice positive changes in their employees after they attend training.
5. DAU training generates cost savings for the government.
6. DAU training improves the acquisition process.

The following sections elaborate on these five observations.

3.1 DAU Students Are Committed to Training

“ . . . personnel need continuous training; the learning shouldn’t stop just because they have satisfied the Level Three requirements; we should be taking classes continually to be kept informed of the latest developments in our fields of operation.”

—A DAU course graduate

The responses to the DAU graduate survey demonstrated that students in the acquisition workforce are committed to training and consider it important for their own professional development. Students expect DAU training to deliver many of the tools necessary to perform their jobs, and to provide an understanding of the “bigger picture” and how it affects their organizations. Many DAU students are also forward-thinking; they want training to help them to achieve long-term career goals and make them more “marketable” or “multi-functional.”

Many students see training as critically important in keeping them abreast of changes. Students want regular updates to the course material, and they want other methods of communicating changes in policy and procedures to ensure that they get the most current information (e.g., Internet updates or short seminars). According to one graduate, “. . . the currency of the materials presented at any level course is critical to the success of DAU training. With the new editions and revisions of the DoD [Department of Defense]

² Note: In the results that follow, the “Other” category for the student’s primary career field refers to those who responded “Other” or “Don’t Know.” Similarly, blank career level responses and responses of “Don’t Know” are treated as “Other” for analysis purposes.

5000 series it is imperative that current changes and new regulations be included.” Students frequently requested that DAU keep the information presented in class as current as possible.

Evidence that students are committed to training can be found in their reasons for attending courses. Survey Question 2 asked respondents if they had attended a course because it was needed for certification in a primary career field, because of professional interest, because it was needed for a current job, or for other reasons. Allowed to select all reasons that applied, the respondents frequently listed more than one reason for attending (see Figure 1).

Which of the following four categories best describes your primary reason for attending the course?

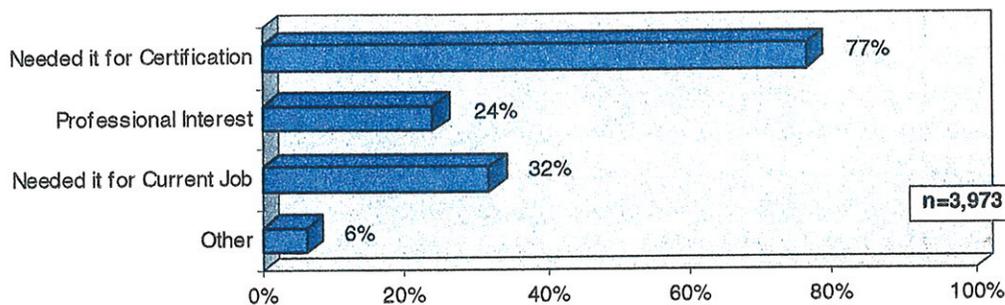


Figure 1. Responses to Graduate Survey Question 2

Certainly, the greatest number of respondents (77 percent) took the course to fulfill a certification requirement; however, many respondents indicated that they did not attend training just to fulfill a requirement: one-third of respondents who took the course for certification also listed other reasons for taking the course. Roughly 32 percent of respondents said they took the course because they needed it for their current job, and 24 percent said they attended because of professional interest. Six percent listed other reasons for attending.

As part of Question 2, students were asked what they meant by “professional interest,” or to explain a response of “other.” Several of these explanations were specific to the courses they took. The remainder could be categorized as a desire to: (1) communicate and exchange ideas with peers in a particular subject area; (2) obtain a broader knowledge base; (3) keep up to date or get a “refresher”; (4) learn about different jobs (other than one’s own); (5) enhance job performance; and (6) become more marketable. Many respondents felt that even though a course was not directly related to their current work, a greater understanding of another field or area would enable them to perform better in their own job positions; for example, one respondent explained that “[I’m] not an engineer, so I need to be able to be educated enough to deal on an equal footing with the engineers.”

3.2 Graduates Find DAU Training Useful

“[The course] gave me the fundamental techniques to apply directly on the job upon return from class.”
—A DAU course graduate

Graduates tended to respond very positively to questions about the usefulness of their training. In addition, the qualitative data frequently included enthusiastic comments about the instructors and/or course material. When graduates were asked, “Did you think the course you took at DAU was a useful course?” (Question 3), 92 percent responded positively. Responses to Question 3 varied little by respondent career level (see Figure 2).³ There were also no important differences across different class delivery types, i.e., resident or on-site.

Do you think the course you took at DAU was a useful course?

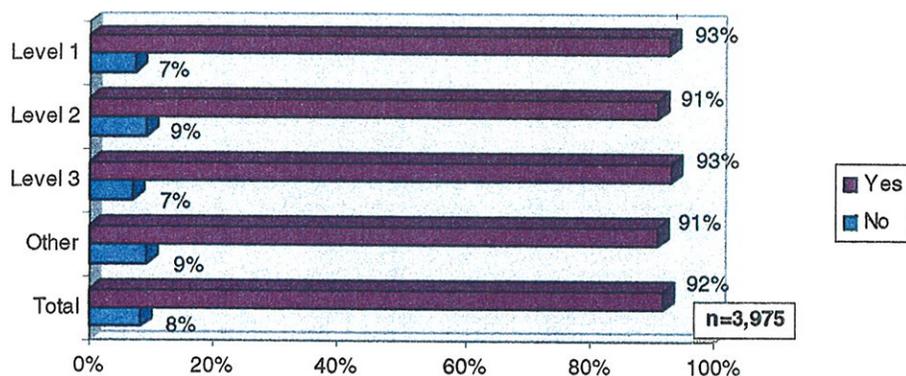


Figure 2. Responses to Graduate Survey Question 3 by Level

When asked to explain why they found the course useful, the graduates had a wide variety of responses. Many mentioned general improvements such as obtaining greater depth and breadth of knowledge and/or skills. They also valued the opportunity to become familiar with procedures, get an overview of a subject area, and learn the background or the “big picture” of a system or process. Others found the course useful because they were able to draw upon the experiences of the instructor and other students. The following are some examples of students’ explanations for why they found courses useful:

- “Gave me a much better view of the acquisition cycle. I’d never been exposed to that before.”
- “Information was excellent and current. Instructors were good and class participants were very helpful.”

³ Individual career fields exhibit similar results to those in Figure 2, with the percent of students who found the course useful ranging between 90 and 93 percent.

- “Good overview of how the acquisition process is designed and understanding the theories behind the acquisition process.”
- “Opportunity to exchange ideas with different organizations.”

Once the respondents had been given an opportunity to explain why a course was (or was not) useful, those who indicated it was useful were asked to choose a category which best described their stated reasons. Did the course enable the respondents to use reference materials, help them improve the way they do their jobs, provide a general overview of an area or a topic, or provide networking opportunities? If no category fit, the respondents were instructed to choose “other.”

The categories appear to have captured most of the reasons why respondents found a course useful, with just one percent of students choosing “Other” (see Figure 3). Nearly 73 percent of respondents found the course useful as a general overview of an area or topic. Some 47 percent said it helped them improve the way they do their jobs, and 39 percent said they were able to use the reference materials. Overall, 23 percent of respondents found the course useful for its networking opportunities, but this percentage varied by career level (e.g., 31 percent for Level Three and 17 percent for Level One).

From the following list of categories, which best describes why the course was useful to you?

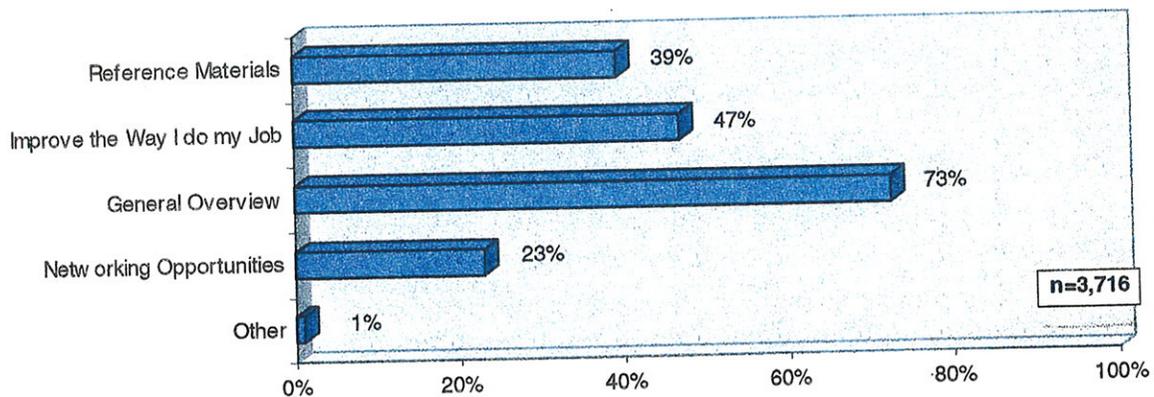


Figure 3. Responses to Graduate Survey Question 3a

3.3 Students Are Able to Apply Training to Their Jobs

“I now really understand what people are saying in meetings . . . , and it helps me to be a contributing positive factor in these meetings, which increases my confidence.”
—A DAU course graduate

Several of the survey questions were designed to elicit information on whether graduates were able to apply what they had learned in the classroom to their jobs, and if so, whether it resulted in positive changes in job performance. The first of these addressed their use of tools obtained in courses.

Approximately 56 percent of respondents said that they do refer to something specific from the course, and 44 percent said they do not (see Figure 4). The question was broad enough to generate a wide variety of responses in terms of specific items used. The majority of students listed standard course materials such as textbooks, handouts, manuals, or reference materials. Others mentioned tools such as acronym definitions, case studies, the acquisition life cycle chart, software, and Internet resources. Many also listed documents and information on various policies and regulations; examples include LSA; AFAM; CARs; CAS; PAR and DPAR; DCA; and DoD 5000, 5001, and 5002. There were 165 references to the FAR (Federal Acquisition Regulations), DFAR, or the “baby FAR.”

Was there some specific thing like a reference book, case study, support tools or a piece of software like a CD, or even a process from the course that you now refer to on the job?

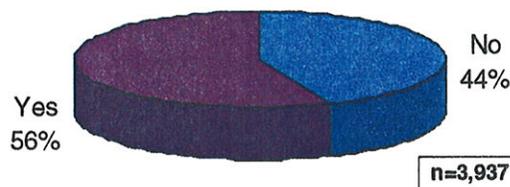


Figure 4. Responses to Graduate Survey Question 5

Several of these respondents suggested alternative ways of making the FAR and other documents more widely available, for example by distributing them via CD-ROM or the World Wide Web. Students were particularly interested in references to the latest changes in policies and regulations: “I used the source books and charts, acquisition and flow charts, however they are only so relevant now that Acquisition Reform is enacted.”

In describing the items they are able to use in their jobs, some respondents mentioned specific cases where they were able to perform tasks more effectively as a result of the training. One graduate stated, "Yes, I refer to the numerous case studies given to us in class. Recently I had a dispute with a contractor that involved a pricing issue, and I went back and looked up a relevant case study which assisted me in resolving the issue." Another said, ". . . I keep my four textbooks right here at my elbow. Yes, I do refer to them, especially when someone calls me and I need to check something."

Graduates were also asked if they had noticed an increase in their confidence as a result of training. Approximately 40 percent of respondents did not observe any change in confidence, while 60 percent said that they did notice an increase in confidence (see Figure 5).

Have you noticed an increase in confidence as a result of this training?

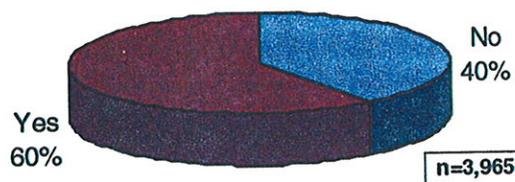


Figure 5. Responses to Graduate Survey Question 8

If the graduate responded positively, he or she was asked to provide a specific example where their training resulted in an increase in confidence. Many graduates cited an overall increase in confidence due to increased depth and/or breadth of knowledge, which allowed them to speak about relevant issues with greater assurance and assertiveness. They also found that because of the training, they understand much more of the terminology they encounter on their jobs, from simple acronyms to complicated regulations or contracts. This allows them to be more confident when they interact with others; as one student put it, "The more you understand, the stronger your convictions are."

Examples of respondents' reasons or explanations for increased confidence include the following:

- "When you learn more about someone else's job you have more confidence discussing things with them, because you speak their language and understand their position."
- "I have been able to complete tasks in my individual assignments a lot more quickly, which enhances my performance and boosts my confidence."

-
- “[I] can see the bigger picture, the thinking process is deeper, I can foresee and forecast better.”
 - “When I am in meetings, my subject knowledge has increased and I am now more interested in what other departments are doing and how I may be able to contribute to the solution [to] the problems we face.”
 - “When someone in senior management asks a question I know what milestone they are talking about and feel like I could answer their question and input where I think it should be going to next.”

3.4 Supervisors Notice Positive Changes in Their Employees After Training

“There is a vast difference among those who have gone to training and those who have not had these courses.”

—Supervisor of a DAU course graduate

In the first question of the supervisor survey, respondents were asked to identify and describe any changes in the performance of their employee as a result of training. In response, 40 percent of supervisors said that they did observe positive changes in their employee’s performance; the remaining 60 percent said there was no observable difference in their employee’s work habits or effectiveness (see Figure 6). However, of the 60 percent who did not observe changes, approximately one-third said that they answered “no” because the employee was already performing well before attending training, so that no significant changes were noticeable.⁴ For example, one supervisor said, “[She] is an excellent employee and an invaluable team member, so it would be very difficult for one course to make a difference.” Some supervisors who answered “no” explained their negative responses by saying that it was too soon to detect changes, that they had not been the individual’s supervisor long enough to evaluate changes, or that the course the employee took was not applicable to his or her job.

⁴ Supervisors also tended to respond more positively when they were asked a more specific question about employee performance (see Question 2).

Have you noticed any positive change in your employee's work habits or effectiveness since the course?

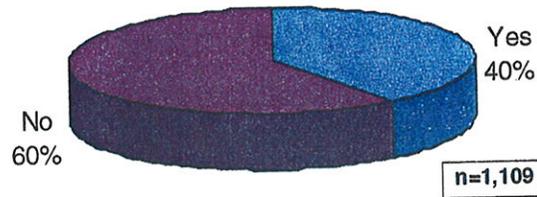


Figure 6. Responses to Supervisor Question 1

The majority of supervisors who did notice positive changes explained that the employee appeared more knowledgeable, confident, efficient, or productive. Several respondents also found that after training the employee returned to the job more energized, enthusiastic, and/or aware; in particular, many found training to be a very positive motivating influence for their employees. They also reported that employees took more active roles in projects, and were able to work more independently, without going to others for answers to questions. The following are some examples of changes in performance:

- “Our program here involves new start developments and concepts, and the knowledge he gained in TST101 directly applied to critical discussions we were having when he returned; it was invaluable.”
- “He has greater understanding of the overall project and an improved technique in tying things together.”
- “He is much more of a go-getter now since the course completion. He takes on more responsibility and is much more effective because of his increased knowledge.”
- “He is much more effective concerning the workings of the complete acquisition process; he does not have to query superiors on acquisition related issues any longer. His knowledge has been greatly enhanced by ACQ201.”

Question 2 of the supervisor survey addressed the effects of training on employees' knowledgeability and confidence. Overall, 59 percent of supervisors said their employee was more knowledgeable or confident in his or her work assignment, and 41 percent did not (see Figure 7).

Is your employee noticeably more knowledgeable or confident in his/her current work assignment?

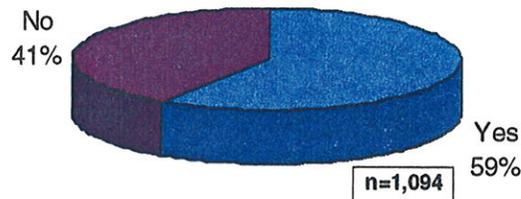


Figure 7. Responses to Supervisor Survey Question 2

Supervisors who answered “yes” to this question generally said that their employees demonstrated a greater understanding of their job responsibilities and needed less supervision because they were able to apply the course to their work. Many respondents also noticed that their employees were much more assertive, enthusiastic, self-motivated and/or willing to take the initiative. Several said that their employees’ communication skills had increased because of an increase in their “job vocabulary.”

Of the respondents who did not notice an increase in these qualities, 15 percent explained that this was because their employee was already very knowledgeable and/or confident prior to attending the course. Another 4 percent said that it was too soon after the course to observe any changes.

The following are a sample of explanations of positive responses to Question 2 of the supervisor survey:

- “He is [more knowledgeable], particularly in his contract reviewing abilities. He saved us \$1 million to \$2 million in dealing with [the contractor] at the China Lake flight tests in 1995.”
- “. . . he became a supervisor of 35 persons and the knowledge he has gained has made him an unqualified leader in a short period of time. He knows how to answer his subordinates’ questions and knows where to go to find answers to the questions he can’t answer.”
- “[She is] more confident, asks why. Able to reference back to course when arguing her case.”

- “[She is] more knowledgeable and confident in her assignment. This has allowed her to refrain from asking supervisors for guidance and become much more independent and effective on a day-to-day basis.”

3.5 DAU Training Generates Cost Savings for the Government

“Cost accounting standards [are] something I use daily. [The course] has helped me tremendously in my day-to-day activity. . . . As a direct result of this course, I am now dealing with a contract whose numbers I don’t agree with, and [I] am confident I will settle it to the government’s benefit. If [this] situation is to be resolved, the government will save \$30 million.”

—A DAU course graduate

Question 9 in the graduate survey asked respondents to consider whether training was cost effective. The majority of respondents (almost 58 percent) said the training resulted in the government saving money, although many did not mention specific reasons or examples of cost savings. The remaining 42 percent did not think the training resulted in savings for the government (see Figure 8). In general, of those students who responded positively, the majority said that after the training they were more knowledgeable and more efficient in their jobs, and that this would, in the long run, save the government money. As one student said, “. . . [it] enhanced all my analytical capabilities. Decision making has very much improved.”

Did this training result in the government saving money?

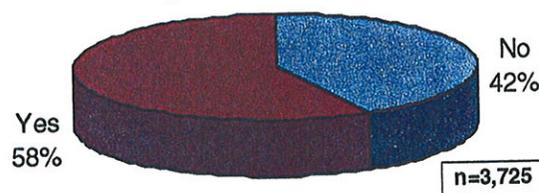


Figure 8. Responses to Graduate Survey Question 9

Many of the 42 percent of respondents who did not think that the course resulted in savings said it was because they were unable to apply their training to their jobs. Students in general tended to relate the amount of money saved to the extent to which they were able to directly apply what they had learned in the classroom to their jobs; therefore, those

who could not apply what they had learned tended to think that the training did not result in the government saving money, and those who did apply it to their jobs believed that it did. For instance: "If I were to use this training in my job, it could have saved the government money, but since I have not had to use it, I am not sure." Other explanations for negative responses included not being at a level to make changes or decisions that would save money; training that was redundant or irrelevant; or "not yet." Blank responses were largely due to "don't know," "too early to tell," and "can't answer."

The majority of students who responded positively to this question explained that an important factor that led to savings was the increase in resources available to students in terms of knowing where to go and whom to ask when they have a question or task that they can't address themselves. For example, one student said, ". . . [If] you know someone who knows how to test an item, you kind of refresh your memory and contact the person who can get the job done or can tell you how to do it. [It] saves me time and the government money." Many students felt that the time savings in not having to research answers to questions was one of the most important benefits of their training.

Among the reasons why respondents thought their training resulted in savings for the government were as follows:

- "[I] know where to look for information; half the time is saved; [I] know [how] to make sure the steps are properly taken in a test project."
- "[I am] able to challenge contractors and comptroller on cost issues."
- "Over the course of time, a better understanding of the elements we work with and avoidance of dispute claims will save the government money if knowledge learned is properly applied."

In addition, many of the graduates were able to provide actual examples or anecdotes of cases in which they generated cost savings as a direct result of their training:

- "Software that I am now using has saved me several hours each day. If I had not gone to this course, I would not have known that this software existed."
- "I am currently dealing with an 18-year-old lease, and I better understand the terms. I know what questions to ask, and how to answer questions dealing with tort laws. If I win the case, it will save the government \$2 million."
- "In that I did not have to hire someone to perform certain tests, yes the government did save money. Instead of an 11-month cycle to issue a contract, we now take 5 months, saving time and money. I learned in class how to 'tailor' the contracting effort."

- “Things I learned have saved the government over \$12,000 on the last contract [with which] I was involved.”

3.6 DAU Training Improves the Acquisition Process

“[We] lost half of the staff to down-sizing, [but] the workload is still the same. [Yet] we are still able to do our jobs and complete tasks in a credible manner. This is due to the multitude of courses and training we have received over the years.” —Supervisor of a DAU course graduate

In addition to questions about changes in employee performance, supervisors were asked to evaluate whether DAU training makes a difference in the overall acquisition process. Their responses are illustrated in Figure 9:

Is there any evidence that the courses improve the acquisition process/decision making?

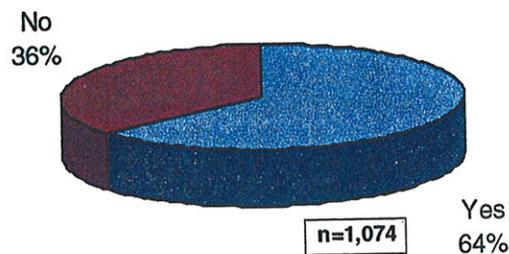


Figure 9. Responses to Supervisor Survey Question 7

Approximately 64 percent of respondents said that there is evidence that DAU courses improve both the acquisition process and decision making, and 36 percent did not (see Figure 9).⁵ If the supervisor responded positively, he or she was asked to provide relevant anecdotes and indicate whether they saved the government money. In some cases, supervisors were able to cite specific cases where an employee’s training experience resulted in observable cost savings:

- “Able to do a life cycle costing study on a system. It may have saved us 50 percent of the original cost. [She] was able to do this by finding [an] alternative system.”
- “[He] was involved with the procurement contract officer in 1995 during negotiations prior to flight tests. . . . He saved us between \$1 and \$2 million by reviewing that contract.”

⁵ Responses were identical for both parts of this question.

-
- “. . . Immediately after the course we had a discussion [about] how to structure an incentive arrangement; the incentives were effective and we were able to set up an incentive structure that was in the government’s best interest over the duration of the contract.”
 - “When you’re in the supply end it’s important not to overbuy; better knowledge in procedures, etc., has helped enormously. We definitely do not overbuy now and that saves the government money.”

Other respondents emphasized that their employees had obtained valuable skills and knowledge in training that they have been able to apply directly to their jobs. They found that the quality and quantity of their employees’ work increased, and that they were able to take on new tasks that they previously had been unable to do. Supervisors also appreciated the fact that through DAU training their employees are able to get a view of the big picture, learn the overall acquisition process, and obtain current information.

Although they found it hard to measure the actual savings, supervisors saw the value added when one employee returns to work and shares information with coworkers. In addition, some supervisors responded to this question by saying that they noticed students were more knowledgeable in meetings. They found that students were able to come to decisions and find answers to questions more quickly and effectively, in large part because they know where to go and who to ask questions.

The following are a sample of supervisors’ explanations of how DAU courses improve the overall acquisition process/decision making:

- “[You] have the tools, reference, and classroom experience from other classmates. You can gain years of knowledge in short periods of time and bring that back to the workforce—production is faster.”
- “[It is] especially apparent in meetings—people are more active. They have valuable input into the system and have more ideas.”
- “Understanding the defense acquisition process will give them a better understanding of what they do; instead of being focused on their particular task, they will understand how they fit the process and how to accelerate it.”
- “The fact that people are taking these courses and keeping current and sharing information is useful. It is a subtle approach, but effective nonetheless.”

4.0 Areas Where Change Is Needed

In addition to the positive feedback described in Section 3, the survey data also revealed areas where improvements in the curriculum and/or its methods of delivery are needed. These fall into three general areas:

1. The obstacles supervisors face in training employees.
2. The academic concerns of students.
3. The administrative difficulties students encounter in trying to obtain training.

Discussions of these issues follow.

4.1 Supervisors Encounter Obstacles to Training Employees

“Offer local courses. Because of the workload [we are] suffering; we are sending our employees to a local college every Friday for six weeks to receive DAU-like courses because we can’t afford to lose someone for two solid weeks or longer.” —Supervisor of a DAU course graduate

In Question 8 of the supervisor survey, interview subjects were asked whether they had encountered any obstacles in obtaining training opportunities for their employees. Of the 1,091 supervisors who responded to this question, 820 (75 percent) said obstacles to training do exist. The remaining 271 respondents said there are no obstacles to training (see Figure 10).

Are there any obstacles to training employees?

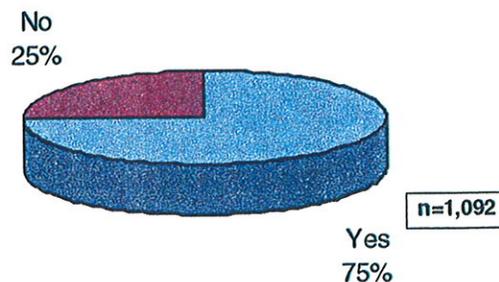


Figure 10. Responses to Supervisor Survey Question 8

Supervisors who indicated that obstacles exist were asked to identify the most significant obstacles. Their answers fall into three categories:⁶

1. Lack of time and excessive workloads.
2. Scheduling and availability of courses.
3. Travel.

Discussions of these categories follow.

4.1.1 Lack of Time and Excessive Workloads

In response to Question 8, 548 of the 820 supervisors who responded positively (67 percent) cited insufficient time to send employees to training due to heavy workloads and a lack of personnel. Many emphasized that losing an employee for several weeks can be costly in terms of the lost productivity while the employee is away in training, and it is difficult for the staff that are left behind to accommodate the increased workload. Some supervisors complained that courses are too long, but only because it takes their employees away from their jobs for too long. The following are examples of time-related training obstacles:

- “With all of the down-sizing going on in the government services, there is not enough proper depth now in personnel to spare anyone from their area, for any length of time. It puts an extreme strain on your department and it’s not very efficient.”
- “Some of the four-week courses are killers; it is hard on those left behind to pick up additional tasks—they become resentful.”
- “The limited time factor coupled with the reductions in personnel makes it extremely difficult to let people go for training and still accomplish the team mission.”
- “As we down-size, the main obstacle is time; you’re trading time for immediate value and we cannot spare the employees because the value of our work goes down proportionately to the amount of time the employee is absent.”

4.1.2 Scheduling and Availability of Courses

A large number of respondents who said that obstacles exist (319 of 820, or 39 percent) said they are frustrated with the scheduling and availability problems they face in getting students into classes. Many have found that class quotas and last-minute schedule changes make it difficult to plan effectively for a student’s training within the required time period. Others mentioned that the time of year when most courses are offered or available is inconvenient. Examples of these comments include the following:

⁶ Some responses to this question fit into more than one category; as a result, the sum of the percentage of responses in each category can be greater than 100 percent.

-
- “Course availability: We have 18 months to train and certify new personnel. I have people who have been here for six months who have not been able to take one course yet; that leaves them 12 months to take five courses, which is impossible.”
 - “My employees are both 11-02s and 11-05s, and the level of work they do is nearly identical. However, the 11-05s feel like they are being short-changed in the training arena. I don’t know if this is an issue that DAU can resolve.”
 - “[There is a] lack of efficiency in registering and sending employees to required courses. [There is also] a shortage of courses.”

4.1.3 Travel

Both time and workload issues are closely related to the travel requirements associated with sending students to training. Of the 820 supervisors who responded positively to Question 8, 182 (22 percent) identified travel as an important obstacle to training students:

- “Travel and location; my people don’t want to have to travel for two to three weeks and usually we have fewer people signing up for [the longer courses]; however, when the courses are held here, there is no hesitation in attending.”
- “Three- to four-week courses create a barrier for both employees and supervisors; there is a hesitancy from employees going away for this length of time on both a personal and a professional level.”
- “These courses are understandably very long, but the time my employees are away from their jobs and families, especially my single mothers, is very detrimental, but they are doing it.”
- “Acceptance of [4-week] courses taught on base is 70 percent higher than [when the courses are] offered elsewhere; please have the longer classes offered on base, and people will not mind traveling for the one-week courses.”

4.2 Students Have Academic Concerns

"[You] should think about making the ACQ101 course slightly longer; there was a great deal of information to absorb in too short a period of time— it was like trying to take a sip of water from a fire hose."

—A DAU course graduate

Many students also raised academic issues related to the courses they took. In their advice to DAU, 733 of the 2,169 respondents (34 percent) had comments and/or criticisms concerning one of the following three areas:⁷

1. The quantity and/or level of difficulty of the material presented in class.
2. Redundant and/or out-of-date course material.
3. The diversity of the class audience.

Discussions of these issues follow.

4.2.1 Quantity and/or Level of Difficulty of the Course Material

Roughly 468 of the 2,169 respondents to Question 12 (22 percent) provided advice on the quantity and/or level of difficulty of material presented in the course, saying that the course was too long or too short; that it contained too much or too little new information; or that the course was more advanced or more basic than they were expecting. These graduates often said they felt over- or under-prepared for the course. Respondents suggested that more advanced courses be offered in various subject areas, or that existing courses be made "more focused." There were also several suggestions for supporting materials to help students grapple with course topics both before and after the course; e.g., pre-tests, read-ahead materials, and placement tests.

Some graduates commented that the case studies and examples presented in class were not relevant to their own jobs; e.g., they dealt with large-scale procurements with which few students had experience. One respondent noted that "the orientation of acquisition needs to be more general and [training needs to apply] to more/additional areas of acquisition. [There] seem to be a lot of courses geared towards weapons acquisition; [they] need to focus in other areas, i.e., software and computers for weapons systems."

⁷ In addition, roughly 150 respondents provided advice specific to the given course, such as the quality of the textbook or handouts used by the instructor.

The following are examples of respondents' advice related to the quantity and/or level of difficulty of the course material:

- “Lots of information very quickly, at times, too quickly; too much to digest at one time.”
- “Slow down. Information [was] over my head and still is. Very much overwhelming. Too much information.”
- “[You] have to do the reading; it’s a little misleading as an introductory course; if a clerk were to go to this type of introductory course, it’s a little above expectations.”

4.2.2 Redundant or Out of Date Course Material

In several areas of survey, the data illustrate that some graduates found parts of the course redundant and/or out of date. The first of these is Question 6, which asked whether the course content was new to the student. Approximately 60 percent of respondents in Level One said the content was new, 51 percent of respondents in Level Two said the content was new, and 40 percent of respondents in Level Three said the content was new (see Figure 11).⁸

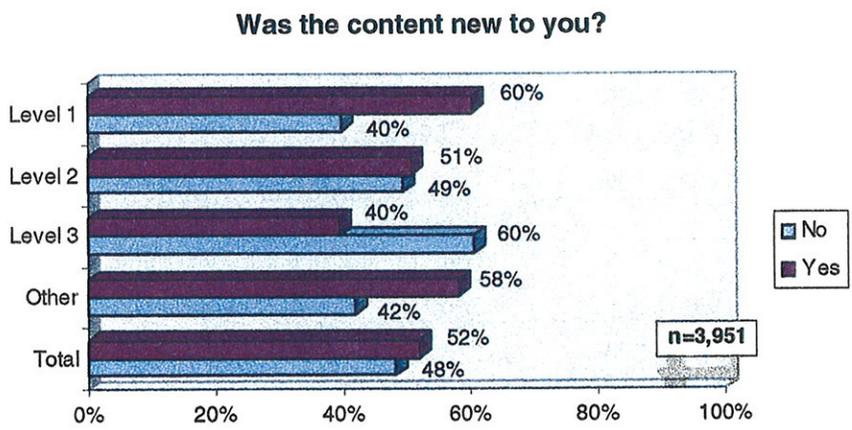


Figure 11. Responses to Graduate Survey Question 6 by Level

In their advice to DAU, 196 of 2,169 respondents (9 percent) said they felt the course was an unnecessary repeat of information presented in previous courses or learned on the job. Some of these students felt that they did not need the course but had taken it because it was required for certification. Others stated that the information presented would have been more useful either earlier or later in their careers, when the skills would be more applicable to their actual job duties and responsibilities.

⁸ The fact that some students knew the material prior to attending a course was also verified by the 28 percent of supervisors, who said that their employees were already highly qualified before they went to the course (see Section 3.4).

The following comments from students illustrate this concern:

- “Do not overlap course material and courses. [I] realize that you have to touch upon other aspects, but most courses seem to be the same material.”
- “Need more distinction between intermediate and advanced courses. [They] seem somewhat redundant.”
- “Be more receptive to courses people have already had, especially with the forced down-sizing. Give credit to experience. Quit with box assignments.”
- “As a way of eliminating redundancy in courses offered through DAU, DAU needs to pretest participants after they have been slotted. Years of experience, level of command and detailed work responsibilities need to be looked at, and the level of instruction. . . .”

4.2.3 Diversity of the Class Audience

Responses to Question 11 in the graduate survey about acquisition career levels revealed that students from different levels often attend the same course.⁹ For example, in Systems Engineering Management (SYS201), a Level Two course, there were 79 responses from Level One students, 124 from Level Two, and 31 from Level Three (24 were Other). In general, in any given course, the number of respondents from other career levels is roughly equal to that of students in the appropriate level (see Figure 12).

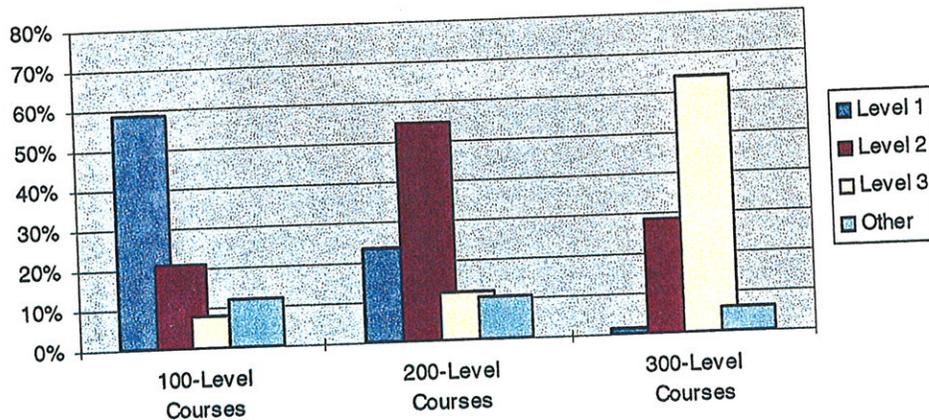


Figure 12. Representation of Career Levels in Courses

⁹ Note: This was the level for the career field for which they were taking the course. In some cases, however, the student did not take the course for certification, so the level question was inapplicable.

Level Two courses have the most diverse mix of students, with 54 percent of students in 200-level courses actually in career Level Two. Overall, approximately one-third of students in a given level class are not working toward that level of certification.

The graduate survey data reveal that this variation in backgrounds in terms of experience, knowledge, and/or seniority is sometimes a source of frustration for students. In answer to Question 12, which asked for advice on the curriculum, 133 of the 2,169 respondents (6 percent) who had advice for DAU said the background of students in the class was too diverse, resulting in a mixed audience that was difficult for the instructors to address effectively. Many of these respondents recommended that a prerequisite course be assigned or that a pre-assessment test be administered to ensure that incoming students are qualified to take a course.

The following are examples of comments on this topic:

- “Put students on similar levels together to avoid boredom and confusion.”
- “Because of government streamlining and fear of civilians losing their jobs, some people got into this class without having taken the prerequisite. This slowed down the pace and depth of instruction. It was not fair to any group in the class.”
- “Need to set prerequisite for course to avoid wasting time. Level of student taking course should be assured.”
- “Not enough people at same GS level. Should be same level. Try to target attendees with same level (GS) as needed for certification, need same exposure to management techniques in order [to] share experiences.”

4.3 Students Find it Difficult to Obtain the Necessary Training

“I like that they had this course on base; it would have been impossible for me to travel to take this course because of my young kids.”

—A DAU course graduate

Question 12 of the graduate survey asked the respondent if he or she had any advice for DAU as they prepare the curriculum for next year. In response to this question, 1,857 graduates (46 percent) had no advice for DAU or responded only with positive comments such as “good course” and “keep up the good work.” Of the 2,169 remaining students, approximately 30 percent gave feedback which addressed administrative problems associated with their training experience(s). In particular, respondents were most

concerned about the travel requirements and scheduling difficulties.¹⁰ The following sections describe these two issues.

4.3.1 Travel Requirements

One point of concern for students is the requirement that they leave their jobs for extended periods of time in order to attend training. They are also sensitive to the costs faced by DAU in sending students to training. This is reflected in several areas in the data. For example, in response to Question 9, whether the course saved the government money, many respondents pointed to the high costs associated with providing training off-site, and the potential savings when courses are taught locally. They frequently cited TDY, transportation, hotel stays, and lost work as important cost drivers in determining whether the course saved the government money. Among their comments were the following:

- “Temporary duty cost outweighed government saving.”
- “A year ago I would have been able to take this course at McClellan, but since our site was closed, I had to travel 3,000 miles to take this course.”
- “I’m not sure that the benefit was worth me being out a month.”
- “They actually wasted money because I could have taken the course here (on-site) at Ft. Belvoir but they sent me to St. Louis to take the course.”

In addition, many respondents also mentioned travel and/or distance learning in their advice to DAU (Question 12). Of the 2,169 students who had advice for DAU, 338 (16 percent) mentioned either difficulties associated with traveling to courses or advantages of satellite delivery. The following are some examples:

- “For places like PACAF, at [the] end of [the] food chain, send more instructors out to us; it’s hard to find three weeks to get back to the mainland for the Level Three class I need; I’d just about cut off my right arm to take the class. [The instructor] did a tremendous job.”
- “It’s too much of a hardship attending a course for a month; try breaking it down; make sure all covered information has not been covered before; bulletin board (electronic) needs to be expanded.”
- “Improve the assignment of quotas to minimize travel cost. I took my class in Hawaii and another person in Hawaii was assigned to take it in California at Port Hueneme; we switched through my own initiative.”

¹⁰ Exactly 563 of the 2,169 respondents (26 percent) who gave advice to DAU discussed scheduling and/or travel issues. The remaining 100 respondents who provided administrative advice mentioned miscellaneous topics, such as the size of the classroom or the availability of a rental car. Some responses to this question fit into more than one category; as a result, the sum of the percentage of responses in each category can be greater than 100 percent.

-
- “Shorten the courses or have them on-site (base) so personnel can return to work during lunch or after class to get work done and to also lessen the time away from family.”

4.3.2 Scheduling/Demand for Courses

Over 240 of the 2,169 respondents (11 percent) who had advice for DAU said they encountered difficulties getting into courses or were forced to take courses out of sequence due to excess demand and/or scheduling problems. These students are frustrated with the limited “slots” available for required courses. Many felt that additional courses should be offered and more consideration should be given to the priority of students waiting to get into courses. These respondents also said that the schedule of DAU courses needs to be distributed more often and more broadly so that students can effectively plan for their training. Here are some sample comments:

- “[I] have not been able to get Level Three certification because [I] cannot get into a slot for SYS301. If a course is necessary for certification, then an adequate number of slots should be made available.”
- “Make more of the classes accessible so people can meet their certification in a more timely manner.”
- “More classes should be more available and some classes can be taught on base or closer to base; some people have a hard time getting courses; have to go on waiting list.”
- “Provide course schedule in advance. Other information about location should be provided well in advance to enable us to plan.”

5.0 Conclusion

The surveys of course graduates and their supervisors generated a wealth of data that can be used to stimulate improvements in the DAU academic program and its administration. The data revealed that, in general, DAU students are highly committed to their jobs, and see DAU as an important vehicle for improving their performance and advancing their careers. Students expect DAU training to provide them with a thorough understanding of the acquisition process and their own organizations' role within it, and they want timely and current information on changes in policy and procedures.

DAU students are able to apply what they have learned in the classroom to their jobs, resulting in improvements in job performance observable to both students and their supervisors. In many cases, graduates were able to cite specific situations where the application of knowledge obtained in a DAU course led directly to significant government cost savings. Supervisors also provided substantial evidence that DAU courses actually make a positive difference in the acquisition process and the decision making of members of the acquisition workforce.

The survey also pointed to some areas where change is needed. Most importantly, both students and supervisors would like DAU to offer more courses on-site or via distance delivery to reduce the current pressures of time spent away from work and family while attending courses. Survey respondents also have found that demand for DAU courses is very high, and as a result, planning and scheduling courses is often difficult.

Appendix A. Graduate Survey Instrument

Good Morning (Afternoon)

This is _____ from Walcoff & Associates calling on behalf of the Defense Acquisition University. We understand you completed _____ (insert course title) in _____ 1995 (insert course end date) and we would like to ask you some questions about your impressions of the course and your future training needs. Your responses will be confidential. Is this a good time?

Yes ___ No ___ If no, arrange a callback time. Callback Day _____ Time _____.

Please feel free to skip any of these questions.

1. **Are you a member of the acquisition workforce?**
Yes ___ If yes, go on to question 2.
No ___ If no, ask: **Why not?** Probe to ensure that they really are not a part of the workforce.

If no with certainty, thank them for their assistance and conclude the interview.

2. **Which of the following four categories best describes your primary reason for attending the course?**
___ 1. Needed it for certification in primary career field
___ 2. Professional interest
if 2, ask: **What do you mean by this?** and write below
___ 3. Needed it for current job
___ Other if Other, ask: **Please explain** and write below

-
3. Did you think the course you took at DAU was a useful course?
Yes _____
No _____
Why or why not?

If yes, ask the following; otherwise skip to question 4:

3a. From the following list of categories, which *best* describes why the course was useful to you?

- ___ 1. Able to use reference materials
- ___ 2. Helped me improve the way I do my job
if 2, ask: Can you give me an example? and write below
- ___ 3. General overview of an area or topic
- ___ 4. Networking opportunities
- ___ Other *if Other, ask: Please explain and write below*

4. What other training would be useful to your work assignment or career plans?

If they answered the question, ask the following; otherwise skip to question 5:

- 4a. Would this other training be useful for your:
- ___ 1. Current work assignment?
 - ___ 2. Overall career plans?

-
5. Was there some specific thing like a reference book, case study, support tools or a piece of software like a CD, or even a process from the course that you now refer to on the job?

Yes _____

No _____

If yes, ask the following; otherwise skip to question 6:

Please describe.

6. Was the content new to you?

Yes _____

No _____

Please explain.

7. What would you recommend about the course to your colleagues?
(e.g., knowledge, skills, networking)

8. **Have you noticed an increase in confidence as a result of this training?**

Yes _____

No _____

If yes, ask the following; otherwise skip to question 9:

8a. **Can you give us an example?**

9. **Did this training result in the government saving money?**

Yes _____

No _____

Please explain.

10. **Which of the following is your primary career field?**

____ Auditing

____ Contracting

____ Business, Cost Estimating & Financial Management

____ Industrial/Contract Property Management

____ Communications/Computer Systems

____ Manufacturing, Production, & Quality Assurance

____ Purchasing (Includes Procurement Assistant)

____ Program Management

____ Acquisition Logistics

____ Test & Evaluation

____ Systems Planning, Research, Development and Engineering

____ Don't Know

____ Other

11. What is your acquisition career level?

- 1. Level 1
- 2. Level 2
- 3. Level 3
- 4. Don't Know

12. Thank you for your time. Is there any advice you would like to pass along to the Defense Acquisition University as they prepare the curriculum for next year?

13. As part of this survey, we would like to contact your immediate supervisor to discuss his or her impressions of your training experience and of DAU training in general. May we contact your immediate supervisor?

Yes

No

If yes, ask for supervisor's name and phone number:

Supervisor Name _____

Supervisor Phone Number _____

Thank you again for your assistance.

GO BACK TO MISSED QUESTIONS, BUT DO NOT REPEAT A QUESTION THE INDIVIDUAL DID NOT WANT TO ANSWER.

Appendix B. Supervisor Survey Instrument

Good Morning (Afternoon)

This is _____ from Walcoff & Associates calling on behalf of the Defense Acquisition University. We understand your employee, _____ (insert student name from above), recently completed the following DAU course _____ (insert course from above), and we would like to ask you some questions about any changes in his/her performance since the course. Your responses will be confidential. Is this a good time?

Yes _____ No _____ If no, arrange a callback time. Callback Date _____ Time _____.

Please feel free to skip any of these questions.

- 1. Have you noticed any positive change in your employee's work habits or effectiveness since the course?**

Yes _____

No _____

Please describe these differences specifically.

- 2. Is your employee noticeably more knowledgeable or confident in his/her current work assignment?**

Yes _____

No _____

If yes, please describe.

3. What did you hope your employee would gain from this training, if anything?

4. What particular types of training would be most useful to your employee's current work assignments?

5. Are there specific skills and/or knowledge you want acquisition training to deliver to your employees?

Yes _____

No _____

If yes, please identify.

6. **What defense acquisition skills and/or knowledge are of most use to your employees?**
[Give some suggestions]

7. **Is there any evidence that the courses improve the acquisition process and/or decision making?**
Yes____
No____
If yes, provide anecdotes and indicate whether they saved the government money.

8. **Are there any obstacles to training employees?**
Yes____
No____
If yes, what is the greatest obstacle you face in getting your employees trained?

-
9. Thank you for your time. Is there any advice you would like to pass along to the Defense Acquisition University as we prepare the course schedule for the coming year?

Thank you again for your assistance.

GO BACK TO MISSED QUESTIONS, BUT DO NOT REPEAT A QUESTION THE INDIVIDUAL DID NOT WANT TO ANSWER.