

DoD Civilian Acquisition Workforce Personnel Demonstration Project



FINAL
EVALUATION PLAN
Revised July 14, 1999

FINAL EVALUATION PLAN

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I. OVERVIEW

Section 4308 of Public Law 104-106, The National Defense Authorization Act for Fiscal Year 1996, permits the Department of Defense (DoD), with the approval of the Office of Personnel Management (OPM), to conduct a personnel demonstration program with the Department's civilian acquisition workforce. DoD is proposing a demonstration project to cover approximately 5,000 to 15,000 civilian employees in the acquisition workforce and supporting personnel in 60-100 sites throughout DoD. Acquisition workforce employees are defined as those individuals serving in acquisition positions within the Department of Defense, as designated in section 1721 (a) of title 10, United States Code. Also included in the demonstration project are support personnel, defined as those assigned to work directly with the acquisition workforce in section 845 of PL 105-85. The personnel composition of this demonstration project is shown in Figure 1 below.

DoD Acquisition Workforce Participation N = 5057					
Career Path			GS Levels		
	# by Career Path	% of Total		# by GS Grade	% of Total
Business Management & Technical Management Professional	3631	71.80%	GS-13 and Above	2439	48.23%
Technical Management Support	383	7.57%	GS-12 and Below	2618	51.77%
Administrative Support	1043	20.62%			
Total in Demonstration	5057	100.00%		5057	100.00%

Figure 1. DoD Acquisition Workforce Participation

This law includes the same evaluation requirement as Chapter 47 demonstration projects. In response to that requirement, the Office of the Secretary for Defense for Acquisition and Technology has entered into an agreement with Cubic Applications, Inc. (CAI) to conduct the external evaluation of the demonstration project and to prepare this evaluation plan.

The purpose of the DoD Civilian Acquisition Workforce Demonstration Project is to demonstrate that a flexible and responsive personnel system will enhance DoD's ability to attract, motivate and retain a high quality acquisition workforce. The following interventions will be tested: (1) simplified accelerated hiring; (2) contribution-based

compensation and appraisal system; (3) modified appointment authority; (4) simplified classification system; (5) academic degree and certificate training; (6) expanded candidate selection process; (7) flexible probationary period; (8) broadbanding; (9) simplified modified RIF; (10) sabbaticals; and (11) voluntary emeritus program.

The evaluation will also look at global themes such as keeping the right people, turnover rates that are in line with overall goals, and accomplishment of the acquisition mission in highly effective ways.

Purpose of the Evaluation

The purpose of the evaluation is to determine the effectiveness of the interventions and their contribution to mission accomplishment. Although the general concept of broadbanding has been tested in two Navy research laboratories, the National Institute of Standards and Technology (NIST), the Air Force PACER Share demonstration project, and is currently being tested in the DoD Laboratory Demonstration Program, this project involves a workforce with a different mission and one that is constituted along functional rather than organizational lines. The Acquisition Demonstration will also test a different combination of human resources (HR) system changes from the other demonstration projects. Both the participants and the policy makers need to know whether these HR system changes will improve human resources management. Will the interventions help DoD to acquire and sustain a higher quality acquisition workforce? Will they simplify procedures without compromising fairness? Will these interventions result in higher, lower or the same costs as conventional Federal personnel systems?

The evaluation will also help DoD decide whether to seek authority to continue or broaden the demonstration project, and may even help policy makers decide whether these features should be instituted government-wide. For example, if the costs are greater, are these increased costs justified by the benefits? That is, is the new system cost-effective? Does it enhance mission accomplishment?

Scope of the Evaluation

Acquisition workforce personnel throughout DoD will participate in this evaluation process, either under the demonstration or as a comparison group. Since this demonstration project is limited to a given functional workforce rather than an organization, an effort will be made to separate out intervening effects of the various organizational units and to capture both the combined effects and separate effects of each intervention. The evaluation team will also monitor other intervening effects, such as possible effects of a centrally designed demonstration project.

CAI will conduct and coordinate the external evaluation of the demonstration project, which will meet the statutory requirements for an effectiveness evaluation (5 CFR 470.317(b)) as well as the needs of acquisition workforce management. The Acquisition demonstration project Program Office, DoD's Office of Civilian Personnel Policy and OPM's Office of Merit Systems Oversight and Effectiveness will coordinate the

evaluation of operational compliance with merit system principles, in accordance with 5 CFR 470.317(a). Data from the external evaluation and any Service level Personnel Management Evaluation (PME) reports will be used to support this effort. The results of the compliance evaluation will be included in the evaluation reports discussed in Section V.

The Acquisition demonstration project Program Office will identify demonstration employees. CAI will coordinate the collection of all necessary workforce data for these employees with evaluation points of contact within the participating DoD Components.

Stages of the Evaluation

The evaluation will consist of both formative and summative stages. This plan represents the first step in the formative evaluation. It is in this planning stage that the (1) interventions are explicitly linked to expected outcomes, (2) appropriate quantitative and qualitative measures for these outcomes are selected, and (3) sources of necessary data are identified and included as part of the evaluation plan.

Table 9 from the 8 January 1999 *Federal Register* notice of the demonstration project identifies the experimental interventions, their expected effects, suggested measures of those effects, and data sources. The table in Figure 2 below has been revised and expanded since the second *Federal Register* to indicate two levels of interventions: primary interventions are considered the most critical to the demonstration project, and will therefore be the principal focus of the evaluation, while secondary interventions will also be evaluated as resources permit. This model is considered dynamic and may be updated as needed, and will serve as a roadmap for the evaluators.

Figure 2 – Expanded Intervention Impact Model

PRIMARY INTERVENTIONS	EXPECTED EFFECTS	MEASURES	DATA SOURCES
1. Simplified Accelerated Hiring	A. Improved ease of hiring process B. Improved recruitment C. Increased quality of new hires D. Reduced administrative workload/paperwork reduction	i. Perceived flexibility in authority to hire i. Offer/accept ratios ii. Percent declinations i. Experience, education, skills i. Actual/perceived time savings	a. Attitude survey: 47, 51, 62,63; Focus Groups a. Personnel office data: Offer/Acceptance Ratios a. Personnel office data: % Declinations a. Attitude survey: 64, 65; P.O. Data TBD a. Personnel office data: Classification and Hiring Timeliness b. Attitude survey: 62, 63, 108
2. Contribution-based Compensation and Appraisal System I. Contribution-based pay progression II. Cash awards/bonuses	A. Increased pay-contribution link B. Improved contribution feedback C. Increased retention of high contributors D. Increased turnover of low contributors A. Reward contribution	i. Pay-contribution correlation ii. Perceived pay-contribution link iii. Perceived fairness of ratings iv. Satisfaction with ratings v. Employees trust in supervisors vi. Pay progression by contribution assessment i. Adequacy of contribution feedback i. Turnover by contribution assessment i. Turnover by contribution assessment i. Amount & number of awards by career path, demographics, & contribution ii. Perceived fairness of awards	a. Attitude survey: 20, 27, 28, 35-42 b. CCAS data a. Attitude survey: 35, 38, 39 a. Attitude survey: 24-27 a. Attitude survey: 24, 25, 41 a. Attitude survey: 41, 42, 116, 117, 122 a. Workforce data: 19, 27, 31, 59 a. Attitude survey: 117, 118, 122 a. Workforce data: 27, NOA Codes, 60 a. Workforce data: 27, NOA Codes, 60 a. Attitude survey: TBD b. Workforce data: 3,4,5,7,19,27, NOA Codes a. Attitude survey: 36, 37, 40, 41, 42
3. Appointment Authority (Permanent, Modified Term, and Temporary Limited)	A. Increased capability to expand and contract workforce B. Reduced administrative workload	i. Number/percentage of contingent employees ii. Number/percentage of conversions from modified term to permanent appointments iii. Average length of employment (contingent hires) i. Actual/perceived time savings	a. Workforce data: 15 a. Workforce data: 15; NOA codes b. Personnel office data: TBD a. Workforce data: 14, 15, 59, 60 b. Personnel office data: TBD a. Attitude survey: 62, 63, 108 b. Personnel office data: Classification and Hiring Timeliness
4. Simplified Classification System	A. Simplified/automated classification procedures B. Reduced administrative workload/paperwork reduction	i. Perceived flexibility ii. Fewer position requirements documents i. Actual/perceived time savings	a. Attitude survey: 47, 56, 57 a. Workforce data: TBD b. Personnel office data: Length of PDs a. Personnel office data: Classification Timeliness b. Attitude survey: 58
5. Academic Degree and Certificate Training	A. Increased employee career progression B. Increased capability/ flexibility for workforce shaping	i. Demographics of affected employees ii. Employee/management satisfaction i. Perceived flexibility	a. Workforce data: 3, 4, 5, 7 a. Attitude survey: 80, 81, 82 a. Attitude survey: 47, 49, 51

SECONDARY INTERVENTIONS	EXPECTED EFFECTS	MEASURES	DATA SOURCES
6. Expanded Candidate Selection Process	<p>A. Flexibility in recruitment</p> <p>B. Increased quality of new hires</p>	<p>i. Perceived flexibility</p> <p>ii. Number/percentage of employees hired beyond high 3</p> <p>i. Employee effectiveness</p> <p>ii. Experience, education, skills</p>	<p>a. Attitude survey: 47, 62, 63</p> <p>a. Workforce data: TBD; P.O. Data TBD</p> <p>a. Attitude survey: 51, 96</p> <p>a. Attitude survey: 64, 65; P.O. Data TBD</p>
7. Flexible Probationary Period	A. Expanded employee assessment period	<p>i. Average conversion period to permanent status</p> <p>ii. Number/percentage of employees completing probationary period</p> <p>iii. Number of separations during probationary period</p>	<p>a. Workforce data: 15, NOA Codes, 59, 60</p> <p>b. Personnel office data: TBD</p> <p>a. Workforce data: 15, NOA Codes, 59, 60</p> <p>b. Personnel office data: (?)</p> <p>a. Workforce data: NOA Codes, 59, 60</p>
8. Broadbanding	<p>A. Increased organizational flexibility</p> <p>B. Reduced administrative workload/paperwork reduction</p> <p>C. Higher starting salaries</p> <p>D. More gradual pay progression at entry level</p> <p>E. Increased pay potential</p> <p>F. Higher average salary</p> <p>G. Increased satisfaction with advancement</p> <p>H. Increased pay satisfaction</p>	<p>i. Perceived flexibility</p> <p>i. Actual/perceived time savings</p> <p>i. Starting salaries of banded vs. non-banded employees</p> <p>i. Progression of new hires over time by band & career path</p> <p>i. Mean salaries by band, career path, demographics</p> <p>i. Total payroll cost</p> <p>i. Employees perception of advancement</p> <p>i. Pay satisfaction, internal/external equity</p>	<p>a. Attitude survey: 47, 56, 57</p> <p>a. Personnel office data: Length of PDs</p> <p>b. Attitude survey: 58, 108</p> <p>a. Workforce data: 19, 31, 59</p> <p>a. Workforce data: 19, 31, 59</p> <p>a. Workforce data: 3, 4, 5, 7, 14, 19, 31, 59</p> <p>a. Workforce data: 31</p> <p>a. Attitude survey: 21</p> <p>a. Attitude survey: 28, 29, 35</p>
9. Simplified modified RIF	<p>A. Prevent loss of high-contribution employees with needed skills</p> <p>B. Contain cost and disruption</p>	<p>i. Separate employees by demographics, contribution</p> <p>ii. Satisfaction with RIF process</p> <p>i. Number of employees affected by RIF</p> <p>ii. Time to conduct RIF</p> <p>iii. Number of appeals/reinstatements</p>	<p>a. Workforce data: 3, 4, 5, 7, 14, 19, NOA Codes, 60</p> <p>b. Attitude survey/focus groups: 69a, 69b, 69c</p> <p>a. Personnel office data: TBD</p> <p>a. Personnel office data: TBD</p> <p>a. Personnel office data: TBD</p> <p>a. Personnel office data: TBD</p>
10. Sabbaticals	<p>A. Increased employee career progression</p> <p>B. Increased capability/flexibility for workforce shaping</p>	<p>i. Demographics of affected employees</p> <p>ii. Employee/management satisfaction</p> <p>i. Perceived flexibility</p>	<p>a. Workforce data: 3, 4, 5, 7</p> <p>a. Attitude survey: 83, 84</p> <p>a. Attitude survey: 47, 49, 51</p>
11. Voluntary Emeritus Program	A. Encourages retirees to mentor junior professionals	i. Frequency of use and cost	<p>a. Workforce data: NOA Codes</p> <p>b. Personnel Office Data: TBD</p>

The next step in the formative stage is evaluation of project implementation, to include collection of baseline objective data, evaluation of demonstration project training, baseline survey results, and workforce data. This analysis will be published in a Baseline/Implementation Report, to be submitted in August 2000.

Since the overall response rate to the baseline attitude survey was only 24%, the contractor will also use baseline survey data from similar demonstration projects to round out the data and help insure that the longitudinal comparison and analysis are sound. The contractor will also supplement baseline survey results with focus groups and structured interviews, beginning in 2000.

Formative evaluation will continue through the early years of the project, leading to the submittal of an Interim Decision Report in May 2003. Also, during this time, changes and mid-course corrections may be made as a result of evaluation findings. For example, if any aspect of the experimental personnel system does not perform as expected; if there are unexpected, undesirable results; or if the expected benefits are not being realized, changes may be made in the system. In this case, an additional Interim Report may be required (see Reports, Section V).

Finally, when the experimental personnel system has stabilized, and enough data have been gathered to support definitive conclusions, a Summative Report of the effectiveness and cost of the interventions is appropriate. This summative evaluation will illuminate and help provide answers to such questions as:

- to what degree were the goals and objectives of the demonstration project achieved
- did the interventions achieve the desired goals and improve mission accomplishment
- which experimental interventions contributed most to the results
- how did various features (interventions) of the demonstration project interact
- under what circumstances do the interventions work best
- what are the costs and benefits, and
- is the success, if any, likely to be transportable to other Federal organizations?

II. EVALUATION MODEL

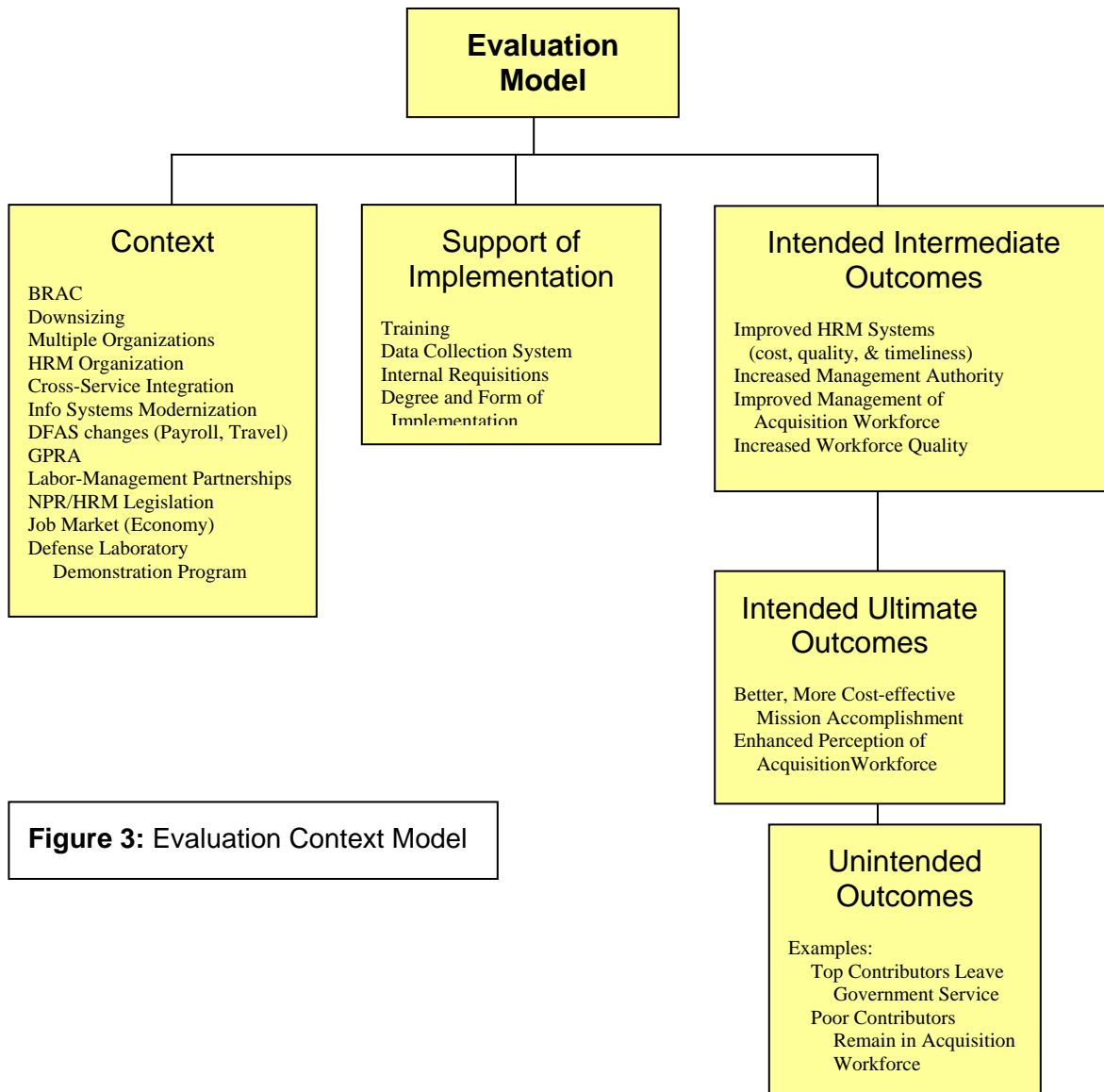


Figure 3: Evaluation Context Model

The need to evaluate both general and specific effects of this demonstration project poses significant challenges for the evaluator. Furthermore, the impact of changes in the personnel system cannot always be isolated from contextual variables, including the state of the economy and the results of other legislation affecting the acquisition workforce, such as mandated reductions in force, regionalization of Human Resources Management (HRM) functions, and new educational requirements for acquisition personnel. While our Expanded Intervention Impact Evaluation Model makes an attempt to predict specific effects, there also may be some unexpected or unanticipated results. Direct effects of specific interventions cannot always be isolated because many of the initiatives are expected to contribute to the same outcomes. To the extent possible, specific effects of

each intervention have been identified. The evaluation context model (above) identifies elements critical to an assessment of the effectiveness of the initiatives of this demonstration project. Elements may be added to this model as other events occur. This context model distinguishes between intermediate and ultimate outcomes and intended and unintended outcomes.

Intermediate and Ultimate Outcomes

Most of the effects of the HR interventions will be measured as intermediate outcomes, as shown in the Expanded Intervention Impact Model, and focus on the direct results of the HR interventions. Ultimate outcomes relate to the overall goals of the demonstration project: better, more cost-effective mission accomplishment and enhanced perception of the federal acquisition workforce.

Unintended Outcomes

Any HR system can also have unintended outcomes. For example, broadbanding and pay-for-contribution, if not administered fairly and judiciously, can increase employee perceptions of inequity in compensation and increase costs, thus decreasing organizational effectiveness. Other potential unintended effects have not been identified but may occur, such as adverse impact on protected groups of employees. The evaluation will seek to identify and measure any adverse unintended consequences and will include an analysis and discussion of any such outcomes in the Interim Decision Report or the Summative Report as required.

We will emphasize focus groups and structured interviews as the primary means of identifying possible unintended outcomes, bolstered by cross-analyses of workforce data, attitude surveys, CCAS data, and personnel office data. Site historian logs may also prove useful in this regard.

Context

Context will be taken into account as much as possible when drawing conclusions about the systems being tested. Much of the context surrounding the DoD Civilian Acquisition Workforce Demonstration Project cannot be controlled, but some of it can be anticipated. For example, planned workforce reductions are a significant factor in the context of the implementation of the Acquisition demonstration. The process of consolidation, realignment, downsizing, and closure of DoD bases has been underway for some time and can be expected to continue for the foreseeable future. Missions are being streamlined and many activities are being regionalized. These and other aspects of the dynamic organizational environment, such as the economy, will be monitored, documented, and considered in the evaluation. Any policy changes in the personnel management area will be monitored carefully for their potential impact and possible interactions.

The site historian logs will be crucial in assisting the evaluation team in identifying the specific local, regional, and organizational contextual influences that could have a significant impact upon the demonstration project.

Implementing Activities

Most Acquisition demonstration project interventions, such as broadbanding, will be uniform among all the personnel included, but these personnel are scattered across Services, organizations, and installations within Services. The various locations may vary in implementation, organizational culture and management style, as opposed to design. Implementation may vary in the following ways: support, degree, and form of implementation.

Support includes the adequacy of implementation plans and centrally developed operating procedures and training. Information technology support, such as the Defense Finance and Accounting Service finance system, the COREDOC personnel classification system, the Defense Civilian Personnel Data System (DCPDS) workforce database, and the Contribution-based Compensation and Appraisal System, etc., is critical to the project and some of the systems must be in place before implementation can occur. At the local level, support also includes the timeliness and adequacy of training, service and assistance provided by the HR offices servicing the demonstration project sites.

Degree of implementation can be defined as the extent to which the proposed changes are given a fair trial, the degree to which they are used, and the extent to which they conform to the concepts behind the changes. It includes the care with which the organizations comply with the provisions in the *Federal Register* and related procedures.

Form of implementation also refers to the type of implementation plans developed and how those plans and operating procedures are carried out. Violations of Merit Systems Principles and Prohibited Personnel Practices can occur under increased flexibility or when operating procedures are misinterpreted or improperly established.

We will use several methods to monitor implementation, including visits, focus groups, databases, site historians, and attitude surveys. While some tweaking of the project by Components is expected, the Program Office will insure such variations are minimal and not detrimental to the experiment. We will take these measures to monitor accuracy of implementation. For example, we may find it useful to add questions to our focus group instruments, or to the second and third attitude surveys to help measure perceptions.

Conclusions about outcomes will be drawn only after full consideration of differences in implementation. Causal linkages between specific demonstration interventions and intermediate and ultimate outcomes will be difficult to establish because of the many uncontrollable variables that are likely to contribute to these outcomes. Causality can

only be established if all other competing explanations can be ruled out. Evaluators must attempt to identify as many of these potential variables as possible by comparing demonstration results with those of a non-demonstration comparison group and considering all relevant context variables.

Characteristics of the context, the implementing activities, and the intermediate outcomes all affect the intended ultimate outcome, in this case, a more effective acquisition workforce and improved mission accomplishment. This evaluation will focus first on intermediate-level outcomes, i.e., improved recruitment and retention of quality employees at reasonable cost. Second, the evaluation will attempt to assess changes in Defense acquisition workforce effectiveness.

Organizational Effectiveness Model

Ideally, consistent outcome measures should be used to evaluate the impact of the demonstration on organizational effectiveness and mission accomplishment. This demonstration, however, is being implemented in four Services and one other Component, in more than 60 disparate organizational units. For this reason, it is impossible to obtain consistent outcome measures, and the evaluation will necessarily focus on intermediate outcomes such as workforce quality.

The conceptual model presented in Figure 4 below will be used to guide this part of the evaluation, subject to modification as the evaluation team gains experience and information. Figure 4 lists the proposed measures for which data are realistically obtainable for all or most of the participating units as well as from the comparison group. These metrics, compared over a period of years, should provide some insight as to the Demonstration's impact on organizational effectiveness. Note that Customer Satisfaction is included, with the view that it is the most likely common measure of effectiveness, given the diversity of units and missions. The evaluation team will work with the Components to obtain existing customer satisfaction surveys or other quality indicators, and expects to have a suitable sample of units upon which to base general conclusions about the demonstration project.

<p>Baseline Effectiveness Measures:</p> <ul style="list-style-type: none"> • Perceived Effectiveness • Workforce Quality: <ul style="list-style-type: none"> • Turnover by Contribution Region • Education Level • Scholastic Achievement • Source of New Hires • Ease/speed of hiring • Perceived Quality • Customer Satisfaction (to the extent data are available) • Employee Satisfaction <p>Data Needed:</p> <ul style="list-style-type: none"> • Workforce Data as of End of CY 1998, with January 1999 pay adjustments. • Baseline Attitude Survey Results • Any existing Customer Survey data. 	<p>Interventions: (1999-2003)</p> <ul style="list-style-type: none"> • Hiring • CCAS • Appointment Authority • Classification • Degree and Certificate Training • Other 	<p>Future Effectiveness Measures:</p> <ul style="list-style-type: none"> • Perceived Effectiveness • Workforce Quality: <ul style="list-style-type: none"> • Turnover by Contribution Region • Education Level • Scholastic Achievement • Source of New Hires • Ease/speed of hiring • Perceived Quality • Customer Satisfaction (to the extent already available) • Employee Satisfaction <p>Data Needed:</p> <ul style="list-style-type: none"> • Annually, January 2000-2003 for Baseline, Interim, and Annual Reports • January 2004 for Summative Report due May 2004. 	<p>Data Sources</p> <ul style="list-style-type: none"> • Existing Customer Surveys • Attitude Survey Questions on Organization Effectiveness and Mission Accomplishment • Workforce Data • Focus Groups • Site Historian Logs • Personnel Office Data <p>Data to be compared longitudinally; with comparison groups; and with other demonstration projects.</p>
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Figure 4: Organizational Effectiveness Evaluation

III. GENERAL RESEARCH QUESTIONS

A list of some of the more general research questions that will be addressed in the evaluation is given below. This list is not intended to be comprehensive.

A matrix which crosswalks research questions, measures, data sources, and analyses is at Annex B.

Context

The context will be viewed as a set of intervening variables for most of the expected outcomes. A competitive labor market will make it more difficult to recruit, while a non-competitive labor market with rising unemployment will make it easier for DoD to hire quality acquisition employees. Alternatively, as all of DoD is subject to downsizing, and as employees who have been subject to a RIF are placed on priority placement lists, the acquisition workforce may have less flexibility in selecting new employees. The following questions will be addressed in the evaluation.

- Has the demonstration project been implemented in a competitive or non-competitive labor market, and what have the effects of this labor market been? Geographical differences will be considered.
- How have the various Services and organizations (culture, support, procedures, etc.) affected the demonstration project?
- What is the impact of labor management obligations on the demonstration project and its coverage?
- To what extent have budget constraints limited the implementation of the demonstration interventions?
- What uncontrollable events at the Federal, Service, or local level have had an important effect on the implementation and operation of the demonstration project?

Implementation

Support

- How well informed are managers and employees about the features of the demonstration project?
- To what extent has the demonstration project been funded (start-up and training costs)?
- Were information technology systems in place to support implementation?

Degree

- Have all the interventions been implemented accurately and as intended?
- What impact, if any, has staggered implementation had (e.g., perceptions of fairness or equity)?
- Have all anticipated employees been included?
- Has implementation been a participatory process?
- Have operating procedures or their interpretation hindered/promoted implementation?

Intended Outcomes

The following are examples of questions about expected positive outcomes.

- Has managerial authority over HR functions been increased without adversely affecting perceptions of fairness?
- Has the HR system become more flexible and responsive to organizational needs?
- Has the quality of new hires improved?
- Do employees see a stronger link between pay and contribution, and has turnover been reduced among high contributors and increased among low contributors?
- How successful has management been in controlling salary costs under broadbanding, and what are the costs and benefits?
- Have organizational effectiveness and mission accomplishment improved?
- Can successful interventions be expanded to cover the rest of the DoD or Federal workforce?

Unintended Outcomes

The following are examples of questions about potential negative outcomes.

- Do the costs of the project outweigh the benefits?
- Has increased managerial authority over HR resulted in employee perceptions of unfairness?
- Are there increased incidents of prohibited personnel practices?

- Has turnover of high-contribution employees increased? Has turnover of low-contribution employees decreased?
- Has any group been adversely affected by any of the interventions, including any mis-application of the interventions that may have resulted in violations of merit systems principles and use of prohibited personnel practices?
- What, if any, have been the effects upon veterans and protected groups of employees and applicants?

IV. METHODOLOGY

Research Design

Shown at Annex A is the overall research design for the demonstration project evaluation in Microsoft Project format.

One of the major purposes of a demonstration project evaluation is to provide information that may persuade Congress to make permanent changes to the Federal personnel system. Therefore, conclusions drawn from this project have potentially far-reaching implications and must be based on a systematic, valid, and unbiased evaluation. The strongest design for a demonstration project, a quasi-experimental design, has been chosen. It has two key characteristics for comparison purposes: use of a comparison group and longitudinal analysis. This design makes it possible to draw conclusions about project outcomes because results can be compared with a nonparticipating comparison group, and changes over time can be compared for both groups.

Comparison Group

The Civilian Acquisition Workforce Personnel Demonstration Project will be applied to a diverse group of employees throughout the Department of Defense. It was agreed early in the design process that the comparison group would be selected from among those acquisition organizations which were included in the baseline survey but which have since determined that they will not participate in the demonstration project. To the extent practicable, the comparison group should be as similar as possible to the demonstration population, e.g., location, size, DoD Component, and workforce composition. However, given the span of the demonstration project across DoD acquisition workforce Components, it would be impossible to fully replicate the demonstration group, especially in terms of Service and agency make-up. In those instances, the comparison group has been chosen to replicate the acquisition functions of the demonstration group as closely as possible. Baseline differences between the two groups will be reported and monitored longitudinally.

DoD Components were asked to respond with a final list of those acquisition workforce organizations that are likely to join the demonstration project at some point. Once these have been identified, final selection of the comparison group will be accomplished. For planning purposes, the recommended comparison group is shown below:

Comp	Organization	Primary Location	Size	Survey Responses
USAF	AAC	Eglin AFB, FL	1524	470
USA	HQ AMC	Alexandria, VA	800	536
USN	FISC S.D.	San Diego, CA	755	316
DoD	DLA/Materiel Management	Ft Belvoir, VA	TBD	72

The evaluation team will also informally monitor DoD demonstration projects pursuant to section 342 of the National Defense Authorization Act of 1995, Pub. L. 103-337, 108 STAT 2663. This will help identify possible unintended consequences or intervening variables, since—all else being equal—these comparison activities would be expected to respond in much the same way to external, DoD-wide influences as the Defense Acquisition activities.

Longitudinal Analysis

The other key design characteristic is longitudinal data analysis. Ultimately, effects should show up as changes over time that would be significantly stronger in the demonstration project group than the comparison group.

Multi-method Approach to Data Collection

A variety of different data sources and methods will be used pre- and post-implementation. There are two advantages to using multiple methods. First, information gathered through one method can validate information gathered through another, and confidence in the findings will increase as they are substantiated by several different methods. Second, multiple methods provide more than one perspective on how the demonstration projects are working. Evaluation points of contact (POC) have been established for all Components. Data specifications, POC expertise desired, and explanations of how and when to collect the data will be provided. Training for the internal evaluation contacts will be provided if necessary. The majority of data collection activities will occur on an annual basis. Additional data will be collected more or less frequently, as needed.

The plan for data collection—what, how, and when—is included in the Research Design at Annex A.

Data Sources

Objective and perceptual data will be gathered to measure both perceived and actual changes. Although the effectiveness of the demonstration project interventions is ultimately assessed through objective, observable changes (e.g., increased retention, changes in turnover patterns), perceptions of employees, management, and customers are critical in evaluating overall project outcomes and goals. If the changes are not accepted they cannot be effective. Perceptions, which are intermediate-level outcomes, are important also because they predict behavior and ultimate outcomes. For example, employee and customer satisfaction measures will be used to measure effectiveness. Additionally, objective data—such as workforce data—and Government Performance and Results Act (GPRA) outcome measures will be used where available and applicable. All data sources are specified in the Expanded Intervention Impact Model (see Figure 2 in Section I).

Workforce Data

Although OPM maintains the Central Personnel Data File, the evaluation team will collect demonstration and comparison group workforce data directly from the Department of Defense Central Personnel System (DCPDS), and any other available database or tracking systems in order to be able to correctly identify demonstration and comparison group participants at the level of sub-organizations. The workforce data are needed to track variables, such as salary cost, performance ratings, and turnover.

CAI is presently working with the DoD Components to identify specific sources of workforce data, necessary accesses and permissions, and the timing and format for calls for workforce data in order to meet required report dates.

Personnel Office Data

Although not a principal focus of the evaluation, this data will provide measures of HR efficiency and workforce quality. The former measures are classification timeliness, hiring timeliness, length of position descriptions, and offer acceptance ratios. Other measures of HR functions include number of formal grievances, unfair labor practices, adverse actions, and merit systems principle violations. Some of this data may be obtainable from command or headquarters office reports (personnel, EEO, PME, etc.), rather than from the sites.

Additional workforce quality information not found in automated systems such as DCPDS will also be requested. Measures appropriate to the acquisition occupations (certification, etc.) covered by the demonstration project will be developed, as will measures relevant to sabbaticals and the voluntary emeritus program.

Employee Attitude Survey

A baseline survey of all potential demonstration project participants was conducted by OPM (PRDC) to assess the impact of project interventions on employee attitudes. An employee attitude survey was developed using items from past surveys of Federal employees, relevant items from other demonstration project evaluations, and other items designed specifically for this demonstration project. The baseline survey was administered during the period 20 April – 31 July 1998 to a population of about 70,000 individuals designated as potential demonstration employees.

Two additional employee surveys are planned to provide a basis for longitudinal analysis. The first will be administered in the summer of 2002, in preparation for the Interim Decision Report; the final survey will be administered in the fall of 2003, in time to be included in the project Summative Report.

Structured Interviews and Focus Groups

These procedures will be used for in-depth examination of the implementation and effects of specific demonstration interventions. Structured interviews may be conducted with individuals and groups responsible for implementing particular aspects of the demonstration project or with those specifically affected by certain provisions. The

questionnaires and survey instruments to be used will be developed by the contractor in accordance with the schedule in Annex A.

The initial set of focus groups will be conducted in the spring of 2000, with a second set in early 2003. Focus group sites and organizations will be selected following the preliminary analysis of workforce data, baseline survey, site historian logs, and CCAS data, both to round out the data required for analysis and to research any unexpected outcomes which may be identified. In addition, the plan calls for a small number of *ad hoc* focus groups each year, as needed.

Site Historian Logs

One or more individuals are being selected at demonstration installations to document any changes within the Defense acquisition workforce or in the environment as well as implementation activities. Individuals with in-depth knowledge and information about their activity are needed to collect data and provide interpretation (context/history) of events. Events documented by site historians may provide alternative explanations of effects observed at the sites. A training tutorial will be developed and distributed via the Internet to all site historians. In addition, the Program Office is considering establishing a digital site historian log that would be completed and submitted via the Internet.

Once the comparison group has been selected, site historians will be selected and trained for each comparison group site.

Costs and Benefits Analysis

It will be difficult to determine whether the interventions in the Defense Civilian Acquisition Workforce Personnel Demonstration Project are cost-effective because the desired ultimate outcomes, improved effectiveness and mission accomplishment, are difficult to quantify since they are influenced by many uncontrollable factors. The cost of broadbanding will be compared to the cost of the traditional system of grades. Administrative savings from simplified classification, as well as increased workforce quality, lower turnover of high performers, and increased customer satisfaction will be measured on the benefit side.

Cost Analysis Model

Figure 5 illustrates the basic cost measures that will be used to evaluate the Civilian Acquisition Workforce Demonstration Project's cost-effectiveness. The evaluation team will refine this conceptual model as it gains experience. For example, it may be possible to quantify additional cost metrics and to isolate the Demonstration's effects on those variables.

Ultimately the evaluation will combine the results of the cost analysis with the organizational effectiveness measures shown in Figure 4. While a rigorous cost-benefit analysis is not feasible, it should be possible to array for the decision-makers a clear picture of the tangible and intangible benefits, as well as the costs, of this project.

CCAS Data	Annually (January)	From CCAS database (through SRA)
Site Historian Logs	Quarterly	Internet submission

Figure 6 – Data Collection Plan

Data Analysis Plan

The Defense Civilian Acquisition Workforce Personnel Demonstration Project contains many separate initiatives. Analysis plans for the major demonstration interventions will be based on the Expanded Intervention Impact Model. The Acquisition demonstration project Program Office and other stakeholders will also be consulted to ensure that all analyses of critical importance will be provided. Types of statistical analyses will include descriptive (means and percentages) and inferential statistics (analysis of variance, regression and correlation). Some data will be collected on an annual basis (workforce and grievances data), while others will be collected twice or more times across the five-year period (surveys). Data will be requested either on a calendar year or fiscal year cycle.

The Data Analysis Plan is at Annex C. It will be expanded and updated by the Evaluation Working Group.

V. REPORTS

The Baseline/Implementation Report, which should be released about 18 months after implementation begins, will be an implementation evaluation. An Interim Decision Report will be completed 48 months after implementation to enable an informed decision by policy makers in DoD and OPM on the fate of the project (continuation, modification, termination, or expansion). The final Summative Report will be completed no later than May 2004. Interim briefing updates will be provided on the status of the evaluation results in the intervening years, on an annual basis. All three reports will include the internal CCAS evaluation report, to be provided by the CCAS contractor. Should major mid-course corrections prove necessary, additional Interim Reports may be required. Upon request, data files will be shared with DoD's Office of Civilian Personnel Policy and OPM's Office of Merit Systems Oversight and Effectiveness for their independent use.

Figure 7 below summarizes the planned evaluation report schedule.

Report	When	Purpose	Data
Baseline/ Implementation Report	Aug 00	<ul style="list-style-type: none"> - Report on implementation - Baseline comparison 	<ul style="list-style-type: none"> Data through Jan 00 - Site historian logs - Focus groups - Baseline survey - Workforce data - Personnel Office data - CCAS data
Interim Decision Report	May 03	<ul style="list-style-type: none"> Decision on final year - Conclusions - Recommendations 	<ul style="list-style-type: none"> Data through Jan 03 - Site historian logs - Focus groups - Baseline and 2d surveys - Workforce data - Personnel Office data - CCAS data
Summative Report	May 04	<ul style="list-style-type: none"> Summative - Conclusions - Recommendations 	<ul style="list-style-type: none"> Data through Jan 04 - Site historian logs - Focus groups - Baseline, 2d, and 3rd surveys - Workforce data - Personnel Office data - CCAS data
Annual Summaries	Annually, Mar 00 – Mar 02	Verbal update briefing	<ul style="list-style-type: none"> Workforce data CCAS data Other data TBA
Additional Interim Reports	only as necessary	Document mid-course corrections	TBA

Figure 7 - Demonstration Project Reports