California Board of Corrections
Standards and Training for Corrections Program

Adult Corrections Officer

Job Analysis Report

Submitted by
Psychological Services, Inc.
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PREFACE

This report describes the methodology and results of a job analysis conducted for the Adult Corrections Officer occupation in California. The purpose of the study was to identify the important job duties performed, and the abilities and other characteristics required for successful performance by Adult Corrections Officers statewide. The results of this study are intended to provide a basis for the design and subsequent development of a preemployment examination that will be offered by the California Board of Corrections to local corrections agencies for use in the selection of entry-level Adult Corrections Officers.

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PSI project staff included John Weiner, Project Director, Susan Stang, Ph.D., Consultant, Cathleen Callahan, Ph.D., Consultant, and Nelia Vasquez, Senior Analyst.

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INTRODUCTION

This report describes the methodology and results of a statewide job analysis of the **Adult Corrections Officer (ACO)** job, the first phase of an examination development project sponsored by the California Board of Corrections, Standards and Training for Corrections Program. This section of the report provides background information about the project.

Background

The California Board of Corrections (BOC) is responsible for establishing minimum standards for the selection and training of local corrections and probation personnel, certifying training courses, and administering the Corrections Training Fund to help counties comply with the training standards.

BOC presently offers an entry-level examination for local corrections agencies to use in the selection of entry-level ACOs. The examination was originally developed and validated in 1987 (see *Validation Report – Corrections Officer*, BOC, 1987) and has been used widely throughout California since that time.

In order to assist local corrections agencies in meeting their current recruitment and selection needs, BOC retained Psychological Services, Inc. (PSI) to develop and validate a new selection examination for the entry-level ACO job. As a first step in this effort, PSI conducted a statewide job analysis to determine the work performed and requirements for successful performance for ACOs throughout the state. The job analysis was conducted in cognizance of professional standards (NCME, APA, AERA, 1999) and principles (SIOP, 1987), as well as legal guidelines (EEOC, et al, 1978).

Objectives

The overarching goal of the job analysis was to build a foundation for the development of a selection examination that would be applicable to, and valid for all ACO positions in California. ACOs work in 105 agencies throughout the state, varying in size and setting. To ensure that the job analysis would be representative of ACO work statewide, it was important to include and involve a variety of agencies and positions when defining core job requirements. As a result, a carefully stratified sample of 44 agencies was selected to participate in the job analysis.

To this end, the primary objective of the job analysis was to identify the work performed, and the knowledge, skills, abilities, and other characteristics (KSAOs) that are important for ACO positions statewide, regardless of agency or setting. This entailed examining the frequency of job task performance and the importance of job tasks and KSAOs statewide and within categories of agency size and type, and identifying a set of "core" tasks and KSAO requirements.

METHOD

Job Analysis Overview

A variety of techniques and methods were used to identify and define ACO job responsibilities and requirements, including: (1) defining the study population, (2) reviewing existing job descriptive information, previously-used job analysis instruments, and the psychological literature; (3) conducting site visits/job observations; and (4) using a specially developed job analysis questionnaire to gather job information from a representative sample of agencies

Specifically, census information provided by BOC was used to define the study population of ACOs. Then existing job descriptions were collected for the target job and used to identify typical job responsibilities and to define the breadth and scope of work. The review of the psychological literature aided in identifying abilities and other characteristics predictive of performance in a variety of jobs, as well as jobs similar in focus and function to the target job. Site visits allowed for the observation of the work context and work behaviors. On the basis of the reviews and site visits, draft job analysis questionnaires (JAQs) containing lists of work behaviors and KSAOs were developed. Focus groups of job incumbents and supervisors reviewed the lists for accuracy, comprehensiveness, clarity, and applicability. Suggestions and modifications were incorporated, as appropriate. Final versions of two JAQs (one to be completed by incumbent ACOs and one to be completed by supervisors of ACOs) were then developed from all previously acquired information. The questionnaires were administered to a representative sample of ACO incumbents and supervisors to gather detailed job descriptive data and to identify those job requirements that are common throughout the state. Specifically, the responses to the questionnaires were used to identify: (1) important and commonly performed work tasks, and (2) the abilities and other characteristics needed at the time of entry for successful job performance in a majority of positions and agency settings.

More detailed descriptions of the job analysis procedures and instruments are provided in the following sections.

Study Population

The job analysis focused on entry-level ACOs employed by local corrections facilities (e.g., city or county jail, probation department, or local department of corrections). For purposes of the project, entry-level ACOs were defined as those who:

- had completed the probationary (training) period;
- were working independently on the job as a Corrections Officer (that is, in a position which involves directly supervising/directing the behavior of adults in an inmate facility);
- were performing those duties typically performed by Corrections Officers in their agency; and
- were NOT working in a position which primarily involves performing specialized, or atypical work activities.

Census information regarding the number of ACOs employed by local corrections agencies in California was provided by BOC from annual training records. This information was used to define the ACO population from which the job analysis sample was selected (as described later in this report). The population of agencies and incumbent ACOs is described in Tables 1 and 2, respectively.[1] For purposes of establishing the target

[1] Agency size categories were defined as follows: Small = 30 or fewer incumbent ACOs employed; Medium = 37-282 incumbents; and Large = 358 or more incumbents. The size categories were defined by BOC staff in consideration of: (a) degree of job specialization associated with larger vs. smaller agencies, and (b) naturally occurring breaking points in the distribution of the number of incumbents employed across agencies.

population, which the job analysis would be designed to represent, the percentages of incumbents and agencies falling in each of the size/location/type categories were averaged, resulting in the values reported in Table 3. The values reported in Table 3 reflect a balanced approach to defining the target population in an effort to acknowledge both large agencies (which employ most of the incumbent ACOs) and small agencies (which constitute the majority in the state).

Table 1
ACO Agency Population

Location	Size						Total	
	Small		Medium		Large			
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Bay							**21**	**20%**
Police	6	5.7%	1	1%	-	-	**7**	**6.7%**
Sheriff	1	1%	8	7.6%	3	2.9%	**12**	**11.4%**
Probation	2	2%	-	-	-	-	**2**	**1.9%**
Central							**13**	**12.4%**
Police	1	1%	-	-	-	-	**1**	**1.0%**
Sheriff	4	3.8%	7	6.7%	1	1%	**12**	**11.4%**
North							**14**	**13.3%**
Sheriff	9	8.6%	5	4.8%	-	-	**14**	**13.3%**
Sacramento							**12**	**11.4%**
Police	1	1%	-	-	-	-	**1**	**1.0%**
Sheriff	3	2.9%	8	7.6%	-	-	**11**	**10.5%**
South							**45**	**42.9%**
Police	32	30.5%	3	2.9%	-	-	**35**	**33.3%**
Sheriff	-	-	3	2.9%	5	4.8%	**8**	**7.6%**
Probation	1	1%	1	1%	-	-	**2**	**1.9%**
TOTAL	**60**	**57.1%**	**36**	**34.3%**	**9**	**8.6%**	**105**	**100%**

Agency Type	No.	Percent
Police	44	41.9%
Sheriff	57	54.3%
Probation	4	3.8%

Table 2
ACO Incumbent Population

Location	Size						Total	
	Small		Medium		Large			
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Bay							**3028**	**25.3%**
Police	82	0.7%	72	0.6%	-	-	**154**	**1.3%**
Sheriff	17	0.1%	1120	9.4%	1721	14.4%	**2858**	**23.8%**
Probation	16	0.1%	-	-	-	-	**16**	**0.1%**
Central							**1344**	**11.2%**
Police	4	0.0%	-	-	-	-	**4**	**0%**
Sheriff	68	0.6%	914	7.6%	358	3%	**1340**	**11.2%**
North							**481**	**4%**
Sheriff	147	1.2%	334	2.8%	-	-	**481**	**4%**
Sacramento							**915**	**7.6%**
Police	8	0.0%	-	-	-	-	**8**	**0%**
Sheriff	38	0.3%	869	7.3%	-	-	**907**	**7.6%**
South							**6204**	**5.2%**
Police	273	2.3%	330	2.8%	-	-	**603**	**5%**
Sheriff	-	-	498	4.2%	5028	42%	**5526**	**46.2%**
Probation	27	0.2%	48	0.4%	-	-	**75**	**0.6%**
TOTAL	**680**	**5.7%**	**4185**	**35%**	**7107**	**59.4%**	**11972**	**100%**

Agency Type	No.	Percent
Police	769	6.4%
Sheriff	11112	92.8%
Probation	91	0.8%

Table 3
ACO Target Population:
Average of Agency and Incumbent Counts

Location	Size			Total
	Small	Medium	Large	
Bay				**22.6%**
Police	3.2%	0.8%	-	**4.0%**
Sheriff	0.6%	8.5%	8.7%	**17.6%**
Probation	1.1%	-	-	**1.1%**
Central				**11.8%**
Police	0.5%	-	-	**0.5%**
Sheriff	2.2%	7.2%	2.0%	**11.3%**
North				**8.7%**
Sheriff	4.9%	3.8%		**8.7%**
Sacramento				**9.5%**
Police	0.5%	-	-	**0.5%**
Sheriff	1.5%	7.5%	-	**9.1%**
South				**47.3%**
Police	16.4%	2.9%	-	**19.3%**
Sheriff	-	3.6%	23.4%	**26.9%**
Probation	0.6%	0.7%	-	**1.3%**
TOTAL	**31.4%**	**34.7%**	**34%**	**100%**

Agency Type	Total %
Police	24.3%
Sheriff	73.6%
Probation	2.3%

Job Analysis Questionnaire Development

Comprehensive questionnaires were developed to gather detailed information about the ACO job, including the tasks performed, equipment used, and knowledge, skills, abilities, and other characteristics needed for successful job performance. To capitalize on the unique expertise and perspective of incumbents versus supervisors, two JAQs were developed, one tailored to each perspective. The ratings provided by each of these groups were designed to tap into the particular area of expertise that they posses. Specifically, incumbents were asked to make ratings that focused on job duties, by rating the frequency with which they performed the work tasks and used the equipment. Supervisors' ratings would draw upon their familiarity with the components of successful job performance. They would, therefore, be rating how important each work task and KSAO was to successful performance as an ACO, and whether it was necessary to possess a KSAO upon entry into the job.

The JAQs also provided a means to gather and compare input from a variety of ACOs, representing the breadth of job assignments, agencies, and geographic locations. To create the JAQs, several sections and components were developed, including a section to obtain background or descriptive information about the respondent, the job tasks, the equipment used, the KSAOs required, and the rating scales to be used to record responses.

Further details regarding the development of the JAQs are provided below.

Preliminary Lists of Tasks, Equipment and KSAOs

As an initial step towards developing an inventory of job tasks and requisite KSAOs for inclusion in the JAQ, PSI reviewed a variety of existing job information, including job descriptions, training manuals, and job analysis questionnaires used in previous, similar projects. Specifically, the review included the following documents:

- Adult Corrections Officer – STC Standards and Training Corrections Program Core Training Manual (2000)
- Adult Corrections Officer – STC Standards and Training Corrections Program Knowledge/Skill Maps (2000)
- Adult Corrections Officer – STC Standards and Training Corrections Program Physical Tasks Training Manual (2000)
- STC Standards and Training for Corrections Program Job Analysis Questionnaire for Correctional Personnel – Adult Programs (1999)
- Job Analysis Questionnaire for Correctional Personnel – Adult Programs (1993)
- Corrections Officer Validation Report, revised (1985)
- 102 job descriptions from local corrections agencies throughout California
- Selection and Training Standards Re-validation Project, Phase I, Statewide Core Job Tasks Re-validation (July, 1989)
- Statewide Job Analysis of Three Entry-Level Corrections Positions for the California Board of Corrections Standard and Training in Corrections Program (May, 1987)

Development of the preliminary task and equipment lists began with the JAQ used in a previous ACO job analysis conducted for the California Board of Corrections (i.e., Job Analysis Questionnaire for Correctional Personnel – Adult Programs, 1999). Specifically, task and equipment lists from this study were reviewed for comprehensiveness by comparing them to the documents listed above and adding tasks and equipment items that were not represented in the original JAQ.

Three main sources of information were reviewed and integrated to develop the initial list of KSAOs. First, the KSAOs that were identified as necessary for successful performance in previous ACO job analysis studies were reviewed. Second, current job descriptions were closely reviewed, and KSAOs listed in these were

considered for inclusion in the JAQ. Third, the research literature was reviewed to identify those KSAOs which have proven to be important for, and predictive of successful job performance for this and/or similar jobs (Barrick & Mount, 1991; Ones, Viswesvaran, & Schmidt, 1993; Raymark, Schmit, & Guion, 1997; Costa & MacRae, 1992).

The resulting inventories were further refined on the basis of the site visits and focus group sessions described in the following sections.

Site Visits

To further clarify job duties and to better understand the context in which the ACO job is performed, PSI representatives visited a sample of local corrections facilities to observe and informally talk with incumbent ACOs as they performed the job. The work sites included agencies of different sizes and focus. Table 4 summarizes the dates and locations of each site visit. On the basis of these visits, PSI refined the preliminary lists of tasks, equipment items, and KSAOs.

Table 4
Site Visits

Date	Facility/Agency	Position(s) Observed
June 21, 2001	Yolo County Sheriff's Department, Monroe and Leinberger Detention Centers	Corrections Officer
June 26, 2001	Los Angeles County Sheriff's Department Jail	Custody Assistant; Corrections Officer
July 16, 2001	Sacramento Jail	Corrections Officer (custody, classification, intake)

Development of Rating Scales and Instructions

Ratings scales were developed for use in the JAQs to enable ACO incumbents to indicate the frequency with which they perform the listed tasks and use the various equipment items, and to enable ACO supervisors to indicate the importance of the tasks and KSAOs, as well as the extent to which the KSAOs are necessary before hire. The scales were based largely upon scales that have been widely used by PSI and BOC in previous large-scope job analyses, and are consistent with traditional job analysis practices.

The rating scales and instructions for using them were developed through an iterative process that began with draft versions generated by PSI project staff, and subsequent reviews and minor modifications by BOC staff, subject matter experts (ACO supervisors and incumbents) in a focus group setting, and pilot administration of a JAQ administered to several ACO incumbents and supervisors. Table 5 outlines the questions addressed by the rating scales. The final resulting scales and instructions are shown later in this report (see Final JAQs).

Table 5
Overview of JAQ Scales

ACO Incumbent JAQ rating scales	ACO Supervisor JAQ rating scales
Task Frequency: How often do you perform this work task?	**Task Importance:** How important is this task to overall job performance?
Equipment Frequency: How often do you use this equipment?	**KSAO Importance**: How critical is this ability/characteristic for successful job performance?
	KSAO Necessary at Entry: To what extent is it necessary for an entry-level ACO to possess this ability/characteristic before hire?

An additional section of each JAQ was drafted to obtain background information regarding participants completing the surveys so that the representativeness of the job analysis sample could be examined and documented. To develop the background information questions, PSI identified standard demographic questions used in prior job analyses and also considered the purpose of the study and characteristics that could possibly differentiate job duties.

Focus Group Meeting

A focus panel of subject matter experts (SMEs) was convened to review and refine the draft lists of tasks, equipment, and KSAOs, as well as the rating scales, instructions, and background questions. SMEs were carefully selected to participate in the focus group meeting representing the ACO target population. To ensure that both perspectives were represented, approximately half of the meeting participants were incumbents while half were supervisors. Finally, an attempt was made to ensure that focus group participants varied by race, sex, and shift worked.

Sample. A total of 12 SMEs were selected to participate in the meeting. To identify the meeting participants, this target number of focus group participants was multiplied by the average percentages that best represent the population (described earlier in Table 3); the resulting values represented the number of focus group participants to be chosen from each agency size, type, and location category. The resulting focus group sampling plan is given in Table 6. BOC staff identified specific agencies within the specified categories and contacted them to obtain focus group participants.

Procedure. The focus group meeting was held on July 17, 2001, in Sacramento, CA. Twelve incumbents and supervisors representing ACOs from across the state, matching the sampling plan specifications, met for a one-day meeting. In addition to the SMEs, two representatives from PSI and two representatives from the Board of Corrections were present during the meeting. The names, agencies, and demographic characteristics of the meeting participants are summarized in Appendix A.

The meeting began with a discussion of the project background, with PSI representatives explaining the goal of the project, project work completed to-date, and the purpose of the meeting. The need to focus on entry requirements was also explained, and the meaning of the term "entry-level" was discussed. SMEs were then given copies of the draft job analysis questionnaires that included the lists of work tasks, equipment, KSAOs, rating scales, and background information questions. The tentative and proposed job requirements were reviewed and discussed, and all approved changes were made at the meeting.

Table 6
Sampling Plan for Focus Group Meeting Participants

Location	Size						Total	
	Small		Medium		Large			
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Bay							**3**	**25%**
Police	1	8%	-	-	-	-	**1**	**8%**
Sheriff	-	-	1	8%	1	8%	**2**	**17%**
Central							**1**	**8%**
Sheriff	-	-	1	8%	-	-	**1**	**8%**
North							**1**	**8%**
Sheriff	1	8%	-	-	-	-	**1**	**8%**
Sacramento							**1**	**8%**
Sheriff	-	-	1	8%	-	-	**1**	**8%**
South							**6**	**50%**
Police	2	17%	-	-	-	-	**2**	**17%**
Sheriff	-	-	1	8%	3	25%	**4**	**33%**
TOTAL	**4**	**33%**	**4**	**33%**	**4**	**33%**	**12**	**99%**

Type	No.	Percent
Police	3	25%
Sheriff	9	75%

Background Information Review

The background information section was reviewed and discussed, with only minor modifications being made to terminology, phrasing, and certain response categories.

Work Task Review

Considerable time was devoted to reviewing the work tasks. The tasks had been grouped together into categories that represent major work activities. To begin, SMEs first reviewed the major categories to confirm that the major activities were reasonable, appropriate, important, and comprehensive. SMEs were then asked to review the more specific work tasks.

When reviewing the work tasks, the SMEs were instructed to focus on:

- Generalization of the language used. That is, are the phrasing and terminology understandable across all settings, agencies, and assignments (or do they contain terms that are used only in certain agencies)?

- Currency of the tasks/duties. Are all tasks still performed, or are some outdated due to job restructuring or outdated technology?

- Comprehensiveness of the task list. Are all of the substantive tasks that are associated with a particular major activity listed? Are all tasks listed with the most appropriate major activity, or should some be reallocated?

All comments and suggestions were discussed and agreement was reached on the best phrasing and allocation. In addition, if a significant and important task was identified that was applicable to at least one agency represented by the SMEs, it was added to the job analysis questionnaire in spite of its potentially limited applicability. This approach ensured that the list of work tasks included on the job analysis questionnaire would be as comprehensive as possible.

Equipment Review

A similar review of the equipment section was conducted. The focus of this review was on the comprehensiveness and currency of the equipment listed. Once again, modifications were made as necessary.

KSAO Review

Finally, the KSAOs were reviewed in detail, with abilities and other characteristics reviewed first, followed by a brief review of knowledge and skills.

Abilities and other characteristics represent general and enduring traits of employees and underlying dimensions of performance. As a result, although SME input was obtained and considered in the identification and definition of the abilities and other characteristics, primary emphasis was given to the research literature, theory, and findings. Therefore, the focus of the review of this section and the discussion and deliberation that followed were slightly different than the review held for the other sections.

Each ability/other characteristic was reviewed to see if the wording and/or intent of the definition were clear. Discussions were held to identify the source of any misunderstandings or the different ways it could be interpreted, and changes were noted. SMEs were then asked to review the entire list of abilities/other characteristics and discuss whether the list was comprehensive, or if any of the listed abilities/other characteristics were clearly not necessary for the ACO job.

Knowledge and skills were reviewed next. Knowledge and skills are generally taught during training or otherwise acquired after an incumbent has begun performing the job of interest (unless there are prerequisites). We therefore anticipated that the KSAO sections included in the final JAQs would primarily include abilities and other characteristics relevant to preemployment selection, and would not include knowledge or skills.

To determine if most or all important knowledge and skills are learned on the job, SMEs were asked to review the lists of knowledge and skills and independently rate whether the knowledge/skill is acquired before or after entry into the job. The following rating scale was used to make this determination (note that the anchor point definitions on this scale were later modified for purposes of the JAQ):

To what extent is it important for an entry-level ACO to possess this KSAO before hire?

0 = Not Required Before Hire. This KSAO is developed through training and/or on-the-job experience.

1 = Necessary Before Hire. Candidate must possess this KSAO before hire; development through entry-level training or on-the-job experience would be impractical or unsafe.

These ratings (which are summarized in Appendix B) were formally documented and reviewed by PSI project staff following the completion of the meeting. The results supported the conclusion that all of the knowledge and skills identified in the preliminary listing are learned on-the-job (after hire), and therefore were not included in the final version of the supervisor JAQ.

Abilities and Characteristics

Following the SME meeting, the resulting list of abilities and other characteristics was reviewed to ensure that it was concise, comprehensive, and useful for purposes of examination development. The abilities and other characteristics were first reviewed for redundancy and several abilities were integrated into fewer broad-based abilities. These changes were made on the basis of PSI's own review and suggestions made by BOC staff.

The non-cognitive "other characteristics" were reviewed and modified on the basis of a review of psychological literature including research and meta-analyses by Barrick and Mount, 1991; Ones, Viswesvaran, and Schmidt, 1993; Raymark, Schmit, and Guion, 1997; Tett, Jackson, and Rothstein, 1991; and Costa and MacRae, 1992. Using a Big-5 framework, the characteristics resulting from the initial SME work were mapped onto personality taxonomies and constructs that have proven to be measurable and associated with successful performance in a wide variety of jobs. The revised list of abilities and other characteristics was sent to BOC for review and comment. Feedback was received and discussed in detail, and further revisions were made until consensus was achieved and final changes were agreed upon. The final resulting set of 35 abilities and other characteristics is presented in Table 7.

Follow-up Review and Pilot Administration

Incumbent and supervisor versions of the JAQ were assembled and distributed to several of the focus panel members for follow-up review to ensure that the above-described changes were acceptable and clear. Both JAQs included the background section (with slightly modified questions to reflect the difference in position) and the job tasks. As mentioned previously, the response scales also varied – incumbents rated frequency while supervisors rated importance. The incumbent JAQ also included equipment, while the supervisory version included abilities/other characteristics.

Each SME was sent a packet containing:

- A copy of the incumbent JAQ;
- A copy of the supervisor JAQ;
- A survey with 10 specific questions about the JAQ; and
- A postage-paid, addressed envelope to return the JAQ and survey.

Table 7
ACO Abilities and Other Characteristics

1.	Listening Comprehension. The ability to understand information, procedures, or instructions spoken in English.
2.	Oral Communication. The ability to convey clear and concise information in spoken English, providing information in a manner that can be understood by the listener.
3.	Reading Comprehension. The ability to understand materials, procedures, or instructions written in English. This ability involves reading sentences and paragraphs to identify and interpret facts and relevant information.
4.	Written Communication. The ability to convey clear and concise information in written English, using correct spelling, grammar, and punctuation to produce documents that can be understood by the reader.
5.	Information Ordering. The ability to correctly follow a given rule or set of rules to arrange things or actions (e.g., sentences in a paragraph, steps in a procedure) in a certain order.
6.	Reasoning. The ability to analyze and evaluate information to arrive at a correct conclusion. It includes making judgments regarding the accuracy of information, applying rules and principles, and combining pieces of information to come up with logical answers.
7.	Basic Math. The ability to add, subtract, multiply, and divide whole numbers.
8.	Vigilance. The ability to remain alert and not become restless during periods of slow or repetitive work activity (e.g., monitoring).
9.	Selective Attention. The ability to concentrate on a task and not be distracted.
10.	Perceptual Speed and Accuracy. The ability to quickly and accurately compare letters, numbers, objects, pictures, or words presented in written or visual form in order to identify inaccurate, inconsistent, or missing information.
11.	Multi-tasking. The ability to quickly and accurately process multiple types of information and/or perform multiple tasks, shifting back and forth between tasks and/or sources of information.
12.	Applied Memorization. The ability to recall information such as procedures and rules, faces, identification marks, and the order in which events occurred.
13.	Strength. The ability to use muscle force in order to lift, push, pull, or carry objects.
14.	Flexibility. The ability to bend, stretch, twist, or reach out with the body, arms, or legs.
15.	Stamina. The ability to exert oneself physically without getting out of breath.
16.	Assertiveness. The tendency to take charge of situations or groups, to influence or motivate others; to speak-up, be candid, and confront people when necessary, without hesitation.
17.	Emotional Control. The tendency to remain calm and in control, and not overreact or express negative emotions (e.g., anger) in adverse, stressful, life-threatening, or time-critical situations.
18.	Stress Tolerance. The ability to perform effectively under stressful conditions and to cope with prolonged exposure to job stressors (e.g., time pressure, emergencies, threats, physical altercations).
19.	Attention to Detail. The tendency to be thorough and to carry out tasks with a concern for the inclusion and correctness of details.
20.	Self-Assurance. The tendency to interact confidently with individuals or groups at all levels; to not be easily fooled or persuaded into changing course of action; and to have confidence in one's ability to be effective.
21.	Decisiveness. The tendency to make well-reasoned decisions in a timely manner, sometimes in situations where there are no standard procedures.
22.	Friendly Disposition. The tendency to be courteous, cooperative, tactful, patient and friendly to others (e.g., coworkers, supervisors, and the public).

Table 7 (Contd.)
ACO Abilities and Other Characteristics

23.	Adaptability. The willingness and ability to adapt to unanticipated problems or conflicts; accept changes (e.g., assignments or procedures); and change roles based on one's assessment of the situation.
24.	Positive Attitude. Demonstrating a positive, upbeat attitude when interacting with others (not overly cynical, suspicious or distrustful of others); displaying an interest and enjoyment in the job by putting energy into work; accepting constructive criticism.
25.	Team Orientation. The desire or willingness to establish and maintain effective working relationships with others; to share information, provide assistance, put group goals ahead of personal goals and to do one's fair share in a group effort; not allowing personal differences affect working relationships.
26.	Interpersonal Sensitivity. Being genuinely concerned about the safety and welfare of others; attempting to understand and consider others' needs, motives, concerns, feelings, and perspectives.
27.	Gregariousness. Having a preference for being with people.
28.	Dependability. The tendency to be reliable (e.g., maintaining punctual, reliable attendance records); to take ownership for work performed and ensure work is completed accurately and on time.
29.	Attitude Toward Safety. A willingness and tendency to proceed in a careful, cautious, or prudent manner in potentially dangerous situations.
30.	Integrity. The tendency to be fair, honest, impartial, and straightforward in dealing with others; to honor commitments; to be trustworthy; to take responsibility for failures and share credit for successes; to use appropriate discretion and be sensitive to confidentiality; and to demonstrate high ethical standards.
31.	Conformance to Rules and Regulations. The tendency to perform work in compliance with laws, rules and regulations; to accept and conform to accepted standards of conduct and the authority structure of the organization.
32.	Tolerance of Work Conditions. The willingness to tolerate physically unpleasant work environments or conditions (e.g., long shifts; confined work areas; interacting with criminals, many of whom have committed heinous crimes).
33.	Achievement Motivation/Initiative. An ambition and desire to exert the effort needed to attain goals; being determined and persistent; having a strong work ethic, and a tendency to work hard and do one's best; to proceed on assignments without waiting to be told what to do; and work diligently without supervision.
34.	Willingness to Learn. The willingness to acquire new skills and knowledge, seek out and use feedback to improve performance, learn from own and others' experiences, and apply learning to new situations; the ability to review one's perceptions, attitudes, behaviors, and emotions to make constructive changes that improve performance.
35.	Objectivity/Tolerance. A willingness to interact with people from a diverse population in an unbiased fashion, without letting personal prejudices affect interactions with others.

Five SMEs participated in the follow up review. Of these, four confirmed that the majority of the tasks performed and the abilities/other characteristics needed on the job were included in the JAQs. Specifically, one SME indicated that 30-50% of the tasks typically performed on the job were represented; one indicated that 70-90% of tasks performed were listed; and three indicated that the JAQs contained more than 90% of the tasks typically performed.

Four written comments were received. Of these, one suggested that the difference between the scale points of "very important" and "critically important" be clarified; one suggested a revision to a question about the frequency with which firearms were carried on the job; and two suggested modifications to a specific task statement. The JAQs were modified to incorporate all four suggestions.

Pilot. The revised JAQs were administered to a second group of SMEs identified by the BOC. The SMEs were asked to complete the JAQ and then to provide feedback on the clarity of directions and ease of understanding. They were also encouraged to comment on any typographical errors, missing information, or poorly worded statements.

Based on the results of this pilot test, the scale points for one of the rating scales ("Necessary at Entry") on the supervisor JAQ were revised to clarify the difference between the two ratings points. In addition, the feedback received reinforced a previous suggestion to expand the instructions for the abilities/other characteristics section of the supervisor JAQ. Specifically, the instructions were expanded to include additional clarification and guidance about the factors to consider in making the importance and necessary at entry ratings.

Final JAQs

Once all agreed-upon revisions had been made, final versions of the incumbent and supervisor JAQs were assembled, as described below.

Incumbent JAQ. The final version of the ACO Incumbent JAQ is shown in Appendix C and summarized below. The JAQ included the following three sections: I. Background Information, II. Work Tasks, and III. Equipment.

The background information section (Section I) included 18 questions eliciting demographic (e.g., sex, race) and job-specific (e.g., work experience, type of inmates' supervised, size of agency) information.

In Section II, Work Tasks, respondents were asked to describe the work they perform in their current job assignment. Specifically, respondents were asked to review 255 work tasks within 9 major activity areas, including:

1. Booking, Receiving, and Releasing
2. Escorting, Transporting
3. Record Keeping, Report Writing
4. Supervising Non-inmate Movement, Visitors
5. Searching and Securing
6. Supervising Inmates
7. Communicating
8. Physical Tasks
9. Miscellaneous Tasks

Incumbents rated each task using the following rating scale:

Frequency – How often do you perform this work task?	
9	More than once a day
8	About once a day
7	Several times a week
6	About once a week
5	Two or three times a month
4	About once a month
3	Several times or less in the past year.
2	I have performed this task in this agency, but not in the last year.
1	This task is part of the job, but I have never performed it at this agency
0	Never – It is not part of the job.

In the third section incumbent ACOs were asked to rate the frequency with which they use 76 different equipment items, using the rating scale below:

Frequency - How often have you used this equipment in the past year?	
3	Very Often
2	Often
1	Occasionally
0	Never

Supervisor JAQ. The final Supervisor JAQ, also shown in Appendix C, contained the following three sections: I. Background Information, II. Work Tasks, and III. Abilities and Other Characteristics.

The Background Information Section contained 19 questions similar to those in the incumbent JAQ, with revisions made as appropriate to reflect the differences in job levels.

The focus of the Work Tasks section (Section II) in the supervisor questionnaire was on the importance of each work task. Supervisors were asked to rate the importance of each of the 255 tasks using the following rating scale:

Importance - How important is this task to overall job performance?	
5	Critically Important
4	Very Important
3	Important
2	Of Some Importance
1	Of Little Importance
0	Not Performed by ACOs in my agency

Finally, in Section III, supervisors used the following two scales to rate the 35 abilities and other characteristics:

Importance - How critical is this ability/characteristic for successful job performance?	
5	Critically Important
4	Very Important
3	Important
2	Of Some Importance
1	Of Little Importance
0	Not Important for Successful Job Performance

Necessary at Entry - To what extent is it necessary for an entry-level ACO to possess this ability/characteristic before hire?	
1	Necessary Before Hire. Candidates must possess a substantial amount of this ability/characteristic before hire. This ability/characteristic is not developed primarily through entry-level training or on-the-job experience.
0	Not Required Before Hire. Little or none of this ability/characteristic is necessary before hire. This ability/characteristic is developed primarily through training and/or on-the-job experience.

Data Collection

Survey Sample

Early in the project, PSI and BOC made the joint decision to conduct the data analysis so that each agency's ratings would have equal weight in the overall analysis (i.e., agency was the unit of analysis in the study). While more data would be collected in larger agencies (to ensure that the greater variety of positions was represented) it was determined that all data collected from an agency would be combined to form a single rating.

Because it would be impractical to contact/survey every person who holds or supervises the target job at all agencies, we developed a detailed sampling plan to be used when choosing project participants. The sampling plan ensured that the variety of agency types, job assignments, and geographic locations were represented in the job analysis. Agencies were selected to participate in the job analysis in proportion to the size, type, and region categories in the target population.

To ensure that a representative sample of incumbents and supervisors could be surveyed in a timely and cost-efficient manner, it was decided that approximately 1/3rd of the ACO agencies (e.g., 35) would be sampled to participate in the administration of the JAQ. Accordingly, the target population percentages (shown in Table 3) were multiplied by the target number of agencies, with numbers rounded where appropriate. Slight adjustments were made as needed, making sure that the overall sample was proportional by size, type, and region (even if it was not possible to make the sample proportionate within each individual cell).

Next, the number of incumbents and supervisors to be chosen from each agency was identified. It was decided that completed JAQs should be received from 20% of the incumbents and 50% of the supervisors in the selected agencies; to ensure this, agencies were over sampled by 10%, so that ultimately 22% of incumbents and 55% of incumbents within each agency would be asked to complete a JAQ. With this plan, larger agencies would have more incumbents and supervisors completing questionnaires. Over sampling the larger agencies helped to ensure that the range of job duties performed in larger agencies was represented.

BOC representatives selected the specific agencies to receive the JAQs by considering: (1) the number of agencies to select within each sampling category, and (2) the target number of JAQs to be completed.

Minimum and maximum numbers of JAQs to be distributed within an agency were also identified. It was determined that no fewer than 5 and no more than 40 supervisors or 50 incumbents would be sampled from any given agency.

As a result, 38 agencies were selected to participate in the JAQ administration, where a total of 841 incumbent and 444 supervisor JAQs were to be distributed. Table 8 describes the agency JAQ sampling plan. The sample was highly representative of the target population, as shown in Table 9.

JAQ Distribution

BOC staff contacted each participating agency and established a local project coordinator who would be responsible for receiving, distributing, and returning JAQs. The local coordinators were given an overview of the purpose and importance of the project, as well as the general process that would be undertaken.

The JAQs were sent to the agency coordinators in October 2001. Included with the JAQ s were complete and detailed instructions and materials for administration. The JAQs were administered with the confidentiality of the study participants in mind. Individual envelopes were provided to enable them to submit their completed JAQs with complete discretion.

Each agency coordinator received the following materials:

- One JAQ packet per participant (see below);
- A letter of explanation describing the purpose of the project, as well as procedures to be followed in selecting the sample and distributing and returning the questionnaires;
- The targeted number of incumbents and supervisors to complete the JAQ (i.e., as shown in the sampling plan in Table 8);
- Extra copies of the questionnaires and response sheets;
- A log sheet, to aid in tracking the distribution and receipt of JAQs; and
- A postcard, to be sent to PSI to acknowledge receipt of the packet of materials

Appendix D contains the cover letter, procedures, guidelines, and supporting materials that were sent to the agency coordinators.

The individual JAQ packets given to selected participants contained:

- A job analysis questionnaire;
- A response sheet, to be used to record JAQ ratings; and
- An envelope, stamped “CONFIDENTIAL” for the return of the completed JAQ.

Table 8
Agency Sampling Plan for JAQ Administration

Agency		Number of JAQs	
		Incumbent	**Supervisor**
1.	Alameda Sheriff	50	26
2.	Amador Sheriff	5	5
3.	Buena Park Police	4	1
4.	Colusa Sheriff	5	5
5.	Delano Police	4	1
6.	El Dorado Sheriff	10	7
7.	Fresno Sheriff	50	16
8.	Fullerton Police	4	4
9.	Glendale Police	5	3
10.	Glendora Police	5	3
11.	Hayward Police	5	4
12.	Humboldt Sheriff	19	5
13.	Huntington Beach Police	5	3
14.	Kern Sheriff	47	7
15.	Los Angeles Sheriff	50	40
16.	Madera Dept of Corr	11	8
17.	Nevada Sheriff	10	5
18.	Oakland Police	14	3
19.	Orange Sheriff	50	28
20.	Placer Sheriff	15	5
21.	Pomona Police	5	4
22.	Riverside Sheriff	50	40
23.	San Benito Sheriff	5	4
24.	San Bernardino Sheriff	50	35
25.	San Diego Sheriff	50	40
26.	San Fernando Police	5	1
27.	San Francisco Sheriff	50	40
28.	San Leandro Police	5	5
29.	San Luis Obispo Sheriff	20	7
30.	San Mateo Sheriff	27	11
31.	Santa Ana Police	14	6
32.	Santa Barbara Sheriff	29	8
33.	Santa Clara Dept of Corr	50	19
34.	Siskiyou Sheriff	10	7
35.	Solano Sheriff	33	12
36.	Sonoma Sheriff	36	10
37.	Stanislaus Sheriff	30	11
38.	Tuolumne Sheriff	4	5
Total		841	444

Table 9
Comparison of Target Sample to Population

Location	Size						Total	
	Small		Medium		Large			
	Population	Sample	Population	Sample	Population	Sample	**Population**	**Sample**
Bay							**22.6%**	**26.3%**
Police	3.2%	5.3%	0.8%	2.6%	-	-	**4.0%**	**7.9%**
Sheriff	0.6%	5.3%	8.5%	5.3%	8.7%	7.9%	**17.6%**	**18.4%**
Probation	1.1%	0%	-	-	-	-	**1.1%**	**0%**
Central							**11.8%**	**18.4%**
Police	0.5%	2.6%	-	-	-	-	**0.5%**	**2.6%**
Sheriff	2.2%	2.6%	7.2%	10.5%	2.0%	2.6%	**11.3%**	**15.8%**
North							**8.7%**	**7.9%**
Sheriff	4.9%	5.3%	3.8%	2.6%	-	-	**8.7%**	**7.9%**
Sacramento							**9.5%**	**10.5%**
Police	0.5%	0%	-	-	-	-	**0.5%**	**0%**
Sheriff	1.5%	2.6%	7.5%	7.9%	-	-	**9.1%**	**10.5%**
South							**47.3%**	**36.8%**
Police	16.4%	18.4%	2.9%	2.6%	-	-	**19.3%**	**21.1%**
Sheriff	-	-	3.6%	2.6%	23.4%	13.2%	**26.9%**	**15.8%**
Probation	0.6%	0%	0.7%	0%	-	-	**1.3%**	**0%**
TOTAL	**31.4%**	**42.1%**	**34.7%**	**34.2%**	**34%**	**23.7%**	**100%**	**100%**

Agency Type	Total %	
	Population	Sample
Police	24.3%	31.6%
Sheriff	73.6%	68.4%
Probation	2.3%	0%

The letter of explanation and enclosed procedures included guidelines to the coordinators to assist them in selecting incumbent ACOs and supervisors to complete the JAQ. Some of the key points were to:

- Represent the variety of entry-level positions;
- Select employees who have proven to be effective on the job, and
- Reflect the diversity of the incumbent population (in terms of racial/ethnic groups, sex, and age).

The coordinators were asked to track the return of the JAQs and to follow up to ensure that all were completed by the deadline. In addition, the BOC project manager kept in close contact with the agency coordinators, and was available to answer questions as they arose.

JAQs Received and Retained for Analysis

Return Rate. A total of 1,199 JAQs were returned by January 2002, for a response rate of 93%, with all 38 agencies represented. The JAQs distributed and returned by ACO incumbents and supervisors are summarized in Table 10.

Table 10
JAQs Returned and Retained for Analysis

Number of JAQs					
Incumbent			Supervisor		
Distributed	Returned	Retained	Distributed	Returned	Retained
841	793	791	444	406	400
	94%	94%		91%	90%

Data Verification. Prior to conducting the analyses, the completed JAQs were reviewed and checked for accuracy and reasonableness. Only eight JAQs were eliminated from the study, as described below.

Incumbent JAQs. Incumbent JAQs were eliminated from the data analysis if:

- There was little evidence that the incumbent currently worked as an ACO. That is, the respondent failed to answer either of two background questions which would indicate he/she was an ACO, and indicated that fewer than 50% of the tasks listed in the JAQ were a part of their job.
- The JAQ was incomplete. Specifically, if the respondent failed to rate at least 50% of the tasks on the JAQ it was excluded from substantive analyses.
- The respondent's ratings indicated that fewer than 20% of the tasks on the JAQ were a part of their job.
- The ratings/responses were the same across all tasks. The lack of variability in responses suggests that the respondent might have been making ratings without careful thought or consideration.

Of the 793 incumbent JAQs returned, two were eliminated because the incumbents indicated that they performed fewer than 20% of the tasks on the JAQ, resulting in a total of 791 JAQs that were useable.

Supervisor JAQs. Supervisor JAQs were eliminated from the data analysis if:

- Their supervisory responsibilities did not give them an opportunity to know the ACO job in detail. That is, the respondent indicated that he/she did not currently supervise any ACO incumbents and did not have at least one year of experience supervising incumbents.
- The JAQ was incomplete. Specifically, the respondent rated fewer than 50% of the tasks on the JAQ.
- The JAQ was not relevant to the jobs they supervised, in that the incumbents they supervise performed fewer than 20% of the tasks on the JAQ.
- The ratings/responses were suspect (e.g., if all of their task ratings were the same).

Of the 406 supervisor JAQs returned, six were excluded from the analysis, resulting in a total of 400 supervisor JAQs being retained for analysis. Three were eliminated because the supervisor indicated that he/she did not supervise at least one incumbent or have at least one year of supervisory experience; two were eliminated because the supervisor rated fewer than 50% of the tasks on the JAQ; and one was eliminated because the supervisor indicated that the ACOs he/she supervises perform fewer than 20% of the tasks on the JAQ.

Because of the extremely high survey return rates (in excess of 90%) and the very small number of unusable surveys, we had a high level of confidence that the final analysis sample closely mirrored the intended target population.

ANALYSIS AND RESULTS

Characteristics of the Job Analysis Sample

Demographic characteristics of the ACO incumbents and supervisors comprising the analysis sample are shown in Tables 11 and 12, respectively. Tables 13 and 14 summarize respondents' relevant experience, as indicated in their responses to the questions in Section I of the JAQ.

An overview of these results is provided below:

Incumbent Sample:

- Almost all incumbents (99.5%) are permanent full time employees.
- Approximately half of the incumbents work primarily on the day shift, with an additional one-third from the night/graveyard shift.
- Incumbents had a range of tenure both in their facility and as an ACO, however, the most frequently endorsed length of time in their present assignment, as an ACO, and in their current facility was 1 – 3 years.
- 69% of incumbents are male and 57% are Caucasian.
- Nearly all incumbents had completed high school, with slightly more than one-third of the incumbents obtaining a post-high school degree.
- Four-fifths of the incumbents work in a Sheriff's office.
- Approximately two-thirds of the incumbents work in a mixed security facility, with slightly more than that working in a facility with both male and female inmates.

Supervisor Sample:

- Not surprisingly, supervisors had more experience than incumbents in corrections, with 28% of the supervisor sample having between 10 and 15 years of corrections experience, and an additional 22% having more than 15 years of experience.
- Approximately one-third of the supervisors have 1 – 3 years experience supervising ACOs, while an additional one-third have between 3 and 10 years of experience as a supervisor.
- Slightly more than half of the supervisors directly oversee the work of fewer than 20 ACOs, while slightly more than one-third supervise 20 – 49 ACOs.
- Similar to the ACO incumbents, nearly all supervisors are permanent full time employees, with approximately one-half working the day shift, and one-third working the evening/graveyard shift.
- 74% of supervisors are male and 69% are Caucasian.
- Similar to the incumbents in the sample, supervisors are more likely to work in a Sheriff's office (87%), with mixed security (61%), with a combination of male and female inmates (75%).

Table 11
Characteristics of the Incumbent JAQ Sample:
Demographic/Background Information

Characteristic	Frequency	Percentage
Length of time in current facility (as ACO)		
• Less than 1 year	52	6.6%
• 1 to 3 years	266	33.6%
• More than 3 years to 5 years	167	21.1%
• More than 5 years to 10 years	148	18.7%
• More than 10 years to 15 years	117	14.8%
• More than 15 years	36	4.6%
• Not Reported	5	< 1%
Years of total experience as ACO		
• Less than 1 year	15	1.9%
• 1 to 3 years	206	26%
• More than 3 years to 5 years	156	19.7%
• More than 5 years to 10 years	149	18.8%
• More than 10 years to 15 years	179	22.6%
• More than 15 years	72	9.1%
• Not Reported	14	1.8%
Time in present assignment		
• Less than 6 months	133	16.8%
• 6 months to 1 year	118	14.9%
• More than 1 year to 3 years	246	31.1%
• More than 3 years to 5 years	120	15.2%
• More than 5 years to 10 years	85	10.7%
• More than 10 years to 15 years	63	8.0%
• More than 15 years	19	2.4%
• Not Reported	7	< 1%
Work status		
• Permanent full time	787	99.5%
• Permanent part time	2	< 1%
• Other	1	< 1%
• Not Reported	1	< 1%
Shift primarily worked		
• Day	413	52.2%
• Swing	117	14.8%
• Night/Graveyard	253	32.0%
• Not Reported	8	1.0%
Type of schedule worked		
• 12 hours/day	452	57.1%
• 10 hours/day	47	5.9%
• 9 hours/day	9	1.1%
• 8 hours/day	249	31.5%
• Mixed shift	11	1.4%
• Other	15	1.9%
• Not Reported	8	1.0%

Table 11 Contd.
Characteristics of the Incumbent JAQ Sample:
Demographic/Background Information

Characteristic	Frequency	Percentage
Gender		
• Male	548	69.3%
• Female	235	29.7%
• Not Reported	8	1.0%
Racial/ethnic group		
• African American	86	10.9%
• Asian	26	3.3%
• Pacific Islander	13	1.6%
• Caucasian	453	57.3%
• Native American	12	1.5%
• Hispanic	155	19.6%
• Other	29	3.7%
• Not Reported	17	2.1%
Age		
• < 21	0	-
• 21 – 30	204	25.8%
• 31 – 40	278	35.1%
• 41 – 50	142	18%
• 51 – 60	61	7.7%
• 61 +	6	<1%
• Not Reported	100	12.6%
Highest educational degree received		
• No degree	12	1.5%
• High school/GED	404	51.1%
• Technical/Vocational degree	63	8.0%
• Associate's degree	172	21.7%
• Bachelor's degree	105	13.3%
• Master's degree	6	< 1%
• Other	17	2.1%
• Not Reported	12	1.5%

Table 12
Characteristics of the Supervisor JAQ Sample:
Demographic/Background Information

Characteristic	Frequency	Percentage
Length of time in current facility		
• Less than 1 year	76	19.0%
• 1 to 3 years	111	27.8%
• More than 3 years to 5 years	54	13.5%
• More than 5 years to 10 years	62	15.5%
• More than 10 years to 15 years	60	15.0%
• More than 15 years	34	8.5%
• Not Reported	3	< 1%
Years of total experience in corrections		
• Less than 1 year	6	< 1.5%
• 1 to 3 years	33	8.3%
• More than 3 years to 5 years	62	15.5%
• More than 5 years to 10 years	96	24.0%
• More than 10 years to 15 years	113	28.3%
• More than 15 years	87	21.8%
• Not Reported	3	< 1%
Number of ACOs supervised		
• 0	5	< 1.3%
• 1 – 19	216	54%
• 20 – 49	143	35.75%
• 50 – 99	25	6.25%
• 100 – 199	4	1%
• 200 – 499	2	< 1%
• 500 – 599	2	< 1%
• Not Reported	3	< 1%
Length of time supervising ACOs		
• Less than 3 months	7	1.8%
• 3 months to 6 months	28	7.0%
• More than 6 months to 1 year	64	16.0%
• More than 1 year to 3 years	137	34.3%
• More than 3 years to 5 years	70	17.5%
• More than 5 years to 10 years	58	14.5%
• More than 10 years to 15 years	35	8.8%
• Not Reported	1	< 1%
Work status		
• Permanent full time	398	99.5%
• Permanent part time	2	< 1%
• Other	0	--
Shift primarily worked		
• Day	225	56.3%
• Swing	46	11.5%
• Night/Graveyard	123	30.8%
• Not Reported	6	1.5%

Table 12 Contd.
Characteristics of the Supervisor JAQ Sample:
Demographic/Background Information

Characteristic	Frequency	Percentage
Type of schedule worked		
• 12 hours/day	188	47.0%
• 10 hours/day	55	13.8%
• 9 hours/day	6	1.5%
• 8 hours/day	135	33.8%
• Mixed shift	13	3.3%
• Other	2	< 1%
• Not Reported	1	< 1%
Gender		
• Male	296	74%
• Female	102	25.5%
• Not Reported	2	< 1%
Racial/ethnic group		
• African American	39	9.8%
• Asian	9	2.3%
• Pacific Islander	3	< 1%
• Caucasian	276	69%
• Native American	9	2.3%
• Hispanic	46	11.5%
• Other	11	2.8%
• Not Reported	7	1.8%
Age		
• < 21	0	-
• 21 – 30	7	1.8%
• 31 – 40	126	31.5%
• 41 – 50	148	37%
• 51 – 60	74	18.5%
• 61 +	3	<1%
• Not Reported	42	10.5%
Highest educational degree received		
• No degree	12	3%
• High school/GED	144	36%
• Technical/Vocational degree	13	3.3%
• Associate's degree	108	27%
• Bachelor's degree	87	21.8%
• Master's degree	25	6.3%
• Other	11	2.8%

Table 13
Characteristics of the Incumbent JAQ Sample:
Agency/Facility Information

Characteristics	Frequency	Percentage
Type of agency		
• Police	61	7.7%
• Sheriff	632	79.9%
• Local Dept of Corrections	93	11.8%
• Probation	0	0
• Not Reported	5	< 1%
Type of facility		
• Presentenced inmate facility	60	7.6%
• Sentenced inmate facility	10	1.3%
• Both presentenced and sentenced	704	89.0%
• Other	10	1.3%
• Not Reported	7	< 1%
Level of security in work area		
• Minimum	56	7.1%
• Medium	46	5.8%
• Maximum	162	20.5%
• Mixed	518	65.5%
• Not Reported	9	1.1%
Gender of inmates in facility		
• Male	198	25.0%
• Female	27	3.4%
• Both males and females	563	71.2%
• Not Reported	3	< 1%
Carry firearm as part of job?		
• Yes	436	55.1%
• No	345	43.6%
• Not Reported	10	1.3%
Agency Size		
• Small	69	8.7%
• Medium	287	36.3%
• Large	435	55.0%
Agency Region		
• Bay	256	32.4%
• Central	149	18.8%
• North	30	3.8%
• Sacramento	39	4.9%
• South	317	40.1%

Table 14
Characteristics of the Supervisor JAQ Sample:
Agency/Facility Information

Characteristic	Frequency	Percentage
Type of agency		
• Police	30	7.5%
• Sheriff	347	86.8%
• Local Dept of Corrections	22	5.5%
• Probation	0	0
• Not Reported	1	< 1%
Type of facility		
• Presentenced inmate facility	32	8.0%
• Sentenced inmate facility	6	1.5%
• Both presentenced and sentenced	351	87.8%
• Other	9	2.2%
• Not Reported	2	< 1%
Level of security in work area		
• Minimum	20	5.0%
• Medium	21	5.3%
• Maximum	97	24.3%
• Mixed	244	61.0%
• Not Reported	18	4.5%
Gender of inmates in facility		
• Male	86	21.5%
• Female	14	3.5%
• Both males and females	299	74.8%
• Not Reported	1	< 1%
Majority of ACOs supervised carry firearm?		
• Yes	147	36.8%
• No	253	63.3%
Agency Size		
• Small	44	11.0%
• Medium	97	24.3%
• Large	259	64.8%
Agency Region		
• Bay	116	29.0%
• Central	49	12.3%
• North	14	3.5%
• Sacramento	22	5.5%
• South	199	49.8%

Descriptive Statistics

The first step in the analysis was to generate simple descriptive statistics (e.g., means, standard deviations, and frequency distributions) for the ratings for each task, equipment item, and ability/characteristic to ensure that the data appeared reasonable. A summary of these statistics, averaged across tasks, equipment, and abilities/characteristics, is provided in Table 15. Highlights of these results are presented below:

Task Ratings:

- On average, 77% of incumbents reported that each task is part of the job, while 80% of the supervisors indicated that each task is performed by ACOs in their agency.
- The mean task importance rating was 3.5 (on a 5-point scale, based on those indicating that the task is relevant to ACO work), with a standard deviation (SD) of 0.59.
- The mean task frequency rating was 5.0 (on a 9-point scale, based on those who reported performing the task); the SD was 2.03.

Abilities/Other Characteristic Ratings:

- On average, 100% of supervisors indicated that each ability/characteristic is relevant to the ACO job.
- The mean ability/characteristic importance rating was 4.0 (on a 5-point scale, based on those indicating that the item is relevant to ACO work), with an SD of 0.34.
- On average, 72% of supervisors rated each ability/characteristic as necessary before hire (of those indicating that the item is relevant to ACO work).

Equipment Ratings:

- On average, 42% of incumbents reported that each equipment item is used on the job.
- The equipment frequency rating was 1.6 (on a 3-point scale, based on those who reported using the equipment); the SD was 0.47.

Table 15
Summary of Descriptive Statistics – ACO JAQs

Characteristic	Average	Standard Deviation	Minimum	Maximum
Tasks (N=255)				
Percent of incumbents rating task as part of the job	77.42	21.11	13.20	100.00
Frequency rating by incumbents	4.95	2.03	1.13	8.75
Percent of supervisors rating task as performed by ACOs in their agency	80.19	19.34	18.70	100.00
Importance rating by supervisors	3.51	.59	2.26	4.78
Abilities/Other Characteristics (N=35)				
Percent of supervisors rating the ability/characteristic as used by ACOs	100	.16	99.3	100.0
Importance rating by supervisors	3.95	.34	3.17	4.61
Percent of supervisors rating ability/characteristic as necessary before hire	72.2	14.14	50.5	98.1
Equipment (N=76)				
Percent of incumbents rating equipment item as used on the job	41.5	30.89	3.0	99.7
Frequency rating by incumbents	1.56	.47	1.06	2.90

Similarity Between Incumbent and Supervisor Ratings

An analysis was conducted to examine the agreement between ACO incumbents and supervisors in their ratings of the 255 job tasks. Specifically, a Pearson product-moment correlation was computed between the mean percent of incumbents performing each task and the mean percent of supervisors indicating that the task is performed by ACOs; (i.e., the task mean was the unit of analysis). Overall, there was a high level of agreement between incumbents and supervisors in their endorsements of the various tasks, as evidenced by a correlation of .96. This finding indicates that incumbents and supervisors were in close agreement with respect to their relative rankings of the extent to which each task is performed as part of the ACO job. Figure 1 (a and b) illustrates the pattern of agreement across tasks.

Figure 1a
Comparison of Incumbent and Supervisor Ratings
Tasks 1-150

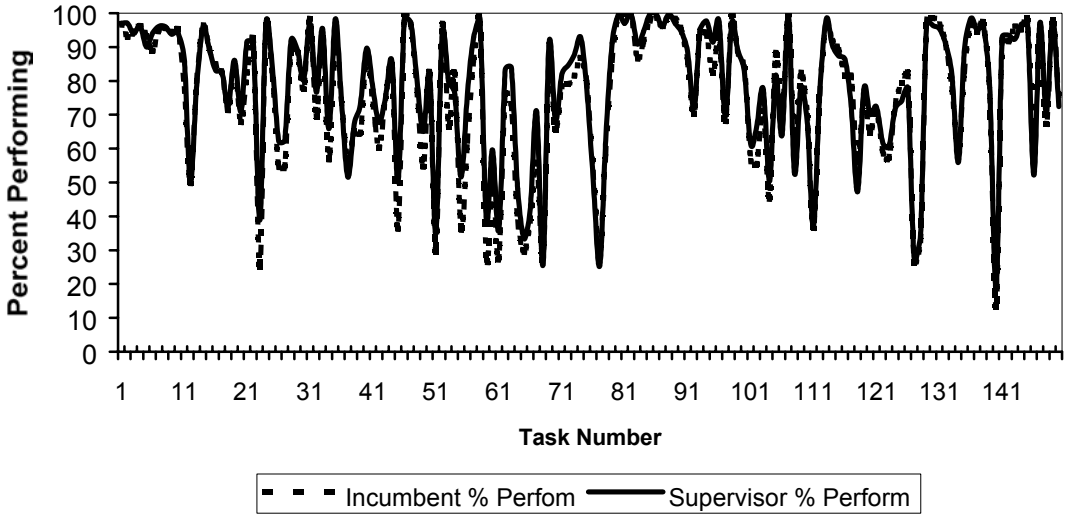
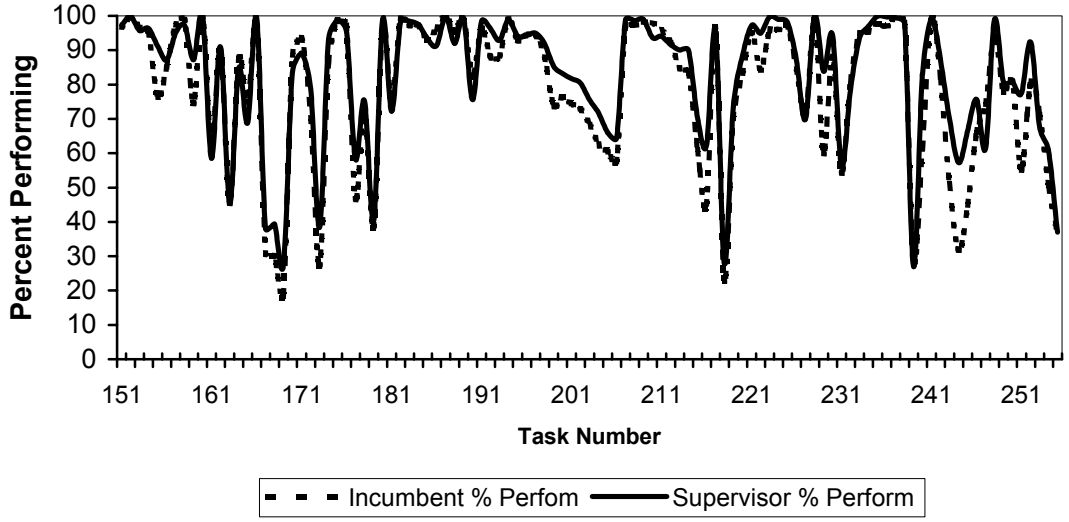


Figure 1b
Comparison of Incumbent and Supervisor Ratings
Tasks 151-255



Identification of Core Job Requirements

As stated earlier, the purpose of the job analysis was to identify the work performed and the abilities/other characteristics required for successful performance for ACOs statewide. To this end, the obtained incumbent and supervisor JAQ data were analyzed to identify the common "core" set of tasks, equipment, and abilities/other characteristics. To be considered "core," a job requirement (e.g., a task, ability/characteristic, or equipment item) had to meet minimum rating criteria for both the entire group of respondents, as well as within each of the five agency size and type "subgroups". Specifically, a requirement had to meet the core criteria in small, medium, and large agencies, and in police and sheriff's departments. The vast majority of ratings far exceeded these minimum criteria.

In general, to be considered core, the ratings from respondents had to indicate that the task is performed in at least half of the ACO jobs statewide. An ability/other characteristic was considered core if, across the state, it was rated as important for successful job performance and necessary at the time of entry into the ACO job. As noted earlier, the unit of analysis was the agency mean rating of each KSAO. This enabled a balanced representation of the various sizes and types of agencies throughout the state (thus, avoiding overrepresentation of the larger agencies in the sample).

Core Criteria

The core criteria were established in consideration of prior job analyses and the goals of the present study. The specific criteria for identifying core job requirements are outlined below.

Tasks. Incumbent and supervisor JAQ ratings were considered jointly in defining the criteria for core ACO work. In order to be considered a core task, the JAQ ratings for that item had to meet criteria for the total sample (either 1, or 2A and 2B) and criteria within each of the agency size and type categories (either 3, or 4A and 4B), as outlined below:

Criteria for the Total Sample:

1. At least 50% of the incumbents indicated that the task is a part of their job (rated the task frequency at least 1.0, "This task is part of the job"), OR

2A. At least 50% of the supervisors indicated that the ACOs they supervise perform the task (rated the task importance at least 1.0, "Of little importance,"); AND

2B. The average importance rating across all supervisors was at least 3.0 ("Important").

Criteria Within Agency Size and Type Categories:

3. At least 33% of the incumbents in each subgroup indicated that the task is part of the job (rated the task a 1.0 or higher on the Frequency scale), OR

4A. At least 33% of the supervisors in each subgroup indicated that the ACOs they supervise perform the task (rated the task 1.0 or higher on the Importance scale); AND

4B. The average importance rating across all supervisors was at least 2.0 ("Of Some Importance").

Abilities and Other Characteristics. In order for an ability or other characteristic to be considered "core", it had to meet all six of the following conditions:

Criteria for the Total Sample:

1. At least 50% of the supervisors rated the ability/characteristic at least 1.0 on the Importance rating scale (indicating that the ability/characteristic was of any importance for ACO work); AND
2 The average importance rating across all supervisors was 3.0 ("Important"); AND
3. At least 50% of the supervisors indicated that the ability/other characteristic was necessary before hire; AND

Criteria Within Agency Size and Type Categories:

4. At least 33% of the supervisors in each subgroup rated the ability/characteristic at least 1.0 on the Importance rating scale (e.g., rated the ability/characteristic of any importance for ACO work); AND
5. The average importance rating across all supervisors in each subgroup was 2.0 ("of some importance"); AND
6. At least 33% of the supervisors in each subgroup indicated that the ability/other characteristic was necessary before hire.

Equipment. Equipment items were considered core if their ratings met the following two conditions:

Criteria for the Total Sample:

1. At least 50% of all incumbents rated the frequency of use at least 1.0 (indicating that they use the equipment at least "occasionally") AND

Criteria Within Agency Size and Type Categories:

2. At least 33% of the incumbents in each subgroup rated the frequency of use at least 1.0.

Results

The above criteria were established via an iterative process in which initial core criteria were established, JAQ data were analyzed and lists of core tasks and abilities/other characteristics were reviewed for reasonableness. After making very slight adjustments, the above core criteria were established and applied to the JAQ ratings. Table 16 summarizes the numbers of tasks, abilities/other characteristics, and equipment items that were identified as core and non-core.

All of the abilities/other characteristics were rated as core by the total sample and all five subgroups. A majority of the tasks (220 of 255, or 85%) were rated as core. The non-core tasks were mainly concentrated among three major activities (Record Keeping/Report Writing; Supervising Inmates; and Communicating), with 25 (or 71%) of the non-core tasks from these three activity groupings. Only 1/3rd of the equipment items were rated as core with nearly all non-core items rated as such by both the entire sample and at least one subgroup.

Detailed statistical reports summarizing the ratings of each task, ability/characteristic, and equipment item, including designations of core items, are presented in Appendices E – K. These summary reports contain means of agency mean frequency and importance ratings, the mean of agency percentages of ACOs performing each task/using each equipment item, and the mean of agency percentages of supervisors indicating that each ability/characteristic is necessary before hire. The reports in the

appendices include an overall report with results aggregated across all agencies, as well as reports displaying separate analyses by agency size and type.

Table 16
Number of Tasks/Abilities or Other Characteristics/Equipment Identified as Core and Non-Core

Job Requirement	Number of Items							
	Total JAQ	Core	Non-Core					
	Initial Number	Remaining Core	Total Sample	Police Dept.	Sheriff's Dept.	Small Agencies	Medium Agencies	Large Agencies
Tasks	255	220	25	26	2	20	11	1
Abilities/Other Characteristics	35	35	0	0	0	0	0	0
Equipment	76	28	48	43	34	43	37	33

Linking Core Tasks to Critical Abilities/Other Characteristics

To further document that the identified core abilities and other characteristics are in fact directly related to the performance of the core tasks, and to obtain contextual information regarding the abilities/other characteristics and how they are used in ACO work, formal linkages were made between the ACO work activities and the abilities/other characteristics in a focus group meeting with SMEs. (While the equipment items are not treated in this section, they provide useful contextual information for performance of certain tasks.) The procedures and results of this meeting are summarized below.

Focus Group Meeting

A total of six SMEs, all of whom were ACO supervisors, participated in a one-day meeting at the Board of Corrections office in Sacramento, California on March 5, 2002. SMEs were chosen by BOC personnel to represent a variety of agency sizes, regions, and types. The list of SMEs, as well as relevant demographic information, is summarized in Appendix L.

During the meeting, SMEs were first given an overview of the project and progress to-date. Next, they were asked to review the lists of core tasks (grouped under their corresponding major activity) and abilities/other characteristics and to identify any areas needing clarification or explanation.

SMEs then completed a series of ratings for each ability or other characteristic that had been identified as important during the job analysis. Specifically, SMEs were instructed to identify three tasks within each major activity for which an ability/other characteristic was considered to be critical. For the purpose of these linkages, the following definition of "critical" was used:

> *"An ability or other characteristic is critical if it plays a major role in the performance of the task and is necessary for successful performance. Without the ability/other characteristic, successful performance of the task would be extremely difficult or impossible."*

After reviewing the definition of critical, SMEs were asked to independently review the first ability, Listening Comprehension, and the core tasks in the first major activity (Booking, Receiving, and Releasing) and to select three tasks, if possible, for which the ability/other characteristic was critical. The entire group then discussed ratings and clarified any questions. The SMEs then independently completed linkages between the task statements for the next major activity and Listening Comprehension; these linkages were then discussed. At this point, with all SMEs using the same frame of reference to make their judgments, they were instructed to continue making their ratings independently. During the meeting, the PSI facilitators periodically checked on progress and answered any questions raised by participants. By the end of the linkage rating session, all six of the SMEs had completed the entire review.

Linkage Results

The percentage of SMEs linking at least one task within each major activity to each ability/other characteristic was computed. A major activity was considered to be linked to an ability/other characteristic if at least two-thirds of the SMEs identified at least one task in the major activity to which the ability/other characteristic was critical for job performance.

Table 17 summarizes the linkages between abilities/other characteristics and major activities that were made by the SMEs. An "X" in the box where the ability/characteristic and major activity intersect indicates that at least one task in the major activity was linked to the ability or other characteristic by two-thirds of the SMEs. As seen in Table 17, all abilities/other characteristics were linked to at least one major activity by a majority of the SMEs.

Appendix M lists the specific tasks within each major activity that were linked to each ability/ characteristic. While the listed tasks do not represent all possible linkages to each ability/other characteristic, they provide specific examples of cases where each ability/characteristic is critical for job success and illustrate the pervasive role the core abilities/characteristics play in the performance of the ACO job.

Table 17
Summary of Linkages Between
Abilities/Other Characteristics and Major Work Activities

Ability/Other Characteristic	Major Activities*								
	A	B	C	D	E	F	G	H	I
Listening Comprehension	X	X	X	X	X	X	X	X	X
Oral Communication	X	X	X	X	X	X	X	X	X
Reading Comprehension	X	X	X	X	X	X	X		X
Written Communication	X	X	X		X	X	X		X
Information Ordering	X	X	X	X	X	X	X	X	X
Reasoning	X	X	X	X	X	X	X		X
Basic Math	X		X	X	X	X			X
Vigilance	X	X	X	X	X	X	X	X	X
Selective Attention	X	X	X	X	X	X	X	X	X
Perceptual Speed and Accuracy	X	X	X	X	X	X	X		X
Multi-tasking	X	X	X		X	X	X		X
Applied Memorization	X	X	X	X	X	X	X		X
Strength								X	
Flexibility	X	X			X	X		X	X
Stamina								X	X
Assertiveness	X	X	X	X	X	X	X	X	X
Emotional Control	X		X		X	X	X	X	X
Stress Tolerance		X			X	X	X	X	X

Table 17 Contd.
Summary of Linkages Between
Abilities/Other Characteristics and Major Work Activities

Ability/Other Characteristic	Major Activities								
	A	B	C	D	E	F	G	H	I
Attention to Detail	X	X	X	X	X	X	X		X
Self-Assurance	X	X	X	X	X	X	X	X	X
Decisiveness	X	X	X	X	X	X	X	X	X
Friendly Disposition	X			X			X		X
Adaptability		X	X	X	X	X	X		X
Positive Attitude	X	X		X	X	X	X		X
Team Orientation	X		X	X			X	X	X
Interpersonal Sensitivity	X	X	X	X	X	X	X	X	X
Gregariousness					X	X	X		X
Dependability	X	X	X	X	X	X	X	X	X
Attitude Toward Safety	X	X	X	X	X	X	X	X	X
Integrity	X		X	X	X	X	X	X	X
Conformance to Rules and Regulations	X	X	X	X	X	X	X	X	X
Tolerance of Work Conditions	X	X	X	X	X	X	X	X	X
Achievement Motivation/Initiative	X	X	X	X	X	X	X		X
Willingness to Learn			X				X		X
Objectivity/Tolerance	X	X		X	X	X	X		X

*A = Booking, Receiving, and Releasing
B = Escorting, Transporting
C = Record Keeping, Report Writing
D = Supervising Non-inmate Movement, Visitors
E = Searching and Securing
F = Supervising Inmates
G = Communicating
H = Physical Tasks
I = Miscellaneous Tasks

SUMMARY AND CONCLUSIONS

The responsibilities and requirements of the Adult Corrections Officer position in the state of California were identified and defined through a statewide job analysis, in which 44 local corrections agencies participated.

The job analysis was comprehensive and included a variety of data sources and techniques. Initial lists of tasks, equipment, and KSAOs were developed based on a review of the literature, existing job descriptions, the results of previous job analyses, and site visits/job observations. The lists were reviewed and refined in a focus group meeting with job incumbents and supervisors, reviewed by a second group of SMEs, and verified by BOC personnel. The lists were incorporated into two job analysis questionnaires, which were sent to a representative sample of incumbents and supervisors throughout the state. An overall response rate of 93% was achieved, with 99% of the incumbent and supervisor questionnaires returned used in the data analyses.

Ratings of individual tasks and abilities/other characteristics served as the foundation and focus of subsequent analyses. Results indicated that the tasks in the questionnaire are indeed descriptive of the ACO job, and all of the abilities/other characteristics included in the questionnaire are important for successful performance and needed upon entry into the job.

To further solidify the link between the abilities/other characteristics and activities performed on the job, and to provide a contextual framework for the use of abilities/other characteristics in a selection system, a group of ACO supervisors formally identified specific work tasks for which each ability/other characteristic was critical. These ratings provided further support for the importance of all abilities/other characteristics identified through the JAQ.

A total of 35 abilities/other characteristics have been shown to be necessary at entry, important for successful job performance, and related to core and critical major activities and tasks. These 35 abilities and other characteristics will, therefore, be considered for inclusion in the next phase of the project - the development of an examination to be used in selecting entry-level Adult Corrections Officers.

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