

**California Board of Corrections
Standards and Training for Corrections Program**

**Probation Officer
Job Analysis Report**

Submitted by
Psychological Services, Inc.
May 2002



PREFACE

This report describes the methodology and results of a job analysis conducted for the Probation 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 Probation 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/probation agencies for use in the selection of entry-level Probation Officers.

ACKNOWLEDGEMENTS

This project could not have been completed without the cooperation and support of numerous local corrections/probation agencies throughout California. The Board of Corrections extends its appreciation to these agencies and to the many people who attended workshops and completed job analysis questionnaires.

Board of Corrections staff, Shelley Montgomery, Selection Standards Manager, and Richard Sheppard, Ph.D., Research Consultant, were instrumental to the success of the project, facilitating several key project steps and lending their expertise to review and assist in the design and execution of the project.

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

TABLE OF CONTENTS

PREFACE	i
ACKNOWLEDGEMENTS	ii
INTRODUCTION	1
Background	1
Objectives	1
METHOD	2
Job Analysis Overview	2
Study Population	2
Job Analysis Questionnaire Development	4
Preliminary Lists of Tasks, Equipment and KSAOs	4
Site Visit	5
Development of Rating Scales and Instructions	5
Focus Group Meeting	6
Background Information Review	7
Work Task Review	7
Equipment Review	8
KSAO Review	8
Abilities and Characteristics	9
Follow-up Review and Pilot Administration	11
Final JAQs	11
Data Collection	14
Survey Sample	14
JAQ Distribution	16
JAQs Received and Retained for Analysis	16
Incumbent JAQs	17
Supervisor JAQs	17
ANALYSIS AND RESULTS	18
Characteristics of the Job Analysis Sample	18
Descriptive Statistics	25
Similarity Between Incumbent and Supervisor Ratings	26
Identification of Core Job Requirements	27
Core Criteria	27
Results	28
Linking Core Tasks to Critical KSAOs	29
Focus Group Meeting	29
Linkage Results	30
SUMMARY AND CONCLUSIONS	34
REFERENCES	35

TABLES

Table 1:	PO Agency Population.....	3
Table 2:	PO Incumbent Population.....	3
Table 3:	PO Target Population: Average of Agency and Incumbent Counts.....	4
Table 4:	Overview of JAQ Scales.....	6
Table 5:	Sampling Plan for Focus Group Meeting Participants.....	7
Table 6:	PO Abilities and Other Characteristics.....	9
Table 7:	Agency Sampling Plan for JAQ Administration.....	15
Table 8:	Comparison of Target Sample to Population.....	15
Table 9:	JAQs Returned and Retained for Analysis.....	17
Table 10:	Characteristics of the Incumbent JAQ Sample: Demographic/Background Information.....	19
Table 11:	Characteristics of the Supervisor JAQ Sample: Demographic/Background Information.....	21
Table 12:	Characteristics of the Incumbent JAQ Sample: Agency/Facility Information.....	23
Table 13:	Characteristics of the Supervisor JAQ Sample: Agency/Facility Information.....	24
Table 14:	Summary of Descriptive Statistics – PO JAQs.....	25
Table 15:	Number of Tasks/KSAOs/Equipment Identified as Core and Non-Core.....	29
Table 16:	Summary of Linkages between KSAOs and Major Work Activities.....	31

FIGURES

Figure 1a:	Comparison of PO Incumbent and PO Supervisor Ratings Tasks 1-150.....	26
Figure 1b:	Comparison of PO Incumbent and PO Supervisor Ratings Tasks 151-258.....	26

APPENDICES

Appendix A:	Job Analysis Focus Group Meeting Participants
Appendix B:	Summary of SME Ratings of Knowledge and Skills Necessary at Entry
Appendix C:	Job Analysis Questionnaires
Appendix D:	Supporting Materials for JAQ Administration
Appendix E:	Core Task Report – All Respondents
Appendix F:	Core Task Report – By Agency Size
Appendix G:	Core KSAO Report – All Respondents
Appendix H:	Core KSAO Report – By Agency Size
Appendix I:	Core Equipment Report
Appendix J:	Linkage Meeting Participants
Appendix K:	Tasks Linked to KSAOs

INTRODUCTION

This report describes the methodology and results of a statewide job analysis of the **Probation Officer (PO)** 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/probation agencies to use in the selection of entry-level POs. The examination was originally developed and validated in 1987 (see *Validation Report – Probation Officer*, BOC, 1987) and has been used widely throughout California since that time.

In order to assist local corrections/probation 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 PO 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 POs 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 PO positions in California. POs work in 58 agencies throughout the state, varying in size. To ensure that the job analysis would be representative of PO 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 26 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 PO 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 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 PO 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 a site visit/job observation; 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 POs. 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. The site visit allowed for the observation of the work context and work behaviors. On the basis of the reviews and site visit, 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 POs and one to be completed by supervisors of POs) were then developed from all previously acquired information. The questionnaires were administered to a representative sample of PO 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 POs employed by local corrections/probation facilities. For purposes of the project, entry-level POs were defined as those who:

- had completed the probationary (training) period;
- were working independently on the job as a Probation Officer;
- were performing those duties typically performed by Probation 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 POs employed by local corrections/probation agencies in California was provided by BOC from annual training records. This information was used to define the PO population from which the job analysis sample was selected (as described later in this report). The population of agencies and incumbent POs is described in Tables 1 and 2, respectively.¹ For purposes of establishing the target population which the job analysis would be designed to represent, the percentages of incumbents and agencies falling in each of the size/location categories were averaged, resulting in the

¹ Agency size categories were defined as follows: Small = 20 or fewer incumbent POs employed; Medium = 25-190 incumbents; and Large = 264 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.

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 POs) and small agencies (which constitute the majority in the state).

**Table 1
PO Agency Population**

Location	Size						Total	
	Small		Medium		Large			
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Bay	1	0.20%	10	17.2%	2	3.4%	13	22.4%
Central	4	6.9%	8	13.8%	-	-	12	20.7%
North	9	15.5%	5	8.6%	-	-	14	24.1%
Sacramento	6	10.0%	4	6.9%	1	1.7%	11	19.0%
South	-	-	4	6.9%	4	6.9%	8	13.8%
TOTAL	20	34.50%	31	53.4%	7	12.1%	58	100%

**Table 2
PO Incumbent Population**

Location	Size						Total	
	Small		Medium		Large			
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Bay	11	0.2%	845	14.6%	580	10.1%	1436	24.9%
Central	28	0.5%	655	11.4%	-	-	683	11.8%
North	76	1.3%	196	3.4%	-	-	272	4.7%
Sacramento	71	1.2%	186	3.2%	345	6.0%	602	10.4%
South	-	-	491	8.5%	2285	39.6%	2776	48.0%
TOTAL	186	3.2%	2373	41.1%	3210	55.6%	5769	100%

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

Location	Size			Total
	Small	Medium	Large	
Bay	0.2%	15.9%	6.8%	23.7%
Central	3.7%	12.6%	-	16.3%
North	7.8%	6.0%	-	14.4%
Sacramento	5.1%	5.1%	3.9%	14.7%
South	-	7.7%	23.3%	31.0%
Total	18.9%	47.3%	33.9%	100%

Job Analysis Questionnaire Development

Comprehensive questionnaires were developed to gather detailed information about the PO 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 possess. 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 a PO, 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 POs, 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:

- Probation Officer – STC Standards and Training Corrections Program Core Training Manual (1998)
- Probation Officer – STC Standards and Training Corrections Program Knowledge/Skill Maps (1998)
- Job Analysis Questionnaire for Correctional Personnel – Probation Officers (1993)
- STC Standards and Training for Corrections Program Job Analysis Questionnaire for Correctional Personnel – Probation Officers (1999)
- 53 job descriptions from local probation 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 PO job analysis conducted for the California Board of Corrections (i.e., Job Analysis Questionnaire for Correctional Personnel – Probation Officers, 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 PO 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 Visit

To further clarify job duties and to better understand the context in which the PO job is performed, PSI representatives visited a local corrections agency (Yolo County Probation Department), to informally talk with supervisors of POs and to observe the PO work place. On the basis of this visit, PSI refined the preliminary lists of tasks, equipment items, and KSAOs.

Development of Rating Scales and Instructions

Ratings scales were developed for use in the JAQs to enable PO incumbents to indicate the frequency with which they perform the listed tasks and use the various equipment items, and to enable PO 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 (PO supervisors and incumbents) in a focus group setting, and pilot administration in a JAQ administered to several PO incumbents and supervisors. Table 4 outlines the questions addressed by the rating scales. The final resulting scales and instructions are shown later in this report (see Final JAQs).

Table 4
Overview of JAQ scales

PO Incumbent JAQ rating scales	PO 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 have you used this equipment in the past year?	KSAO Importance: How critical is this KSAO for successful job performance?
	KSAO Necessary at Entry: To what extent is it necessary for an entry-level PO to possess this KSAO 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 PO 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 and location category. The resulting focus group sampling plan is given in Table 5. 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 19, 2001, in Sacramento, CA. Twelve incumbents and supervisors representing POs 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 5
Sampling Plan for Focus Group Meeting Participants**

Location	Size						Total	
	Small		Medium		Large			
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Bay	0	-	2	17%	1	8%	3	25%
Central	1	8%	1	8%	0	-	2	17%
North	1	8%	1	8%	0	-	2	17%
Sacramento	0	-	1	8%	0	-	1	8%
South	0	-	1	8%	3	25%	4	33%
TOTAL	2	17%	6	50%	4	33%	12	100%

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 PO 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 PO 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 and BOC project staff following the completion of the meeting. In general, the majority of SMEs indicated that the knowledge and skills were not required before hire (i.e., could be developed in training and/or on the job experience). Upon further review of the knowledge and skill items and ratings, BOC staff recommended that four knowledge items be retained in the final JAQ in order to obtain additional ratings of their importance.

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 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.

A total of 39 KSAOs were identified for inclusion in the JAQ (described later in this report). These included 35 abilities and other characteristics which were the focus of this project, and which are presented in Table 6.

Table 6
PO 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).
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.

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 KSAOs.

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.

Seven SMEs participated in the follow up review. Six of the seven confirmed that the majority of the tasks performed and the KSAOs needed on the job were included in the JAQs. Specifically, while one SME indicated that 30-50% of the tasks typically performed on the job were represented, one indicated that the JAQs contained 70-90% of the tasks typically performed and five indicated that more than 90% of their work tasks were listed.

Five written comments were received. Of these, one suggested that an example of an atypical job assignment be included in the demographic section, two suggested revisions to task statements and two noted additional equipment items to be added to the questionnaire. The JAQs were modified to incorporate all 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 instructions for the KSAO section of the supervisor JAQ 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 PO 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 17 questions eliciting demographic (e.g., sex, race) and job-specific (e.g., work experience, age group of probationers) 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 258 work tasks within 19 major activity areas, including:

1. Processing Juveniles Taken into Custody (Dependents, Status Offenders or Delinquents)
2. Juvenile Intake
3. Own Recognizance and Bail Reduction (Adults)
4. Adult or Juvenile Investigation (including violation of Probation)
5. Making Recommendations for Disposition of New Cases or Violations of Probation
6. Establishing Supervising Relationship with New Probationer (Juvenile or Adult)
7. Setting up Collections of Restitution, Fines and Other Payments
8. Monitoring Compliance of Adult/Juvenile with Terms and Conditions of Probation
9. Making Referrals to Providers of Medical, Mental Health, Social Service, Education, Employment, and Other Services
10. Informing, Assisting, Advising, and Counseling
11. Preparing Court Reports and Other Related Documents
12. Other Paperwork-Related Duties
13. Other Court-Related Duties
14. Providing Service to the Community
15. Establishing and Maintaining Relationships with Referral and Placement Sources
16. Supervising Other Probation Department Personnel (including Volunteers)
17. Family Court Duties
18. Physical Tasks
19. 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 POs were asked to rate the frequency with which they use 48 different equipment items, using the rating scale following:

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. KSAOs.

The Background Information Section contained 17 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 258 tasks using the following rating scale:²

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 POs in my agency (that I have supervised in the last year)

Finally, in Section III, supervisors used the following two scales to rate the 39 KSAOs:

Importance - How critical is this KSAO 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

² To help ensure that the ratings were completed using a common framework, a follow-up correspondence was sent to participating agencies, reinforcing the instructions stating that the task importance ratings were to be made with reference to those POs supervised at the agency over the past year.

Necessary at Entry - To what extent is it necessary for an entry-level PO to possess this KSAO before hire?	
1	Necessary Before Hire. Candidates must possess a substantial amount of this KSAO before hire. This KSAO is not developed primarily through entry-level training or on-the-job experience.
0	Not Required Before Hire. Little or none of this KSAO is necessary before hire. This KSAO 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 together 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 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 PO agencies (e.g., 20) 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 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, 22 agencies were selected to participate in the JAQ administration, where a total of 526 incumbent and 279 supervisor JAQs were to be distributed. Table 7 describes the agency JAQ sampling plan. The sample was highly representative of the target population, as shown in Table 8.

**Table 7
Agency Sampling Plan for JAQ Administration**

Agency	Number of JAQs	
	Incumbent	Supervisor
1. Butte Probation	5	4
2. Contra Costa Probation	24	8
3. El Dorado Probation	5	5
4. Glenn Probation	5	2
5. Kern Probation	26	12
6. Los Angeles Probation – North/South/East	50	40
7. Los Angeles Probation – West/Central/Unspecified	50	40
8. Madera Probation	6	5
9. Orange Probation	50	26
10. Riverside Probation	21	14
11. Sacramento Probation	50	13
12. San Benito Probation	5	3
13. San Bernardino Probation	50	21
14. San Diego Probation	50	39
15. San Luis Obispo Probation	9	5
16. Santa Clara Probation	50	13
17. Santa Cruz Probation	7	5
18. Siskiyou Probation	5	3
19. Sonoma Probation	15	6
20. Tuolumne Probation	5	2
21. Ventura Probation	33	8
22. Yolo Probation	5	5
Totals	526	279

**Table 8
Comparison of Target Sample to Population**

Location	Size						Total	
	Small		Medium		Large			
	Population	Sample	Population	Sample	Population	Sample	Population	Sample
Bay	0.2%	4.5%	15.9%	13.6%	6.8%	9.1%	23.7%	27.3%
Central	3.7%	4.5%	12.6%	13.6%	-	-	16.3%	18.2%
North	7.8%	9.1%	6.0%	4.5%	-	-	14.4%	13.6%
Sacramento	5.1%	4.5%	5.1%	4.5%	3.9%	4.5%	14.7%	13.6%
South	-	-	7.7%	9.1%	23.3%	18.2%	31.0%	27.3%
TOTAL	18.9%	22.7%	47.3%	45.5%	33.9%	31.8%	100%	100%

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 JAQs were complete and detailed instructions and materials for administration. The JAQs were administered with the confidentiality of the study participants in mind, as 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 7);
- 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

The letter of explanation and enclosed procedures included guidelines to the coordinators to assist them in selecting incumbent POs 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 753 JAQs were returned by January 2002, for a response rate of 94%, with all 22 agencies represented. The JAQs distributed and returned by PO incumbents and supervisors are summarized in Table 9.

Table 9
JAQs Returned and Retained for Analysis

Number of JAQs					
Incumbent			Supervisor		
Distributed	Returned	Retained	Distributed	Returned	Retained
526	501	497	279	252	249
	95%	94%		90%	89%

Data Verification. Prior to conducting the analyses, the completed JAQs were reviewed and checked for accuracy and reasonableness, and seven 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 PO. That is, the respondent failed to answer either of two background questions, which would indicate he/she was an PO, 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 501 incumbent JAQs returned, four were eliminated because the incumbent indicated that he/she performed fewer than 20% of the tasks on the JAQ, resulting in a total of 497 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 PO job in detail. That is, the respondent indicated that he/she did not currently supervise any PO 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 fewer than 20% of the tasks on the JAQ were performed by the incumbents they supervise.
- The ratings/responses were suspect (e.g., if all of their task ratings were the same).

Of the 252 supervisor JAQs returned, three were eliminated because the supervisor indicated that POs supervised performed fewer than 20% of the tasks on the JAQ, resulting in a total of 249 useable Supervisor JAQs.

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 PO incumbents and supervisors comprising the analysis sample are shown in Tables 10 and 11, respectively. Tables 12 and 13 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%) are permanent full time employees.
- Most of the incumbents (97%) work primarily on the day shift, with less than 1% primarily working at night.
- Incumbents had a range of tenure both in their agency and as a PO, however, the most frequently-endorsed length of time in their present assignment, and in their current agency was 1 – 3 years.
- Approximately 25% of incumbents had more than 15 years experience as a PO.
- A majority of incumbents are female (53%).
- All incumbents had completed high school, and 90% had obtained a post-high school degree.

Supervisor Sample:

- Not surprisingly, supervisors had more experience than incumbents in probation work, with 74% of the supervisor sample having more than 15 years of experience.
- Almost half of the supervisors have more than five years experience supervising POs.
- Almost all (96%) of the supervisors directly oversee the work of fewer than 20 POs.
- A majority of PO supervisors are male (64%).
- Almost all supervisors (99%) work the day shift, and are permanent full-time employees.

Table 10
Characteristics of the Incumbent JAQ Sample:
Demographic/Background Information

Characteristic	Frequency	Percentage
Length of Time at Current Agency as a PO		
• Less than 1 year	18	3.6%
• 1 to 3 years	129	26.0%
• More than 3 years to 5 years	93	18.7%
• More than 5 years to 10 years	73	14.7%
• More than 10 years to 15 years	68	13.7%
• More than 15 years	114	22.9%
• Not Reported	2	<1%
Years of Total Experience as a PO		
• Less than 1 year	8	1.60%
• 1 to 3 years	111	22.3%
• More than 3 years to 5 years	94	18.9%
• More than 5 years to 10 years	80	16.1%
• More than 10 years to 15 years	77	15.5%
• More than 15 years	126	25.4%
• Not Reported	1	<1%
Length of Time at Present Assignment		
• Less than 6 months	70	14.1%
• 6 months to 1 year	73	14.7%
• 1 to 3 years	197	39.6%
• More than 3 years to 5 years	63	12.7%
• More than 5 years to 10 years	42	8.5%
• More than 10 years to 15 years	25	5.0%
• More than 15 years	23	4.6%
• Not Reported	4	<1%
Work Status		
• Permanent Full Time	494	99.4%
• Permanent Part Time	1	<1%
• Not Reported	2	<1%
Shift Primarily Worked		
• Day	484	97.4%
• Swing	10	2.0%
• Night/Graveyard	1	<1%
• Not Reported	2	<1%
Type of Schedule Worked		
• 10 hours per day	64	12.9%
• 9 hours per day	108	21.7%
• 8 hours per day	280	56.3%
• Mixed shift	35	7.0%
• Other	8	1.6%
• Not Reported	2	<1%

Table 10 Contd.
Characteristics of the Incumbent JAQ Sample:
Demographic/Background Information

Characteristic	Frequency	Percentage
Gender		
• Male	233	46.9%
• Female	263	52.9%
• Not Reported	1	<1%
Racial/Ethnic Group		
• African American	77	15.5%
• Asian	25	5.0%
• Pacific Islander	9	1.8%
• Caucasian	255	51.3%
• Native American	7	1.4%
• Hispanic	103	20.7%
• Other	14	2.8%
• Not Reported	7	1.4%
Age		
• < 21	0	-
• 21 – 30	97	19.5%
• 31 – 40	134	27.0%
• 41 – 50	100	20.1%
• 51 – 60	90	18.1%
• 61 +	10	2.0%
• Not Reported	66	13.3%
Education		
• No degree	-	-
• High school/GED	4	<1%
• Technical/Vocational degree	3	<1%
• Associate's degree	27	5.4%
• Bachelor's degree	396	79.7%
• Master's degree	52	10.5%
• Other	10	2.0%
• Not Reported	5	1.0%

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

Characteristic	Frequency	Percentage
Length of time at Current Agency		
• Less than 1 year	1	<1%
• More than 1 year to 3 years	3	1.2%
• More than 3 years to 5 years	8	3.2%
• More than 5 years to 10 years	14	5.6%
• More than 10 years to 15 years	51	20.5%
• More than 15 years	170	68.3%
• Not Reported	2	<1%
Years of Experience in Probation Work		
• Less than 1 year	0	-
• More than 1 year to 3 years	0	-
• More than 3 years to 5 years	4	1.6%
• More than 5 years to 10 years	12	4.8%
• More than 10 years to 15 years	47	18.9%
• More than 15 years	184	73.9%
• Not Reported	2	<1%
Number of POs Currently Supervising		
• 1 – 19	240	96.4%
• 20 – 99	4	1.6%
• 100 – 199	1	<1%
• 200 – 550	2	<1%
• Not Reported	2	<1%
Length of Time Supervising POs		
• Less than 3 months	4	1.6%
• 3 months to 6 months	9	3.6%
• 6 months to 1 year	16	6.4%
• More than 1 year to 3 years	62	24.9%
• More than 3 years to 5 years	46	18.5%
• More than 5 years to 10 years	37	14.9%
• More than 10 years	74	29.7%
• Not Reported	1	<1%
Work Status		
• Permanent Full Time	247	99.2%
• Permanent Part Time	2	<1%
Shift Primarily Worked		
• Day	247	99.2%
• Swing	2	<1%

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

Characteristic	Frequency	Percentage
Type of Schedule Worked		
• 10 hours per day	14	5.6%
• 9 hours per day	52	20.9%
• 8 hours per day	165	66.3%
• Mixed Shift	16	6.4%
• Other	1	<1%
• Not Reported	1	<1%
Gender		
• Male	159	63.9%
• Female	89	35.7%
• Not Reported	1	<1%
Racial/Ethnic Group		
• African American	37	14.9%
• Asian	5	2.0%
• Pacific Islander	1	<1%
• Caucasian	162	65.1%
• Native American	5	2.0%
• Hispanic	33	13.3%
• Other	4	1.6%
• Not Reported	2	<1%
Age		
• < 21	0	-
• 21 – 30	3	1.2%
• 31 – 40	36	14.5%
• 41 – 50	62	24.9%
• 51 – 60	103	41.4%
• 61 +	9	3.6%
• Not Reported	36	14.5%
Education		
• High school/GED	1	<1%
• Associate’s degree	4	1.6%
• Bachelor’s degree	168	67.5%
• Master’s degree	64	25.7%
• Other	8	3.2%
• Not Reported	4	1.6%

Table 12
Characteristics of the Incumbent JAQ Sample:
Agency/Facility Information

Characteristic	Frequency	Percentage
Type of Agency		
• Probation	497	100%
Gender of Probationers		
• Male	51	10.3%
• Female	20	4.0%
• Both	424	85.3%
• Not Reported	2	<1%
Age of Probationers		
• Juveniles	201	40.4%
• Adults	243	48.9%
• Both	51	10.3%
• Not Reported	2	<1%
Carry Firearm as Part of Job		
• Yes	74	14.9%
• No	419	84.3%
• Not Reported	4	<1%
Agency Size		
• Small	25	5.0%
• Medium	156	31.4%
• Large	316	63.6%
Agency Region		
• Bay	90	18.1%
• Central	48	9.7%
• North	15	3.0%
• Sacramento	48	9.7%
• South	296	59.6%

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

Characteristic	Frequency	Percentage
Type of Agency		
• Probation	249	100%
Gender of Probationers in Facility		
• Male	23	9.2%
• Female	3	1.2%
• Both	222	89.2%
• Not Reported	1	<1%
Age of Probationers		
• Juveniles	29	11.6%
• Adults	41	16.5%
• Both	177	71.1%
• Not Reported	2	<1%
Carry firearm as part of job?		
• Yes	40	16.1%
• No	207	83.1%
• Not Reported	2	<1%
Agency Size		
• Small	13	5.2%
• Medium	67	26.9%
• Large	169	67.9%
Agency Region		
• Bay	31	12.4%
• Central	24	9.6%
• North	8	3.2%
• Sacramento	22	8.8%
• South	164	65.9%

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 KSAO to ensure that the data appeared reasonable. A summary of these statistics, averaged across tasks, equipment, and KSAOs, is provided in Table 14. Highlights of these results are presented below:

Task Ratings:

- On average, 79% of incumbents reported that each task is part of the job, while 79% of the supervisors indicated that each task is performed by POs in their agency.
- The mean task importance rating was 3.4 (on a 5-point scale, based on those indicating that the task is relevant to PO work), with a standard deviation (SD) of 0.56.
- The mean task frequency rating was 3.7 (on a 9-point scale, based on those who reported performing the task); the SD was 1.48.

KSAO Ratings:

- On average, more than 99% of supervisors indicated that each KSAO is relevant to the PO job.
- The mean KSAO importance rating was 3.8 (on a 5-point scale, based on those indicating that the item is relevant to PO work), with an SD of 0.47.
- On average, 74% of supervisors rated each KSAO as necessary before hire (of those indicating that the item is relevant to PO work).

Equipment Ratings:

- On average, 43% of incumbents reported that each equipment item is used on the job.
- The equipment frequency rating was 1.7 (on a 3-point scale, based on those who reported using the equipment); the SD was 0.52.

Table 14
Summary of Descriptive Statistics – PO JAQs

Characteristic	Average	Standard Deviation	Minimum	Maximum
Tasks (N=258)				
Percent of incumbents rating task as part of the job	78.70	16.88	22.10	99.60
Frequency rating by incumbents	3.71	1.48	1.05	8.18
Percent of supervisors rating task as performed by POs in their agency	78.92	18.20	6.40	100.00
Importance rating by supervisors	3.43	.56	1.95	4.52
KSAOs (N=39)				
Percent of supervisors rating the ability/characteristic as used by POs	99.60	.43	98.30	100.00
Importance rating by supervisors	3.83	.47	2.97	4.61
Percent of supervisors rating ability/characteristic as necessary before hire	73.70	14.37	51.0	99.3
Equipment (N=48)				
Percent of incumbents rating equipment item as used on the job	42.70	31.88	1.10	99.20
Frequency rating by incumbents	1.68	.52	1.00	2.94

Similarity Between Incumbent and Supervisor Ratings

An analysis was conducted to examine the agreement between PO incumbents and supervisors in their ratings of the 258 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 POs; (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 .94. 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 PO job. Figure 1 (a and b) illustrates the pattern of agreement across tasks.

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

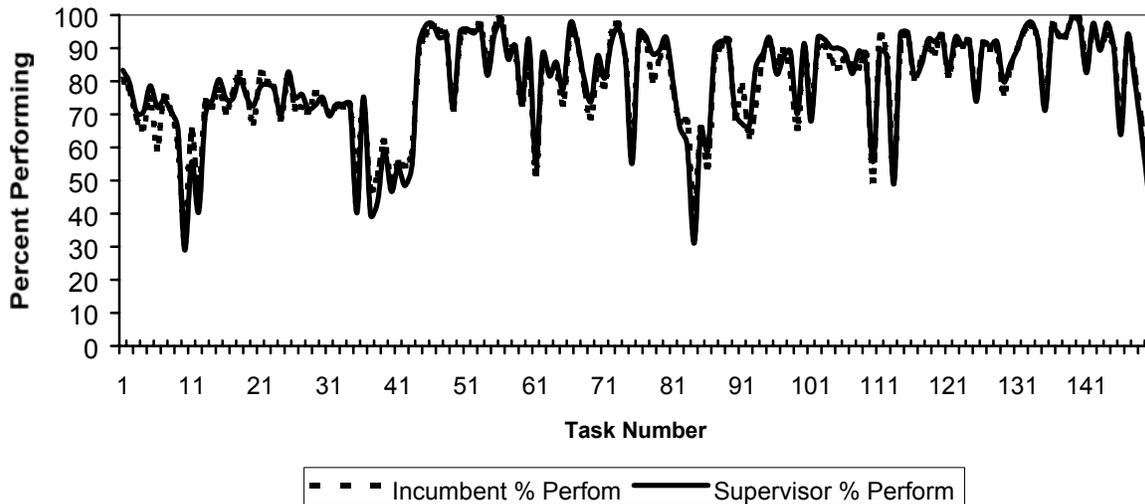
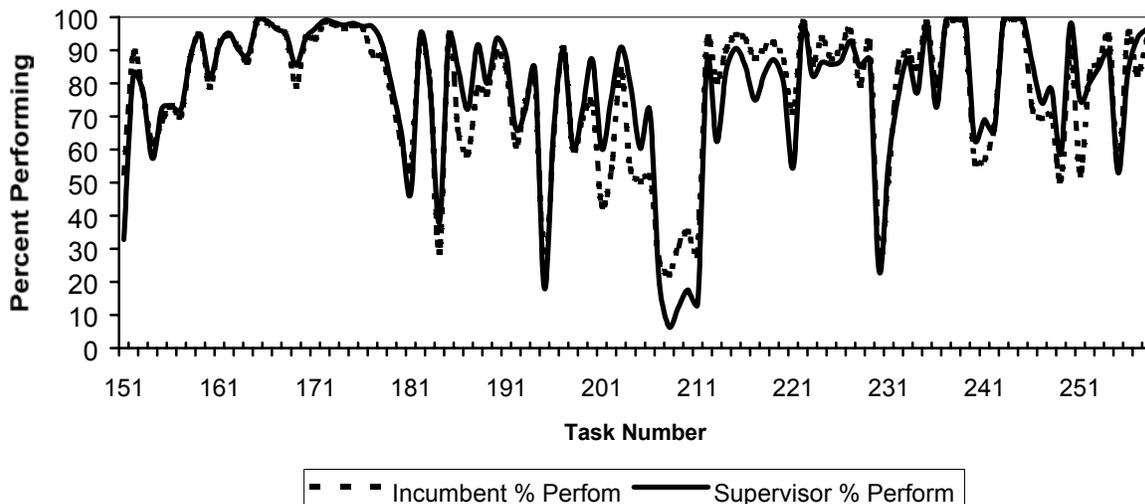


Figure 1b
Comparison of PO Incumbent and PO Supervisor Ratings
Tasks 151-258



Identification of Core Job Requirements

As stated earlier, the purpose of the job analysis was to identify the work performed and the KSAOs required for successful performance for POs statewide. To this end, the obtained incumbent and supervisor JAQ data were analyzed to identify the common “core” set of tasks, equipment, and KSAOs. To be considered “core,” a job requirement (e.g., a task, KSAO, or equipment item) had to meet minimum rating criteria for both the entire group of respondents, as well as within each of the three agency size “subgroups” (e.g., small, medium, and large agencies). 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 PO jobs statewide. A KSAO 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 PO 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 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 PO 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 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 POs 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 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 POs 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”).

KSAOs. In order for a KSAO to be considered “core”, it had to meet all six of the conditions listed below:

Criteria for the Total Sample:

1. At least 50% of the supervisors rated the KSAO at least 1.0 on the Importance rating scale (indicating that the KSAO was of any importance for PO 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 KSAO was necessary before hire; AND

Criteria within Agency Size Categories:

4. At least 33% of the supervisors in each subgroup rated the KSAO at least 1.0 on the Importance rating scale (e.g., rated the KSAO as of any importance for PO 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 KSAO 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 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 KSAOs were reviewed for reasonableness. After making very slight adjustments, the above core criteria were established and applied to the JAQ ratings. Table 15 summarizes the numbers of tasks, KSAOs, and equipment items that were identified as core and non-core.

Thirty-seven of the 39 KSAOs were rated as core by the total sample and all three subgroups, with two “physical” abilities (strength and flexibility) rated as non-core. A majority of the tasks (244 of 258, or 95%) were rated as core, while slightly more than one-third of the equipment items were rated as core.

Detailed statistical reports summarizing the ratings of each task, KSAO, and equipment item, including designations of core items, are presented in Appendices D – H. These summary reports contain means of agency mean frequency and importance ratings, the mean of agency percentages of POs performing each task/using each equipment item, and the mean of agency percentages of supervisors indicating that each KSAO 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.

**Table 15
Number of Tasks/KSAOs/Equipment
Identified as Core and Non-Core**

Job Requirement	Number of Items					
	Total JAQ	Core	Non-Core			
	Initial Number	Remaining Core	Total Sample	Small Agencies	Medium Agencies	Large Agencies
Tasks	258	244	14	5	4	8
Knowledge and Skills	4	4	0	0	0	0
Abilities/Other Characteristics	35	33	2	0	0	0
Equipment	48	17	31	22	20	26

Linking Core Tasks to Critical KSAOs

To further document that the identified core KSAOs are in fact directly related to the performance of the core tasks, and to obtain contextual information regarding the KSAOs and how they are used in PO work, formal linkages were made between the PO work activities and the KSAOs 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 seven SMEs, all of whom were PO 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 and regions. The list of SMEs, as well as relevant demographic information, is summarized in Appendix I.

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 KSAOs and to identify any areas needing clarification or explanation.

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

“A KSAO is critical if it plays a major role in the performance of the task and is necessary for successful performance. Without the KSAO, 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 KSAO listed, Listening Comprehension, and the core tasks in the first major activity (Processing Juveniles taken into Custody [Dependents, Status Offenders, or Delinquents]) and to select three tasks, if possible, for which the KSAO 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. Approximately midway through the rating process half of the SMEs were instructed to proceed to the end of the list and work in reverse order, while the other half continued rating in the original order. As a result, all of the KSAOs were reviewed by at least four SMEs; and each SME reviewed between 54% and 100% of the KSAO-work activity linkage rating combinations.

Linkage Results

The percentage of SMEs linking at least one task within each major activity to each KSAO was computed. A major activity was considered to be linked to a KSAO if at least two-thirds of the SMEs who reviewed the major activity identified at least one task in the major activity to which the KSAO was critical for job performance.

Table 16 summarizes the linkages between KSAOs and major activities that were made by the SMEs. An “X” in the box where the KSAO and major activity intersect indicates that at least one task in the major activity was linked to the KSAO by 2/3 of the SMEs.

Appendix J lists the specific tasks within each major activity that were linked to each KSAO. While the listed tasks do not represent all possible linkages to each KSAO, they provide specific examples of cases where each KSAO is critical for job success and illustrate the pervasive role the core KSAO play in the performance of the PO job.

Table 16
Summary of Linkages between
KSAOs and Major Work Activities

KSAO	Major Activities*																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Listening Comprehension	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X
Oral Communication	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X
Reading Comprehension	X	X	X	X	X	X	X	X	X		X	X	X		X	X		X
Written Communication	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X		X
Information Ordering	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X
Reasoning	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Basic Math					X		X					X						
Vigilance	X	X	X	X	X	X		X	X	X	X	X	X		X		X	X
Selective Attention	X	X	X	X	X	X	X	X		X	X		X					X
Perceptual Speed and Accuracy	X	X		X		X	X	X				X	X					X
Multi-tasking	X	X		X	X	X		X	X		X	X	X			X		X
Applied Memorization	X	X	X	X	X	X		X	X	X	X	X	X			X		X
Stamina								X										X
Assertiveness	X	X	X	X	X	X	X	X		X	X		X	X		X	X	X
Emotional Control	X		X	X		X		X		X			X				X	X
Stress Tolerance	X	X		X				X		X			X				X	X

**Table 16 Contd.
Summary of Linkages between
KSAOs and Major Work Activities**

KSAO	Major Activities*																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Attention to Detail	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X
Self-Assurance	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X
Decisiveness	X	X	X		X	X	X	X		X			X	X		X	X	X
Friendly Disposition	X	X	X	X	X	X	X	X	X	X			X	X	X	X		X
Adaptability				X	X	X		X	X	X			X	X		X	X	X
Positive Attitude	X	X	X	X	X	X	X	X	X	X			X	X	X	X		X
Team Orientation	X	X	X	X	X	X		X	X	X			X	X	X	X		X
Interpersonal Sensitivity	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X
Gregariousness				X				X		X				X	X			X
Dependability		X	X		X	X	X	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	X	X	X	X	X	X	X	X		X
Conformance to Rules and Regulations	X	X	X		X	X	X	X			X	X	X				X	X
Tolerance of Work Conditions	X	X	X	X		X	X	X		X				X			X	X
Achievement Motivation/ Initiative												X	X	X	X	X		X
Willingness to Learn	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

**Table 16 Contd.
Summary of Linkages between
KSAOs and Major Work Activities**

KSAO	Major Activities*																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Objectivity/Tolerance	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X
Knowledge – Human Development	X	X	X	X	X	X		X	X	X	X		X	X	X			
Knowledge – Causes of Crime and Delinquency	X	X		X	X	X		X	X	X	X		X	X	X			X
Knowledge – Basic Principles of Psychology	X	X	X	X		X		X	X	X	X		X	X	X			X
Knowledge – Basic Principles of Sociology	X	X	X	X	X	X		X	X	X	X	X	X	X	X			X

- A. Processing Juveniles Taken into Custody (Dependents, Status Offenders or Delinquents)
- B. Juvenile Intake
- C. Own Recognizance and Bail Reduction (Adults)
- D. Adult or Juvenile Investigation (including violation of Probation)
- E. Making Recommendations for Disposition of New Cases or Violations of Probation
- F. Establishing Supervising Relationship with New Probationer (Juvenile or Adult)
- G. Setting up Collections of Restitution, Fines and Other Payments
- H. Monitoring Compliance of Adult/Juvenile with Terms and Conditions of Probation
- I. Making Referrals to Providers of Medical, Mental Health, Social Service, Education, Employment, and Other Services
- J. Informing, Assisting, Advising, and Counseling
- K. Preparing Court Reports and Other Related Documents
- L. Other Paperwork-Related Duties
- M. Other Court-Related Duties
- N. Providing Service to the Community
- O. Establishing and Maintaining Relationships with Referral and Placement Sources
- P. Supervising Other Probation Department Personnel (including Volunteers)
- Q. Physical Tasks
- R. Miscellaneous Tasks

SUMMARY AND CONCLUSIONS

The responsibilities and requirements of the Probation Officer position in the state of California were identified and defined through a statewide job analysis, in which 26 local 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 94% was achieved, with 99% of the incumbent and supervisor questionnaires returned used in the data analyses.

Ratings of individual tasks and KSAOs served as the foundation and focus of subsequent analyses. Results indicated that the tasks in the questionnaire are indeed descriptive of the PO job, and the vast majority of the KSAOs included in the questionnaire are important for successful performance and needed upon entry into the job.

To further solidify the link between the KSAOs and activities performed on the job, and to provide a contextual framework for the use of KSAOs in a selection system, a group of PO supervisors formally identified specific work tasks for which each KSAO was critical. These ratings provided further support for the importance of all KSAOs identified as important and necessary at the time of entry through the JAQ.

A total of 37 KSAOs have been shown to be necessary at entry, important for successful job performance, and related to core and critical major activities and tasks. Of these, 33 abilities and other characteristics will be considered for inclusion in the next phase of the project - the development of an examination to be used in selecting entry-level Probation Officers.

REFERENCES

- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education (1999). Standards for Educational and Psychological Testing, Washington, DC: American Educational Research Association.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. Personnel Psychology, *44*, 1-26.
- California Board of Corrections Standards and Training in Corrections Program (2000). STC Standards and Training Corrections Program Core Training Manual – Probation Officer.
- California Board of Corrections Standards and Training in Corrections Program (2000). STC Standards and Training Corrections Program Knowledge/Skill Maps – Probation Officer.
- Costa, P.T., Jr., & McCrae, R.R. (1992). Revised NEO Personality Inventory (NEO P1-12) and NEO Five-Factor Inventory (NEO-FFI): Professional Manual. Odessa, FL: Psychological Assessment Resources.
- Grabow, K., Sevy, B.A., Houston, J.S. (1987). Statewide Job Analysis of Three Entry-Level Corrections Positions for the California Board of Corrections Standards and Training in Corrections Program.
- Ones, D. S., Viswesvaran, C., & Schmidt, F. L. (1993). Comprehensive meta-analysis of integrity test validities: Findings and implications for personnel selection and theories of job performance. Journal of Applied Psychology, *78*(4), 679-703.
- Raymark, P.H., Schmit, M.J. and Guion, R.M. (1997). Identifying Potentially Useful Personality Constructs for Employee Selection. Personnel Psychology, *50*(3).
- Society for Industrial and Organizational Psychology, Inc. (1987). Principles for the Validation and Use of Personnel Selection Procedures (3rd ed.). College Park, MD: Author.
- Tett, R. P., Jackson, D. N., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. Personnel Psychology, *44*, 703-742.
- U.S. Equal Employment Opportunity Commission, U.S. Civil Service Commission, U.S. Department of Labor, & U.S. Department of Justice (1978). Uniform Guidelines on Employee Selection Procedures. Federal Register, *43*(166), 38295-38309.