

## FINAL REPORT

## EXECUTIVE SUMMARY

## DEVELOPMENT OF A PERSONNEL SELECTION AND CAREER ASSESSMENT SYSTEM FOR POLICE OFFICERS IN PATROL, INVESTIGATIVE, SUPERVISORY, AND COMMAND POSITIONS

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Stages of personnel selection, performance evaluation, assessment, and career placement decisions

## PROJECT OBJECTIVES

Our major objective in this research program has been to develop new methods for evaluating persons who apply for positions in police work and for assessing the potential of present police officers who are being considered for promotion.

In order to accomplish this central objective, an important secondary objective was to learn as fully as possible exactly what activities or job behaviors are critical to effectiveness and ineffectiveness (success or failure) in police work. Thus, a first step in the research program involved studying the critical features of four different police jobs: General Patrol Officer, Patrol Sergeant, Investigator/Detective, and the Intermediate Command function. Defining these critical dimensions of job performance for each of these four police functions was used in two distinct ways to accomplish the central objective of developing new assessment methods for police jobs.

First, the critical dimensions of police performance were used to design new methods of rating the job performance of police officers in the four police functions mentioned above. These rating methods were used to evaluate the current job performance effectiveness of police officers in order to conduct a concurrent validation study toward the end of constructing a short, easily administered inventory with separate scoring keys shown empirically to be related to different levels of performance effectiveness in those four functions.

Second, the critical dimensions of police performance were the basis for designing simulations and standardized situational tasks for use in evaluating candidates being considered for placement in any of the four police functions. In effect, these "work samples" or job simulations were designed to be used in assessment centers where the success potential of candidates for various police jobs can be evaluated behaviorally.

In essence, then, the central objective of this research was to develop two quite different but complementary procedures for evaluating candidates for any of four police jobs. One, which came to be called the POLICE CAREER INDEX, consists of a brief, easily administered and objectively scored inventory to be used in preliminary screening of applicants and candidates for police jobs. The other procedure, the Regional Assessment Center, consists of a series of police job simulations tailor-made to elicit behavioral indicators of a person's potential for success in various aspects of police work. The intention is that these assessment centers will be available on a regional basis for use in evaluating career potential, strengths and weaknesses, and training or development needs for police job candidates and for currently employed police officers.

## PROJECT TASKS AND METHODS

Development of the POLICE CAREER INDEX was accomplished with the cooperation of police officials in nine cities located throughout the country. Job performance ratings were obtained for police officers from each city. In addition, most of the persons who were rated also completed a comprehensive experimental battery of tests and inventories. Police officers participating in these activities did so, for the most part, on off-duty time, and they were reimbursed for their time. The numbers of officers for whom tests and ratings were finally available are shown below according to city:

	Completed Tests and Inventories	Job Performance Ratings Available
Albuquerque	18	18
Cincinnati	294	315
Des Moines	201	218
Miami (Dade Co.)	239	277
Minneapolis	309	360
Portland, Oregon	169	244
San Diego	140	140
Tucson	28	28
Washington, D. C.	419	404
Totals	1,817	2,004

After discarding materials which were incomplete or improperly filled in, complete responses and performance ratings were available for 700 patrol officers, 415 detectives, 362 sergeants, and 206 middle command officers (lieutenants and captains).

A variety of statistical methods of analysis was used to examine the dimensionality of the performance ratings and to identify patterns of responses to test and inventory items which were most highly correlated with various performance ratings. A Monte Carlo method of item analysis and scoring key development was used to select scoring keys most likely to yield stable validity coefficients. These methods were applied separately to each of the four police functions in developing POLICE CAREER INDEX keys. After scoring keys had been developed, their validities were examined separately according to subgroupings based on city, race, and sex.



Development of simulations to be used in the Regional Assessment Center program was carried out over a series of steps directed toward continual examination, modification, and finer and finer tuning of the standardized exercises to be used in each of the four police assessment centers. These steps are listed and briefly described below:

- Intensive study of critical performance dimensions for each police function was supplemented with firsthand observations by our staff members of officers as they carried out their jobs. Staff members developed a total of 55 preliminary job simulation ideas which they believed sampled the major dimensions across the four police functions.
- 2. These preliminary simulations were sent to nine leading police psychologists and police officials who provided critical reviews and feedback concerning their appropriateness for use in assessing police job candidates.
- 3. Based on the above feedback, the most promising seven to ten simulations for each function were elaborated to give them realism. Instructions for administration were written and necessary physical props provided to round out as fully as possible each of the exercises.
- 4. The above sets of police job simulation exercises were then critiqued in detail during an intensive one-day working conference of 11 police psychologists and police officials. Attendees came from departments all over the country to attend the conference in Minneapolis. As a result, some exercises were eliminated; important modifications were made in all of them; and, new simulations were designed for some of the functions. Output from this conference yielded a total of 30 fully elaborated job simulations: 8 for patrol officers, 8 for detectives, 5 for sergeants, and 9 for intermediate commanders.
- 5. The simulations were then pretested by actually administering them to police officers in the three cities of Minneapolis, Des Moines, and Cincinnati. A total of 77 officers agreed to participate in these pretests, including 16 patrol officers, 22 detectives, 25 sergeants, and 14 intermediate commanders. Each of the 30 simulations was pretested on an average of six police officers. Their comments and reactions during and after the pretests were rich in suggestions for final modifications to improve and "finalize" each of the simulations. At this stage, four more exercises were dropped leaving a total of 26: 7 each for patrol officers, sergeants, and middle commanders, and 5 for detectives.

6. In order to provide a final full-scale evaluation of the assessment exercises, eight pilot assessment centers were held as shown below:

## Pilot Assessment Centers

City	Туре						
	Patrol	Detective	Sergeant	Command			
Chattanooga			X	X			
Minneapolis	Х	Х					
Portland, Oregon			Х	Х			
Washington, D. C.	Х	X					

These final pretests were highly successful. Even with minimal training, assessor staff members were able to make sound behavioral observations, perform accurate ratings of candidates, and come to good agreement about the relative overall effectiveness of the candidates whom they observed.

## PROJECT FINDINGS AND PROJECT PRODUCTS

5.

#### Scoring Keys

Our analyses of the statistical relationship between job performance ratings and responses to items in the experimental test battery yielded several scoring keys for each of the four police functions. These keys are listed below for each of the four functions:

#### Patrol officer keys

Key PI, called <u>Public Contact</u>, is most closely related to those aspects of the officer's job involving dealing constructively and effectively with the public on a one-to-one basis.

Key PII, called <u>Overall Performance</u>, is most closely related to ratings of overall job effectiveness as a patrol officer.

Key PIII, called Crime Prevention, is most closely related to those aspects of the officer's job involving alertness to suspicious situations, detecting and investigating crimes, and maintenance of public safety.

Key PIV, called <u>Cooperation</u>, is most closely related to those aspects of the officer's job involving effective cooperation with other officers and other law enforcement units.

Our analyses suggest that the minimum estimated median validity for these patrol officer keys is .24. When scores from them are combined to form a composite TOTAL POTENTIAL score, the validity may be in the range .30 to .35.

#### Detective keys

Key DI, called <u>Overall Performance</u>, is most closely related to ratings of overall job effectiveness as a detective.

Key DII, called <u>Personal Integrity</u>, is related to those aspects of a detective's job involving fairness and integrity in dealing with all cases equally and resisting opportunities to use one's badge for personal gain.



Our analyses suggest that the minimum estimated median validity for these detective keys is .25. When scores from them are combined to form a composite TOTAL POTENTIAL score, the validity may be in the range of .35.

## Sergeant keys

Key SI, called <u>Supervisory Coordination</u>, is related to those aspects of a sergeant's job involving inspection of personnel and equipment, scheduling duty time, and deploying officers and equipment with wisdom and initiative.

Key SII, called <u>Supervisory Consideration</u>, is related to those aspects of a sergeant's job involving awareness of subordinates' needs, recognizing and praising good performance, and training or orienting subordinates toward good performance.

Our analyses suggest that the minimum estimated median validity for these sergeant keys is .20. When scores from them are combined to form a composite TOTAL POTENTIAL score, the validity may be in the range of .25.

#### Middle level command keys

Key CI, called Administration, is related to those aspects of a middle commander's job involving administrative and scheduling duties such as paperwork, assigning manpower, and organizing office procedures.

Keys CII and CIII both are called <u>Overall Performance</u>, and both are related most closely to ratings of overall job effectiveness in middle level command positions (lieutenants and captains).

Key CIV, called <u>Dedication</u>, is related to those aspects of a middle commander's job involving dedication, setting a good example, and resisting opportunities to use one's position for personal gain.

Key CV, called <u>Personnel</u>, is related to those aspects of a middle commander's job involving working with subordinates in areas related to their evaluation, motivation, discipline, and development. Our analyses suggest that the minimum estimated median validity for these middle level command keys is .30. When scores from them are combined to form a composite TOTAL POTENTIAL score, the validity may be in the range of .35 to .40.

Validities by City, by Race, and by Sex

City by city comparison of the validities of the above scoring keys shows that they are impressively consistent and that they are very similar to those obtained for the overall samples. Not only are the actual magnitudes of validity coefficients similar from city to city, but the patterns of higher and lower values are similar over all cities. These results suggest that the scoring keys may be used as they stand to help make personnel decisions about applicants for police work and candidates for promotion. However, such use should, of course, be accompanied by studies to establish local norms and local validity information specific to each department.

A sufficient number of female officers was available for separate validity analysis only in detective jobs. Validities for the small group of female detectives (numbering only 15-25) were lower for the DI key but about the same for the DII scale as for all detectives combined.

Sufficient numbers of minority officers were available for separate validity analysis for patrol officer, detective, and sergeant jobs. Validities are essentially the same for whites and for non-whites for the patrol officer and sergeant scoring keys. In contrast, validities for the detective scoring keys are uniformly lower for minority officers than for officers in the total sample of detectives. Studies of mean differences in performance ratings and in scoring key scores between white and non-white officers showed that adjustments needed to be made for minority candidates in order to assure that persons, regardless of race, with equal probabilities of showing particular levels of job performance effectiveness will obtain approximately the same scores on the TOTAL POTENTIAL composites of the POLICE CAREER INDEX scoring systems.

At present, we can recommend use of these scoring systems for both minority and non-minority candidates for patrol officer and sergeant police functions. Use of the scoring systems for women and for minority persons for the detective function is not currently recommended. Evidence concerning possible sex differences is not available from our research for police functions of patrol officer, sergeant, and middle command. Evidence about possible race differences is not available from our research for middle command police functions.



## Operational Use of POLICE CAREER INDEX

The POLICE CAREER INDEX consists of three inventories. The first inventory contains 393 items made up of background information, personality-type items, and items involving preferences for various activities. It contains all material necessary for scoring the patrol officer and detective keys and most of the sergeant and middle command keys. The second inventory contains 82 job situation items relevant specifically to the sergeant function, and the third inventory contains 75 job situation items relevant specifically to the middle command function. The inventories can be administered quickly and easily by a competent clerical person to groups of candidates numbering as large as 75-100. The time required for administration is no more than two hours [the average time for a candidate is about 75 minutes] for the Biographical and Personal Information Inventory and about 45 minutes for either one of the Situational Judgment Inventories. When fully operational, candidates' completed inventory booklets may be mailed to a central scoring location where responses are keypunched, automatically scored, and interpretive profiles printed by computer and returned to the site of testing. Turnaround time between date of testing and date of receiving completed results typically should be about three to four days at most.

#### Regional Assessment Center Materials

Assessor's manuals have been prepared for each of the four police functions. The manuals contain complete definitions for the assessment dimensions tapped by the simulations; detailed instructions for assessors on how to conduct exercises, observe candidates, and evaluate their performance; sample copies of all written instructions and materials for candidates; and sample copies of all report and rating forms to be completed by assessors after each exercise. The manuals were designed to be used by persons serving as assessors when police assessment centers become operational. For convenience, pages are color-coded according to whether they are explanations and instructions for assessors, instructions and other written materials to be used by candidates, or rating forms to be completed by assessors.

## Implementing Regional Assessment Centers

Centers may now be established on a regional basis to offer police assessment services periodically to local departments in the area. At first, a cadre of persons should be trained in each region who may be called pon periodically to serve as staff members. Our experience with the pretesting suggests that an effective approach is to include as staff members a mix of police officials, psychologists (who may be recruited from nearby schools, colleges, or universities), and local citizens active in some facet of social or community service work.

Persons who are to serve as assessors will require thorough training involving such things as:

- . Learning the definitions of assessment dimensions to be measured during the assessment center.
- . Reviewing the content and procedures of all exercises described in the Assessor's Manuals.
- . Practicing role-play exercises and becoming familiar with the standardized role sets to be assumed by assessors.
- . Practicing conducting background interviews.
- Practicing recording behavioral observations of candidates' performance and making evaluative ratings of performance backed by behavioral observations.
- . Observing experienced assessors as they conduct an actual assessment center, carry out role-play exercises and background interviews, make behavioral observations of candidates, and rate their effectiveness.

Such training for assessors will probably require two or three days plus the time required to observe an actual assessment center being conducted by experienced assessors.

After an assessment center, staff members will typically pool their observations of candidates' performance and discuss candidates' overall effectiveness in the assessment dimensions. Assessors should discuss each other's observations and ratings for a candidate and reach consensus on how effective the candidate was on each dimension. The information may then be summarized in the form of a two or three page written report on each candidate's performance and his or her estimated potential for success in the particular police function being evaluated. The report will be sent directly to the candidate's local department where it may be combined with all other personnel information to derive a final judgment about him or her. COMBINED OPERATIONAL USE OF POLICE CAREER INDEX AND REGIONAL ASSESSMENT CENTERS FOR PERSONNEL DECISIONS AND CAREER GUIDANCE OF POLICE PERSONNEL

We have described the development and validation of POLICE CAREER INDEX inventories and the development and pilot testing of assessment center job simulations for each of four police functions. These materials are now ready and available for operational use by local departments to help them in making selection, training, promotion, job transfer, and career counseling decisions for police candidates and/or experienced police officers already working in their departments.

Figure 1 shows how the POLICE CAREER INDEX inventories can be used in concert with Regional Police Officer Assessment Centers to provide information to local departments for use in carrying out the above personnel decision practices. The various stages shown in Figure 1 are described briefly below [The numbers on the boxes shown in Figure 1 refer to the stages discussed below.]

- A local department seeking qualified candidates for vacancies would announce the availability of such positions and designate a date for administration of the POLICE CAREER INDEX (PCI) Biographical and Personal Information Inventory.
- 2. As candidates appear, the local department would carry out some form of preliminary screening such as brief interviews, reference checks, etc., to develop a roster of candidates to be admitted to the PCI Inventory administration session. Sufficient numbers of PCI booklets and answer sheets would be obtained; and, on the appointed day, all qualified candidates would complete the PCI Inventory.
- 3. Completed answer sheets would be forwarded to a centralized computer scoring service for scoring and automatic interpretation. At that time, the local department would also indicate the types of predictor scale scores desired for each candidate. Usually a department reviewing inexperienced candidates would probably request scoring for only the patrol officer predictor scales, although early guidance and training of a newly hired trainee could perhaps profit by obtaining information relevant to the other police functions as well.

Occasionally, a department might wish to evaluate an experienced police officer from some other department who might be under consideration for a supervisory or command job. At such times, the department would administer the appropriate

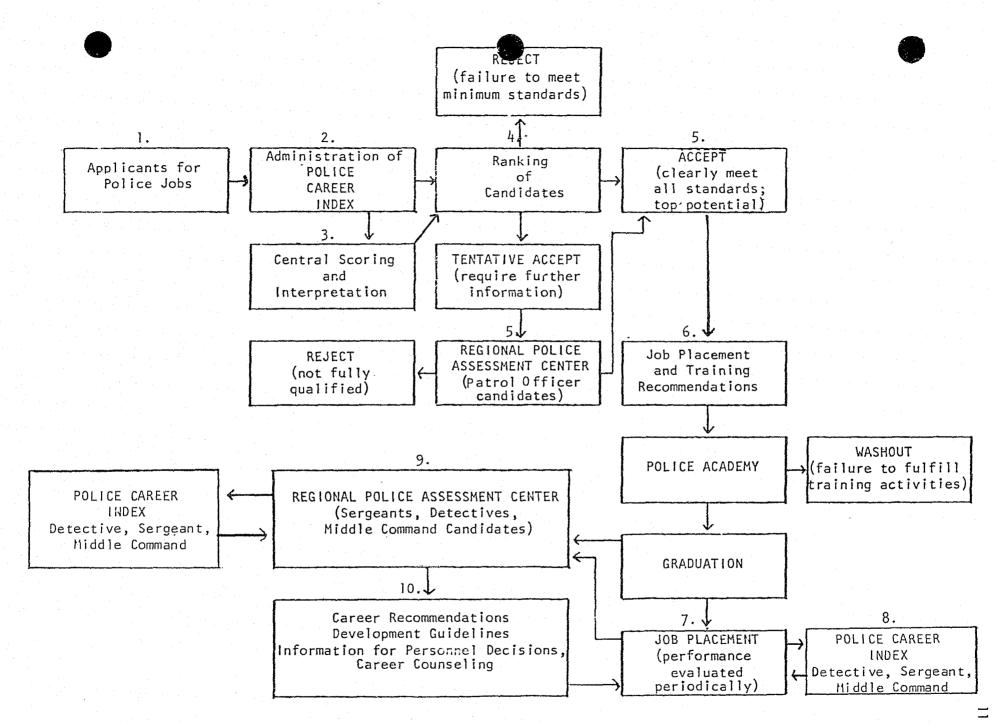


FIGURE 1. Stages of personnel selection, performance evaluation, assessment, and career placement decisions.



PCI Situational Judgment Inventory (Sergeant or Middle Command) in addition to the PCI Biographical and Personal Information Inventory and request scoring on the appropriate keys.

The scoring service would carry out the scoring and return interpretative profiles (similar to those shown as Figures 3, 4, 5, and 6 in Chapter 2) to the local department within two days.

- 4. The PCI results would then be used in conjunction with additional departmental screening methods (such as physical examination, panel interview, etc.) to form an overall ranking of candidates.
- 5. The overall ranking of candidates would, for most departments, probably lead directly to the acceptance of the highest ranking persons to enter police training.

Some departments might, however, seek further information on some of the candidates. These candidates would be asked to attend a one-day Regional Patrol Officer or Detective Assessment Center. This option would, of course, involve considerably greater cost to the department. But in some instances, the richness of the behavioral information might warrant obtaining such information.

- 6. Each candidate finally accepted should then be interviewed in a "feedback" session where the wealth of information obtained about her or him during the selection process would be discussed, with particular emphasis placed upon implications of the information for special training needs, areas of strength and weakness, possible career opportunities, etc., etc.
- 7. Upon graduation from police academy training, officers would typically be assigned directly to police jobs either as patrol officers or as detectives. Again, some departments might seek further information about an officer early in his or her career by asking him or her to attend a regional police assessment center. More typically, however, the job performance of young officers would be evaluated periodically according to the department's existing personnel practices.
- 8. At some point in a young officer's developing career, the department might administer various inventories of the POLICE CAREER INDEX and request scoring on predictive scales bearing on detective, sergeant, and middle command jobs. Such

information would then be used in conjunction with the accumulating knowledge of the officer's job performance to build a preliminary roster of "above average potential" officers for later promotional consideration when advancement opportunities develop.

- 9. At some stage (or, perhaps on several occasions) in an officer's career, the department would ask that he or she attend a regional police assessment center. There, the officer's potential would be evaluated according to the simulations and behavioral observation methods described in Chapter 3. If PCI information were not available on a candidate at the time of attending the regional center, the information would be obtained at that time as part of the total assessment center procedure.
- 10. Information about the officer's performance at the regional center would then be transmitted to appropriate persons in the department. It is desirable that the same information be given, with departmental approval, to the officer so that optimal use would be made of it in developing jointly agreed upon career recommendations, guidelines for further personal development, and basic behavioral information to be combined with all other information in developing a firm evaluation of his or her potential for serving effectively in the whole range of police positions available in the department.

The two "instruments" developed in this research program provide a total personnel evaluation system for decision making at all levels of police work, ranging from entry to the force to career guidance for individual officers and the development of increasingly accurate estimates of potential as those officers gain maturity and experience in their jobs. The central and most important feature of these two coordinated assessment methods (the POLICE CAREER INDEX and the job-focused Police Officer assessment simulation exercises) is their grounding, at every stage of development, in behaviorally explicit patterns defined by the most critical features of police officer job performance. Thus, the POLICE CAREER INDEX scales are directly interpretable according to expected patterns of police job performance instead of being in the form of the usual traits measured by psychological tests. And, the assessment simulations have been shown to elicit successfully exactly those behavior patterns discovered to be critical to successful performance in different police jobs. The total evaluation system shown in Figure 1 provides a base, therefore, for gathering and accumulating information over time that is increasingly relevant and accurate for making personnel decisions about persons and jobs in police departments.



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