

The CPI Police and Public Safety Selection Report

The California Psychological Inventory (CPI) is a self-report questionnaire designed to measure normal-range human behavior. It consists of 434 true/false items representing concepts—such as Tolerance, Responsibility, Integrity, Empathy, and Self-Control—that are commonly used to describe and understand human behavior. (A detailed description of the CPI can be found in the test manual [Gough, H. G., & Bradley, P. (1996). *CPI Manual* (3rd ed.). Mountain View, CA: CPP, Inc.

The CPI Police and Public Safety Selection Report, created by Johnson, Roberts and Associates, Inc., (JR&A) is a special purpose employment selection report based on the CPI. It is the most frequently chosen test of normal range personality by psychologists who conduct psychological screening of police and other public safety job applicants. It is generally paired with a test of psychopathology such as the Psychological Assessment Inventory (PAI) or the Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-2- RF) or MMPI-2.

The CPI Police and Public Safety Selection Report, which is based on a normative sample of more than 50,000 public safety job applicants, supplements the basic CPI and its interpretive lore with a number of innovative features designed to improve the accuracy and fairness of employment selection decisions in the public safety field. These innovative features include:

- Risk statements that estimate the likelihood (High, Medium, Low) the applicant will: (1) demonstrate a pre-hire history of specific background/character problems (such as Anger Management Problems, Job Problems, etc.); (2) be rated by experienced psychologists as poorly suited for the position; or (3) be involuntarily separated from employment, if hired. (See page one of the sample Report: “Snapshot.”)
- CPI scale profiles based on norms for public safety job “incumbents,” which allow the applicant’s test scores to be compared to those of previous applicants who were subsequently hired and successfully held the job that the applicant is applying for. (Norms and risk statements are developed separately for five different public safety positions: (a) Police officer/sheriff’s deputy/state trooper, (b) Corrections officer, (c) Firefighter/EMT, (d) Juvenile probation counselor, and (e) Communications dispatcher). Note that the public safety norm-based T scores in the Selection Report are plotted, for comparison purposes, on the same profile as are the publisher’s “Community” norm-based T scores. (See page 2 of the sample report)
- A list of individual “selection-relevant” CPI items endorsed by the applicant, indicating certain responses -- identified by a panel of expert psychologists and by research on officer performance -- that may indicate possible job performance problems. The items endorsed by the applicant can be used by the interviewer to focus their inquiry. The Report also indicates the percent of the applicants who endorse the item the same way, which is an index of how unusual the applicant’s response is. (See page 7 of the sample report)
- A summary list of CPI scales for which the applicant’s scores are favorable or unfavorable indicators of the applicant’s likely performance on specific job functions or job problem areas, based on research involving confidential ratings by police sergeants and command staff of their subordinate officer’s post-probationary job performance and personal problems. (See page 8 of the sample report)

These features and the research on which they are based will be discussed in more detail later in this document. A comprehensive coverage of this information can be found in *The CPI Police and Public Safety Selection Report Technical Manual*, published by Johnson, Roberts and Associates, Inc. A sample *CPI Police and Public Safety Selection Report* (henceforth referred to as the “CPI Selection Report”) is presented at the end of the present document.

When used for the purpose of creating The CPI Selection Report the CPI can be administered in two ways: (a) using a paper questionnaire and fill-in-the-bubble answer sheets and (b) online.

The test reports for The CPI Selection Report can be created in two ways: (a) off-site, in which the psychologist mails the completed answer sheets to JR&A, or authorizes us to download the online test data, and we create and send back the printed reports (typically over a secure internet connection), and (b) on-site, in which the psychologist installs our Test Scoring System software on a local computer and uses this software to produce the reports.

Note: In addition to the CPI, the JR&A Test Scoring System software can be used to create JR&A Police and Public Safety Selection Reports for three other tests that complement the CPI:

- the **Personality Assessment Inventory (PAI)**, which identifies various types of psychopathology, such as Anxiety, Paranoia, Aggression, and Depression
- the **State-Trait Anger Expression Inventory (STAXI)**, which measures the way the individual experiences and expresses anger, and can help identify a predisposition to anger and anger-related behaviors
- the **Psychological History Questionnaire (PsyQ)**, which asks over 300 detailed questions about various aspects of a job applicant's life (including education, employment, law enforcement experience, driving record, criminal record, substance use, alcohol and drug use, early life history, psychological problems, and related psychological treatment). The PsyQ is used by screening psychologists as an efficient way to gather and organize extensive information about the job applicant, and is also used as a template for their structured psychological interview with the applicant.

Discussion Points

The previous section of this document contained brief descriptions of the basic features of the CPI Selection Report. This section contains somewhat more detailed descriptions of selected features of the CPI Selection Report that contribute to its value when used for psychological evaluations of applicants for public safety positions.

Public Safety Focus

The primary reason for the success of the CPI Selection Report is that it was designed by psychologists with decades of police selection experience to respond to the shortcomings of commonly used psychological tests when used for police selection. Standard versions of psychological tests work well in clinical settings, but when taken out of the treatment context in which they were developed, and used in high-stakes employment screening, they have clear limitations. For example, the “fake good” strategy employed by all job applicants results in markedly elevated scores on validity scales and corresponding suppression of scores on substantive scales. The net effect is a profile that masks any individual differences on scale scores, resulting in everybody – even very atypical or bizarre job applicants - looking “normal.”

One strategy for overcoming the masking effect that results from using community norms (which includes very heterogeneous test-takers) is to calculate profile T scores using special group norms from the population being screened. This strategy, which is used in the JR&A CPI Selection Report, permits comparison of a given applicant’s responses to test items to the very homogeneous population of police job applicants competing in a high stakes employment screening situation.

The advantage of this strategy is that even a few test items answered differently than this special norm group will “spike” the T score, drawing attention of the screening psychologist to potential concerns in that test construct and related job dimension. This approach permits applicants who respond in an unusual fashion to test questions to show up “on the radar.” This is a valuable feature that helps focus the screening interview into potential areas of concern,

although it must be understood by the psychologist that these “spiked” elevations do not necessarily have the same meaning as equally high T score elevations that are based on Community norms.

Another limitation of standard assessment devices is that “critical item” lists developed for a psychological test either focus on severe pathology, which is rare in job applicants, or are simply not available for a test. What is needed in the selection environment is a list of items endorsed by an applicant that inform the examiner the applicant has admitted to non-pathological negative behaviors or counterproductive traits. This information can help the examiner focus the interview more clearly on job relevant concerns.

Perhaps the most serious deficiency of standard psychological tests when used in a selection setting is the absence of appropriate norms that permit applicant’s scale scores to be compared to other job applicants, rather than to the norms of test-takers that are usually used by academic test developers, like college students and paid volunteers. Job applicants taking psychological tests face a “high stakes” test environment because they either get a desired job, or not. By contrast, the test-takers who make up the “community norms” used in most standard tests face a very different, low stakes testing environment. The difference between the norms created by high stakes versus low stakes testing environments has a dramatic effect on the screening psychologist’s ability to identify, and address applicants who are outliers on various screening dimensions.

Finally, psychological tests should integrate the results of research designed to identify applicants who are at risk of exhibiting counterproductive behavior in a public safety position. This has been done for the CPI Police and Public Safety Selection Report, but not for most general purpose psychological tests.

Applicability to Both Pre Offer and Post Offer Testing

The Americans with Disabilities Act requires that job applicants can be asked questions with “medical” content only after they have been given a conditional offer of employment. Because of the need to ask certain questions with medical content (such as psychological treatment or alcohol use/abuse) psychological evaluations of public safety applicants are typically conducted in the “post offer” phase of job selection.

Most psychologists prefer to combine the CPI Selection Report with a test of psychopathology, which requires asking medical questions. Consequently the CPI Selection Report is typically included in the post job offer stage of the hiring process, even though it is used to assist the psychologist in identifying *non-medical* traits and characteristics that may interfere with the safe and effective performance of essential job functions.

However, the CPI Selection Report can also be used as part of a pre job offer screening protocol, typically combined with a cognitive measure and behavioral history data, to assist the agency in deciding which applicants should be extended a conditional offer of employment (COE) and moved forward to the post offer screening phase. As documented in *the CPI Manual*, the current 434 item version of the CPI was intentionally designed to comply with the Americans with Disabilities Act by eliminating items that contained “medical” content.

The CPI Selection Report Normative Population

Although the standard version of the CPI was normed on a sample of 3,000 males and females, the ethnic composition of that sample is not known. This lack of attention to ethnic representation in normative samples is typical of all standard psychological tests. A primary goal of the CPI Selection Report was to provide the psychologist with a normative sample that is

representative of the job applicant pool for the sworn police officer classification, as well as other public safety positions.

The table below provides both ethnic and gender data for the CPI Selection Report normative sample. This normative sample includes applicants for the position of police officer and other public safety classifications drawn from large urban agencies as well as medium and small agencies nationwide.

Group	N	%
Gender		
Male	41,042	81
Female	9,432	19
Missing/No answer	14	*
Ethnicity		
Caucasian (non-Hispanic)	32,212	64
African American	7,341	15
Hispanic	5,753	11
Asian	3,291	7
Other	1,532	3
Missing/No answer	359	1
Gender & Ethnicity		
Caucasian male (Non-Hispanic)	26,774	53
Caucasian female (Non-Hispanic)	5,433	11
African American male (Non-Hispanic)	5,188	10
African American female (Non-Hispanic)	2,152	4
Hispanic male	4,766	9
Hispanic female	987	2
Asian/Pacific Islander male	2,789	6
Asian/Pacific Islander female	502	1
Other/Missing/No answer	1,897	4
Total	50,488	100

Note: * indicates a percentage value < .5

Applicant Comparison Profiles

The CPI Selection Report uses non-gendered T scores to compare a given applicant to the preemployment test score norms from two special groups: (a) job applicants for the same position the applicant is applying for and (b) “Incumbents”, who are applicants who were screened, hired, and successfully completed at least one year in their position. These two “Applicant Comparison Profiles” are used in formulating a selection decision.

Computation of Risk Statement Values

As stated above, an important feature of the CPI Selection Reports are the risk statements that estimate the likelihood the applicant will demonstrate a pre-hire history of specific selection-relevant problems, be rated by experienced psychologists as poorly suited, or be involuntarily separated from employment, if hired.

The risk statements for each applicant are computed from the applicant’s CPI scale scores, using formulas based on research relating the CPI scale scores to the presence or absence of each of the individual problems reflected in the risk statements. Specifically, the formulas used to compute each of the risk statements were developed using logistic regression analysis, a methodology that is designed to predict dichotomous outcome variables (such as the presence or absence of a Substance Abuse problem) from continuous prediction variables (such as CPI scale scores).

The research was done using large data sets, containing data from more than 35,000 public safety job applicants.

The prediction equations were cross-validated by testing them on a new sample of data that wasn’t used to develop the equations. This is an essential step in predictive research because predictive equations can often reflect idiosyncratic relationships that are present in the particular data set used for the research, but are not replicated when the equations are used to predict outcomes for new cases. This problem is referred to as “shrinkage” and is particularly likely when the research is based on small samples of data and large numbers of predictor variables, as is often the case in research done to create psychological measures for evaluating police applicants. (In such cases, in which cross-validation would be particularly important, it is rarely done.)

The cross validation analyses that we conducted demonstrated almost no reduction in the strength of the relationships when the formulas developed from one set of data were tested on a second set of data that had not been used to develop the formulas.

The analyses that we did to create the risk factor equations, and the cross validation analyses that we did to test these equations, are described in Chapter 4 of *The CPI Police and Public Safety Selection Report Technical Manual*. This manual was written by Michael Roberts and Michael Johnson and is published by JR&A.

**The CPI Selection Report and the California Commission on POST
Patrol Officer Psychological Screening Dimension**

The new POST Psychological Screening Manual (2014) stresses the importance of choosing psychological tests whose scales have a logical and ideally empirical relationship with the job dimensions identified for the police officer function. An examination of the table below makes it clear that the JR&A CPI Report scales and Risk Statements are clearly linked to the POST Psychological Screening Dimensions.

**The CPI Selection Report and the
California Commission on POST
Patrol Officer Psychological Screening Dimensions**

POST Dimensions	CPI Scale Names	CPI Traits Measured
Social Competence	<ul style="list-style-type: none"> • Sociability • Social Presence • Empathy • Good Impression 	<ul style="list-style-type: none"> • Comfortable in groups • Socially confident • Friendly, intuitive • Cooperative
Teamwork	<ul style="list-style-type: none"> • Achievement via Conformance • Tolerance 	<ul style="list-style-type: none"> • Productive, organized • Tolerant, diplomatic
Assertiveness/Persuasiveness	<ul style="list-style-type: none"> • Dominance • Capacity for Status • Self-Acceptance • Independence • Alpha Type 	<ul style="list-style-type: none"> • Assertive, self-confident, persuasive • Ambitious, independent • Outgoing, persuasive/ goal-oriented, resourceful • Assertive, productive
Decision-Making/Judgment	<ul style="list-style-type: none"> • Intellectual Efficiency 	<ul style="list-style-type: none"> • Logical, knowledgeable, efficient, resourceful
Adaptability/Flexibility	<ul style="list-style-type: none"> • Flexibility 	<ul style="list-style-type: none"> • Flexible, creative, adaptable
Emotional Self-Regulation/Stress Tolerance	<ul style="list-style-type: none"> • Self-Control • Well Being 	<ul style="list-style-type: none"> • Stable, self-disciplined, deliberate, calm, patient
Avoiding Substance Abuse & Risk-Taking Behavior	<ul style="list-style-type: none"> • Integrity (lying about recent illegal drug use) 	<ul style="list-style-type: none"> • Likelihood of having lied regarding illegal drug use • Alcohol Use/Abuse Problems Risk Statement
Impulse Control/Attention to Safety	<ul style="list-style-type: none"> • Gamma • Responsibility 	<ul style="list-style-type: none"> • Rebellious, restless, impulsive • Dependable, conscientious,

		thorough <ul style="list-style-type: none"> • Self-disciplined, rule abiding
Conscientiousness/Dependability	<ul style="list-style-type: none"> • Socialization • Reliability 	<ul style="list-style-type: none"> • Honest, conscientious, rule-abiding • Dependable, Conscientious
Integrity/Ethics	<ul style="list-style-type: none"> • Socialization • Integrity Risk Statement 	<ul style="list-style-type: none"> • Honest, conscientious, rule-abiding • Conforms to laws, regulations;

The JR&A CPI Police and Public Safety Selection Report: Illustrating the Special Features of the Selection Report

Examining a sample JR&A CPI Selection Report is the best way to illustrate how the special features of the Report can assist the screening psychologist in their task of formulating a suitability recommendation. The profile presented below is from an applicant that was screened using this CPI Selection Report as part of the test protocol. He was not recommended for employment at that agency, but was subsequently hired at another department. Approximately a year after being employed as an officer he committed suicide. Although this is an unusual case, the test profile helps demonstrate the value of the special features of the CPI Selection Report when compared to the conventional Community norm T-score profile.

- The cover page (page 1) provides a clear summary of critical information about the applicant, and their test results. The “Snapshot” section on page 1 summarizes the likelihood that an applicant with this test-takers response would have a pre-hire history of negative behavior in job relevant domains. Fewer than 10% of applicants are placed into any High Risk category, so it is worthwhile probing further into those areas to rule out any under-reported or falsified self-report of a negative behavioral history. Note that this feature is especially important in departments that do not have a polygraph as part of their screening protocol because large sample research with police applicants has documented significant rates of under-reporting in these agencies when compared to agencies that do administer a polygraph (JR&A: data by request).
- Page 2 of the report presents Applicant Comparison #1: comparing the applicant’s responses against the norms of 10,680 Incumbent Officers (shown as a solid bold line). An examination of the T scores produced by using the Community Norms (standard publisher norms) presented as dotted lines indicates no elevations below a T score of 50, essentially a problem free profile. However, using the T scores produced by using the Incumbent Officer norms we can see that several important scales (Responsibility, Good Impression, Self-Control, Well-Being) have very low T scores, alerting the psychologist that further inquiry is necessary in these areas.

- Page 3 of the report presents Applicant Comparison Profile #2: The test taker's T scores (shown as a solid line) were computed using norms based on the pre-employment scores of a sample of 40,814 applicants for the position of police officer/deputy/trooper. The test taker's Community T scores (shown as a dotted line) were computed using norms based on a sample of 6,000 members of the general community. As with the comparison using Incumbent norms, the comparison of this applicant to norms from over 40,000 other applicants for the same position also indicates he is responding to test questions in a non-normative manner that should be noted by the examiner.
- Page 4 was not displayed. It is a comparison of the applicant's test scores to norms from other applicants to the same agency the applicant applied to.
- Page 5 displays the classification of the applicant in Gough's Type and Level system using both Community and Police Applicant norms.
- Page 6 presents a table of CPI Special Purpose Scales that provide the examiner with more nuanced insight regarding the applicant's traits and characteristics. This table is also the location of the Integrity Scale that will be discussed at length at the end of this narrative.
- Page 7 lists the Selection Relevant ("critical") item endorsements made by the applicant. The test item number is followed by the item statement, and then in parentheses, the applicant's endorsement (True or False) and percent of the applicant population responding to that item as the applicant did. The actual item statement is not provided in this sample report because the items are copyrighted by Consulting Psychologists Press, and access to this information is limited to doctorate level psychologists. Psychologists can contact Johnson, Roberts and Associates for an un-redacted version of the report.
- Page 8 provides a summary of the applicant's CPI scales that have a significant correlation with job relevant behaviors, organized into "Favorable" and "Unfavorable" indicators. As was noted above, this feature of the report was derived from research on post-probationary officers who were confidentially rated by their supervisors.
- Page 9 is the Item Response summary for the applicant.

California Psychological Inventory (434) Police and Public Safety Selection Report©

Suicide, After (105-60-0002)

35 year old "other" male.

Tested on 23 September, 2013

Applying for the position of police officer/deputy/trooper

Highest Level of Education: Some college

Employment experience in public safety field: Sworn law enforcement officer

Previous Psychological Testing: Twice

General CPI Results

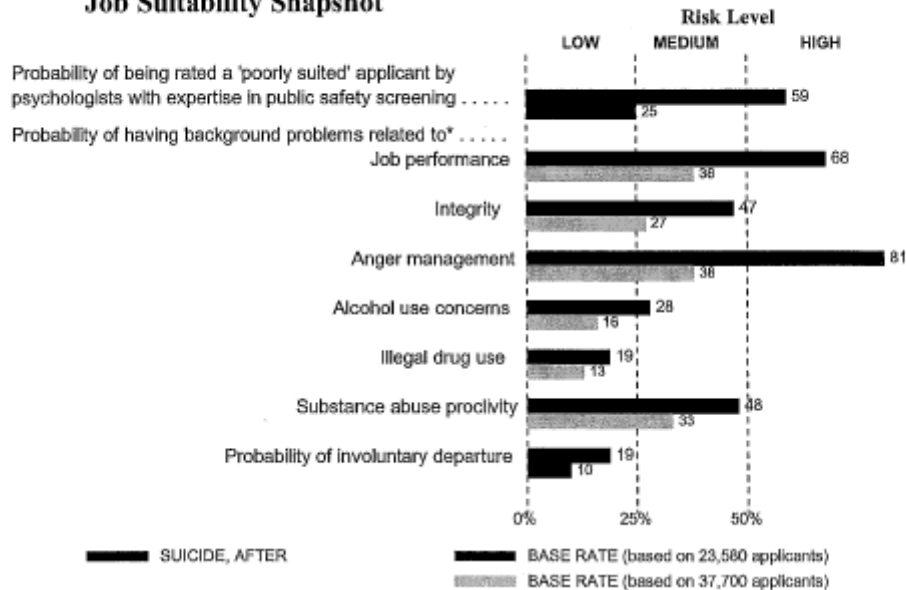
Type and level, based on CPI community norms **Type: Alpha Level: 4**

Selection-relevant CPI items -- number of these items* endorsed atypically, compared to the majority of public safety applicants (base rate = 7 items) **13 Items**

Number of unanswered items. None

* These items should be reviewed with the applicant

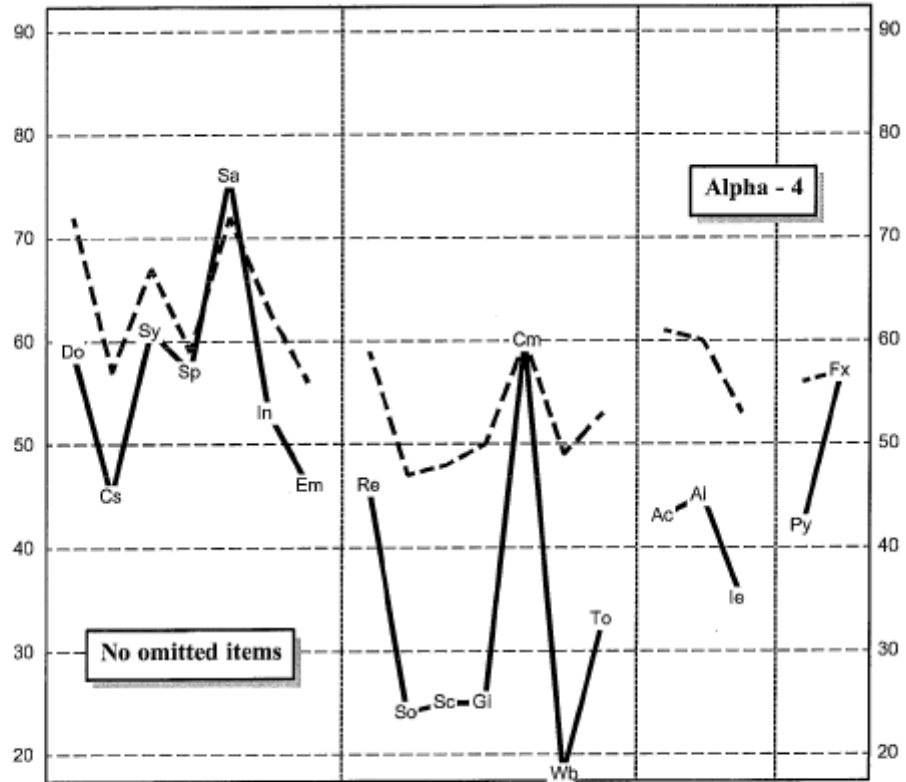
Job Suitability Snapshot



***NOTE** The probabilities above indicate the likelihood that a personal history review with the applicant will reveal admissions of past behavior that police and public safety hiring authorities regard as possible negative indicators in the selection decision. Each probability statement must be compared with other data sources such as the interview, background check, and polygraph when formulating a selection recommendation. Refer to the *CPI Police and Public Safety Report User's Manual* for additional information.

Applicant Comparison Profile #1

Applicant's scale scores compared to norms based on the pre-employment scores of a sample of 10,680 INCUMBENT police officers/deputies/troopers and the scores of a sample of 6000 members of the general community.



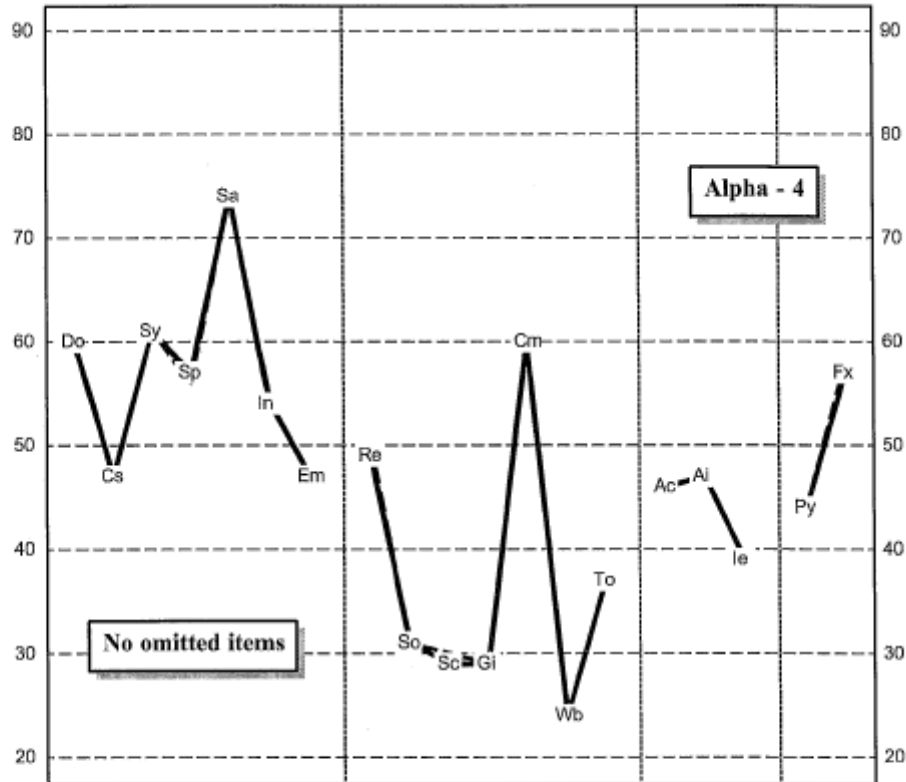
Legend: — Incumbent police officers/deputies/troopers - - - - Community (CPI)

	Do	Cs	Sy	Sp	Sa	In	Em	Re	So	Sc	Gi	Cm	Wb	To	Ac	Ai	Ie	Py	Fx
Raw scores	31	18	28	29	25	21	22	29	28	18	17	38	29	20	31	25	29	17	16
*Incumbent T	59	45	61	57	76	53	46	46	24	25	25	60	15	33	43	45	35	42	57
Community T	72	57	67	59	72	63	56	59	47	48	50	60	49	53	61	60	53	56	57

*NOTE T Scores based on public safety incumbent norms are often lower or higher than those based upon community norms. The relatively homogeneous response to the CPI items by most individuals applying to public safety positions results in noticeable elevations for those who answer atypically. This feature is useful to the screening psychologist because it identifies scale domains and specific items to pursue during the interview. Although the Incumbent T scores are linked to job-relevant screening criteria and may be used to support the screening decision, it is not appropriate to assume the same correspondence between these scores and the standard interpretations that have been established for the community-based norms.

Applicant Comparison Profile #2

Applicant's scale scores compared to norms based on a sample of 40,814 APPLICANTS for the position of police officer/deputy/trooper, and a sample of 34,117 male applicants for the same position.



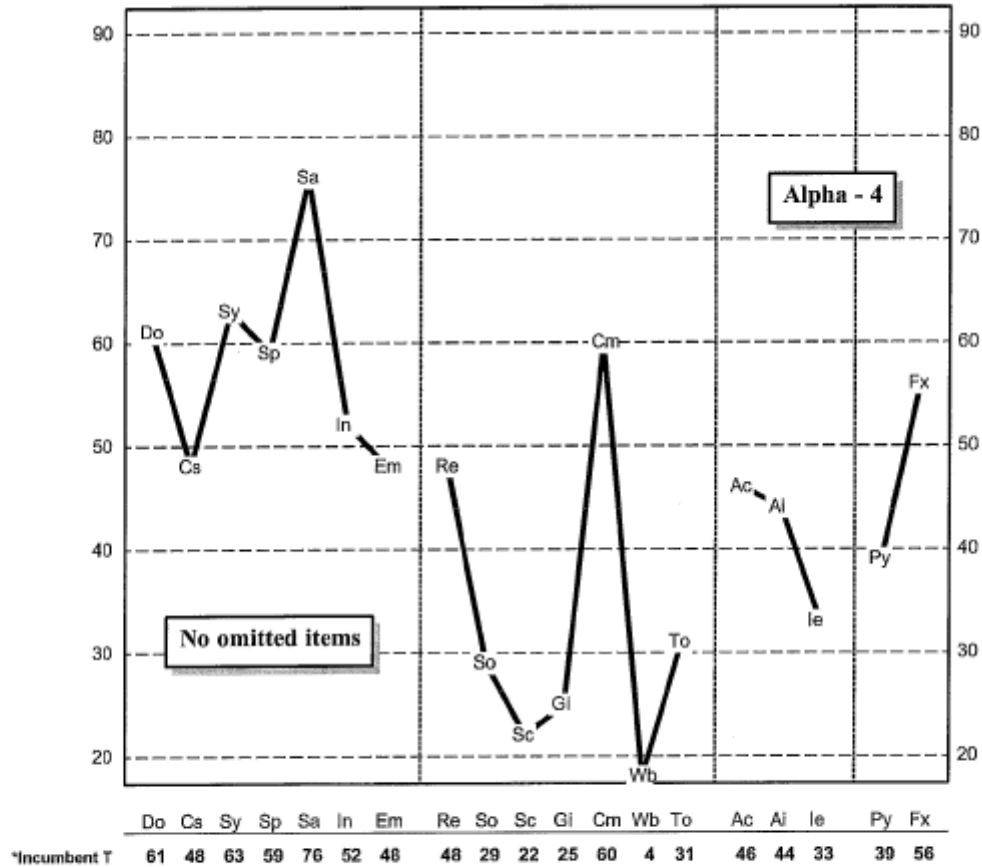
Legend: — PS Applicants for position - - - PS Applicants (by sex and ethnic)

	Do	Cs	Sy	Sp	Sa	In	Em	Re	So	Sc	Gi	Cm	Wb	To	Ac	Ai	Ie	Py	Fx
*All applicants T	60	47	61	57	74	54	47	49	31	29	29	60	24	37	46	47	39	44	57
*Sex/ethnic T	60	47	61	56	74	54	47	50	31	30	29	60	24	37	46	47	39	44	58

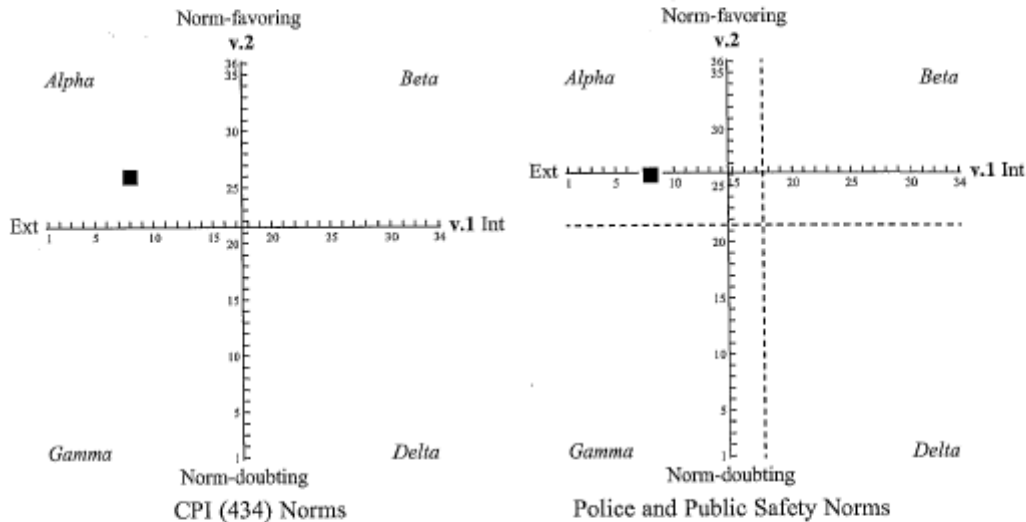
*NOTE: T Scores based on public safety incumbent norms are often lower or higher than those based upon community norms. The relatively homogeneous response to the CPI items by most individuals applying to public safety positions results in noticeable elevations for those who answer atypically. This feature is useful to the screening psychologist because it identifies scale domains and specific items to pursue during the interview. Although the public safety applicant T scores are linked to job-relevant screening criteria and may be used to support the screening decision, it is not appropriate to assume the same correspondence between these scores and the standard interpretations that have been established for the community-based norms. The applicant's scores are compared to norms based on sex and ethnic group in order to help the psychologist identify and address any significant differences in T scores that may be associated with sex and ethnic group membership. Note that in order to comply with the 1991 Civil Rights Act, selection decisions should not be based on this profile.

Applicant Comparison Profile #3

Applicant's scale scores compared to norms based on the scores of 896 INCUMBENT officers of .



APPLICANT LEVEL AND TYPE CLASSIFICATION



Level 4 ($v.3 = 37$, calculated on CPI (434) norms. 22% of the general population classified as level 4; 61% classified as level 4 or below. **NOTE: 18% of police and public safety applicants are at level 4; 27% classified as level 4 or below.**

ALSO NOTE: three-fourths of officers at Level 1-5 (CPI) were rated as problem officers.

Type classification is Alpha ($v.1 = 8$, $v.2 = 26$) - CPI (434) norms.

At their best Alphas can be charismatic leaders and instigators of constructive social action. However, some Alpha subjects are also described as: ambitious, boastful, conceited, ingenious, opportunistic, outgoing, show-off and shrewd. Also, the IPAR staff noted an undesirable quality of self seeking in some Alpha subjects.

Type classification is Gamma - Roberts Police and Public Safety (434) norms.

At their best Gammas are innovative and insightful creators of new ideas, products and social forms. However, some Gamma subjects are also described as: uninhibited, pushes and tries to stretch limits, unable to delay gratification, direct and uncontrolled expression of needs, self-dramatizing, rebellious, non conforming, disruptive.

CPI Special Purpose Scales

Since the development of the CPI basic folk scales (reported on the CPI profiles of this report) and structural scales (which render the CPI Type and Level), ongoing research has provided a number of special purpose scales for use at the discretion of the examiner. Detailed descriptions of these scales are provided in the *CPI Manual* (Appendix A) and in the *Technical Guide* that accompanies this report.

Scale	Description	Raw Score	Community T	Incumbent T*
Nar	Narcissistic Personality --48 items	30	59	71
Hos	Hostility(Adams) --30 items	16	52	74
Mp	Managerial Potential --34 items	20	54	30
Wo	Work Orientation--40 items	32	57	35
Anx	Leventhal-Anxiety--22 items	2	34	34
Ami	Amicability --36 items	17	41	10
Lp	Leadership--70 items	63	68	56
Leo	Law Enforcement Orientation (Gough)--42 items	37	80	65
F/M	Femininity/Masculinity--32 items	9	37	39
So	Socialization --46 items	28	47	24
So1	Optimism, self-confidence, pos. affect--12 items	10	54	35
So2	Self-discipline, cathexis of social norm--15 items	9	49	37
So3	Good memories of home and parents --10 items	4	42	26
So4	Interpersonal awareness and sensitivity--9 items	5	47	54
Itg	Integrity (Roberts, Gough, et al)--46 items	27	66	34

* The T-scores in the right-hand column are calculated from a normative group of 10,680 **incumbent** police officers/deputies/troopers. T scores are printed in **boldface** if T <= 30 or T >= 65, and they suggest a job-relevant concern.

Selection-Relevant CPI Items

Items endorsed by applicant, categorized by job function

The items printed below were endorsed by this applicant as indicated by the T(true) or F(false) in the parentheses after each item. The percent following the T or F endorsement is the percent of police and public safety applicants of the same sex who endorsed the item in the same direction. *Items printed in italics were correlated with substandard performance on three or more police officer job function categories as rated by sergeants who knew the post probation officers well.* It is useful to discuss selected item endorsements with the applicant during the interview. This practice may help individualize the suitability assessment, and will also serve to rule out mismarks or misunderstandings by the applicant.

Self-initiative/motivation (1 item endorsed)

147. (T-7%)

Following rules and regulations (1 item endorsed)

212. (F-34%)

Interpersonal skills/relationships with coworkers and the public (2 items endorsed)

81. (T-18%)

194.

Self control (8 items endorsed)

44. (T-10%)
91. T-10%
114. (T-2%)
115. (T-14%)
187. (T-9%)
232. (T-2%)
276. (F-7%)
309. (T-7%)

Assertiveness (1 item endorsed)

309. (T-7%)

Decision making (No items endorsed)

Social concerns (No items endorsed)

Unanswered items (No unanswered items)

Indicators of Essential Job Functions and Job Performance Problems for Police Officer Applicants

The table below identifies test results that are associated with either favorable or unfavorable supervisory ratings on (1) job functions that are considered essential for success as a public safety officer, and (2) potential job performance problems. Note that a single indicator may be listed in the table in more than one location; this redundancy reflects the "broadband" nature of many indicators' linkages to selection criteria.

	Favorable Indicators	Unfavorable Indicators
ESSENTIAL JOB FUNCTIONS		
Job knowledge		Ami
Written communications		Mp, Lvl
Verbal communications		Mp, Ami, Lvl, Hos, Sc, Wb
Problem solving/decisions		So, Ami, So3, Lvl, Hos
Patrol responsibility	Leo	
Control of conflict		So, Sc, Ami, So3, Nar
Reliability		So, Ami, So3, Nar
Relations with co-workers		So, Ami, So3
Relations with citizens		So, Sc, Gl, Ami, So3, Nar Hos
Overall percentile rating		So, Ami, So3
JOB PERFORMANCE PROBLEMS		
Excessive/unnecessary force		Nar
Alcohol abuse		So
Illegal Drug Use		
Firearms misuse		So, So3
Unethical behavior		So, Mp, Ami, So3
Excessive disability use		
Sick leave abuse		Leo
Dishonesty/lack of integrity		So, So3
Personal relationship problems		So, Wb, Mp, Ami
Favoritism/discrimination		So
Other problems		Hos
TOTAL INDICATORS	1	53

In the beginning of this discussion about the CPI Selection Report it was noted that one of the unique features of the Report is that it has led to research on police selection, and the results of that research have been incorporated into the report as special features, or scales. Two examples of this innovation that deserve special attention are the “Involuntary Departure” Risk Statement (see page 1 of the report), and “Integrity Scale” (see page 6 of the report).

The Involuntary Departure Risk Statement (Johnson, Roberts 2001)

The last Risk Statement in the “Suitability Snapshot” on Page 1 of the CPI Selection Report is, “Involuntary Departure.” This Risk Statement was designed to estimate the probability that a hired officer will leave the job involuntarily. The prediction formula has two components: (1) a linear function of selected CPI scale scores, and (2) a logistic conversion that converts the linear function into a probability, depicted as Low, Medium or High.

The formula was derived from the analysis of job outcomes for 3,390 applicants who passed all screening hurdles, and who were hired as police officers. The criterion variable was Left Involuntarily (N = 370) which included outcomes such as; failed the academy, failed the FTO program, forced to resign in lieu of termination, and termination for cause. This criterion group was compared to the officers who also had been hired but at the time of the study were Still Employed (N = 3020).

The base rate of Involuntary Departure (about 10%) in this research is typical of many police agencies, and being able to minimize the number of Involuntary Departures would save agencies a lot of financial resources and staff time. In practice, a Risk Statement probability of 20% occurs for only 10% of applicants, so it is wise to adopt a low threshold when determining the risk the applicant presents to the agency.

It is noteworthy that in Gary Fischler’s longitudinal outcome study (2004, later published as, Sellbom, Fischler, and Ben Porath) the CPI Selection Report’s Involuntary Departure prediction equation was one of the strongest correlates with criteria such as “involuntary departure” and “sustained citizen complaints.” In fact, it was more highly correlated with these important criteria than either the standard CPI scales or the scales of other important psychological tests used in the study.

The CPI Integrity Scale (Gough, Roberts, Johnson, Bradley, 1999)

The CPI Integrity scale was constructed from CPI items to identify police applicants who deny having used any illegal drugs in the past 12 months, but then subsequently fail a hair-analysis drug test during the background process. Subsequent research and screening experience has demonstrated that the Integrity Scale is a much more robust indicator of counterproductive behavior than was anticipated given the narrowband criterion.

The validation research was done in 1998 on a sample of 2,202 entry level applicants to a large urban police agency. The criterion group was 113 of these applicants who failed the hair-analysis drug test (the hair analysis identifies use of illegal drugs within the last 3 months). The study data included the CPI 434 and an automated behavioral history questionnaire (the Johnson, Roberts and Associates Personal History Questionnaire (PHQ)) that contained questions about recent drug use. Data was collected as a routine part of the preemployment selection process.

Items for the new CPI Integrity Scale were selected from the 434 CPI items on the basis of (a) statistically significant correlations with the criterion variable, (b) factor analysis (to improve the

internal consistency of the scale), and (c) item content. In the calibration sample (the 2,202 applicants tested in 1998), the correlation between the Integrity Scale and the criterion variable was .22. In 1999, cross-validation data was collected from a new group of 2,296 applicants to the same police agency, of whom 148 failed the hair analysis drug test. The cross-validation correlation between the Integrity scale and failing the drug test) was .17. The relatively small “shrinkage” in the correlations between the calibration and cross-validation samples suggests that the scale is a reasonably robust index of the likelihood an applicant will lie about recent illegal drug use. It is noteworthy that these correlation values were not corrected for “range restriction,” which is a common practice in this type of selection research, which would result in a significant increase in the correlation values.

Gough and Bradley (1998) examined the characteristics of the new Integrity scale using data originally collected in 1983 to validate the CPI -- in which 236 couples completed the CPI and also described each other using a checklist of 300 adjectives (Gough's ACL).

Using this data, scores on the Integrity scale were calculated for the 236 couples, and correlated with the adjectival descriptors.

The adjectives with the highest and lowest correlations to the Integrity scale were identified. Low scoring individuals were described as:

Bitter	Aggressive
Boastful	Sly
Reckless	Demanding
Complaining	Restless
Prejudiced	Temperamental
Rebellious	Show-off
Superstitious	Worrying
Suspicious	

Additional Q-sort data was available for 200 of the couples and indicates that low scorers are described as:

- Overly concerned with success; too dominated by own ambition and desire to win approval
- Headstrong, rebellious, and resentful of others; lacking in self-discipline; apt to behave in a rash or destructive manner
- Critical and outspoken; disparages other people and their ideas

Considered in the context of preemployment screening, applicants displaying the traits and characteristics identified by Gough and Bradley as associated with low scores on the CPI Integrity Scale, it can be expected that applicants displaying these characteristics are at risk of becoming problem officers.

Independent Research Indicating the Value of Various CPI Scales and Special Features

Dr. Gary Fischler conducted a longitudinal investigation of preemployment screening predictors of police officer integrity problems (2004). That research was subsequently published as, Sellbom, Fischler, Ben Porath (2007), but the journal article focused on only one of the tests used in the study, the MMPI-2.

The tables presented below indicate the correlation values, uncorrected for range restriction, between some CPI Report scales and features/Risk Statements have a significant link to important police selection criteria. Interestingly, Fischler's research suggests that an even greater predictive power can be attained by combining the results of both the CPI and MMPI-2/RF.

The study sample (N=349) from a single police agency. The longitudinal validation study examined the ability of several preemployment psychological tests to predict a number of very job relevant performance criteria, some of which are:

- IA complaints
- involuntary departure (for non-specific reasons)
- post-probationary supervisor ratings (with no special procedures to induce candid responses)

The results of the Fischler study provided strong support for ability of some preemployment psychological test scales and indicators to identify applicants at a higher risk for post-employment counterproductive behavior.

Criterion: Involuntary Departure

<u>Test Scale</u>	<u>r</u>
CPI Integrity (lying about recent illegal drug use)	-.279**
CPI Probability of Involuntary Departure	.228**
CPI Probability of Being Rated by Psychologist Poorly Suited	.147*
CPI Probability of Integrity (thefts, illegal behavior) Problems	.141*
CPI Self-Control Scale	-.142*
CPI Internality Scale	-.135*
MMPI-2 MacAndrews Alcoholism (Mac-R)	.229**
MMPI-2 RC8-Aberrant Experiences (RC8-abx)	.224**
MMPI-2 Responsibility (Re)	-.181**
MMPI-2 Alcohol Admission (AAS)	.177*
MMPI-2 Bizarre Mentation (BIZ)	.161*
MMPI-2 Psy5 Psychoticism (Psy5-psyc)	.154*

MMPI-2 RC4-Antisocial Behavior (RC4-asb)	.157*
COPS Paranoid Orientation (PO)	.144*
Psychologist Recommendation	.171**

*p<.05 **p<.01

Criterion: Sustained Complaints

<u>Criterion: Sustained Complaints</u>	<u>r</u>
CPI Integrity (lying about recent illegal drug use)	-.279**
CPI Probability of Involuntary Departure	.228**
CPI Probability of Rated by Psychologists Poorly Suited	.147*
CPI Probability of Integrity Problems (illegal acts)	.141*
CPI Self-Control Scale	-.142*
CPI Internality Scale	-.135*
MMPI-2 MacAndrews Alcoholism (Mac-R)	.229**
MMPI-2 RC8-Aberrant Experiences (RC8-abx)	.224**
MMPI-2 Responsibility (Re)	-.181**
MMPI-2 Alcohol Admission (AAS)	.177*
MMPI-2 Bizarre Mentation (BIZ)	.161*
MMPI-2 Psy5 Psychoticism (Psy5-psyc)	.154*
MMPI-2 RC4-Antisocial Behavior (RC4-asb)	.157*
COPS Paranoid Orientation (PO)	.144*
Psychologist Recommendation	.171**

*p<.05 **p<.01