

IDENTIFYING PSYCHOLOGICAL PREDICTORS OF POLICE OFFICER INTEGRITY PROBLEMS

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EXECUTIVE SUMMARY

When enforcing society's laws, police officers are entrusted and endowed with special powers that can have profound influence on its citizenry. Officers can, and occasionally do, abuse their authority, violate rules and laws, set a poor example for others, and exploit their position for personal gain. It is critical, therefore, that police officer integrity problems are minimized through whatever means possible, including early identification and prevention. During the National Symposium on Police Integrity held in 1996, sponsored by the Office of Community Oriented Policing Services (COPS) and the National Institute of Justice (NIJ), a number of initiatives were proposed to foster and maximize integrity in the police culture. These included, among other things, examining entry-level screening and hiring processes to ascertain reliable predictors of integrity-related behavior, and studying the relationship between psychological screening data and future integrity-related problems to identify reliable predictors.

The primary objective of the current study was to identify those psychological characteristics of police officers that are associated with subsequent integrity-related performance problems. This study identified integrity problems through reviewing officers' Internal Affairs and Civilian Review Authority complaint histories and obtaining supervisory ratings. Other non-integrity-related work problems were identified by studying the characteristics of officers who were terminated from employment. Previous research studies were reviewed to determine which characteristics were most likely to predict integrity-related problems, and to serve as a comparison to the results of the current study.

The sample consisted of 511 candidates for full-time police officer positions who were examined between 1995 and 2002. Of these, 161 (31.5%) were not hired for a variety of reasons. The remaining 349 (68.5%) cases were analyzed for a relationship to subsequent integrity-related problems. Thirty-eight of these officers (6.9%) voluntarily left the department for personal or professional reasons, 24 (9.6%) were terminated or asked to resign under unfavorable circumstances, and eight (2.2%) left for unknown reasons. Supervisors of 278 officers who were employed at the time of this study were asked to complete surveys regarding integrity-related problems that these officers may have had. Survey results, psychological test results, preemployment psychologist ratings, and background investigation results were then analyzed to determine the best predictors of subsequent integrity-related problems.

In spite of a fairly low incidence of complaints, results indicated a number of preemployment psychological and background variables that were predictive of sustained complaints:

- Psychologist ratings were significantly predictive of future sustained complaints. *Marginal* applicants were approximately three times more likely to receive a subsequent sustained complaint than *recommended* applicants were.
- None of the background ratings was strongly predictive of integrity criteria, although there was a trend for a more problematic *Criminal history* to be associated with sustained complaints and a poorer *Driving record* to predict involuntary departure.

- Officers who more rule-questioning, more impulsive, and showed greater tendencies towards alcohol misuse and idiosyncratic thought processes on preemployment testing were more likely to have subsequent sustained complaints than other officers.
- Officers who had unsustained complaints were psychologically most similar to officers who had never had a complaint, and most dissimilar to those who had sustained complaints.

Results indicated a number of preemployment psychological and background variables that were predictive of officer behavior as rated by supervisors:

- Officers rated as having more problems dealing with citizens were significantly more likely to have been rated as *marginal*, as opposed to *recommended*, in their psychological exams than officers rated with fewer problems.
- Officers rated as having more problems with citizens showed higher levels of impulsivity, antisocial attitudes, idiosyncratic thinking, cynicism, suspiciousness, and anxiety on preemployment psychological tests.
- Background variables did not predict supervisor-rated problems with citizens.
- Officers who were rated as having greater supervisory problems scored higher on preemployment test scales suggesting that they tend to feel mistreated or picked on, and are more likely to have problems trusting others, than officers rated more positively. There was also a trend for officers with more supervisory problems to report higher levels of alcohol abuse.

- Officers with more supervisory problems had poorer *Financial/Credit* histories in their background investigations.

These results were interpreted to suggest that officers with integrity-related problems are more rule-questioning and have a greater propensity towards underlying antisocial attitudes than other officers, tend to be more impulsive and have greater tendencies towards problematic alcohol use, are less team-oriented, and have increased potential for aggressive, argumentative, and antagonistic behavior, suspiciousness, and cynicism than other officers. They also tend to think more idiosyncratically than other officers. This latter finding was hypothesized to indicate that police work demands exceptional logic and reality-orientation, an ability to think “between the lines,” and that individuals who solve problems in a structured, rule-directed way are likely to have fewer difficulties than officers who interpret situations through intuition, affective reactions, or associations to past life experiences. Officers of high integrity treat others well, in part, because they are reality-bound, fact-based, logical, and able to use good judgment to solve problems in tried-and-true ways.

The most useful predictors in the study came from MMPI-2 Content and Restructured Clinical scales, the CPI *Job Suitability Snapshot* scales, and the *Paranoid Orientation* scale of the COPS test. Other basic MMPI-2 and CPI scales and background ratings were not as useful in predicting integrity problems.

However, poor performance in predicting integrity problems in incumbent officers does not necessarily argue that these variables are not useful in predicting problems during preemployment screening examinations. Because preemployment variables are typically restricted in range for the incumbent groups in this type of research, it is often difficult to identify the best preemployment predictors of success or failure. Predictors are often restricted because, as in the current study, psychological tests and other evaluation procedures are almost always used to select suitable applicants and deselect unsuitable ones. Since applicants with the most negative test performances are deselected, this leaves a relatively homogeneous group of applicants who are likely to then be hired by the department. Therefore, any effect sizes, such as the correlation coefficients reported in the current study, are likely to be underestimates of the predictor measures' true ability to predict performance in an *unselected* sample. The performance criteria are also often restricted because of a tendency in many departments to rate employees as satisfactory since they meet the minimum job requirements. In the current study, supervisory ratings were very restricted, and overwhelmingly positive. Such criterion range restriction is also likely to have reduced the observed correlations between the predictors and the supervisory survey items.

The results also underscore the importance of using verified, sustained complaints, rather than the total number of complaints, as a measure of integrity-related problems. This is suggested by the fact that the group of officers with unsustained complaints was much more similar on personality measures to officers without any history of problems, than to officers with sustained complaints. Indeed, it is quite possible that officers who have had

complaints that have not been sustained may offer a more appropriate control group for officers with sustained complaints than officers who have had no complaints at all.

Officers who were involuntarily terminated for general work performance issues showed qualitatively different personality characteristics than other officers. Officers who were terminated showed a unique lack of work orientation as well as tendencies towards being suspicious and intolerant towards others. Such a pattern is consistent with personality models that have shown that individuals who show positive general work performance are likely to show corresponding levels of conscientiousness, agreeableness, and emotional stability.

The study's findings should be useful to police administrators in the following ways:

- The overall rates of complaints and sustained complaints were very low when compared to previous research conducted with the Minneapolis Police Department and other departments, although they may represent underestimates.
- The results related to complaints are consistent with what would be expected if the Internal Affairs adjudication process is working properly. Officers whose complaints were exonerated, unfounded, or unsustained appeared to be not significantly different from officers without a history of complaints. Indeed, the relatively positive characteristics of the group of officers whose complaints were not sustained would argue for the interpretation that unsustained complaints may represent a positive measure of officer productivity.

- Since the overall psychologist rating is a consistently significant predictor of integrity problems, candidates rated as *marginal* should be considered more carefully before being hired. Results also suggest that psychologist ratings should be increasingly guided by heightened scrutiny of a history of alcohol misuse/abuse, evidence of a “party” lifestyle, rule-violating behavior or antisocial attitudes, a history of judgment errors related to illogical thinking or misperception of situations, and evidence of distrust or cynicism related to others.
- In spite of any department’s best hiring efforts, some individuals will end up having integrity-related problems, either because the selection system incorrectly predicted that there would be no future problem when one in fact occurred, or because, even though the initial prediction was correct for a period of time, the officer’s psychological characteristics changed as a result of personal, job, or other factors.
- To help address the issue of officer characteristics changing over time, periodic psychological reexamination should be considered. As part of such a reexamination, an integrity risk assessment could be gleaned from interview and test data that could then be shared with the officer. An officer with an elevated risk rating could subsequently be counseled on how to reduce risk factors.
- Results can guide training and supervisory strategies in a number of ways including helping officers’ self-identify potential problems through presentation and dissemination of the results of this study, and helping immediate supervisors to identify officers who could benefit from additional guidance or coaching.

- Increased supervisory monitoring of officer attitudes and behavior, such as having “cynical attitudes towards the public,” being “distrustful towards coworkers,” having dysfunctional attitudes towards alcohol, or having difficulty using good judgment in ambiguous situations, may help identify at-risk officers earlier in their careers, with the potential for earlier interventions that may prevent their derailment.
- Any ongoing monitoring should be done in the spirit of an early intervention system, whose purpose is primarily to facilitate helpful feedback and coaching, rather than punitive discipline or other negative administrative consequences.
- Since the current findings suggest that tendencies towards alcohol misuse or abuse may be associated with sustained complaints, additional efforts should be made to improve officers’ alcohol awareness through department-wide educational programs aimed at helping officers understand the connection between alcohol use or associated lifestyle factors and risk for misconduct.
- Stress management, anger management, assertiveness, or interpersonal effectiveness training for select individuals may be helpful to reduce suspicious or cynical attitudes, reduce associated anxiety, and improve judgment and decision-making under stressful or ambiguous circumstances.
- While the results of this study have important implications for identifying officers who are at risk for developing integrity problems, the prevention of these problems must be seen in a broader context in which training, departmental leadership, and behavioral monitoring have primary roles.

INTRODUCTION

When enforcing society's laws, police officers are entrusted and endowed with special powers that can have profound influence on its citizenry. Under certain circumstances, officers are empowered to stop us when we are driving our cars, come into our homes and businesses without permission, search us, and use a range of verbal and physical force techniques to ensure compliance, among many other things. They are looked up to as role models by our children, help us when we are sick or injured, and provide comfort when we are victimized by people or forces of nature. In short, we trust police officers with our possessions, family members, and our own lives, and trust that, without external monitoring or coercion, they will put our interests before their own while they protect and serve us. Moreover, we believe they will do these things without regard to our personal characteristics, gender, race, or medical status. Because we allow ourselves to be vulnerable and capitulate to their authority, our police officers have a tremendous opportunity to exploit or harm. Officers can, and occasionally do, abuse their authority, violate rules and laws, set a poor example for others, or exploit their position for personal gain.

What is integrity?

There are many ways to define integrity and many terms have been used to describe what happens when officers fail to uphold the public's trust. Such definitions include corruption, malfeasance, misconduct, and brutality, to name a few. One authoritative

source, the International Association of Chiefs of Police (IACP) has developed the *Standards of Conduct*, a comprehensive set of principles that is intended to guide ethics in law enforcement (IACP, 1998). It provides guidelines for officer behavior in a wide spectrum of domains including obedience to laws, regulations, and orders; conduct unbecoming an officer; accountability, responsibility, and discipline; conduct towards fellow employees; conduct towards the public; use of alcohol and drugs; use of tobacco products; abuse of law enforcement powers or position; off-duty police action; prohibited associations and establishments; public statements, appearances, and endorsements; political activity; and expectations of privacy.

According to the results of his survey data, Trautman (2002) rank ordered the top 10 reasons for police officer decertification (1990-1995). These include false statements/reports, larceny, sex offenses other than rape, battery, driving under the influence, excessive use of force, fraud/forgery, drug possession or sales (other than cannabis or cocaine), weapon offenses, and drug possession or sales (cocaine). Barker (1978) identified several types of misconduct (besides corruption) that were rated as occurring anywhere between 8 and 39% by officers in South City, Mississippi, a city of 25,000. These included perjury, brutality (including verbal abuse), sex on duty, sleeping on duty, and drinking on duty.

The Minneapolis Police Department (MPD) *Complaint Process Manual* (MPD, 2002) lists the following behaviors as examples of misconduct which may be cause for disciplinary action: tardiness and absenteeism; sick leave abuse; absence without leave;

insubordination (disobedience, abusive language or behavior), willful or negligent damage of City property; interference with the work of other employees; sexual harassment; misappropriation of City property, funds, or money; violation of safety rules, laws, and regulations; discourtesy to public or fellow employees; physical abuse, brutality, or mental harassment; accepting gifts from the public in connection with performance of duties as a City employee; criminal or dishonest conduct unbecoming to a public employee, whether such conduct was committed while on duty or off duty; reporting to work under the influence or in possession of alcohol or illegal drugs, or using such substances on the job; soliciting or receiving funds for political purposes or personal gain during work; using authority or influence to compel an employee to become politically active; use or threat of political influence on employment status; violation of department rules, policies, procedures, or City ordinance; knowingly making a false material statement to the City's representative during an investigation into employment related misconduct; and other justifiable causes as specified. The manual goes on to rate the severity of misconduct on a four-point scale of increasing severity, A through D.

The stakes can be high. Just mentioning the names Rodney King, Mark Fuhrman, or Abner Louima conjures vivid images that not only discredit individual officers, but undermine the integrity attributed to all law enforcement officers. Obviously, when an individual officer acts with questionable integrity, the community's trust and confidence in the entire police department is compromised (Weitzer, 2002), with the ultimate result of undermining the effectiveness of the department. This position is clearly outlined in the *IACP Standards of Conduct* (IACP, 1998).

“Actions of officers that are inconsistent, incompatible, or in conflict with the values established by this agency negatively affect its reputation and that of its officers. Such actions and inactions thereby detract from the agency’s overall ability to effectively and efficiently protect the public, maintain peace and order, and conduct other essential business (p. 1)” (IACP, 1998).

Police departments can also be held liable if harm occurs because their officers are improperly selected or trained. For example, in *Bonsignore v. City of New York* (1981), a police officer with emotional problems shot his wife and killed himself. The court found against the officer’s department because no preemployment or subsequent psychological examinations were performed that might have identified and prevented the tragedy from occurring. In *Brown v. Bryant County* (2000) a deputy was hired in spite of a history of arrest for assault and battery, nine traffic offenses, and a warrant for his arrest for a parole violation. When he subsequently unlawfully injured a vehicle passenger, the department was sued with the result of an award to the plaintiff for over \$600,000 for damages and “deliberate indifference” in their hiring practices.

Studying integrity

The study of integrity problems has taken many forms. Many studies measure officer responses to standard vignettes (Klockars, Ivkovich, Harver, & Haberfeld, 2000). Several studies explore the role of officer attitudes in shaping ethical behavior. For example, Chappell and Piquero (2004) found, in a random sample of 499 Philadelphia police

officers, that those who had previous complaints of excessive force rated vignettes depicting excessive force as less serious than those without such complaints. Catlin and Maupin (2002) studied the ethical orientations of new recruits and officers with one year of experience. They found that new recruits tend to be more idealistic and absolute in their ethical views than more experienced officers. Hyams (1991) surveyed ethical attitudes in new and incumbent officers. He found that incumbent officers had less ethical attitudes regarding issues such as lying, accepting gratuities, exaggerate probable cause, administering “street justice,” using verbal abuse to gain compliance, and responding to versus ignoring other police officers’ minor criminal behavior and officers’ misconduct. Consistent with these findings, a study of 683 South Australian police officers found that recruits rated ethical dilemmas as more serious than constables, senior constables, and sergeants (Huon, Hesketh, Frank, McConkey, & McGrath, 1995). Similar results were also described in a study of 615 Oregon State Troopers that found that senior troopers rated their own values and behavior less stringently than more junior troopers (Amendola, 1996).

An important strategy for studying, identifying, and correcting problematic police behavior is the early warning system or early intervention system (EIS) (Walker, 2003). EISs have been recommended for implementation for law enforcement agencies by the U.S. Department of Justice, U.S. Civil Rights Commission, Commission on Accreditation for Law Enforcement Agencies, and the IACP. In 1999, 39% of all agencies serving populations of more than 50,000 were using or planning to use an EIS (Walker, Alpert, & Kenny, 2001). The EIS is a data-driven approach to identifying officers who are at an

elevated risk for integrity violations. Its goal is to identify patterns of officer behavior that, although not serious problems by themselves, might place an officer at an elevated risk for more serious violations in the future. In addition to citizen complaints, EISs can track firearm discharge reports, use-of-force reports, civil litigation, resisting-arrest incidents, and pursuits and vehicular accidents. These behaviors can then be dealt with through non-disciplinary methods such as coaching, training, or mentoring. Walker et al. (2001) describe specific EISs for police departments in Minneapolis, Miami-Dade County, and New Orleans. In all cases they are described as being very effective in reducing the number of citizen complaints. For example, in Minneapolis, the average number of citizen complaints by officers subject to early intervention dropped by 67% after one year, from 1.95 to 0.65 per officer per year.

The potential usefulness of such a process is underscored by the findings of the *Christopher Commission* (Independent Commission on the Los Angeles Police Department, 1991) which, after reviewing the Los Angeles Police Department (LAPD) subsequent to the Rodney King riots, found that a relatively small number of police officers accounted for a disproportionately large number of citizen complaints. Specifically, 44 “problem officers” each had six or more allegations of excessive force or other inappropriate behavior. More recently, the LAPD was shaken by the Rampart Scandal (Rampart Independent Review Panel, 2000) in which six officers were implicated for egregious acts of misconduct including armed robbery, attempted murder, sale of cocaine, planting evidence, and filing false reports, among others. There were also 76 disciplinary board hearings regarding 37 officers. Moreover, as a result of their

misconduct, over 100 criminal convictions have been overturned and 3,000 have been considered tainted. Three officers were fired, six resigned under fire, and 25 were relieved of duty pending further hearings. These examples highlight the need for early identification and intervention of relatively few problem officers in order to prevent a relatively large number of incidents of misconduct.

Using background and psychological test data to identify problematic character and behavioral traits in police applicants has been offered as a potent strategy for screening out officers who may have integrity problems (Braunstein & Tyre, 1992; Independent Commission on the Los Angeles Police Department, 1991). During the National Symposium on Police Integrity held in 1996, sponsored by the Office of Community Oriented Policing Services (COPS) and the National Institute of Justice (NIJ) (Gaffigan & McDonald, 1997), a number of initiatives were proposed to foster and maximize integrity in the police culture. These included examining the entry-level screening and hiring processes to ascertain “reliable predictors of ethical behavior,” identify characteristics of officers and supervisors who have a “proven track record of performance with integrity,” and study the “correlation between psychological screening data and future violations of public trust to identify reliable predictors (p. 4).” The goal of the latter suggestion was to conduct research to “Determine if there are indicators of potential integrity infractions in current psychological testing,” and “Explore new and alternative psychological screening tools that may serve as better indicators than those currently in use” (p. 55).

The role of psychological assessment

It is interesting to consider the similarities between preemployment psychological testing and EISs. Ideally, both are driven by objective information and their primary goals are to predict and prevent problematic behavior in the future. Therefore, it should be useful to identify characteristics from psychological testing associated with future misconduct that can then be used to guide supervisors and administrators to identify officers at elevated risk. Such identification is routinely made in preemployment psychological testing, which can result in recommending that police applicants with questionable personality traits not be hired. Furthermore, by carefully specifying these characteristics, police administrators, supervisors, and trainers, may be able to identify officers later in their careers who were found to be psychologically suitable when they were hired, but may now demonstrate characteristics placing them at risk for developing integrity problems.

Scrivner (1994) surveyed police psychologists to identify a “profile” of officers who have demonstrated one type of integrity problem, excessive force. Rather than a single profile, she was able to identify five officer types: 1) officers with personality disorders, such as those exhibiting antisocial, narcissistic, or paranoid tendencies; 2) those with a history of untreated job-related trauma that creates “emotional baggage”; 3) inexperienced officers who tend to be more impulsive or “macho”; 4) officers who develop heavy-handed patrol styles, emphasizing power and control; and 5) those with personal problems. Scrivner suggests a number of strategies for preventing problems with these officers, including accurate preemployment screening, appropriate use of critical incident stress debriefing,

strong FTO and mentorship relationships, and referral for psychological counseling. She also found that psychologists were divided in their support for routine testing of incumbent officers. Other suggestions for intervention included training in a variety of areas, such as cultural sensitivity, encouraging intervention by other officers to stop excessive force, interaction of human perception and threat assessment, decision-making under high levels of stress, psychological methods of situation control, de-escalation and defusing techniques, anger management programs, and conflict resolution techniques.

Preemployment psychological examination as a method of maximizing job performance of police officers has been practiced for over 85 years (Terman & Otis, 1917). Currently, 35 states in the U.S. require some type of mental fitness examination to determine a police applicant's fitness for law enforcement duties (Drees, Ones, Cullen, Spielberg, & Viswesvaran, 2003). Many research studies have identified psychological test results that are associated with work performance problems (Roe & Roe, 1982). Recently, through a comprehensive job analysis, Spielberg (2003) identified 10 core psychological dimensions associated with traditional and community-oriented police work: social competence, teamwork, adaptability/flexibility, conscientious/ dependability, impulse control/attention to safety, *integrity/ethics*, emotional regulation and stress tolerance, decision-making and judgment, assertiveness and persuasiveness, and avoiding substance abuse and other risk-taking behavior (emphasis added).

Predicting instrumental job performance from psychological test results

Objective personality tests have been used for many years to help identify the personality characteristics of successful police officers (Matarrazo, Allen, Saslow, & Wiens, 1964). The Minnesota Multiphasic Personality Inventory (MMPI) (Hathaway & McKinley, 1943), its successor, the MMPI – Second Edition (MMPI-2) (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989), and the California Personality Inventory (CPI) (Gough & Bradley, 1996) have been the tests most widely used and studied. For example, in California, 90% of departments use the MMPI or MMPI-2 and 68% the CPI (Drees et al., 2003). Several studies have compared police officers with community samples, and have generally found them to be free of significant psychological problems but higher on scales measuring defensiveness, distrust, impulsivity, and rule-questioning attitudes (Bartol, 1982; Carpenter & Raza, 1987; Hargrave, Hiatt, & Gaffney, 1986). Recently, a meta-analytic study (Visweswaran, Ones, Cullen, Drees, & Langkamp, 2003) also suggests that police officers tend to show more positive adjustment, as well as increased defensiveness, when compared to the general population.

Some research studies have attempted to predict job performance criteria measures from psychological test results that are associated with integrity problems, although most studies have not specifically focused on this issue, looking instead at general job performance. In an early study attempting to predict performance from MMPI results, Azen, Snibble, and Montgomery (1973) found that, after a 20 year follow-up of 95 deputy sheriffs, higher MMPI *Hypomania (Ma)* scale elevations were significantly

correlated to the number of on-duty traffic accidents. Bartol (1982) surveyed “small-town” police chiefs regarding the general job performance of 102 police officers from 21 departments. The survey also included officer terminations, so some integrity issues may have been indirectly measured. He found that officers who were rated as below average scored higher on MMPI scales *Hypochondriasis (Hs)*, *Psychopathic Deviance (Pd)*, *Psychasthenia (Pt)*, *Schizophrenia (Sc)*, and *Ma* than did above average performers. These results suggest that poorer performers tend to be more anxious and concerned about their physical functioning, more rule-questioning, impulsive, and self-centered, and think in more unusual ways than the above average performers. Bartol also described police chiefs’ observations that the below average performers were seen as immature by their supervisors, challenged authority, were untidy in appearance, and demonstrated poor relationships with other officers and the community.

In a subsequent study, Bartol (1991) examined 600 “small-town” officers rated by supervisors over a 13-year follow-up period. The ratings were primarily related to instrumental job performance dimensions such as job knowledge, judgment, dealing with the public, dependability, demeanor, compatibility with fellow officers, responsiveness to supervision, ability to communicate, initiative, work attitude, and overall performance, and did not emphasize integrity issues. He found that preemployment MMPI scales of *Lie (L)*, *Pd*, *Ma*, and *MacAndrews Alcoholism Scale (MAC)* were higher, and *Defensiveness (K)* and *Hysteria (Hy)* were lower, for officers rated more poorly by their supervisors. These results again suggest that officers who are more impulsive, rule-questioning, self-centered, and question authority show poor performance than other officers. In addition,

officers who present themselves as overly virtuous, have a lifestyle conducive to alcohol problems, and are not especially concerned with making a good impression are also likely to be poorer performers. Similar results for the *L* scale were found by Weiss, Davis, Rostow and Kinsman, (2003). They found that after one year on the job the MMPI *L* scale, which was administered prior to employment, was more elevated in officers with performance problems, including being asked to resign or terminated for cause, than officers without problems. However, it is unknown to what degree the performance problems were associated with integrity issues.

Bartol (1991) compared a group of 44 officers who were terminated or asked to resign with officers who were not on an “*Immaturity Index*” comprised of the MMPI scales (except for *MAC*) described above that were found to differentiate officers on the basis of performance ratings. The officers who left involuntarily were described by their supervisors as “immature” and “inappropriate” for police work and frequently reprimanded for mostly non-integrity related issues such as police car accidents, lack of commitment to work, tardiness, absenteeism, not submitting work on time, and inadequate appearance. Other reprimands which were possibly integrity related were inappropriate use of equipment or firearms and “excessive or inappropriate use of authority” when dealing with the public. He found that the Immaturity Index was significantly predictive of terminations.

Beutler, Storm, Kirkish, Scogin, & Gaines (1985) studied 65 officers from three different departments on both supervisory ratings of interpersonal and technical performance and a

variety of objective measures based on reviewing personnel files. They found that preemployment MMPIs were unrelated to supervisors' ratings of interpersonal performance, but the *Depression (D)* and *Paranoia (Pa)* scales were *inversely* related to technical performance. That is, officers who showed more depression and suspiciousness on the MMPI performed more poorly as rated by their supervisors. MMPI *Pt* and *Pd* scales predicted reprimands for driving issues, suggesting that officers who were more anxious and rule-questioning had poorer driving records.

Hargrave and Hiatt (1989) reviewed research related to the relationship between the CPI and police performance. They concluded that there were a number of consistent findings across studies indicating that officers with higher performance ratings tended to score higher on scales measuring *Responsibility (Re)*, *Self-control (Sc)*, *Socialization (So)*, and *Tolerance (To)*. Their own study of 579 academy graduates indicated that officers who were rated as "psychologically suited" by their supervisors scored significantly lower (better adjusted) on nine CPI scales than those who were rated as "psychologically unsuited." These scales included *Sociability (Sy)*, *Social Presence (Sp)*, *Well-being (Wb)*, *Communality (Cm)*, *Achievement via Conformance (Ac)*, *Achievement via Independence (Ai)*, *Independence (In)*, *Managerial Potential (Mp)*, and *Work Orientation (Wo)*. Six other scales showed differences at a trend level of statistical significance. These results suggest that officers who are more positively rated by their supervisors have a number of positive personality characteristics such as being outgoing, poised, ambitious, organized, and self-assured. Mills & Bohannon (1980) asked supervisors to rate 49 Maryland State Troopers on "overall suitability of police work" after one year of service. They found that

CPIs administered during the training academy were significantly correlated with suitability on a number of scales. Troopers rated as more suitable scored higher on *So*, *To*, *Cm*, *Ai*, *Intellectual Efficiency (Ie)*, and *Flexibility (Fx)*. The authors interpreted these findings as consistent with other research that characterizes police officers as bright, assertive, level-headed, autonomous, self-assured, and responsible people.

Hiatt and Hargrave (1988b) followed-up 55 police officers, 15 of whom were found to be “unsuitable” on their preemployment psychological exams but were hired anyway. The preemployment battery included an MMPI, CPI, incomplete sentences blank, an interpersonal relations questionnaire, and an interview. Each officer’s performance was then rated as “satisfactory” or “unsatisfactory” based on several performance criteria, most of which were not integrity-related, although one indicated that the officer was involved in an off-duty violation of the law. The authors found that there was a significant difference in outcome based on the initial psychologist rating of the applicant, with psychologically “unsuitable” applicants being significantly more likely to be rated as “unsatisfactory” performers. In fact, only 4 of the 15 unsuitable applicants were later judged to be satisfactory police officers. Satisfactory officers scored lower (less pathological) on 11 of 13 MMPI scales, although only two, *Pa* and *Ma*, reached statistical significance. Similarly, satisfactory officers scored higher (better adjusted) on 13 of 18 CPI scales, although only one of these (*Ai*) reached statistical significance.

Hargrave & Berner (1984) tested cadets with the MMPI and CPI who had not been previously psychologically screened for entrance into the academy. Unfortunately, their

criterion measures were academy performance and did not directly assess integrity issues. Psychologists' rated the test profiles into "acceptable," "marginal," and "unacceptable" categories. Their ratings were predictive of supervisor ratings of emotional suitability and cadet drop-out frequency beyond chance levels. In addition, cadets who finished their training and were rated higher by their supervisors on "emotional suitability" had significantly lower (less pathological) scores on MMPI *Hs*, *D*, *Hy*, *Pt*, and *Social Introversion (Si)* scales. On the CPI, cadets who completed training had significantly higher (better adjusted) scores on scales of *Sp*, *Ie*, *In*, and *Leadership (Lp)*. Cadets who were considered better emotionally suited showed higher scores on *Re*, *Psychological Mindedness (Py)*, *Mp*, and *Wo* scales. The authors interpreted these data to mean that successful cadets tend to be more outgoing, calm, confident, emotionally adjusted, dominant, energetic, ambitious, active, clear thinking, independent, and leadership-oriented, than less successful cadets.

Cortina, Doherty, Scmitt, Kaufman, and Smith (1992) studied 314 state patrol officers who had taken the MMPI at the beginning of their training academy experience in order to determine how the "Big Five" personality factors might predict subsequent officer performance. The authors found that the *Neuroticism* factor, as represented by MMPI scales *Hs*, *D*, and *Pt*, inversely predicted cadets' academy grade point averages as well as level of performance (not specifically integrity-related) as rated by supervisors during officers' first six months on the job. They also found that the *Agreeableness* factor, as measured by the inverse of the *Pa* scale, was predictive of peer-rated academy performance and academy staff ratings on performance dimensions such as leadership,

motivation, maturity and “integrity.” Finally, they found that the *Conscientiousness* factor, as measured by the inverse of the *Pd* and *MAC* scales were related to several criterion measures, although the correlation disappeared once officers’ scores on civil service exams was controlled for.

Blau, Super, and Brady (1993) administered the MMPI to 30 detention, patrol, and detective officers. At about the same time, they asked supervisors to rate these officers as “best” or “worst” based on their general performance. Integrity issues were not specifically considered. On the basis of these ratings officers were labeled as “good cops” or “bad cops.” The authors then rated the officers’ likelihood of having problems based on having any clinical elevations (or subclinical elevations on four of the scales) on their MMPI profiles. Officers who were rated as having “serious problems possible” on the MMPI were significantly more likely to be rated as “bad cops” than those who were rated as having “no apparent problems.” In a similar study with the MMPI-2, Brewster and Stoloff (1999) tested 39 veteran police officers and classified their profiles by number and type of clinical elevations in order to predict general performance as reported by their supervisors. They also classified officers as “good cops” or “bad cops” based on their supervisor’s general performance ratings, not specifically related to integrity issues. They found that officers with a clinical elevation (*T* score > 65) on even one scale were significantly more likely to be as “bad cops” than those without elevations.

Predicting integrity-related job problems from background and psychological test results

Several studies have reported on the ability to predict police behaviors directly associated with ethics and integrity from background and psychological data. Johnson, Roberts, and Zwemke (1991) followed 1176 officers hired by the San Jose Police Department between 1972 and 1989. They identified 46 officers who were terminated or resigned under pressure as a result of a wide variety of problems, including inappropriate sexual activity (26%), “integrity” problems (17%), drug use (10%), “brutality” (7%), and “other” problems (39%) such as supervisory problems, excessive citizen complaints, “off-duty” problems, theft, and sick leave abuse. They found that a number of background factors predicted terminations: marital dissatisfaction, less education, shorter job tenure, a higher number of jobs in the past five years, a higher number of traffic tickets, and drug usage. They also found that applicants who were rated more poorly on their preemployment psychological examination were more likely to be terminated than more highly rated applicants.

A second study in the project described above by Hargrave and Berner (1984) has implications for integrity issues. Four-hundred-eighty officers, who took the MMPI and CPI as part of their preemployment exams, were followed up after three years. The authors found that no MMPI scales and only two CPI scales, *Wb* and *So*, were predictive of whether or not an officer had a disciplinary action. Bartol (1991), in the study described above, found “force reprimands” were predicted by the *Hs* scale, so officers

who had greater preoccupation with their physical functioning tended to have more problems with use of force. Citizen complaints were predicted by the *D* scale, suggesting that officers who are more depressed have more problems with complaints. No specific MMPI scales were predictive of suspensions. Hargrave, Hiatt, and Gaffney (1988) derived an “Aggressiveness Index” from MMPI scales, and found that it was associated with self-reported physical aggressiveness toward others. Costello, Schneider, and Schoenfeld (1996) used the Aggressiveness Index to predict disciplinary suspension days for 107 police officers after three years on the jobs. They found that the index was significantly correlated to this criterion.

Davis, Rostow, Pinkston, Combs, and Dixon (2004) re-examined the Immaturity and Aggressiveness Indices which they recalculated from the MMPI-2 instead of the original MMPI. Using a sample of over 1400 officer candidates, they found several significant correlations between these indices and supervisor-rated misconduct and termination cases ($N = 95$). Both indices were significantly correlated with several supervisory ratings including suspected chemical abuse, insubordination, off-duty misconduct, and failure to complete required training. In addition to being significantly related to these supervisory ratings, the Aggressiveness Index was also correlated with number of suspensions, reprimands, and arrests, as well as a category named “corruption/criminal conduct.”

Hiatt and Hargrave (1988a) studied a criterion group of 53 “problem officers” with integrity problems who had been involved in a “serious disciplinary action” resulting in multiple days of suspension without pay, termination, or resignation in lieu of

termination. The offenses these officers committed included providing drugs to inmates, illicit relationships with inmates, conviction for use of illegal drugs, unnecessary use of force, physical confrontations with other officers, and other violations of department policies. When compared with a matched sample of “non-problem officers,” the problem officers showed several elevations in their preemployment MMPI profiles. Problem officers showed higher *Infrequency (F)*, *Pa* and *Ma* scales, and lower *L* scales, suggesting that the questionable-integrity officer group showed tendencies towards impulsivity, inflated ego, and suspiciousness. In addition, they describe themselves as less virtuous and moralistic than the non-problem group. In a similarly designed study, Hargrave and Hiatt (1989) compared preemployment CPI results of 45 problem officers with a matched sample. They found that these groups were significantly different on *So*, *Sc*, and *Wb*. There was a trend level finding for *To* as well. These results suggested that officers with serious integrity problems were more willing to question rules, more impulsive, less comfortable with themselves, and less tolerant of others.

Girodo (1991) studied 271 federal agents using contemporaneous personality testing data to predict self-reported disciplinary problems and alcohol and drug use on the basis of the Inwald Personality Inventory (Inwald, 1992). After combining these two problems into a “drug corruption” measure, he found that agents who were relatively high in impulsivity and neuroticism were more likely to have problems, and agents who scored high on the *16 Personality Factors Questionnaire (16PF)* (Cattell, Eber, and Tatsuoka, 1970) *Disciplined Self-Image* scale, had fewer problems. This latter scale was interpreted to

indicate that high scores are found in agents who are “internally guided, socially precise, perfectionistic, and whose conduct follows their self-image” (p. 366).

Boes, Chandler, and Timm (1997) surveyed over 4000 police departments to identify officers who had been disciplined for acts of corruption that included leaking confidential information that could endanger other officers or allowing criminals to avoid arrest, accepting bribes or protection money, theft/embezzlement on duty, off-duty criminal violations, and falsification of time reports. Sixty-nine of those departments responded by identifying officers who had a history of such offenses and available records of preemployment psychological testing, which resulted in a sample of 439 offenders.

Preemployment exams included MMPI and CPI results. They found that the offenders had higher scores on the MMPI *Pd* and *L* and CPI *Narcissism (Nar)* scales, and lower scores on CPI *Re* and *Cm* scales when compared to a matched control group of officers without a history of such problems. These results suggest that offenders show preemployment test scores indicating relatively impulsive, irresponsible, rule-questioning, non-conforming, self-centered, and self-reported virtuousness responses. The authors also found that the best predictor of corruption behavior was a history of post-hire acts of misconduct.

In a study involving 75 MPD officers, Heyer (1998) studied both integrity and other performance-related criteria. He used preemployment psychological test data to predict performance after two years. He found that higher MMPI-2 *Sc* and lower *Si* scale scores were associated with more citizen complaints (combined sustained and unsustained).

Officers with more complaints had lower scores on the *Socialized Adjustment* scale of the *Candidate and Officer Personnel Survey (COPS)*. They also scored higher on the *Edwards Personal Preference Schedule (EPPS) Autonomy, Abasement, and Aggression* scales. Finally, they scored lower on a test of social and practical judgment, the *How Supervise*. These results suggest that officers with more complaints tend to show more unusual thinking, extraversion, and rule-questioning attitudes than officers with fewer complaints. They also tend to have more aggressive, independent, and self-blaming preferences.

Supervisor surveys were collected with information regarding officers' motivation, relationship with co-workers, acceptance of supervision, attitude toward the public, honesty and integrity, adherence to rules and regulations, and flexibility. Officers who were rated higher on honesty and integrity showed lower scores on MMPI-2 *L* and *Hy* scales, and lower on the *COPS Depression* scale. This suggests officers with higher rated integrity reported less depression, were more agreeable, and described themselves as more moralistic than officers with lower ratings. Officers who were rated higher in their adherence to rules and regulations also had higher scores on the *Hy* and *L* scales, as well as lower scores on MMPI-2 *Antisocial Practices (ASP)*. They scored lower on the *COPS Personality Problems* and *Depression* scales and *CPI To* scale, higher on a measure of locus of control (*Social Opinion Survey*), the *EPPS Aggression* scale. Officers who were relatively more rule-oriented, therefore, would be described as more agreeable, moralistic, and accepting of responsibility, and less aggressive, antisocial, and distressed. In terms of other (non-integrity related) job performance supervisory ratings, officers

who were rated as having poorer job performance showed higher scores on scales measuring negative work attitudes, cynicism, external locus of control, and impulsivity. Officers who used more sick leave showed higher levels of depression and distress.

Guller & Guller (2003) report follow-up data on 375 officers who were employed between 12 and 52 months. They found that supervisor-rated honesty and integrity, officers' tendencies to follow departmental rules and regulations, and quality of relationships with co-workers were predicted by preemployment scores on the *Integrity/Dishonesty* and *Paranoid Orientation (PO)* scales of the COPS. Evidence of racial or ethnic bias and problems dealing with co-workers or citizens of the opposite sex were also predicted by the *PO* scale. *Locus of control*, *Shipley IQ*, and a measure of authoritarianism (*Police Opinion Survey*) were also predictive of problems with honesty and integrity and following departmental rules as well as well as problems accepting supervision. Thus, officers with integrity-related problems appear to have more suspicious, cynical, and authoritarian attitudes, see themselves as having limited control over their fate, tend to see others as dishonest, and are less intelligent than other officers.

In summary, although research results have not been entirely consistent, there appears to be some overlap in characteristics that have been identified to be predictive of police officer performance. In general, better performing officers tend to be less impulsive, more rule-adhering, more agreeable, less depressed or anxious, less suspicious and cynical, more tolerant, more responsible, more mature, more ambitious, more conscientious, more conventional in their perceptions and thinking, less self-centered,

and have fewer somatic complaints. While most studies have looked at non-integrity related performance criteria, the studies that have attempted to predict integrity criteria have shown results that are not inconsistent with these conclusions.

Purposes of the current study

In general, previous studies have not emphasized direct comparisons between instrumental and integrity-related job problems. One exception to this is a recent study by Cullen, Ones, Drees, Viswesvaran, and Langkamp (2003), who conducted a meta-analysis of the MMPI and overall job performance and one for disciplinary actions. They found scales *L*, *K*, *Pd*, *Masculinity/Femininity (Mf)*, *Pt*, and *Ma* predicted overall job performance problems. In contrast, they found that *K*, *Pd*, *Mf*, *Pa*, *Ma*, and *Si* predicted disciplinary problems. These results suggest that while both sets of job problems seem to be associated with defensiveness, rule-questioning attitudes, impulsivity, and self-centeredness, there are some unique problems associated with each of the two subgroups. Specifically, while those officers with instrumental problems tend to have more problems with subjective distress and anxiety, officers with integrity problems have more problems with suspiciousness and interpersonal reticence. Thus, failures in instrumental (non-integrity related) aspects of job performance may be associated with different psychological dimensions than failures in integrity-related ones when these two types of job problems are directly compared.

The primary objective of the current study was to identify those characteristics of police officers that are associated with subsequent integrity-related performance problems. These characteristics can then be directly compared with those of officers who have problems related to instrumental aspect of their job. The current study identified integrity problems through reviewing officers' citizen complaint history and obtaining supervisory ratings. Defining integrity criterion groups with regard to complaint outcomes (i.e., sustained or not) may be particularly revealing since being the target of a complaint may have different implications depending on the context. For example, Terrill and McCluskey (2002) suggest that complaints may reveal several very different things. First, and most obvious, a valid citizen complaint may help identify a problem officer. Second, it may not actually reflect officer misconduct as much as the *perception* of misconduct by the public (e.g., misinformation regarding use of force continuum). Third, it may reflect nothing more than an act of retribution by a citizen who was the subject of an arrest, citation, investigation, etc. Finally, citizen complaints that do not reflect misconduct may be a measure of officer productivity. "The surest way not to receive a complaint is to do little or no police work, or avoid probing or dealing with situations where conflict is likely... (p. 145)."

METHODS¹

Participants

The sample consisted of 511 candidates for full-time police officer positions with the City of Minneapolis, a large Midwestern city (sworn officer size approximately 800), who were examined between 1995 and 2002 after a conditional offer of employment was rendered. Of these, 161 (31.5%) were not hired because they were not recommended by the examining psychologist, did not pass the medical exam, did not pass the background screening, did not meet another hiring requirement, or withdrew of their own accord. One officer committed suicide and was not included in the sample. The remaining 349 (68.3%) cases were analyzed for a relationship to subsequent integrity-related problems. This is the sample of primary interest, labeled *follow-up sample*. Thirty-eight of these officers (10.9% of the follow-up sample) voluntarily left the department for personal or professional reasons, 24 (6.9%) were terminated or asked to resign under unfavorable circumstances, and eight (2.3%) others left for unknown reasons. One officer died in the line of duty and another committed suicide. The remaining 278 (79.7%) officers were employed at the time of this writing. Employment status data for the total sample is presented in Table 1.

¹ The author gratefully acknowledges the contributions of Jo Gulstad and Dustin Tanner, who served as research assistants.

Table 1. Employment status (Total sample)

	Frequency	Percent	Cumulative Percent
Currently employed	278	54.4	54.4
Separation - positive	38	7.4	61.8
Separation - Negative	24	4.7	66.5
Separation Unknown	8	1.6	68.1
Never hired	161	31.5	99.6
Suicide	1	.2	99.8
Line-of-duty death	1	.2	100.0
Total	511	100.0	

Demographic information for the total and the follow-up samples is presented in Tables 2 and 3, respectively. Both samples were predominantly male (83.4% and 83.1%, respectively), Caucasian (85.7%, 86.5%), aged 21-29 (77.8%, 79.4%), with an Associate's, Bachelor's, or higher degree (98.6%, 98.6%).

Table 2. Demographic information (Total sample)

		Frequency	Percent	Cumulative Percent
Gender	Male	426	83.4	83.4
	Female	85	16.6	100.0
	Total	511	100.0	
Race	African American	25	4.9	4.9
	American Indian	4	.8	5.7
	Asian American	30	5.9	11.5
	Caucasian	438	85.7	97.3
	Hispanic	11	2.2	99.4
	Undefined	3	.6	100.0
	Total	511	100.0	
Age	Under 21	10	2.0	2.0
	21-24	178	34.8	36.8
	25-29	219	42.9	79.6
	30-34	75	14.7	94.3
	35-39	20	3.9	98.2
	Over 39	9	1.8	100.0
	Total	511	100.0	
Education	High School Graduate	7	1.4	1.4
	Associate's Degree	228	44.6	46.0
	Bachelor or Higher	276	54.0	100.0
	Total	511	100.0	

Table 3. Demographic information (Follow-up Sample)

		Frequency	Percent	Cumulative Percent
Gender	Male	290	83.1	83.1
	Female	59	16.9	100.0
	Total	349	100.0	
Race	African American	15	4.3	4.3
	American Indian	2	.6	4.9
	Asian American	21	6.0	10.9
	Caucasian	302	86.5	97.4
	Hispanic	8	2.3	99.7
	Undefined	1	.3	100.0
	Total	349	100.0	
Age	Under 21	6	1.7	1.7
	21-24	129	37.0	38.7
	25-29	148	42.4	81.1
	30-34	46	13.2	94.3
	35-39	12	3.4	97.7
	Over 39	8	2.3	100.0
	Total	349	100.0	
Education	High School Graduate	5	1.4	1.4
	Associate's Degree	144	41.3	42.7
	Bachelor or Higher	200	57.3	100.0
	Total	349	100.0	

The average length of service for the follow-up group was a little over five years and eight months (68.1 months) ranging from less than one month to nine years. Table 4 details the length of service for the follow-up sample.

Table 4. Length of service

Years	Frequency	Percent	Cumulative Percent
<1	29	8.3	8.3
1-3	56	16.0	24.4
4-6	123	35.2	59.6
7-9	141	40.4	100.0
Total	349	100.0	

Predictor Measures²

Psychological Measures. Eight quantitative psychometric tests were used as part of the preemployment battery.

1. *The Minnesota Multiphasic Personality Inventory (MMPI-2)* Subjects' original test responses were rescored in order to allow for analysis of the Restructured Clinical (RC) scales (Tellegen, Ben-Porath, McNulty, Arbisi, Graham, & Kaemmer, 2003).³

2. *The California Psychological Inventory (CPI)*. The CPI-480 (Gough, 1987) was used to examine candidates for hire until 2000 ($N = 439$), and the CPI-434 (Gough & Bradley, 1996) after that ($N = 73$). All raw data were converted to CPI-

² *The Edwards Personal Preference Schedule (EPPS)* (Edwards, 1989) was also administered to applicants. However, very few significant results were found for the EPPS, and when they occurred the meanings were ambiguous or irrelevant. Consequently, it was determined that EPPS findings did not materially affect the ability to predict misconduct, and therefore, no EPPS results will be presented.

³ The author would like to thank Yossef Ben-Porath, Ph.D. and Jonathan Forbey, Ph.D. for their technical assistance in rescoring the MMPI-2 protocols to include the RC scales.

434 scales using the corresponding norms.⁴ In addition to the standard CPI scales, eight risk statement scales specifically constructed to measure criteria associated with police officer suitability were used in this study. The *Police and Public Safety Selection Report* (Roberts and Johnson, 2001) *Job Suitability Snapshot* risk statement scales were developed from algorithms based on large samples of incumbent police officers using behavioral admissions made under polygraph conditions as the criteria. These risk statement scales include measures of the probability of being rated as “poorly suited” for law enforcement by a psychologist, job performance problems, integrity problems, anger management problems, alcohol use concerns, illegal drug use, substance abuse proclivity, and involuntary departure (termination).

3. *The Candidate and Officer Personnel Survey (COPS)*. This is a bio-data instrument that asks questions about life history, beliefs, and attitudes. Many questions are based on research findings indicating that certain life history characteristics are associated with later success in the public safety field, while others are associated with disciplinary problems or failure (Guller & Guller, 2003). The items are also reported to measure alcohol problems, dishonesty, bias, authoritarianism, social maladjustment and negative work attitudes.⁵

⁴ The author would like to thank Michael Johnson, Ph.D. and Michael Roberts, Ph.D. for their assistance in making this conversion.

⁵ The test also calculates a prediction of success-in-law-enforcement from on an algorithm of other scales. Unfortunately, it could not be used as a predictor variable because two different forms of the test had been used and a method to convert them to a common form was unavailable.

4. *The Shipley Institute of Living Scale*. This is a brief (20 minute) written test of intellectual ability that measures vocabulary and abstract problem solving (Zachary, 1986). Results are expressed as I.Q. equivalents and correlate well with other well-validated intelligence tests.

5. *The How Supervise-Form M*. This is a test of interpersonal judgment and capacity for understanding conflict situations (File & Remmers, 1971). Low How Supervise scores suggest naive lack of sophistication or deficiency in interpersonal judgment and limited common sense.

6. *The Social Opinion Inventory (Locus of Control; LOC)* (Guller, 1994; Rotter, 1966). This test gives an indication of the degree to which people feel they are masters of their own fate rather than victims of uncontrollable events. Persons who score high on this test (external locus of control) feel that they are not in control of their lives.

7. *The Police Opinion Survey (POS)*. This is a test of attitudes towards law enforcement and minority groups. It was modeled after a dogmatism scale developed by the New York State Crime Control Commission (Guller, 1994).

The Clinical Interview. After candidates took all of the above tests, they were interviewed by a psychologist for approximately 45-60 minutes. The interview explores any areas of concern that arise from the candidate's test performance and background investigation. It

covers all relevant areas, such as work and military record, motor vehicle and arrest history, social relationships, credit history, motivation, attitudes towards authority, stress tolerance, etc. The interview also evaluates for personal adjustment or personality problems that may affect law enforcement work.

Psychologist's Recommendation Rating. After reviewing all of the above information, the psychologist either (1) recommends, (2) marginally recommends, or (3) does not recommend the candidate for hire. All examinations were performed by a psychologist with a doctoral degree in clinical psychology, and with training and/or supervised experience in police psychology.

Background Investigations. Most applicants were subject to a background investigation performed by officers employed by MPD prior to the psychological examination. The summaries of these investigations were generally available for review prior to the clinical interview ($N = 488, 95.5\%$). In the follow-up sample 330 of 349 (94.6%) were available for coding. For the purpose of this study, the written background summary reports were coded in eight areas: *Personal references, employment history, educational history, financial history, criminal history, driving record, and military service.* Each area was initially coded on a five-point scale from -2 (very negative) to +2 (very positive). Two research assistants scored the same 25 background summaries independently, and inter-rater reliabilities were very good, with Pearson correlation coefficients ranging from 0.92 to 1.00. Because using the positive ratings had the effect of lowering correlations with criterion variables, the scale was subsequently truncated to -2 to 0 (neutral). The total

points were then calculated in a summary score. Because the vast majority of applicants received no problem ratings across most items, a few outlying negative scores could produce misleading results. Therefore data on all items were dichotomized. That is, applicants who were rated as having any problems at all were compared with those who were rated as having none. Table 5 shows the frequency distributions of the raw background data for the entire sample. Because of a lack of variability the personal references and military record categories were not analyzed further.

Table 5. Background raw data (entire sample).

-2 =very negative; +2 very positive

		Frequency	Percent	Cumulative Percent
References	-1	2	.4	.4
	0	464	95.1	95.5
	1	21	4.3	99.8
	2	1	.2	100.0
Education	-2	4	.8	.8
	-1	25	5.1	5.9
	0	204	41.8	47.7
	1	252	51.6	99.4
	2	3	.6	100.0
Employment	-2	11	2.3	2.3
	-1	78	16.0	18.2
	0	361	74.0	92.2
	1	37	7.6	99.8
	2	1	.2	100.0
Financial	-2	14	2.9	2.9
	-1	39	8.0	10.9
	0	417	85.5	96.3
	1	18	3.7	100.0

Criminal	-2	4	.8	.8
	-1	36	7.4	8.2
	0	448	91.8	100.0
Driving	-2	31	6.4	6.4
	-1	207	42.4	48.8
	0	248	50.8	99.6
	1	2	.4	100.0
Military	-1	4	.8	.8
	0	426	87.3	88.1
	1	35	7.2	95.3
	2	23	4.7	100.0
Other Applications	-2	5	1.0	1.0
	-1	27	5.5	6.6
	0	405	83.0	89.5
	1	40	8.2	97.7
	2	11	2.3	100.0
Background Total Score	-7	6	1.2	1.2
	-6	2	.4	1.6
	-5	6	1.2	2.9
	-4	5	1.0	3.9
	-3	33	6.8	10.7
	-2	94	19.3	29.9
	-1	164	33.6	63.5
	0	178	36.5	100.0
Total		488		

Criterion Measures of Integrity-Related Problems

The primary focus of this research was to identify predictors of officers with characteristics of high integrity versus those who have had integrity-related problems.

Officers' demonstrated levels of integrity, ethics, and honesty were operationalized in four ways.

1. *Internal Affairs (IA)* records for the 349 officers in the follow-up sample, including any history of investigations for violations of departmental rules and regulations, the outcomes of those investigations, and the seriousness of the violations, if any, were obtained and coded. Table 6 summarizes the frequency and outcomes of IA investigations. Only 16.3% ($N = 57$) of officers who were hired by the department were ever investigated for a possible offense. Of these, 11.3% ($N = 6$) were exonerated, indicating that there was proof that no offense was committed, and 47.4% ($N = 27$) were either unfounded or not sustained, indicating that there was insufficient proof to sustain a complaint against an officer. However, 42.1% ($N = 24$) were sustained, indicating that there was enough proof to suggest that the officer committed a violation.

Sustained complaints were also coded for their severity: mild, moderate, or severe. Examples of mild severity violations include using departmental property for personal use, using inappropriate language, certain vehicular pursuit procedures, and uniform infractions. Examples of moderate severity infractions include failing to take a report, theft from citizens, biased policing, and inappropriate use of non-deadly force. Severe level infractions include domestic abuse, criminal sexual conduct, narcotics sales, inappropriate off-duty use of firearms, and inappropriate use of deadly force. The breakdown of the severity of

sustained violations appears in Table 7. Mild, moderate, and severe level violations occurred, respectively, 25.0% ($N = 6$), 33.3% ($N = 8$), and 41.7% ($N = 10$) of the time when a violation was sustained.

Table 6. IA investigations frequencies and outcomes

	Frequency	Percent	Cumulative Percent
No complaints	292	83.7	83.7
Exonerated	6	1.7	85.4
Not Sustained / Unfounded	27	7.7	93.1
Sustained	24	6.9	100.0
Total	349	100.0	

Table 7. Severity of sustained IA complaints

	Frequency	Percent	Cumulative Percent
Mild	6	25.0	25.0
Moderate	8	33.3	58.3
Severe	10	41.7	100.0
Total	24	100.0	

2. *Civilian Review Authority (CRA) Complaint Data.* The CRA is a committee established by the Minneapolis City Council to provide an alternative way to adjudicate citizen complaints against police officers outside the structure of the police department. Unfortunately, due to administrative and budgetary changes, the CRA was not taking or adjudicating complaints from 2001-2003. Therefore, outcome data are not reported for CRA complaints. A total of 8.5% ($N = 30$) of

- officers have had one or more CRA complaints. Ten officers had both IA and CRA complaints.
3. An *Employee Survey (ES)* was developed for use in this study. The *ES* was completed by supervisors. It attempts to measure observed behavior that is potentially ethically problematic or indicative of underlying unethical attitudes, such as excessive force, rude behavior, inappropriate language, uncooperative attitudes towards others, alcohol problems, gambling problems, sick leave abuses, deceptiveness, and abuse of authority. It is composed of 26 items that are scored on a four-point Likert-type scale ranging from “no problem” to “severe problem.” A total sum score was also calculated as an overall measure of integrity problems as described by the supervisor. The *ES* appears in Appendix A. *ES*s were requested for all 278 currently employed officers. Of these, 272 (97.8%) were returned.
 4. *Involuntary Departure (Termination)*. Human resources files were examined in order to identify officers ($N = 24$) who had been involuntarily separated under unfavorable circumstances. These officers may have been fired outright or asked to resign. Reasons for leaving included substandard performance, being the subject of either an IA complaint or an investigation conducted outside the department, abandoning the position, failing to meet physical fitness requirements, or misconduct (such as cheating on an examination or providing false information during the background investigation).

RESULTS⁶

Hired vs. Never Hired

Appendix B shows means and standard deviations for all psychological test data for hired ($N = 350$) and never hired ($N = 161$) candidates. Scores for the Shipley IQ are transformed from raw scores. Scores for the COPS test are shown in percentiles. All other scores are presented as raw scores⁷. MMPI-2 scores were not K -corrected since recent research suggests that the K -correction may have a negative impact on prediction and classification for law enforcement personnel (Detrick, Chibnall, & Rosso, 2001; Roberts, Thompson, & Johnson, 2000). In general, the data consistently show normal intelligence, a lack of psychopathology, and positive personality traits that are generally characteristic of law enforcement samples. Appendix B also shows Pearson correlation coefficients between the criterion measures and the hired and never-hired groups. Most (86 of 126; 68.3%) of the test results showed statistically significant differences ($p < .05$) between the groups. This is not surprising since 122 of the 161 (75.8%) never-hired applicants were not recommended for hire by the examining psychologist. Only one of the 350 hired candidates was not recommended for hire by the psychologist. Therefore, the differences between the hired and never-hired groups most likely reflect the differences between the psychological recommendation categories. When they occur, these differences are in the

⁶ The author would like to thank Kenneth Solberg, Ph.D. for providing statistical consultation.

⁷ Scores for the *Immaturity Index* (Bartol, 1991) were calculated as a sum of T -scores for L , Pd , and Ma . Scores for the *Aggressiveness Index* (Davis et al., 2004; Hargrave et al., 1988) were calculated as the sum of T -scores for F , Pd , and Ma .

expected direction, with the hired group scoring more positively.⁸ These differences will be discussed in greater detail in the section reporting psychological recommendations results, below.

Table 8 shows the means and standard deviations for the background summary data.

Background data were unavailable for 23 cases, but were analyzed for the remaining 488.

Correlational analyses indicate that candidates who were not hired had significantly more negative information related to their employment history, criminal record, driving record, number of other unsuccessful applications with other departments, and total background summary score, than did candidates who were eventually hired. It is not surprising that education was not related to whether or not a candidate was hired since virtually all candidates had some type of college degree.

⁸ Two potential exceptions to this were positive correlations for the MMPI-2 *K* and *Hy* scales. Although these correlations are in the “pathological” direction, the actual meanings of these elevations appear positive. The *K* scale is interpreted as the candidate presenting him/herself in a positive light, with good mental health, and feeling in control. On the *Hy* scale, the elevation was entirely accounted for by subscale *Hy2*, Need for Affection ($r = .198, p < .0001$). Candidates who endorse items on this scale describe themselves as sensitive, optimistic, and trusting, and deny confrontations or negative feelings towards others.

Table 8. Background summary data for hired/never hired candidates (N = 157)**Never hired = 0 (N = 157); Hired = 1 (N = 331)**

	Hired or Not	Mean	Std. Deviation	<i>r</i>
Background – Education	Never Hired	-.06	.245	.012
	Hired	-.06	.233	
Background – Employment	Never Hired	-.29	.454	.186**
	Hired	-.13	.340	
Background – Financial	Never Hired	-.15	.361	.098*
	Hired	-.09	.283	
Background – Criminal	Never Hired	-.13	.334	.114*
	Hired	-.06	.239	
Background – Driving	Never Hired	-.57	.497	.109*
	Hired	-.45	.498	
Background - Other applications	Never Hired	-.10	.295	.083
	Hired	-.05	.221	
Background Sum	Never Hired	-1.56	1.525	.227**
	Hired	-.94	1.098	

*Statistically significant at $p < .05$ **Statistically significant at $p < .01$

Psychological Recommendations, Test Results, and Background Data

In order to examine the internal consistency of the examination process, an analysis of variance (ANOVA) was performed on each test variable examining the differences between the groups of officers that were recommended, marginally recommended, or not recommended. Many significant differences emerged, suggesting that the recommendations were appropriately reflective of the underlying test results. This is to be expected since the test results helped guide the recommendations, and since other

behavioral data from interview and background information were often consistent with the test results. These results are presented in Appendix C.

All results are in the expected directions. Candidates who were recommended obtained more positive results in multiple domains including higher intelligence (Shipley IQ; $F = 8.849$; $p < .001$), lower authoritarianism (POS; $F = 5.441$; $p < .005$), and better social judgment (How Supervise; $F = 17.325$; $p < .001$) than candidates who were not recommended. In most analyses, marginally recommended candidates fell between the two extreme groups. The groups did not differ on LOC ($F = 1.698$; ns)

In general, candidates who were recommended had fewer psychological problems and more positive personality characteristics. For example, on the COPS, recommended candidates' scores suggested a higher likelihood of success as police officers, higher motivation, more self-discipline, and lower likelihood of alcohol abuse, less suspiciousness, better work attitudes, lower impulsivity, less evidence of biased attitudes, and a higher level of integrity than candidates who were not recommended. The strongest relationship on the COPS was found on the prediction of success score (*SUCCESS*) ($F = 35.851$; $p < .001$).

MMPI-2 results suggested fewer psychological problems for recommended candidates, including lower levels of anxiety, depression, obsessive thinking, family problems, low self-esteem, unusual thinking, alcohol abuse, and impulsivity. They also suggested lower levels of hostility, aggressiveness, cynicism, suspiciousness, physical complaints, history

of antisocial behavior, and self-centeredness. Recommended candidates on the MMPI-2 tended to be somewhat more socially reserved than other candidates, suggesting a more reflective and less impulsive nature than candidates that were not recommended. The strongest MMPI-2 results were found on the Restructured Clinical (RC) scales measuring antisocial behavior (*RC4-asb*) ($F = 23.961, p < .001$) and cynicism (*RC3-cyn*) ($F = 22.552; p < .001$).

On the CPI, recommended candidates were more responsible, socialized, and self-controlled than candidates who were not recommended. They showed greater tolerance towards others, had a more amicable style towards others, were less self-centered, less hostile and argumentative, and felt better about themselves. They also showed characteristics generally associated with superior leadership and managerial skills, work ethic, and achievement orientation. All of the *Job Suitability Snapshot* scales were significantly lower for recommended candidates, indicating a significantly lower probability of being rated poorly psychologically suited by a psychologist, having a drug or alcohol abuse problem, having work performance problems, anger management problems, integrity problems, and being subsequently involuntary terminated, than candidates who were not recommended. The strongest relationship of all of the CPI scales was found on the *Probability of being rated poorly suited (P-Poor)* scale ($F = 23.987; p < .001$).

Table 9 compares the background summary ratings among psychological recommendation groups. Candidates who were not recommended for hire had

significantly more negative information in their background summaries with regard to employment history, driving record, and total background score than those who were recommended. There was a trend for candidates who were not recommended to have poorer criminal histories and more unsuccessful applications with other departments. Relationships between background data and psychological recommendation are to be expected since the background information was considered by the psychologist prior to making the final recommendation for hire.

Table 9. Comparison of background summary ratings among psychological recommendation groups

	Psych Recommendation	Mean	Std. Deviation	N	F
Background - Education	Recommend	-.05	.226	317	.290
	Marginal	-.08	.267	53	
	Not Recommended	-.07	.252	118	
	Total	-.06	.237	488	
Background - Employment	Recommend	-.13	.336	317	9.601**
	Marginal	-.23	.423	53	
	Not Recommended	-.31	.462	118	
	Total	-.18	.387	488	
Background - Financial	Recommend	-.09	.289	317	3.059*
	Marginal	-.08	.267	53	
	Not Recommended	-.17	.377	118	
	Total	-.11	.311	488	
Background - Criminal	Recommend	-.06	.244	317	3.039*
	Marginal	-.08	.267	53	
	Not Recommended	-.14	.344	118	
	Total	-.08	.275	488	
Background - Driving	Recommend	-.44	.497	317	5.206**
	Marginal	-.51	.505	53	
	Not Recommended	-.61	.490	118	
	Total	-.49	.500	488	
Background - Other applications	Recommend	-.05	.226	317	2.631
	Marginal	-.04	.192	53	
	Not Recommended	-.11	.314	118	
	Total	-.07	.248	488	
Background Sum	Recommend	-.92	1.114	317	15.832**
	Marginal	-1.21	1.321	53	
	Not Recommended	-1.68	1.518	118	
	Total	-1.14	1.283	488	

*Statistically significant at $p < .05$

**Statistically significant at $p < .01$

Predicting Integrity Problems

Integrity Criteria Groups

The main goal in assigning cases to integrity criteria groups was to form groups that would be as homogeneous as possible with regard to whether or not an integrity problem existed, and if so, the source of the problem. Table 10 presents the criteria groups and the number of cases assigned to each. Because all IA complaints were thoroughly investigated, the criteria validity of the *IA-Not Sustained (IA-NS)* and *IA-Sustained (IA-S)* groups should be particularly strong and meaningful.⁹ Thus, if an officer had both an IA complaint and any other problem the case was assigned to one of the *IA* groups.

Therefore, in assigning cases to the *CRA* group, the ten officers who had both IA and *CRA* complaints were assigned to the appropriate *IA* group rather than the *CRA* group. Similarly, the five officers who were terminated due to sustained IA complaints were assigned to the *IA-S* group rather than the *Involuntary Departure (ID)* group.

Table 10. Integrity criteria groups

	Frequency	Percent	Cumulative Percent
No Complaints (<i>NC</i>)	253	72.5	72.5
IA Not Sustained (<i>IA-NS</i>)	33	9.5	81.9
IA Sustained (<i>IA-S</i>)	24	6.9	88.8
<i>CRA (CRA)</i>	20	5.7	94.6
<i>Involuntary Departure (ID)</i>	19	5.4	100.0
Total	349	100.0	

⁹ Due to small numbers and lack of significant differences between officers whose complaints were exonerated, unfounded, and not sustained, the three groups were collapsed into one group.

The first step in determining the predictors of integrity-related problems was to compare the *NC* group against each of the other criteria groups to see what, if any, differences exist with regard to the predictor variables. Table 11 contains the statistically significant correlations between the *NC* and *Questionable Integrity (QI)* (i.e., *IA-NS*, *IA-S*, *CRA*, and *ID*) groups.¹⁰ Because of the large number of correlations that were calculated, a relatively conservative *p* value ($p = .025$) was chosen as a benchmark for significance.

Table 11. Statistically significant correlations between *NC* and Questionable Integrity (*QI*) groups.

Predictor Variable or Scale	<i>IA-NS</i>	<i>IA-S</i>	<i>CRA</i>	<i>ID</i>
Psychologist Recommendation	.029	.171**	-.017	.068
Background – Driving	-.125*	-.063	-.049	.118
COPS Paranoid Orientation (PO)	.000	.144*	.108	.153*
COPS Personality Problems (PP)	-.150*	.034	.038	.072
COPS Bias (BIAS)	.026	.095	.005	.182**
MMPI-2 MacAndrews Alcoholism (Mac-R)	.022	.229**	-.033	.052
MMPI-2 Alcohol Admission (AAS)	.046	.177**	-.026	-.094
MMPI-2 Overcontrolled Hostility (OH)	.045	.091	-.162**	-.044
MMPI-2 Responsibility (Re)	-.032	-.181**	-.072	-.048
MMPI-2 Health Concerns (HEA)	.044	.033	.175**	-.017
MMPI-2 Bizarre Mentation (BIZ)	-.048	.161**	.056	.083
MMPI-2 Psy5 Psychoticism (Psy5-psyc)	-.060	.154*	.072	.094
MMPI-2 RC4-Antisocial Behavior (RC4-asb)	.040	.157**	.006	.064
MMPI-2 RC6-Ideas of persecution (RC6-per)	.034	.067	.037	.222**
MMPI-2 RC8-Aberrent Experiences (RC8-abx)	-.017	.224**	.080	.067

¹⁰ Other significant MMPI-2 *Infrequency Back (Fb)* and *College Maladjustment (Mt)*, and CPI *Infrequency (Inf)* findings occurred. These were considered to have ambiguous or irrelevant meanings within the current context.

CPI Self-Control (Sc)	-.021	-.142*	-.093	-.103
CPI Well-being (Wb)	.013	.007	-.151*	-.034
CPI Achievement via Conformance(Ac)	-.020	.016	-.137*	-.136*
CPI Femininity/Masculinity (F/M)	-.031	-.099	-.159**	-.037
CPI Interpersonal Awareness & Sensitivity (IAS)	.000	.024	.152*	-.048
CPI Work Orientation (Wo)	.040	-.037	-.129	-.152*
CPI Generalized Norm-violating Propensity (GNVP)	-.008	.134*	-.049	.106
CPI Internality (INT)	-.020	-.135*	.021	-.060
CPI Probability of Integrity Problems (P-Integ)	.056	.141*	.065	.026
CPI Probability of Rated Poorly Suited (P-Poor)	-.015	.147*	.088	.155*
CPI Probability of Involuntary Departure (P-Fire)	-.078	.228**	.019	.254**

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.025 level (2-tailed).

Psychologist recommendations. Since only one of the 350 candidates who were eventually hired was not recommended for hire by the psychologist, that case was reassigned to the *marginally recommended* group in order to simplify data analytic procedures. Psychological recommendations were significantly related to whether or not an officer received a sustained IA complaint ($r = .148, p < .005$), in the expected direction, with a marginal recommendation rating increasing the probability of receiving a complaint in comparison to a recommended rating. Results indicated that while 5.4% ($N = 16$) of recommended candidates ($N = 299$) eventually received sustained complaints, marginally recommended candidates received sustained complaints almost three times as frequently (eight out of 50 cases; 16.0%). Psychological recommendations were not predictive of unsustained IA complaints, CRA complaints, or involuntary departure. The relationship between psychologist recommendation and whether or not an officer received a sustained complaint was somewhat stronger when only *NC* and *IA-S*

groups were compared ($r = .183, p < .004$). Figure 1 contains a graphical representation of this relationship.

Figure 1. Psychologist recommendations and sustained IA complaints

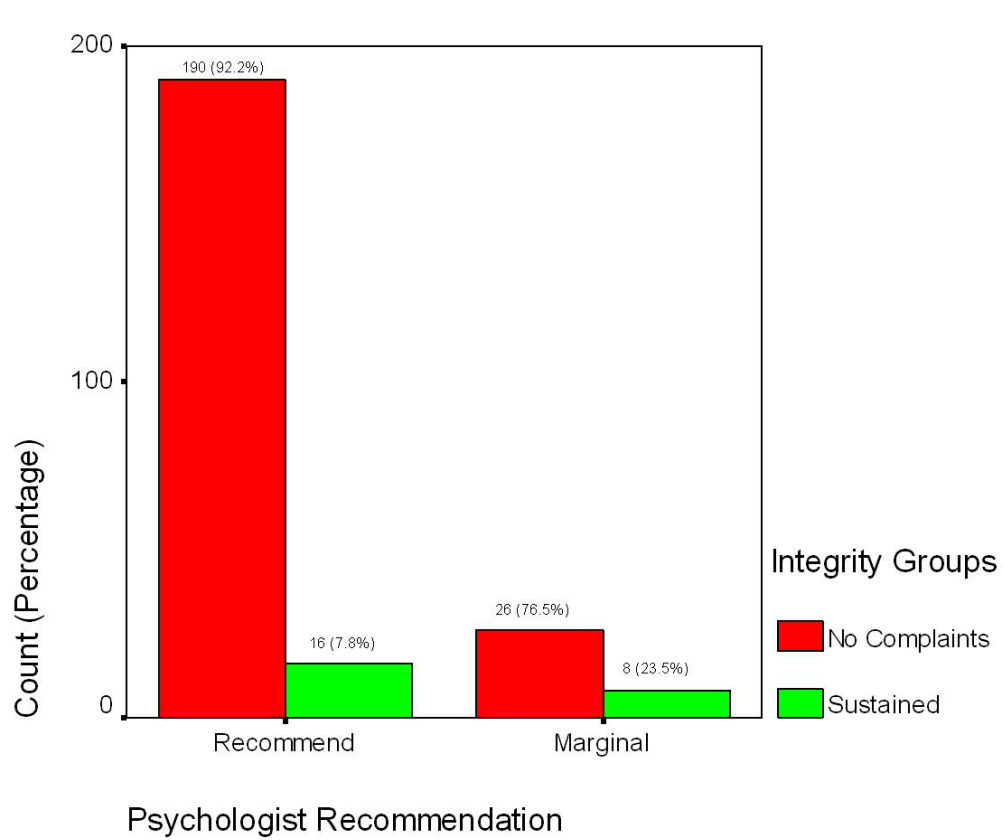


Table 12. Means and standard deviations of selected background and psychological test results.

	NC		IA-NS		IA-S		CRA		ID	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Background – Criminal	-.05	.245	-.06	.246	-.18	.501	.00	.000	-.16	.375
Background – Driving	-.45	.547	-.69	.592	-.59	.590	-.63	.684	-.21	.419
COPS Socialized Adjustment (<i>SA</i>)	70.62	22.311	76.30	18.379	63.83	26.194	65.65	23.189	60.95	29.677
COPS Paranoid Orientation (<i>PO</i>)	41.98	23.325	42.00	20.993	54.13	24.958	51.60	20.521	56.16	24.368
COPS Personality Problems (<i>PP</i>)	43.53	31.735	28.52	30.239	47.42	33.949	48.15	25.190	52.47	25.949
COPS Bias (<i>BIAS</i>)	42.41	14.886	43.61	12.480	47.50	16.919	42.70	14.444	53.58	21.454
COPS Impulsivity (<i>IMP</i>)	52.64	24.819	60.73	22.716	63.13	22.154	41.45	20.464	51.58	28.058
MMPI-2 Depression (<i>D</i>)	15.15	2.295	14.48	1.564	15.62	2.018	14.65	2.254	16.32	2.926
MMPI-2 Social Introversion (<i>Si</i>)	14.54	4.339	13.82	4.384	12.63	4.604	15.35	4.392	15.53	5.136
MMPI-2 MacAndrews Alcoholism (<i>Mac-R</i>)	20.02	2.472	20.18	1.878	22.08	2.448	19.70	3.045	20.53	2.776
MMPI-2 Alcohol Admission (<i>AAS</i>)	1.61	1.066	1.76	1.032	2.29	1.122	1.50	1.051	1.21	1.084
MMPI-2 Overcontrolled Hostility (<i>OH</i>)	16.00	2.446	16.33	1.762	16.79	2.449	14.45	2.704	15.58	1.805
MMPI-2 Responsibility (<i>Re</i>)	21.94	2.442	21.70	2.099	20.33	2.548	21.25	2.863	21.47	2.590
MMPI-2 Posttraumatic Stress (<i>PK</i>)	1.18	1.778	.79	.992	1.71	1.781	1.15	1.424	1.53	2.118
MMPI-2 Obsessiveness (<i>OBS</i>)	.97	1.415	.58	.867	1.04	.859	1.20	1.824	.84	.834
MMPI-2 Depression (<i>DEP</i>)	.66	1.112	.33	.540	1.08	1.558	.75	1.020	1.32	2.518
MMPI-2 Health concerns (<i>HEA</i>)	1.62	1.430	1.82	1.570	1.79	1.474	2.60	1.465	1.53	1.504
MMPI-2 Bizarre Mentation (<i>BIZ</i>)	.31	.657	.21	.485	.71	.999	.45	.759	.53	.841
MMPI-2 Antisocial Practices (<i>ASP</i>)	3.90	2.862	3.52	2.785	5.17	2.461	3.80	2.285	4.79	3.172
MMPI-2 Psy5 Psychoticism (<i>PSYC</i>)	.78	.966	.61	.827	1.33	1.239	1.05	.945	1.16	1.500
MMPI-2 Psy5 Disconstraint (<i>DISC</i>)	13.08	2.429	13.70	2.229	14.17	2.259	13.20	2.821	13.21	4.224
MMPI-2 RC-Demoralization (<i>RC-Dem</i>)	.39	.939	.18	.392	.50	.780	.60	1.188	.58	1.610
MMPI-2 RC4–Antisocial Behavior (<i>RC4- asb</i>)	2.81	1.735	3.03	1.759	3.79	1.793	2.85	1.694	3.26	2.600
MMPI-2 RC6–Ideas of Persecution (<i>RC6- per</i>)	.06	.243	.09	.292	.13	.338	.10	.308	.37	.955
MMPI-2 RC8–Aberrant Experiences (<i>RC8- ABX</i>)	.27	.567	.24	.502	.79	1.141	.45	.686	.42	.607
MMPI-2 Immaturity Index (<i>II</i>)	158.54	14.149	156.39	11.774	162.96	11.365	156.40	13.609	159.00	13.780
CPI Socialization (<i>So</i>)	35.10	2.932	35.06	2.524	33.88	3.012	35.15	2.390	33.53	4.376
CPI Self-Control (<i>Sc</i>)	26.94	4.691	26.64	4.227	24.58	3.798	25.25	5.250	25.05	4.209
CPI Well Being (<i>Wb</i>)	36.03	2.168	36.12	2.058	36.08	2.104	34.70	3.404	35.74	2.684

CPI Achievement via Conformance (<i>Ac</i>)	32.77	2.488	32.61	3.929	32.92	3.035	31.40	3.676	31.42	2.714
CPI Masculinity/Femininity (<i>F/M</i>)	11.44	3.035	11.15	2.587	10.38	3.033	9.55	3.332	11.00	3.367
CPI Narcissistic Personality (<i>Nar</i>)	20.96	5.333	19.67	4.248	23.21	4.854	21.50	7.067	22.63	5.795
CPI Managerial Potential (<i>Mp</i>)	27.93	3.622	29.03	3.117	26.79	3.788	26.25	3.782	26.37	2.948
CPI Work Orientation (<i>Wo</i>)	35.71	2.547	36.03	2.172	35.38	2.410	34.40	3.485	34.11	3.971
CPI Amicability (<i>Ami</i>)	29.17	3.512	29.97	2.555	27.92	3.550	28.70	3.389	27.79	4.250
CPI Generalized Norm-violating Propensity (<i>GNVP</i>)	47.42	2.267	47.36	1.617	48.50	2.126	47.00	1.686	48.42	3.878
CPI Internality (<i>INT</i>)	12.59	5.670	12.24	4.352	9.88	4.794	13.05	5.615	11.26	4.689
CPI Realization Level (<i>RL</i>)	6.31	2.183	6.52	.870	5.83	1.204	6.05	.999	6.00	1.333
CPI Probability of Alcohol Use Problems (<i>P-A/c</i>)	21.89	9.243	23.03	9.910	23.21	10.367	26.15	10.028	22.42	10.705
CPI Probability of Anger Management Problems (<i>P-Ang</i>)	43.68	13.332	46.24	13.551	49.42	13.815	49.40	14.170	47.58	16.450
CPI Probability of integrity Problems (<i>P-Integ</i>)	34.30	9.699	35.97	7.994	39.17	8.889	36.75	11.016	35.32	13.885
CPI Probability of Job Performance Problems (<i>P-Job</i>)	41.36	12.400	42.09	10.303	47.08	11.850	46.25	13.943	44.26	13.968
CPI Probability of Rated Poorly Suited (<i>P-Poor</i>)	26.17	14.151	25.52	12.473	33.67	14.285	31.05	17.704	35.21	20.962
CPI Probability of Involuntary Departure (<i>P-Fired</i>)	11.20	4.392	10.15	3.083	14.88	4.758	11.55	7.884	16.42	10.813

Background investigations. Means and standard deviations of selected background and psychological test results appear in Table 12. *Driving record* was the only background category that showed a significant correlation between *NC* and any of the *QI* groups. The *IA-NS* group showed a poorer *driving record* than the *NC* group. There was also a trend for poorer *driving record* to be associated with *ID* ($r = .118, p < .059$) compared to the *NC* group. Finally, there were trends towards significant correlations between *criminal history* and *IA-S* ($r = -.103; p < .099$) and *ID* ($r = -.120, p < .055$), compared to *NC*, with

a more negative criminal history associated with sustained complaints and involuntary departure.

Psychological test results – IA-S. Patterns of significant correlations between the test results and integrity group membership tended to be specific to each integrity group comparison with *NC*. Clearly, the greatest number and strongest relationships were found between *NC* and *IA-S* groups, with 15 significant relationships emerging, all in the expected direction indicating more personality problems or psychopathology associated with the *IA-S* group.

On the MMPI-2 the *IA-S* group was associated with higher scores on the MMPI-2 *MacAndrews Alcoholism (Mac-R)* scale, suggesting lifestyle and personality characteristics associated with increased tendencies towards alcohol problems, and the MMPI-2 *Addiction Admission (AAS)* scale, suggesting admissions of problems associated with alcohol use.

The *IA-S* group also showed higher scores on MMPI-2 *Bizarre Mentation (BIZ)*, *Psy5-Psychoticism (psyc)*, and *RC8-Aberrant Experiences (RC8-abx)*, as well as the COPS *Paranoid Orientation (PO)* scale, suggesting tendencies towards suspiciousness, distrust of others, unusual thinking, misinterpretation of situations, and resulting poor judgment.

Several MMPI-2 and CPI scales indicated that the *IA-S* group is more impulsive, rule-questioning, and irresponsible compared to the *NC* group. *IA-S* officers scored lower on

MMPI-2 *Responsibility (Re)*, CPI *Self-control (Sc)*, and CPI *Generalized Norm-Violating Potential (GNVP)*, than did *NC* officers, but scored higher on MMPI-2 *RC4-Antisocial Behavior (RC4-asb)*. In addition, there were trends towards higher scores on the COPS *Impulsivity (IMP)* scale ($r = .119, p < .05$), and the MMPI-2 *Antisocial Practices (ASP)* ($r = .124, p < .04$) and *Psy5-Disconstraint (disc)* scales ($r = .125, p < .036$) for *IA-S* officers.

CPI *Internality (INT)* was associated with higher levels of extraversion for the *IA-S* group, and there was a trend ($r = -.123, p < .04$) for the MMPI-2 *Social Introversion (Si)* scale to be lower, suggesting greater extraversion, as well. There were also trends towards irritability and self-centeredness on CPI scales of *Narcissism (Nar)* ($r = .119, p < .05$) and *Probability of Anger Management Problems (P-Ang)* ($r = .120, p < .05$).

Several of the CPI risk statement scales developed by Roberts and Johnson (2001), which are based on algorithms calculated from large criteria samples, also showed significant differences between *NC* and *IA-S* groups. The CPI *Probability of Integrity Problems (P-Integ)* scale was developed using a criterion group of over 37,000 police applicants who either admitted integrity infractions in their behavioral histories (under polygraph conditions), or denied them. *IA-S* officers showed higher *P-Integ* scores than *NC* officers, suggesting an elevated probability of integrity problems. The CPI *P-Poor* and *Probability of Involuntary Departure (P-Fired)* scales were also elevated suggesting an increased likelihood of being rated as poorly suited for police work by experienced

psychologists, and elevated risk of being fired, respectively, as compared to the *NC* group.

Psychological test results – IA-NS. In contrast to the relationships between *NC* and *IA-S* groups, only one significant correlation emerged for comparisons between *NC* and *IA-NS* groups. This occurred in an unexpected direction for COPS *Personality Problems (PP)* scale, suggesting that the *IA-NS* group had *fewer* psychological problems than the *NC* group.

Psychological test results – CRA. There were several significant correlations between the *NC* and *CRA* integrity groups. Compared to the *NC* group, the *CRA* integrity group scored lower on MMPI-2 *Overcontrolled Hostility (OH)*, CPI *Well-being (Wb)*, *Achievement via Conformance (Ac)*, and *Femininity/Masculinity (F/M)*, and higher on the MMPI-2 *Health Concerns (HEA)* scale. The *CRA* group may therefore be described as having less tightly controlled emotional expression, less intrapersonal comfort, lower self-esteem, less willingness to fit into an organization structure, more independence, and more physical health concerns, than the *NC* group. However, the *CRA* group did not show any significant personality problems, psychopathology, or elevated probability of work-related problems on the CPI *Job Suitability Snapshot* scales.

Psychological test results – ID. In comparison to the *NC* integrity group, the *ID* group showed several significant findings suggestive of personality and work-related problems. They scored higher on the COPS *PO* and *Bias (BIAS)* scales, and MMPI-2 *RC6 Ideas of*

Persecution (RC6-per) scales, and lower on the *CPI Ac* and *Work Orientation (Wo)* scales. These findings suggest an elevated level of interpersonal suspiciousness and argumentativeness, tendencies towards nonconformity or unwillingness to fit into the organizational structure, and questionable reliability and work ethic. Finally, they scored higher on the *CPI P-Poor* and *P-Fired* scales, suggesting similarities to police candidates and officers who are likely to be found poorly suited by psychologists or are at elevated risk for job termination.

Psychological test results – IA-S vs. IA-NS. It is possible that comparing officers who have had sustained complaints with those officers whose complaints have not been sustained could offer the most direct comparison of personality traits related to integrity-related problems. For example, both groups may be in relatively high-crime precincts, shifts, or assignments that would present more opportunities for negative interactions with the public than officers who perform primarily administrative, investigative, or liaison roles. Therefore, these two groups might show more striking differences than those observed between officers from *NC* and *IA-S* groups. On the other hand, if these groups are similar in their personality characteristics then it would suggest that differentiating these groups based on psychological characteristics is not possible, or alternatively, that the actual differences in behavior between the two groups is minimal.

All results were in the expected direction and were interpreted as significant if $p < .025$.

The highest correlation on MMPI-2 scales related to the likelihood of having problems

associated with alcohol for officers in the *IA-S* group as compared to officers in the *IA-NS* group (*Mac-R*; $r = .409, p < .002$).

A number of other scales suggested greater personality problems and psychopathology in the *IA-S* group. *IA-S* officers showed higher scores on MMPI-2 *Posttraumatic Stress Disorder (Pk)* ($r = .318, p < .016$) and *Depression (DEP)* ($r = .327, p < .013$) scales, suggesting lower mood, higher anxiety levels, and feelings of alienation than officers in the *IA-NS* group. In addition, there were trends towards higher scores on MMPI-2 *Depression (D)* ($r = .308, p < .03$), *Obsessiveness (OBS)* ($r = .262, p < .05$), *RC-Demoralization (RC-dem)* ($r = .263, p < .05$), and *COPS PP* ($r = .286, p < .04$). *CPI Self Realization (v.3)* was significantly lower for *IA-S* officers ($r = -.318, p < .016$), suggesting lower psychological competence, adjustment, and coping skills in this group, compared to the *IA-NS* group. These results suggest that the *IA-NS* group is better adjusted, happier, freer of psychological symptoms, and better able to cope with stress and adversity than the *IA-S*.

Several MMPI-2 scales suggested higher levels of unusual thinking for the *IA-S* group. Compared to the *IA-NS* group, they scored higher on *BIZ* ($r = .318, p < .016$), *pysc* ($r = .337, p < .010$), and *RC8-abx* ($r = .315, p < .017$). These scales suggest that, compared to the *IA-NS* group, the *IA-S* officers have a greater tendency to misperceive or misunderstand situations, show poor judgment, and base decisions on faulty interpretations.

A number of scales suggested greater nonconformity, rule-questioning, impulsivity, argumentativeness, and self-centeredness in the *IA-S* group. Compared to *IA-NS* officers, they scored higher on MMPI-2 *Antisocial Practices (ASP)* ($r = .298, p < .024$), and lower on *CPI Nar* ($r = .367, p < .005$), *Managerial Potential (Mp)* ($r = -.313, p < .018$), and *Amicability (Ami)* ($r = -.324, p < .014$). They also tended to have lower scores on MMPI-2 *Re* ($r = .286, p < .04$) and higher scores on the *Immaturity Index (II)* ($r = .273, p < .04$), *CPI GNVP* ($r = .295, p < .026$).

CPI P-Poor ($r = .295, p < .026$) and *P-Fired* ($r = .523, p < .001$) scales were both significantly higher for the *IA-S* group, relative to the *IA-NS* group, suggesting that officers in the *IA-S* group are more likely to be rated as psychologically poorly suited and more likely to be terminated than other officers.

Factor Analysis of Test Results. In order to further clarify the meaning of the relationship between the psychological test results and integrity group status, a factor analysis was performed on selected test scores that showed a statistically significant or trend significant relationship to integrity group status. Initially, a principal components analysis using Varimax rotation with Kaiser Normalization was performed on all of these scales. Possibilities were explored for a number of different factor solutions. During this process, scales that showed weak ($r < .400$) or inconsistent relationships to factor scores were eliminated. This led to extraction of three interpretable factors. Table 13 shows the initial Eigenvalues and percentages of variance explained by the solution.

Table 13. Initial Eigenvalues and variance explained by principal components analysis of psychological test results

Component	Initial Eigenvalues			Extraction Sums of Squared			Rotation Sums of Squared		
	Loadings			Loadings			Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.220	36.101	36.101	7.220	36.101	36.101	4.492	22.461	22.461
2	2.614	13.070	49.170	2.614	13.070	49.170	4.165	20.824	43.285
3	1.677	8.387	57.557	1.677	8.387	57.557	2.854	14.272	57.557

The extracted factors were labeled (1) *Work ethic, agreeable, adjusted*; (2) *Antisocial, impulsive, alcohol problems*; and (3) *Unusual thinking, suspiciousness*. The factor loadings in the rotated component matrix are shown in Table 14.

Table 14. Factor loadings in rotated component matrix of psychological test results

	Component		
	Work ethic, agreeable, adjusted	Antisocial, impulsive, alcohol problems	Unusual thinking, suspicious
CPI Work Orientation (Wo)	.826	-.158	-.168
CPI Amicability (Ami)	.743	-.312	-.188
CPI Well Being (Wb)	.735	-.183	-.153
CPI Probability of Involuntary Departure (P-Fired)	-.644	.222	.228
COPS Paranoid Orientation (PO)	-.628	-.047	.212
COPS Bias (BIAS)	-.586	-.022	.055
CPI Realization Level (RL)	.504	-.119	-.133
COPS Personality Problems (PP)	-.477	.074	.127
CPI Achievement via Conformance (Ac)	.477	-.390	-.044
MMPI-2 RC4 – Antisocial Behavior (asb)	-.128	.839	.087
MMPI-2 Psy5 – Disconstraint (Disc)	-.066	.815	.030
MMPI-2 Alcohol Admission Problems (AAS)	.084	.753	.064
CPI Probability of Integrity Problems (P-Integ)	-.152	.741	.061
MMPI-2 Responsibility (Re)	.330	-.719	-.217
MMPI-2 MacAndrews Alcoholism (Mac-R)	-.213	.613	.126
CPI Self-Control (Sc)	.572	-.585	-.091
MMPI-2 Bizarre Mentation (BIZ)	-.199	.154	.930
MMPI-2 RC8 – Aberrant Experiences (abx)	-.194	.169	.862
MMPI-2 RC6 – Ideas of Persecution (per)	-.167	.039	.694
MMPI-2 Psy5 Psychoticism (PSYC)	-.468	.115	.675

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 5 iterations.

High scores on the first factor (*Work ethic, agreeable, adjusted*) are associated with individuals who are reliable, dependable, self-disciplined, and try to fit in an organizational structure. They tend to be warm, compassionate, and patient with others.

They tend to be trusting, see the good in others, and treat others with courtesy and respect. However, sometimes they may be seen as naïve or submissive. They tend to show good psychological adjustment and are resilient to stress. Low scorers tend to be cynical, unreliable, and have low self-esteem.

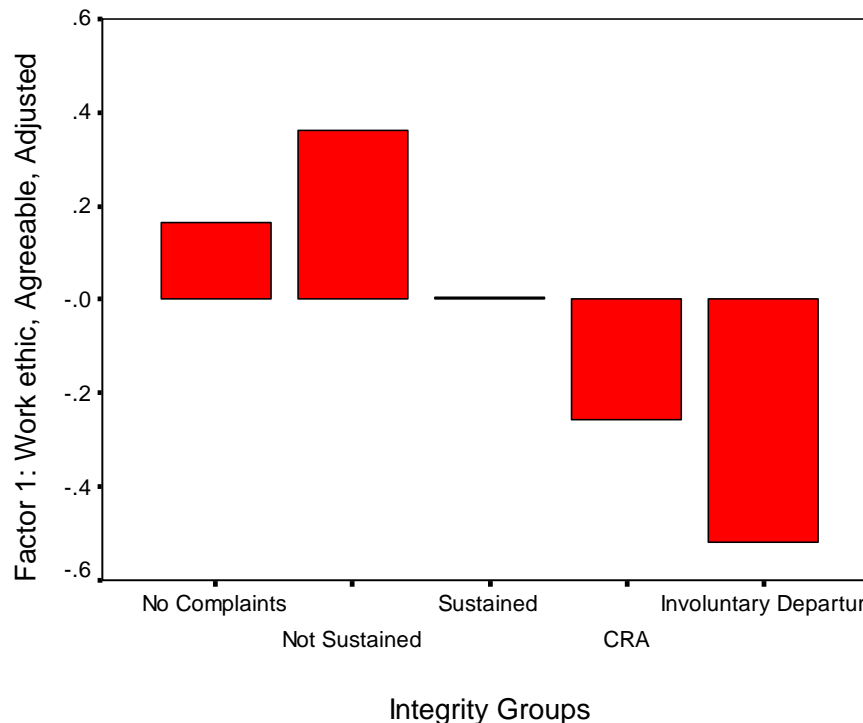
Individuals with high scores on the second factor (*Antisocial, Impulsive, Alcohol Problems*) tend to show a variety of behaviors and attitudes that are nonconforming, dishonest, rule-violating, and impulsive. They tend to be uninhibited and highly social and outgoing. They do not always think through their solutions to problems, and may make poor choices as a result. Officers who score high on this scale have an above average likelihood of having a lifestyle associated with alcohol problems, and often admit to problems associated with alcohol misuse or abuse. They tend to have integrity problems. Interpersonally, they tend to be aggressive or antagonistic towards others.

The third factor (*Unusual Thinking, Suspiciousness*) is composed of scales that measure a thinking process that does not always correspond to external reality. Similar individuals tend to have an idiosyncratic view of things, and tend to misinterpret situations as a result. They tend to attribute hostility and threat to others in benign situations.

Consequently, they tend to show poor judgment in less structured situations where the solution to a problem may depend on an accurate analysis and interpretation of the situation. They are also likely to overestimate the likelihood of a threat, and therefore, may overreact to others' behavior.

In order to understand how these factors are related to integrity group status, correlations of the factor scores were performed between the *NC* and *QI* groups. Factor 1 showed a significant negative correlation between *NC* and *ID* ($r = -.186, p < .002$) and barely significant negative correlation between *NC* and *CRA* ($r = -.119, p < .049$). This suggests that officers who were terminated from employment, and to a lesser extent officers who had *CRA* complaints, tended to show a poorer work ethic, were less reliable and dependable, less agreeable and tolerant with others, and generally less resilient to stress than officers in the *NC* group. The mean Factor 1 values for each integrity group are shown graphically in Figure 2.

Figure 2. Mean Factor 1 scores for each integrity group



Factors 2 ($r = .188, p < .002$) and 3 ($r = .166, p < .005$) showed significant relationships for the *IA-S* group when compared with the *NC* group. This suggests that officers with

sustained IA complaints tend to be more antisocial, dishonest, rule-questioning, and impulsive, and more likely to have problems with alcohol misuse than *NC* officers. They also are more likely to misinterpret situations, suspect others unfairly, and show poor judgment in unstructured situations when compared with *NC* officers. The mean Factor 2 and 3 values for each integrity group are shown graphically in Figures 3 and 4, respectively. No significant correlations were found with any of the factor scores between the *NC* and *IA-NS* groups, suggesting that officers whose complaints have not been sustained are not significant psychologically different from the *NC* group.

Figure 3. Mean Factor 2 scores for each integrity group

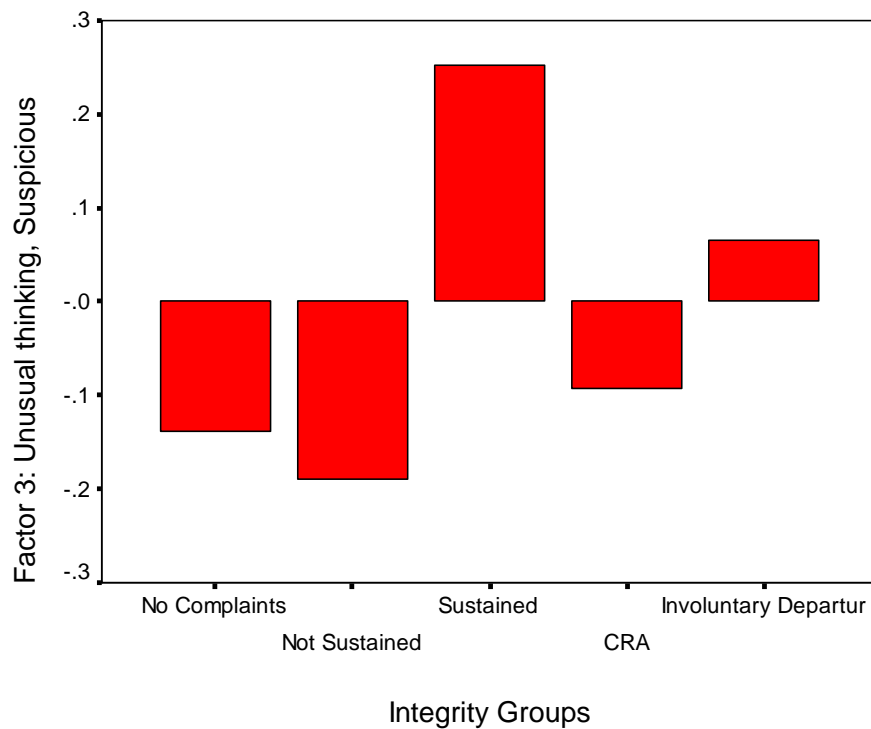
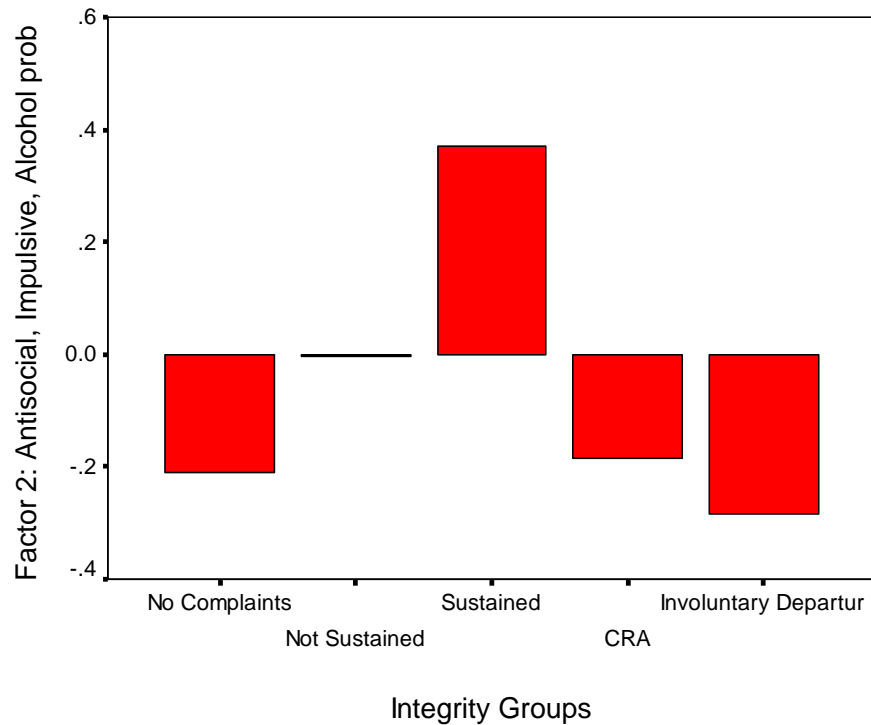


Figure 4. Mean Factor 3 scores for each integrity group

Employee Surveys

Supervisors provided ratings for almost all officers ($N = 272$; 97.8%) who were included in this study and are still currently employed ($N = 278$). In general, supervisors rated their employees very positively in terms of their ethics, integrity, and job performance. In responding to the first 26 items on the *ES*, supervisors indicated very few employees had problems, ranging from $N = 1$ (4%; *Financial-credit, Substance abuse*) to $N = 43$ (14.8%; *Citizen complaints*) with an average of fewer than $N = 4$ (3.9%) officers having a known problem on any item. They also indicated that their employees have no known problems with *Overall honesty, ethics, and integrity* 97.1% of the time. Supervisors would hire their employees again, without reservations, 92.8% of the time. Supervisors also indicated that 93.2% of their employees have responded to *Previous constructive*

feedback, training, or coaching either well or very well. A summed score of items 1-26 was also calculated (*Total Employee Survey; TES*). About two-thirds (67.3%) of the officers rated received the absolute minimum score possible ($N = 26$), indicating that the rating supervisor did not know of a problem in any area. Appendix D presents the data for all *ESs*.

Seventeen of the *ES* items had very few negative ratings ($< 3\%$), rendering the meaning of any correlation with predictor variables questionable. Therefore, these items were not further analyzed for correlations with predictor variables. The following items had sufficient variability to be analyzed further: *Citizen complaints, Excessive force, Inappropriate language, Rude behavior, Bad attitude toward public, Uncooperative towards peers, Uncooperative towards supervisors, Tardiness, Takes responsibility for mistakes, Response to feedback, and Hire again*. Because the vast majority of officers received ratings of “no problems” across most items, a few outlying scores could produce misleading results. Therefore, data on all items were dichotomized, except for *Response to feedback* and *Hire again*, where the original ratings data were retained. That is, on the dichotomized items officers who were rated as having any problems at all were compared with those who were rated as having none.

The *TES* score was also analyzed. Because there were several outlying scores which appeared to overly influence the distribution, *TES* scores over 30 were treated as one score. A conservative $p < .025$ value was used to minimize alpha inflation.

Officers rated as having more problems with *Citizen complaints* were significantly more likely to be rated as *marginal* as opposed to *fully recommended* by the psychologist ($r = .158, p < .009$) than officers with lower ratings on *Citizen complaints*. They scored higher on MMPI-2 *RC6-per* ($r = .146, p < .016$) and *ASP* ($r = .139, p < .022$), and tended to score higher on *RC3-Cynicism (RC3-cyn)* ($r = .130, p < .032$), *Hypomania (Ma)* ($r = .122, p < .045$), and *RC9-Hypomanic Activation (RC9-hpm)* ($r = .129, p < .034$). There were also trends for higher scores on the *COPS PO* ($r = .119, p < .049$) and *Impulsivity* ($r = .127, p < .037$) scales. These individuals may feel picked on or unfairly treated, and believe that others are exploitative, uncaring, untrustworthy and untruthful, which provides justification for them to behave that way towards others. They tend to be more impulsive and devious in their thinking than other officers. There were no significant findings for background ratings, CPI results, or other test results.

Officers who showed higher ratings on *Excessive force* showed significantly higher scores on MMPI-2 scales *Hypochondriasis (Hs)* ($r = .143, p < .018$), *HEA* ($r = .141, p < .020$) and *RC1-Somatic Complaints (RC1-som)* ($r = .172, p < .005$) suggesting higher levels of somatic complaints. Similar individuals have more physical symptoms and are often seen as demanding and complaining. They also showed higher scores on *BIZ* ($r = .141, p < .020$) and *RC8-Abx* ($r = .182, p < .003$), and a trend significance on *Schizophrenia (Sc)* ($r = .135, p < .026$). These results suggest that officers who are rated as having more problems using excessive force think in some unusual ways. They may tend to be more illogical or engage in excessive or unusual fantasy. Officers with higher *Excessive force* ratings also showed a significantly more external *Locus of Control (LOC)*

($r = .155, p < .011$) and tended to score lower on MMPI-2 *Dominance (Do)* ($r = -.119, p < .05$), suggesting the possibility that these officers feel *less* assertive, and less in control of what happens to them than other officers. Finally, there was a trend toward higher estimated general intelligence on the *Shipley* ($r = .129, p < .033$) for officers rated as higher in *Excessive force*. There were no significant findings for background ratings, CPI results, or other test results.

Officers whose supervisors rated them as more prone to *Inappropriate language* were significantly more likely to be rated as *marginal* in their psychological examinations ($r = .191, p < .002$) than other officers. They had significantly higher scores on MMPI-2 *Anxiety (ANX)* scale ($r = .141, p < .020$) and a trend towards higher *Depression* scores on the COPS ($r = .126, p < .038$), suggesting tendencies towards more subjective distress. There was also a trend for higher scores on MMPI-2 *RC3-cyn* ($r = .121, p < .046$), suggesting the possibility of more cynical attitudes in these officers. Officers rated as having more problems with *Inappropriate language* had significantly more negative information related to *Other employment applications* ($r = -.136, p < .029$) in their background than other officers. There were no significant findings for any other test results for officers rated high in *Inappropriate language*.

Officers rated as demonstrating more *Rude behavior* showed significantly or trend level higher scores on MMPI-2 *Cynicism (CYN)* ($r = .144, p < .017$), *RC3-cyn* ($r = .155, p < .010$), *ASP* ($r = .171, p < .005$), *RC6-per* ($r = .173, p < .004$), and *Hostility (Ho)* ($r = .125, p < .04$), COPS *PO* ($r = .131, p < .031$) and *Authoritarianism (Auth)* ($r = .168, p <$

.005), and CPI *Hostility (Ho)* ($r = .147, p < .015$), and lower scores on the MMPI-2 *Hysteria (Hy)* scale ($r = -.154, p < .011$). These results suggest that officers with higher rated *Rude Behavior* have more cynical, hostile, distrustful, overbearing, rigid, and suspicious attitudes towards other people and are likely to be more argumentative and rule-questioning in their attitudes, as compared to other officers. There were also trends toward higher scores on *ANX* ($r = .122, p < .044$) and lower scores on CPI *Wb* ($r = -.130, p < .032$) and *Mp* ($r = -.125, p < .039$), suggesting more subjective distress in officers rated as higher in *Rude behavior*. These officers also showed a significantly higher CPI *P-Fired* ($r = .146, p < .016$). Finally, there was a trend for these officers to be rated as *marginal* in their psychological examinations ($r = .123, p < .043$). There were no significant findings for background ratings.

Officers who had higher ratings on *Bad attitudes towards the public* had higher scores on MMPI *RC6-per* ($r = .181, p < .003$). There were no significant findings for background ratings, or other test results.

Officers rated as showing *Uncooperative attitudes towards peers* showed significantly higher scores on MMPI-2 *Sc* ($r = .136, p < .025$) This was primarily accounted for by a significant correlation for the *Social Alienation* subscale ($r = .149, p < .014$). Similar individuals describe themselves as feeling misunderstood and mistreated, may have hostility towards family members, and feelings of loneliness. There were trends towards lower *Hy* ($r = -.120, p < .048$) and higher *Alcohol Abuse (AA)* scores on the COPS ($r = .129, p < .034$). The only statistically significant finding for showing *Uncooperative*

attitudes towards supervisors was the MMPI-2 *Aggressiveness Index* ($r = .137, p < .023$), suggesting trends towards impulsivity and questioning rules.. There was also a trend on the *Masculinity/Femininity (Mf)* scale ($r = .128, p < .035$), suggesting that individuals with less “traditionally masculine” attitudes and interests are likely to be seen as less cooperative than others.

Officers whose supervisors indicated that they had problems with *Tardiness* showed trends towards more “hard line” attitudes regarding law enforcement on the *Police Opinion Survey (POS)* ($r = .131, p < .030$), and lower estimated intelligence on the *Shipley* ($r = -.135, p < .026$) and *How Supervise* ($r = -.150, p < .014$) scores. They tended to have more background problems related to *Financial/Credit* ($r = -.130, p < .027$). These results suggest lower general intelligence, social judgment, and financial responsibility for these officers, as compared to officers who have fewer problems with tardiness.

Officers who are rated as having problems *Taking responsibility for mistakes* scored significantly higher on MMPI-2 *RC6-per* ($r = .243, p < .001$), and lower on *Do* ($r = -.146, p < .016$) than officers with no problems in these areas, suggesting relatively suspicious and passive attitudes. They also tended to have more background problems related to *Financial/Credit* ($r = -.134, p < .032$).

Statistically significant correlations occurred between *TES* and MMPI-2 *RC6-per* ($r = .143, p < .018$). Trends were observed with MMPI-2 *RC3-cyn* ($r = .124, p < .041$), and

ASP ($r = .119, p < .05$). Trends were also seen with *COPS AA* ($r = .122, p < .044$), *PO* ($r = .124, p < .04$), and *Auth* ($r = .127, p < .037$). Finally, there was a trend for officers with higher *TES* scores to be rated as *marginal* in the psychological exam more frequently ($r = .129, p < .034$). Taken together, these results suggest that officers who have more problems as rated by their supervisors are likely to show higher levels of suspiciousness, cynicism, and argumentativeness towards others than officers with integrity problems. In addition, higher *TES* scores may be associated with self-reported trends towards alcohol abuse.

Employees who were rated as *Responsive to constructive feedback*, training, and coaching had fewer *Financial/Credit* problems on their background investigation ($r = .226, p < .004$), showed a more internal *LOC* ($r = .217, p < .04$), and scored lower on *COPS AA* ($r = -.178, p < .018$) and *Bias* ($r = -.209, p < .005$), and *CPI Ho* ($r = -.176, p < .020$) than officers rated as less responsive to feedback. On the *MMPI-2*, more responsive employees had higher *Hy* ($r = .196, p < .009$) and lower *CYN* ($r = -.176, p < .019$) and *psyc* ($r = -.180, p < .017$). The *Hy* result was largely due to a significant correlation with subscale *Hy2* ($r = .175, p < .021$), suggesting that officers who are more likely to respond positively to supervisory criticism have stronger needs for affection and attention, and are more sensitive and trusting of others than other officers. They also tend to avoid confrontations and deny negative feelings towards others. Correlations of trend level significance occurred for *COPS Success (Suc)* ($r = .154, p < .041$) and *Impulsivity (Imp)* ($r = -.150, p < .047$), and *MMPI-2 Ho* ($r = -.166, p < .027$), *Type-A Personality (TPA)* ($r = -.166, p < .028$), *Psy5-Aggressiveness (aggr)* ($r = -.151, p < .045$) and *RC6-*

per ($r = -.161, p < .033$). These results suggest that officers who are more trusting and sensitive, less hostile and argumentative, less aggressive, more reflective and thoughtful, and who see themselves as responsible for what happens to them, are more responsive to supervisory criticism. In addition, these officers are likely to have more tolerant views of others and describe fewer signs of alcohol abuse than less responsive officers.

Officers whose supervisors indicated that they would unconditionally hire them again showed fewer *Financial/Credit problems* on their background investigation ($r = -.212, p < .001$) than those whose supervisors were more reluctant to hire them again. On the MMPI-2, these officers showed higher scores on *Hy* ($r = -.196, p < .009$), and lower scores on *CYN* ($r = .157, p < .011$), *RC3-cyn* ($r = .186, p < .003$), and *aggr* ($r = .153, p < .013$) than officers whose supervisors would rehire them with reservations or not rehire at all. The *Hy* result was largely due to a significant correlation with subscale *Hy2* ($r = -.208, p < .001$). On the other hand, more negatively rated officers showed higher levels of hostility and aggression towards others than positively rated officers do. They tend to have stronger negative beliefs about others including that others are uncaring, untrustworthy, untruthful, selfish, and exploitive. There were also trends for officers rated for unconditional rehire to have a more internal *LOC* ($r = .129, p < .037$), and score lower on MMPI-2 *BIZ* ($r = .133, p < .031$), *ASP* ($r = .135, p < .028$), *RC6-per* ($r = .123, p < .047$), and *RC8-abx* ($r = .130, p < .035$). These results suggest the possibility that negatively rated officers are more likely to show signs of unusual thinking and respond with poor judgment in ambiguous situations.

Factor Analysis of ES Results. Because of the numerous statistically significant correlations between *ES* items and psychological/background results, a factor analysis was performed on 11 of the 12 items that were analyzed above. The *TES* was not included because it is a summary score of the others. The purpose of the factor analysis was to better understand higher order relationships between the *ES* items and test results. A principal components analysis using Varimax rotation with Kaiser Normalization was performed on these items. Possibilities were explored for a number of different factor solutions. This led to extraction of three interpretable factors. Table 15 shows the initial Eigenvalues and percentages of variance explained by the solution.

Table 15. Initial Eigenvalues and variance explained by principal components analysis of ES items

Component	Initial Eigenvalues			Extraction Sums of Squared			Rotation Sums of Squared		
	Initial Eigenvalues			Loadings			Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.823	43.842	43.842	4.823	43.842	43.842	3.316	30.145	30.145
2	1.209	10.992	54.835	1.209	10.992	54.835	2.682	24.383	54.528
3	1.040	9.453	64.288	1.040	9.453	64.288	1.074	9.760	64.288

The extracted factors were labeled (1) *Supervisory problems*, (2) *Problems with Citizens*, and (3) *Tardiness problems*. The factor loadings in the rotated component matrix are shown in Table 16.

Table 16. Factor loadings in rotated^a component matrix of ES items

	Component		
	Supervisory Problems	Problems with Citizens	Tardiness Problems
Uncooperative towards peers	.828	.168	-.054
Uncooperative towards supervisors	.827	.065	-.023
Hire again?	.678	.448	.066
Response to previous constructive feedback, training, or coaching	-.669	-.206	-.241
Takes responsibility for mistakes	.630	.326	.057
Inappropriate language	.052	.801	.249
Citizen complaints	.221	.720	-.059
Excessive force	.214	.670	-.138
Rude behavior	.509	.596	.046
Bad attitude towards public	.527	.579	-.191
Tardiness	.082	-.028	.939

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 5 iterations.

High scores on the first factor (*Supervisory problems*) reflect problems getting along with peers and supervisors, being resistant to criticism, and difficulty taking responsibility for mistakes. These individuals are likely to be difficult to supervise, do not take direction well, and their supervisors would be reluctant to hire them again. High scores on the second factor (*Problems with citizens*) are associated with supervisors' perceptions of officers' use of inappropriate language, acting rudely towards others, being the target of citizen complaints, having a bad attitude towards citizens, and using excessive force. This factor is of the greatest interest from an integrity standpoint. The third factor (*Tardiness*

problems) consists only of the *Tardiness* item which is not associated with either supervisory dissatisfaction or problems dealing with citizens.

ES factor scores were correlated with psychological/background variables. The *Supervisor problems* factor was significantly correlated with only one scale, MMP1-2 *RC6-per* ($r = .157, p < .009$). There was also a trend finding for the COPS AA scale ($r = .118, p < .05$). Officers with more *Supervisory problems* also had poorer *Financial/Credit* background ratings ($r = -.156, p < .011$). These results suggest that officers rated as being supervisory problems are significantly more likely to feel victimized by outside forces than other officers. They tend to feel mistreated or picked on, and are more likely to have problems trusting others than officers rated more positively. There may also be a trend for the problem officers to report higher levels of alcohol abuse. There were no significant findings for CPI scales.

Officers rated as having more *Citizen problems* were significantly more likely to be rated *marginal* in their psychological exams ($r = .210, p < .001$) than officers with fewer problems. The *Citizen problems* factor was significantly correlated with a number of MMPI-2 scales. Officers rated as having more problems showed higher scores on *Ma* ($r = .143, p < .017$), *ANX* ($r = .134, p < .025$), *BIZ* ($r = .146, p < .015$), *ASP* ($r = .147, p < .014$), *RC3-cyn* ($r = .170, p < .005$), and *RC9-hpm* ($r = .148, p < .013$). Findings of trend significance occurred on *Hy* ($r = -.122, p < .042$), *CYN* ($r = .120, p < .046$), and *RC6-per* ($r = .122, p < .041$). There was also a trend finding for the COPS *PO* scale ($r = .123, p < .04$). All results were in the expected direction. Officers rated as having more problems

with citizens showed higher levels of impulsivity, antisocial attitudes, idiosyncratic thinking, cynicism, suspiciousness, and anxiety. There were no significant findings for background rating variables or CPI scales.

Officers with higher rated *Tardiness problems* obtained significantly higher scores on the *POS* ($r = .161, p < .007$) and lower on the *How Supervise* ($r = -.170, p < .004$). There were also trend findings related to *Financial/Credit* problems in the background ratings ($r = -.125, p < .044$) and on the MMPI-2 *Do* scale ($r = .123, p < .041$). These results suggest that officers with problems related to tardiness are more authoritarian and dominant in their attitudes, have poorer judgment, and may have a history of financial or credit problems. There were no significant findings for CPI scales.

DISCUSSION

The most important findings to come out of this study relate to the identification of preemployment personality characteristics that are predictive of subsequent integrity problems in police officers. In this study, integrity problems were measured by identifying officers with sustained or unsustained complaints, and through supervisory ratings of behaviors likely to be associated with integrity problems. When the results for both types of criterion measures are taken together, several personality characteristics consistently emerged. Regardless of whether officers were subjects of a sustained complaint or rated by supervisors as having problems with citizens, their preemployment test scores showed levels of cynicism, suspiciousness, distrust, unusual thinking, impulsivity, and antisocial attitudes that were higher than officers who had no integrity problems. These conclusions are generally consistent with previous research (Boes et al., 1997; Costello et al., 1996; Cullen et al., 2003; Davis et al., 2004; Heyer, 1998; Hiatt & Hargrave, 1988b; Hargrave & Hiatt, 1989; Hargrave, et al. 1988) and are additionally important because of their consistency across criterion assessment methods and because they establish predictors specific to the MPD.

Officers with integrity problems in this sample are more rule-questioning and have a greater propensity towards underlying antisocial attitudes than other officers. Although their scores were, in comparison with the national standardization samples, generally at or below average (i.e., less pathological than), the relative scale differences between this group and other groups without known integrity problems suggest increased potential for

aggressive, argumentative, and antagonistic behavior, a “them vs. us” mentality, and a tendency towards problematic interpersonal relationships. They may overestimate levels of personal threat. They may show poor judgment because they fail to stop and think before acting. Such predictive relationships appear logical and consistent with previous research.

At the same time, however, the reasons problem officers also show higher levels of idiosyncratic thinking than other officers are not as intuitively obvious. Clinically, no officer candidate who was recommended or marginally recommended for hire presented with psychotic or even strongly schizotypal characteristics in the preemployment exam, so why would there be such strong consistent results suggesting these psychological characteristics? One possibility is that these officers have more pathology than initially believed. However, inspection of the mean test results for the *IA-S* group did not show any scores suggestive of idiosyncratic thinking above average for the general population, much less in the pathological range. Another possibility is that police work demands exceptional logic and reality-orientation, an ability to think “between the lines.”

Individuals who solve problems in a structured, rule-directed way may have fewer difficulties than officers who interpret situations through intuition, affective reactions, or associations to past life experiences. Officers of high integrity treat others well, in part, because they are reality-bound, fact-based, logical, and able to use good judgment to solve problems in tried-and-true ways. Officers who are more intuitive in their processing may be very good at coming up with novel solutions to problems when called for, but at other times may tend to err by exercising questionable judgment, especially in

emotionally-charged or unstructured situations where they cannot rely on over learned by-the-book solutions.

Officers with sustained complaints showed relatively elevated levels on alcohol problem scales (i.e., MMPI-2 *Alcoholism (MAC-R)* and *Addiction Admission (AAS)* scales). Since some individuals in this group had integrity problems related to alcohol use (e.g., driving-while-intoxicated citations), this is understandable. However, for officers without alcohol problems or who misbehave in non-alcohol-related ways, these scales may also be interpreted to suggest difficulties in impulsivity, judgment, or lack of self-control that are consistent with other results as well. Officers with sustained complaints are more likely to admit to lifestyle factors associated with alcohol use and behavior related to actual alcohol abuse.

Officers who were rated as having relatively more problems with citizens showed higher levels of anxiety, possibly related to underlying feelings of vulnerability, since they also showed more consistently high levels of cynicism and distrust, than officers who were rated as having fewer problems with citizens. This may suggest that these officers' supervisors are reacting to their employees' interpersonal style, which is likely more suspicious and less team-oriented than other officers. This hypothesis is also consistent with supervisors' ratings of supervisory problems, which indicated only one significant finding (i.e., the MMPI-2 *RC-6 Ideas of Persecution (RC6-per)* scale) suggesting that officers who tended to have problems with supervisors were likely to show suspicious attitudes and less than amicable behavior.

It is possible that the applicant characteristics found in the preemployment results associated with integrity-related problems represent vulnerabilities that predispose the officers to more significant personality problems over time, creating a kind of amplification effect in the long run. Research indicates that as length of service increases, officers tend to become more cynical, suspicious, and anxious, and have a greater vulnerability to drug and alcohol abuse, among other problems (Beutler, Nussbaum, & Meredith, 1988; Cottle, Ford, & Austin, 2000; Dietrich, & Smith, 1986, Gould, 2000; Hickman, Piquero, & Piquero, 2004; Niederhoffer, 1967). Increases in measured cynicism have also been found to be associated with increased self-reported incidence of hostile police-citizen encounters, arrest rates, and job dissatisfaction (Regoli, Crank, & Rivera, 1990). Niederhoffer (1967) and Hickman et al. (2004) found that officers who received citizen complaints had higher scores on a cynicism questionnaire. Results from a study of 177 officers from 11 different departments indicated that officers who felt more alienated from and suspicious of the public had a higher tolerance for the misconduct of fellow officers (Shernock, 1990). McCafferty, Souryal, & McCafferty (1998) describe cynicism and stress as causes of police corruption. Thus, the current study identifies personality characteristics that previous research suggests are both problematic and likely to become more pronounced over time. Since adherence to high ethical standards may also tend to decrease over time for patrol officers (Amendola, 1996; Catlin and Maupin, 2002; Huon, et al., 1995; Hyams, 1991), it is tempting to speculate that certain dysfunctional psychological characteristics may intensify in officers over time, mediating a decrease in ethical standards.

Relative usefulness of predictors

The relative magnitude of predictors' correlations with criterion measures suggests that some predictors are likely to be more useful than others. The most consistently useful predictors of integrity problems appeared to be *marginal* ratings by the psychologist, and several of the MMPI-2 scales. With regard to test scores, a number of Supplementary (*MAC-R*, *AAS*, and *Responsibility (Re)*), Content (*Anxiety (ANX)*, *Bizarre Mentation (BIZ)*, and *Antisocial Practices (ASP)*), and Restructured Clinical (RC) (*RC3-Cynicism (RC3-cyn)*, *RC-4 Antisocial Behavior (RC4-asb)*, *RC6-per*, and *RC-9 Hypomanic Activation (RC9-hpm)*) MMPI-2 scales were significantly predictive of integrity problems. The superiority of these scales over the standard Validity and Clinical scales to predict integrity problems may relate to relatively greater face-validity of many of the questions that appear on these scales. The RC scales may be particularly useful in detecting nuances of personality important for ethical police work because they are designed to measure unique aspects of personality that are not related to the underlying "demoralization" which as a construct is included in the Clinical scales and is often seen in individuals with psychiatric problems. In a generally psychologically healthy population, like the one under current study, the elimination of the underlying demoralization factor may remove a source of psychometric "white noise" that interferes with the test's ability to measure more subtle psychological characteristics important to distinguish officers with integrity-related problems from others. These conclusions are consistent with recent research (Ben-Porath & Detrick, 2004) indicating that the RC scales demonstrate good convergent, discriminant, and construct validity in predicting

specific scales on the Inwald Personality Inventory (IPI), a test often used for law-enforcement preemployment screening purposes. In addition, the RC scales showed convergent and discriminant validity that was comparable to or substantially improved over the MMPI-2 clinical scales in predicting IPI scales. Psychologists who use the MMPI-2 to make pre-employment assessments will, therefore, want to strongly consider utilizing scoring protocols that supply scores for Supplementary, RC, and non-K-corrected scales.

The best CPI predictors with regard to sustained complaints were those criterion-based scales that were derived empirically from algorithms specifically designed for the purpose of selecting candidates for police and public safety jobs, the *Job Suitability Snapshot* scales. Specifically, scales that were designed to predict involuntary termination, integrity problems, psychologically unsuitability, and to a lesser extent, anger management problems all predicted which officers would have sustained complaints beyond a chance expectancy. They were also predictive of officers' involuntary departure from their jobs. These scales were not able to successfully predict which officers would be rated by their supervisors as having problems, however.

Psychologists who use the CPI make pre-employment assessments will, therefore, want to strongly consider utilizing scoring protocols that supply scores for the *Job Suitability Snapshot* scales.

One scale of the COPS, *Paranoid Orientation (PO)* was also consistently predictive of integrity criteria. This is consistent with the report by Guller & Guller (2003) indicating

that higher COPS *PO* scale scores predicted problems following departmental rules and honesty and integrity.

In order to make these findings applicable to the work of examining psychologists, it is important to acknowledge the fact that, in no case except for the *CPI F/M* scale, did problem officers, as a group, show clinically significant elevations (i.e., $T > 65$) on MMPI-2 scales or significantly low scores ($T < 40$) on CPI scales in relationship to community (as contrasted to law enforcement) samples. In fact, rarely did the scores exceed, or fall below, the community mean scores for the MMPI-2 and CPI, respectively. For these results to have utility for psychologists conducting preemployment examinations, therefore, applicants' scores on scales that have shown to be meaningful predictors in this study should be compared to other law enforcement samples, when possible. If not possible, then these scales should be considered as important "red flags," which can then be used to cue more detailed inquiries during background or interview processes, when T scores are at subclinical, but above average, levels for the MMPI-2 and below average levels for the CPI.

A number of measures were disappointing with regard to their ability to predict integrity problems. With the exception of *Hypomania (Ma)*, the basic Clinical and Validity scales of the MMPI-2 were not predictive of criterion measures. This is somewhat inconsistent with previous research that had indicated significant relationships between integrity-related problems and MMPI or MMPI-2 scales including *Lie (L)* (Boes, et al., 1997; Hiatt & Hargrave, 1988a), *Infrequency (F)* (Hiatt & Hargrave, 1988a), *Correction (K)* (Cullen

et al., 2003), *Hypochondriasis (Hs)* (Bartol, 1991), *Depression (D)* (Bartol, 1991), *Psychopathic Deviance (Pd)* (Cullen et al., 2003; Boes, et al., 1997), *Paranoia (Pa)* (Cullen et al., 2003; Hiatt & Hargrave, 1988a), *Schizophrenia (Sc)* (Heyer, 1998), *Social Introversion (Si)* (Cullen et al., 2003; Heyer, 1998) the *Aggressiveness index* (Costello et al., 1996; Davis et al., 2004), and the *Immaturity index* (Davis et al., 2004). Reasons for these inconsistencies are unclear, but may be due in part to differences between the measures used in different studies, such as the MMPI vs. MMPI-2, or use of *T* scores and *K*-corrected scores versus raw scores. In addition, there may have been differences in the frequency with which applicants were deselected and the studies' resulting range restriction.

Only one of the standard CPI scales, *Self-Control (Sc)*, was a significant predictor of sustained complaints, and no CPI scales consistently predicted the *Citizen Problems* factor of the *ES*. This is somewhat inconsistent with previous research that has shown significant relationships with between integrity problems and other CPI scales including *Well Being (Wb)*, *Socialization (So)* (Hargrave & Berner, 1984; Hargrave & Hiatt, 1989), *Responsibility (Re)*, *Communality (Cm)* (Boes et al., 1997), and *Tolerance (To)* (Heyer, 1998).

Besides the *PO* scale, the COPS did not consistently predict integrity problems. This is inconsistent with Guller & Guller (2003) who reported that COPS *Integrity/Dishonesty* and *Authoritarianism (Auth)* scales predicted integrity-related problems. In addition, their results indicated that *Police Opinion Survey* scores and lower *Shipley IQ* and *Locus of*

Control scores correlated with problems following departmental rules. Those results were not consistent with the current study's findings in that neither the *Locus of Control*, *How Supervise*, *Shipley*, nor *Police Opinion Survey* results predicted integrity problems. The current study's results regarding general intelligence, as measured by the *Shipley*, appear consistent with other research indicating a lack of relationship to overall police job performance (Burbeck & Furnham, 1985), and to integrity problems in other occupations (Duehr, Sacket, & Ones 2003).

None of the background ratings was strongly predictive of integrity criteria, although there was a trend for a more problematic *Criminal history* to be associated with sustained complaints and a poorer *Driving record* to predict involuntary departure.

Financial/Credit problems did predict supervisory problems and problems with tardiness. This suggests that the ability to manage finances responsibly generalizes to other instrumental, but not integrity-related, domains of work performance. That background categories were not stronger predictors of integrity-related problems was surprising not only because past behavior (such as driving or legal problems) is often the best predictor of future behavior, but also because background ratings have been shown to be predictive in prior research (Johnson, et al., 1991). In part, this may be due to the relatively limited range of ratings (i.e., the vast majority showed no significant problems) of background data in the current study. Whether due to a rater bias on the part of background investigators or the MPD's low tolerance for background problems in selected officers, this range restriction may have limited the current study's ability to identify background predictors of integrity-related problems.

Methodological issues

Although a number of variables were of limited usefulness in predicting integrity problems in the current study's group of incumbent officers, it is important not to assume that these measures would not be helpful in preemployment selection, since many applicants were not hired in large part because of their performance on these preemployment measures. Indeed, there were significant differences between psychological recommendation groups for the several background ratings (*Employment, Financial/Credit, Criminal History, Driving, and Total Employee Survey*), *Police Opinion Survey, Shipley, and How Supervise* scores, in addition to many of the MMPI-2, CPI, and COPS scales, suggesting that applicants who were at high risk to have a variety of problems later on, including integrity problems, were deselected for hire, and therefore did not become part of the incumbent sample. As a consequence, there was significant range restriction for these predictor variables.

Indeed, because preemployment variables are typically restricted in range for the incumbent groups in this type of research, it is often difficult to identify the best preemployment predictors of success or failure (Ones & Viswesvaran, 2003). Predictors are often restricted because, as in the current study, psychological tests and other evaluation procedures are almost always used to select suitable applicants and deselect unsuitable ones (Pallone, 1992). Since applicants with the most negative test performances are deselected, this leaves a relatively homogeneous group of applicants who are likely to then be hired by the department. Therefore, any effect sizes, such as the

correlation coefficients reported in the current study, are likely to be underestimates of the predictor variables' true ability to predict performance in an *unselected* sample. Only a few studies have been able to avoid this problem. For example, in Hiatt and Hargrave's (1988b) sample, applicants rated as "unsuitable" on their preemployment exams were hired anyway. In other studies (e.g., Hargrave & Berner, 1984; Hargrave & Hiatt, 1989), tests were administered at the beginning of the training academy and not used for selection purposes. However, such a method may produce differences in test performance because of a presumably less defensive response set since the recruits knew that the test results would not affect their employment status.

The performance criteria are also often restricted because of a tendency in many departments to rate employees as satisfactory since they meet the minimum job requirements. A positive bias by raters may also be an issue (Hargrave & Berner, 1984). Moreover, if an employee does not meet job requirements then he or she is likely to be terminated, and may therefore be unavailable for follow-up study. In the current study, *ES* ratings were very restricted, and overwhelmingly positive. As a result, many of the *ES* items were rendered uninterruptible, and could not be included in further analyses. Such criterion range restriction is also likely to have reduced the observed correlations between the predictors and the *ES* items. Such a situation is not uncommon when supervisors are protective of their employees and cautious about disclosing anything that might lead to negative repercussions for him or her. A number of authors (e.g., Klockars et al., 2000; McCafferty et al., 1998; Weisburd, Greenspan, Hamilton, Williams, & Bryant, 2000) have described a "code of silence" that exists in police departments. For example,

Weisburd et al. (2000) reported that over 7% of supervisors believe that a code of silence is an essential part of policing, and over 16% believe that “whistle-blowing isn’t worth it.” Therefore, in spite of multiple assurances that the information collected in the *ESs* would in no way be retained or used against an officer, to the extent that a “code of silence” may be operative, supervisors may also have been reluctant to disclose integrity problems regarding their supervisees. One way to deal with this in the future would be to provide more extensive training to supervisors regarding the exact uses of the data to be collected, as well as instruction in rating procedures that would prevent common rater errors such as range restrictions, central tendencies, halo effects, and lack of behavioral specificity (e.g., Fay & Latham, 1982).

Another method for dealing with the range restriction problem is for researchers to report descriptive data for their entire preselected sample, as was done in the current study, or provide validity coefficients that are corrected for the range restriction (e.g., Ones & Viswesvaran, 2003). For example, in the current study 23.9% of the preselected sample were rated *not recommend* by the psychologist, and virtually all of these applicants were not included in the follow-up sample. It is possible that previous studies that identified different predictors from those reported here had a more or less restricted sample, depending on the proportion of the initial sample that was eliminated from follow-up by the psychological examination. If data for the entire sample were reported so that corrected validity coefficients could be calculated, or if corrected validity coefficients themselves were included in these studies, then it might be possible to make more accurate comparisons of predictors across studies.

The current results also underscore the importance of using verified sustained complaints, rather than number of complaints sustained or not, as a measure of integrity-related problems. The most important finding to corroborate this position was that the group of officers with unsustained complaints was much more similar on personality measures to officers without any history of problems, than to officers with sustained complaints. The data clearly show the greatest number of correlations for the predictor measures were between the *NC* and *IA-S* groups, with 15 significant correlations emerging, all in the expected direction, indicating more personality problems in the *IA-S* group. In contrast, officers in the *IA-NS* group showed few differences from the *NC* group, but 13 significant differences on criterion measures with the *IA-S* group. Indeed, it is quite possible that officers who have had complaints that have not been sustained may offer a more appropriate control group for officers with sustained complaints than officers who have had no complaints at all. Officers who have had complaints are probably more likely to have work assignments (e.g., general patrol, narcotics, high crime precincts or shifts) in which negative citizen contact is likely to occur than officers whose primary assignments are not heavily enforcement-oriented, such as investigations, administrative duties, or school liaison, or who are working in lower crime locations than those without a history of complaints. Therefore, directly comparing officers with complaints that are either sustained or not is likely to control for other variables that can influence the probability that an officer will receive a complaint, justified or not. Doing so suggests that the best interpretation of unsustained complaints in this study is that they are related to officer productivity, a relationship that has also been found elsewhere (Lersch, 2002)

Officers with sustained complaints showed significantly more internal distress (i.e., anxiety, depression, and PTSD symptoms) on preemployment testing than those with unsustained complaints. These results are consistent Bartol (1991) who found higher MMPI *D* scales more common in officers with a history of citizen complaints than in other officers. It is also consistent with the observations by psychologists with regard to officers who have had problems with excessive force (Scrivner, 1994). Since no such differences in measures of distress were found between the *NC* and *IA-S* groups, it is possible that comparing the *IA-S* group against officers without any history of integrity problems may provide an underestimate of the types and severity of problems these officers might have when contrasted with using a more comparable control group (i.e., *IA-NS* officers).

Officers who had *CRA* complaints showed several differences from officers without a history of integrity problems, including having more physical problems, a desire to conform to an organizational structure, and fewer feelings of psychological well being. However, these results were not especially strong or consistent across scales. It seems likely that the *CRA* group is heterogeneous regarding integrity problems since the complaints against this group of officers have not been determined to be sustained or not.

Integrity-related vs. instrumental problems

Officers who were involuntarily terminated for general (i.e., instrumental) work performance issues showed qualitatively different personality characteristics than the *NC* group and both similarities and differences with the *IA-S* group. While both the *IA-S* and *ID* group showed more tendencies towards suspiciousness than did the officers with no history of problems, the *ID* group also showed a pattern consistent with a lack of work orientation or conscientiousness. Such a pattern in the *ID* group is consistent with research related to the Five Factor personality model that has shown that individuals with positive general work performance are likely to show corresponding levels of conscientiousness, agreeableness, and emotional stability (e.g., Ones & Viswesvaran, 2002).

Officers rated as having problems with citizens were somewhat different from those rated as having supervisory or administrative problems. While those officers rated as having the most problems with citizens were likely to show tendencies described above (i.e., impulsivity, antisocial attitudes, cynicism, idiosyncratic thinking), officers with supervisory problems showed only tendencies towards suspiciousness or feeling personally attacked on the psychological predictors and *Financial/Credit* problems on background investigation ratings. Those with tardiness problems also showed a tendency to have *Financial/Credit* problems on background investigation ratings as well as significant tendencies towards poorer instrumental and social judgment as measured by the *How Supervise*, and greater tendencies towards authoritarianism, as measured by the

Public Opinion Survey. Thus, the variety of findings that occurred for the different factors of the *ES* suggests that different psychological characteristics are important for predicting integrity-related concerns as contrasted with supervisory or administrative problems. However, since the *ES* was primarily designed to measure integrity problems, the range of instrumental work problems it could assess would be expected to be restricted, limiting the conclusions that might be drawn regarding this issue.

Finally, with regard to differentiating instrumental vs. integrity-related problems, the current study is consistent with results of Hargrave & Hiatt (1989) who found that officers with poorer job performance ratings had lower scores on the CPI *Achievement-Conformance (Ac)* and *Work Orientation (Wo)* scales. It is also consistent with Hiatt and Hargrave (1988b) who found increased suspiciousness (*Pa*) for officers with general work performance problems. However, it did not replicate a number of other studies in which CPI and MMPI results suggested that officers with instrumental work problems are more impulsive, rule-questioning, and emotionally distressed than other officers. In particular, they present a different picture from the meta-analytic MMPI study by Cullen et al. (2003), which found that several MMPI scales (*L*, *K*, *Pd*, *Masculinity Femininity (Mf)*, *Psychasthenia (Pt)*, and *Ma*) predicted general job performance. In contrast, the current study found no similar findings for either the *ID* group or for the *Supervisory* or *Tardiness problems* factors of the *ES*. In general, therefore, while both instrumental and integrity-related problem officers appear to have test scores indicating a greater degree of suspiciousness and interpersonal disagreeableness than officers without a history of problems, they otherwise show few similarities with each other. On the contrary, officers

with integrity problems in the current study showed greater impulsivity, rule-questioning attitudes, and unusual thinking than officers with more instrumental problems.

Implications for Police Administration

The results have important implications for police department administration. First, the overall rate of complaints in the current study (including CRA) was approximately 3.9 per 100 officers per year; sustained complaints occurred at only 1.2 per 100 officers per year. These rates are very low when compared to previous research conducted with the MPD and other departments (Terrill & McCluskey, 2002; Walker et al., 2001), although they may represent underestimates.¹¹ In contrast to a negative image that some members of the public may hold, the current results suggest that the vast majority of officers are relating appropriately to the community and do not demonstrate significant integrity problems. Although this is obviously positive for the department, such a low base rate of sustained complaints and supervisory-rated problems also makes finding meaningful predictors of sustained complaints more difficult and less likely.

Second, the results related to complaint history are consistent with what would be expected if the Internal Affairs adjudication process is working properly. That is,

¹¹ These rates are likely to represent underestimates for two reasons. First, the CRA did not collect complaint data for approximately two years. Thus, complaints that might have been made during this time if the CRA was functioning were not registered. During this time the CRA was also not adjudicating complaints so there was no way of knowing if complaints made before that time would be considered valid (sustained) or not, and an accurate account of which complaints would be sustained, therefore, could not be obtained. Second, in the current study the total number of complaints per officer was not calculated because sometimes there were multiple complaints for the same incident, and sometimes not. Using the number of complaints as a criterion, therefore, appeared somewhat arbitrary. In addition, because the number of officers with multiple complaints or sustained complaints very was low, using the number of complaints per officer as a criterion measure would have had limited usefulness.

complaints were sustained for officers whose negative psychological characteristics would logically put them at risk for integrity problems, while officers without a history of complaints and officers whose complaints are not sustained have more positive characteristics. Officers whose complaints were exonerated, unfounded, or unsustained appeared to be no different from officers without a history of complaints. These results appear to validate the Internal Affairs process in terms of coming to accurate conclusions regarding the veracity of allegations against officers. These conclusions are consistent with the analysis of Terrill and McCluskey (2002) and Lersch (2002) who have described several interpretations of what a citizen complaint may actually mean, other than an officer being a problem, including that complaints may be due to citizen misinformation, citizen retribution, or high officer productivity. Indeed, the relatively positive characteristics of the group of officers whose complaints were not sustained would argue for the interpretation that unsustained complaints in the current sample of officers may represent a positive measure of officer productivity, including self-initiating proactive patrol activity, rather than a “where there’s smoke, there’s fire” explanation.

Third, the results of this research generate a number of important implications for improved selection of applicants who are likely to have few subsequent integrity-related problems. One important finding was that the preemployment psychologist recommendation ratings predicted integrity problems. Officers who were rated as *marginal* were almost three times as likely to have a sustained complaint as officers who were rated as fully *recommended*. Psychologist ratings were also the most highly predictive measure for *ES Problems with citizens*. Although validity research has

generally emphasized the use of test scores to predict subsequent work performance, another study that used a semi-structured interview and clinical prediction method also showed strong predictive validities regarding integrity problems (Hiatt & Hargrave, 1988b). Johnson et al. (1991) also found that their overall recommendation rating was significantly predictive of terminations, many of which were integrity-related. In addition, the interview is likely to add important and unique information to the assessment process (Hargrave & Hiatt, 1989).

The magnitude and consistency of the psychologist's recommendation rating in the current study, in contrast to the many other objective actuarially-based background and test measures that served as predictors, may be somewhat surprising given the typical superiority of actuarial methods over clinical methods of prediction (Grove, Zald, Lebow, Snitz, & Nelson, 2000; Meehl, 1954). Nonetheless, the current results suggest that greater scrutiny of applicants who are rated as *marginal* would further lower integrity-related problems. By increasing the stringency for obtaining a *marginal* rating, that is, rating more applicants as *not recommended* as opposed to *marginal*, fewer officers who show subsequent integrity problems would be hired. Such a change, however, would also result in a higher number of applicants who would be deselected by the psychological exam but who would not in fact show subsequent integrity problems.

The results of this study also suggest that psychologist ratings should be increasingly guided by heightened scrutiny of a history of alcohol misuse/abuse, evidence of a "party" lifestyle, rule-violating behavior or antisocial attitudes, a history of judgment errors

related to illogical thinking or misperception of situations, and evidence of distrust or cynicism related to others. Detailed questioning regarding these issues during the psychological interview, careful review of relevant background information, utilizing all available means of verifying applicants' self report (including polygraphs where permitted), and a lowered threshold for finding a candidate unsuitable based on psychometric data measuring these characteristics would be appropriate. The MMPI-2 RC scales, Content scales, and alcohol problem scales, the *CPI Job Suitability Snapshot* scales, and the *COPS PO* scale should be assiduously reviewed by the examining psychologist.

Ideally, research strives to identify "cut scores" based on regression or discriminant function analyses, so consistency and objectivity with regard to decisions related to test interpretation are maximized. Because such a methodology requires cross-validation of results to insure that the cut scores are accurate, and because of the relatively small number of officers with integrity-related problems in the current study, cut scores could not be established at this time. However, a practical application of the current results would argue for the interpretation of scores that are even mildly elevated (e.g., one standard deviation above the mean for police officers), as "red flags" for potential problems that may be corroborated by other interview or background data.

Fourth, no matter how accurate a selection system, some individuals will end up having integrity-related problems, either because the selection system incorrectly predicted that there would be no future problem when in fact one occurred, or because, even though the

initial prediction was correct for a period of time, the officer's psychological characteristics changed as a result of personal, job, or other factors. For example, the *Christopher Commission* concluded:

“A critical limitation on initial psychological screening is the fact that police work modifies behavior. An officer's personality may change dramatically after years on the force... Thus, some officers may enter the force seemingly well-suited psychologically for the job but may suffer from burnout, alcohol-related problems, anxiety, cynicism, or disenchantment, all of which can result in their having poor control over their impulses and behavior (p. 114).”

As a partial solution to this problem, periodic psychological retesting in three-year intervals was recommended by the *Christopher Commission*, which proposed it as part of a comprehensive “Wellness Program.” Psychological reevaluations every five years have also been suggested by McCafferty et al. (1998) as a means of preventing corruption. As part of such a reexamination for MPD, an integrity risk assessment could be gleaned from interview and test data that could then be shared with the officer. An officer with an elevated risk rating could subsequently be counseled on how to reduce risk factors (e.g., reduce alcohol consumption, decrease risk taking, take additional time before making decisions, develop more close trusting friendships in the community, etc.). It is likely that such assessments would yield even more accurate predictions than the ones reported in this study if the interval between exams is less than the 3.82 years average time that the sustained complaint occurred after the preemployment assessment. To be effective, such

a process would have to be confidential, would *not* be a fitness-for-duty exam, and would have no bearing on officers' work status. In this scenario, the department would not obtain any information about the examination results so as to minimize anxiety and defensiveness from the participating officer.

Unfortunately, initiating a reexamination program might be impractical or difficult due to the expense and potential resistance from officers and labor unions. Moreover, psychologists have been shown to be divided on recommending such a strategy, at least with regard to preventing excessive force problems (Scrivner, 1994). However, given the potential for identifying "early warning" personality or attitudinal signs of integrity-related problems, such a program appears worth considering.

Fifth, the results of this study should guide training and supervisory strategies. One such strategy would be to help officers self-identify potential problems through presentation and dissemination of the results of this study, and encourage them to discuss their concerns with their supervisors, request additional training, or consult with a mental health professional experienced with law enforcement personnel, such as would be available through the department EAP. Immediate supervisors may also be able to use the results of this study in a more formal way to identify officers who could benefit from additional guidance or coaching. For example, it might be useful to have "attitudinal" ratings on performance reviews that could include items such as "cynical attitudes towards the public" or "distrustful towards coworkers." Officers could be rated on their ability to use good judgment in ambiguous situations. Feedback on observed alcohol use

could also be included. Officers' apparent attitudes towards ethics and integrity could be directly commented upon. Such ratings should be used in the spirit of an early intervention system (EIS), that is, primarily to facilitate helpful feedback and coaching, rather than punitive discipline or other negative administrative consequences. When a supervisor has a significant concern that cannot be addressed through coaching or training, a referral to a mental health professional should be considered, although participation by the officer must be voluntary for the program to be effective.

While EISs may be very useful to prevent some problems, Scrivner (1994) points out that they identify problem behavior only after it has occurred, which may not be ideal when considering an intervention strategy. She suggests that psychologists work with supervisors to identify potential warning signs, and help advise supervisors how to intervene on a case-by-case basis. The earlier that problematic patterns of behavior, attitudes, or personality are identified, the more effective intervention to prevent integrity problems will be.

Since the current findings suggest that tendencies towards alcohol misuse or abuse may be associated with sustained complaints, and since there is evidence that alcohol abuse is a common problem among police officers (Dietrich & Smith, 1986; Richmond, 1998) that may increase with longer tenure as a police officer (Obst, Davey, & Sheehan, 2001), additional efforts should be made to improve officers' alcohol awareness through department-wide educational programs aimed at helping officers understand the connection between alcohol use or associated lifestyle factors and risk for misconduct.

Stress management, anger management, assertiveness, or interpersonal effectiveness training for select individuals may be helpful to reduce suspicious or cynical attitudes, reduce associated anxiety, and improve judgment and decision-making under stressful or ambiguous circumstances.

Finally, it must be emphasized that while the results of this study have important implications for identifying officers who are at risk for developing integrity problems, the prevention of these problems must be seen in a broader context in which training, departmental leadership, and behavioral monitoring have primary roles (Gaffigan & McDonald, 1997; Scrivner, 1994). Within this context, the results of the current study can provide guidance to police administrators and psychologists whose goal is to develop programs and strategies to prevent officer integrity problems.

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Appendix A. Employee Survey

Performance Evaluation Questionnaire

Name of Officer: _____ Precinct: _____

Rater's Name: _____

1. How long have you known this officer? _____

2. How long have you been this officer's supervisor? _____

3. How well do you think you know this officer's work performance?

Not well at all	Somewhat well	Moderately well	Very well
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Please rate the above officer in the areas listed below. All results are strictly confidential and are being used for the purpose of a research study only. Thank you very much for your time and participation.

To what degree has this individual had problems in the following areas? Please circle the appropriate number.

Unknown	No Problems	Minor Problems	Moderate Problems	Severe Problems
U	1	2	3	4

1	Citizen complaints	U	1	2	3	4
2	Excessive force	U	1	2	3	4
3	Inappropriate language	U	1	2	3	4
4	Rude behavior	U	1	2	3	4
5	Bad attitude towards public	U	1	2	3	4
6	Uncooperative towards peers	U	1	2	3	4
7	Uncooperative towards supervisors	U	1	2	3	4
8	Abuse of sick leave	U	1	2	3	4
9	Tardiness	U	1	2	3	4
10	Preventable accidents	U	1	2	3	4
11	Inappropriate personal relationships	U	1	2	3	4
12	Financial-credit-gambling	U	1	2	3	4
13	Defendant in civil litigation	U	1	2	3	4
14	Deceptiveness	U	1	2	3	4
15	Unlawful activity	U	1	2	3	4
16	Alcohol abuse	U	1	2	3	4
17	Substance abuse (including steroids)	U	1	2	3	4
18	Abuse of authority	U	1	2	3	4
19	Takes responsibility for mistakes	U	1	2	3	4
20	Uses position for personal advantage	U	1	2	3	4

21	Accepts gratuities	U	1	2	3	4
22	Show biased attitudes towards others	U	1	2	3	4
23	Inappropriate sexual attitudes or behavior	U	1	2	3	4
24	Missing court appearances	U	1	2	3	4
25	Conduct unbecoming	U	1	2	3	4
26	Overall honesty, ethics, and integrity	U	1	2	3	4

27. If the officer has had a problem in the past, how well has he or she responded to constructive feedback, training, or coaching?

Unknown	Very poorly	Poorly	Well	Very Well
U	1	2	3	4

28. If it were up to you, would you hire this officer again?

Unknown	Yes	Yes, with reservations	No
U	1	2	3

29. How would you describe this officer's overall performance? _____

30. Are you aware of any other problems or issues? Please specify _____

Appendix B. Psychological Test Results for Hired, Not Hired, and Total Candidate Sample

<i>Test or Scale</i>	<i>Hired Status</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Hired Status</i>	
				<i>Correlation</i>	<i>Sig.</i>
Police Opinion Survey	Never hired	34.09	16.319	-.114**	.010
	Hired	30.56	13.253		
	Total	31.67	14.369		
Shipley Vocabulary	Never hired	30.06	3.650	.079	.074
	Hired	30.68	3.628		
	Total	30.49	3.643		
Shipley Abstraction	Never hired	32.67	5.581	.039	.380
	Hired	33.08	4.538		
	Total	32.95	4.889		
Shipley IQ	Never hired	105.60	7.762	.082	.064
	Hired	106.85	6.722		
	Total	106.46	7.083		
Locus of Control	Never hired	6.54	3.311	-.059	.180
	Hired	6.12	3.180		
	Total	6.25	3.224		
How Supervise	Never hired	62.42	13.897	.168**	.001
	Hired	67.18	12.583		
	Total	65.68	13.185		
COPS Success	Never hired	52.09	26.988	.254**	.001
	Hired	65.78	22.970		
	Total	61.46	25.101		
COPS Socialized Adjustment	Never hired	57.34	25.733	.238**	.001
	Hired	69.89	22.920		
	Total	65.94	24.522		
COPS Motivation	Never hired	51.59	29.354	.099*	.025
	Hired	62.18	56.227		
	Total	58.84	49.578		
COPS Self Discipline	Never hired	50.68	25.279	.153**	.001
	Hired	58.68	23.508		

	Total	56.16	24.341		
COPS Alcohol Abuse	Never hired	69.97	18.104	-.136**	.002
	Hired	64.78	17.402		
	Total	66.42	17.772		
COPS Lie Score	Never hired	43.33	27.722	.067	.130
	Hired	47.26	26.934		
	Total	46.02	27.219		
COPS Paranoid Orientation	Never hired	53.38	27.333	-.171**	.001
	Hired	44.16	23.502		
	Total	47.07	25.114		
COPS Personality Problems	Never hired	49.51	31.075	-.095*	.031
	Hired	43.07	31.441		
	Total	45.10	31.439		
COPS Depression	Never hired	63.50	19.624	-.061	.166
	Hired	61.06	18.001		
	Total	61.83	18.543		
COPS Bias	Never hired	54.20	21.112	-.280**	.001
	Hired	43.37	15.227		
	Total	46.78	17.996		
COPS Authoritarianism	Never hired	70.31	26.139	-.189**	.001
	Hired	59.71	25.472		
	Total	63.05	26.127		
COPS Impulsivity	Never hired	65.54	24.968	-.220**	.001
	Hired	53.54	24.634		
	Total	57.32	25.337		
COPS Negative Work Attitudes	Never hired	69.49	25.023	-.167**	.001
	Hired	60.41	24.995		
	Total	63.27	25.334		
COPS Integrity/Dishonesty	Never hired	58.22	25.849	-.206**	.001
	Hired	47.31	23.205		
	Total	50.75	24.573		
COPS Inconsistency	Never hired	66.92	25.694	-.029	.514
	Hired	65.38	24.253		
	Total	65.87	24.701		
MMPI-2 Lie (L)	Never hired	4.63	2.583	.037	.402

	Hired	4.82	2.246		
	Total	4.76	2.356		
MMPI-2 Infrequency (F)	Never hired	2.42	1.664	-.150**	.001
	Hired	1.97	1.257		
	Total	2.11	1.413		
MMPI-2 Correction (K)	Never hired	21.04	3.841	.171**	.001
	Hired	22.29	3.074		
	Total	21.90	3.381		
MMPI-2 Hypochondriasis (Hs)	Never hired	1.16	1.452	-.098*	.027
	Hired	.89	1.171		
	Total	.97	1.271		
MMPI-2 Depression (D)	Never hired	14.90	2.707	.045	.312
	Hired	15.13	2.248		
	Total	15.06	2.402		
MMPI-2 Hysteria (Hy)	Never hired	20.47	3.141	.152**	.001
	Hired	21.36	2.460		
	Total	21.08	2.722		
MMPI-2 Psychopathic Deviance (Pd)	Never hired	16.12	3.019	-.061	.166
	Hired	15.76	2.534		
	Total	15.87	2.699		
MMPI-2 Masculinity/Femininity (Mf)	Never hired	22.42	5.072	.017	.704
	Hired	22.60	4.955		
	Total	22.55	4.987		
MMPI-2 Paranoia (Pa)	Never hired	9.61	2.429	.068	.123
	Hired	9.90	1.791		
	Total	9.81	2.017		
MMPI-2 Psychasthenia (Pt)	Never hired	3.77	2.587	-.110*	.013
	Hired	3.18	2.465		
	Total	3.36	2.517		
MMPI-2 Schizophrenia (Sc)	Never hired	4.11	3.017	-.188**	.001
	Hired	3.11	2.131		
	Total	3.42	2.486		
MMPI-2 Hypomania (Ma)	Never hired	16.13	3.382	-.157**	.001
	Hired	15.05	3.072		
	Total	15.39	3.209		

MMPI-2 Social Introversion (Si)	Never hired	14.22	5.170	.021	.641
	Hired	14.43	4.427		
	Total	14.37	4.669		
MMPI-2 Anxiety (A)	Never hired	1.88	2.047	-.143**	.001
	Hired	1.26	1.969		
	Total	1.46	2.013		
MMPI-2 Repression (R)	Never hired	15.03	3.915	.138**	.002
	Hired	16.08	3.306		
	Total	15.75	3.539		
MMPI-2 Ego Strength (Es)	Never hired	41.96	2.447	-.002	.967
	Hired	41.95	2.155		
	Total	41.96	2.249		
MMPI-2 MacAndrews Alcoholism (Mac-R)	Never hired	21.28	3.042	-.187**	.001
	Hired	20.18	2.519		
	Total	20.53	2.740		
MMPI-2 Addiction Potential Scale (Aps)	Never hired	21.15	3.395	-.020	.649
	Hired	21.02	2.761		
	Total	21.06	2.973		
MMPI-2 Addiction Admission Scale (Aas)	Never hired	2.25	1.158	-.251**	.001
	Hired	1.64	1.082		
	Total	1.83	1.142		
MMPI-2 Infrequency-Back (Fb)	Never hired	.40	.770	-.212**	.001
	Hired	.15	.413		
	Total	.23	.563		
MMPI-2 Overcontrolled Hostility (OH)	Never hired	15.70	2.559	.053	.236
	Hired	15.97	2.409		
	Total	15.89	2.458		
MMPI-2 Dominance (Do)	Never hired	18.35	1.797	.022	.620
	Hired	18.43	1.687		
	Total	18.40	1.721		
MMPI-2 Responsibility (Re)	Never hired	20.52	3.125	.206**	.001
	Hired	21.74	2.479		
	Total	21.36	2.755		
MMPI-2 College Maladjustment (Mt)	Never hired	3.45	2.332	-.142**	.001
	Hired	2.72	2.370		

	Total	2.95	2.380		
MMPI-2 Gender Masculine (Gm)	Never hired	41.71	3.334	.101*	.023
	Hired	42.40	3.032		
	Total	42.18	3.143		
MMPI-2 Gender Feminine (Gf)	Never hired	27.61	4.143	.132**	.003
	Hired	28.79	4.126		
	Total	28.42	4.163		
MMPI-2 Posttraumatic Stress Disorder (Pk)	Never hired	1.93	2.338	-.174**	.001
	Hired	1.20	1.726		
	Total	1.43	1.968		
MMPI-2 Hostility (HO)	Never hired	12.53	6.872	-.251**	.001
	Hired	9.33	5.128		
	Total	10.34	5.918		
MMPI-2 Anxiety (ANX)	Never hired	1.78	1.668	-.145**	.001
	Hired	1.28	1.587		
	Total	1.44	1.629		
MMPI-2 Fears (FRS)	Never hired	2.14	2.193	-.076	.088
	Hired	1.82	1.908		
	Total	1.92	2.006		
MMPI-2 Obsessiveness (OBS)	Never hired	1.28	1.428	-.111*	.012
	Hired	.95	1.345		
	Total	1.05	1.379		
MMPI-2 Depression (DEP)	Never hired	.89	1.149	-.075	.092
	Hired	.70	1.231		
	Total	.76	1.208		
MMPI-2 Health Concerns (HEA)	Never hired	1.95	1.926	-.071	.108
	Hired	1.70	1.465		
	Total	1.78	1.627		
MMPI-2 Bizarre Mentation (BIZ)	Never hired	.82	1.504	-.211**	.001
	Hired	.35	.695		
	Total	.50	1.043		
MMPI-2 Anger Control Problems (ANG)	Never hired	2.71	2.023	-.162**	.001
	Hired	2.10	1.588		
	Total	2.30	1.758		
MMPI-2 Cynicism (CYN)	Never hired	5.73	5.195	-.220**	.001

	Hired	3.71	3.590		
	Total	4.35	4.262		
MMPI-2 Antisocial Practices (ASP)	Never hired	5.73	3.584	-.254**	.001
	Hired	3.99	2.830		
	Total	4.54	3.189		
MMPI-2 Type-A Personality (TPA)	Never hired	4.45	2.872	-.222**	.001
	Hired	3.29	2.098		
	Total	3.66	2.426		
MMPI-2 Low Self-esteem (LSE)	Never hired	.88	1.180	-.091*	.039
	Hired	.67	1.028		
	Total	.74	1.082		
MMPI-2 Social Discomfort (SOD)	Never hired	2.88	2.800	-.011	.808
	Hired	2.82	2.319		
	Total	2.84	2.478		
MMPI-2 Family Problems (FAM)	Never hired	2.42	2.176	-.091*	.040
	Hired	2.04	1.832		
	Total	2.16	1.953		
MMPI-2 Work Interference (WRK)	Never hired	1.52	1.740	-.128**	.004
	Hired	1.10	1.419		
	Total	1.23	1.538		
MMPI-2 Negative Treatment Indicators (TRT)	Never hired	.83	1.169	-.103*	.019
	Hired	.59	1.015		
	Total	.67	1.070		
MMPI-2 Psy5-Aggressiveness (aggr)	Never hired	8.26	2.045	-.195**	.001
	Hired	7.51	1.612		
	Total	7.74	1.793		
MMPI-2 Psy5-Psychoticism (psyc)	Never hired	1.37	1.548	-.198**	.001
	Hired	.84	1.020		
	Total	1.01	1.234		
MMPI-2 Psy5-Disconstraint (disc)	Never hired	14.32	2.941	-.185**	.001
	Hired	13.23	2.554		
	Total	13.58	2.726		
MMPI-2 Psy5-Negative Emotionality (nege)	Never hired	3.32	2.882	-.127**	.004
	Hired	2.59	2.508		
	Total	2.82	2.650		

MMPI-2 Psy5-Introversion (intr)	Never hired	6.92	3.007	.130**	.003
	Hired	7.75	2.894		
	Total	7.49	2.952		
MMPI-2 RC-Demoralized (RC-dem)	Never hired	.56	.827	-.080	.072
	Hired	.40	.956		
	Total	.45	.920		
MMPI-2 RC1-Somatic Complaints (RC1-som)	Never hired	.79	1.291	-.122**	.006
	Hired	.52	.830		
	Total	.61	1.005		
MMPI-2 RC2-Low Positive Emotions (RC2-lpe)	Never hired	1.23	1.396	.005	.911
	Hired	1.24	1.295		
	Total	1.23	1.326		
MMPI-2 RC3-Cynicism (RC3-cyn)	Never hired	3.56	3.659	-.216**	.001
	Hired	2.18	2.476		
	Total	2.61	2.968		
MMPI-2 RC4-Antisocial Behavior (RC4-asb)	Never hired	4.13	2.417	-.266**	.001
	Hired	2.93	1.805		
	Total	3.31	2.091		
MMPI-2 RC6-Ideas of Persecution (RC6-per)	Never hired	.25	.602	-.167**	.001
	Hired	.09	.340		
	Total	.14	.445		
MMPI-2 RC7-Dysfunctional Neg. Emotions (RC7-dne)	Never hired	1.24	1.664	-.095*	.032
	Hired	.92	1.489		
	Total	1.02	1.552		
MMPI-2 RC8-Aberrant Experiences (RC8-abx)	Never hired	.70	1.288	-.194**	.001
	Hired	.32	.638		
	Total	.44	.911		
MMPI-2 RC9-Hypomanic Activation (RC9-hpm)	Never hired	9.41	4.356	-.212**	.001
	Hired	7.62	3.601		
	Total	8.18	3.940		
MMPI-2 Immaturity Index (II)	Never hired	159.35	14.654	-.027	.538
	Hired	158.52	13.738		
	Total	158.78	14.024		
MMPI-2 Aggressiveness Index (AI)	Never hired	148.24	12.275	-.131**	.003
	Hired	145.15	10.115		

	Total	146.13	10.925		
CPI Dominance (Do)	Never hired	28.03	3.901	.014	.749
	Hired	28.15	3.798		
	Total	28.11	3.827		
CPI Capacity for Status (Cs)	Never hired	19.26	2.972	.055	.217
	Hired	19.59	2.617		
	Total	19.48	2.735		
CPI Sociability (Sy)	Never hired	26.14	3.098	.011	.796
	Hired	26.22	2.919		
	Total	26.19	2.974		
CPI Social Presence (Sp)	Never hired	28.85	3.435	-.065	.141
	Hired	28.39	3.261		
	Total	28.54	3.320		
CPI Self-Acceptance (Sa)	Never hired	20.25	2.463	-.072	.106
	Hired	19.89	2.335		
	Total	20.00	2.380		
CPI Independence (In)	Never hired	20.24	2.226	.111*	.012
	Hired	20.77	2.178		
	Total	20.60	2.205		
CPI Empathy (Em)	Never hired	25.18	3.429	.008	.865
	Hired	25.24	3.241		
	Total	25.22	3.298		
CPI Responsibility (Re)	Never hired	28.31	3.245	.186**	.001
	Hired	29.58	3.075		
	Total	29.18	3.182		
CPI Socialization (So)	Never hired	33.75	3.440	.173**	.001
	Hired	34.93	2.991		
	Total	34.56	3.184		
CPI Self-Control (Sc)	Never hired	24.35	5.379	.204**	.001
	Hired	26.54	4.643		
	Total	25.85	4.987		
CPI Good Impression (Gi)	Never hired	24.68	5.979	.147**	.001
	Hired	26.43	5.184		
	Total	25.88	5.501		
CPI Communality (Cm)	Never hired	36.53	1.943	-.005	.918

	Hired	36.51	2.062		
	Total	36.52	2.023		
CPI Well Being (Wb)	Never hired	35.28	2.508	.130**	.003
	Hired	35.95	2.281		
	Total	35.74	2.372		
CPI Tolerance (To)	Never hired	24.35	4.133	.180**	.001
	Hired	25.78	3.380		
	Total	25.33	3.690		
CPI Achievement-Conformance (Ac)	Never hired	31.44	3.031	.188**	.001
	Hired	32.62	2.798		
	Total	32.25	2.923		
CPI Achievement-Independence (Ai)	Never hired	25.96	4.156	.188**	.001
	Hired	27.46	3.382		
	Total	26.99	3.706		
CPI Intellectual Efficacy (Ie)	Never hired	33.25	3.313	.120**	.007
	Hired	34.07	3.078		
	Total	33.81	3.174		
CPI Psychological Mindedness (Py)	Never hired	18.41	2.237	.117**	.008
	Hired	18.96	2.163		
	Total	18.79	2.199		
CPI Flexibility (Fx)	Never hired	14.33	3.622	.061	.167
	Hired	14.80	3.607		
	Total	14.65	3.615		
CPI Masculinity/Femininity (M/F)	Never hired	10.75	3.060	.071	.111
	Hired	11.21	3.059		
	Total	11.06	3.064		
	Hired	4.35	1.348		
	Total	4.39	1.342		
CPI Law Enforcement Orientation (Leo)	Never hired	32.47	2.889	.035	.426
	Hired	32.69	2.910		
	Total	32.62	2.903		
CPI Narcissistic Personality (Nar)	Never hired	23.58	6.096	-.199**	.001
	Hired	21.12	5.381		
	Total	21.90	5.725		
CPI Managerial Potential (Mp)	Never hired	26.25	4.062	.186**	.001

	Hired	27.78	3.616		
	Total	27.30	3.825		
CPI Work Orientation (Wo)	Never hired	34.64	3.070	.152**	.001
	Hired	35.57	2.685		
	Total	35.27	2.842		
CPI Anxiety (Anx)	Never hired	3.96	1.249	.017	.700
	Hired	4.01	1.358		
	Total	4.00	1.324		
CPI Amicability (Ami)	Never hired	27.56	4.020	.187**	.001
	Hired	29.06	3.498		
	Total	28.59	3.732		
CPI Tough-mindedness (Tm)	Never hired	29.09	2.884	.136**	.002
	Hired	29.97	3.041		
	Total	29.69	3.017		
CPI Creative Temperament (Ct)	Never hired	21.69	4.372	.092*	.038
	Hired	22.54	4.260		
	Total	22.27	4.309		
CPI Leadership (Le)	Never hired	60.19	4.882	.061	.170
	Hired	60.88	5.495		
	Total	60.66	5.315		
CPI Leadership Potential Index (Lp)	Never hired	54.73	2.785	-.001	.990
	Hired	54.73	2.838		
	Total	54.73	2.819		
CPI Social Maturity Index (Sm)	Never hired	50.53	2.021	.080	.072
	Hired	50.92	2.380		
	Total	50.79	2.278		
CPI Creative Potential Index (Cp)	Never hired	47.98	2.563	-.087*	.049
	Hired	47.44	2.981		
	Total	47.61	2.864		
CPI Generalized Norm-violating Propensity (GNVP)	Never hired	48.31	2.575	-.154**	.001
	Hired	47.51	2.310		
	Total	47.76	2.423		
CPI Infrequency (Inf)	Never hired	4.90	4.242	-.114**	.010
	Hired	3.85	4.248		
	Total	4.18	4.270		

CPI Hostility (Ho)	Never hired	8.73	4.350	-.191**	.001
	Hired	7.05	3.854		
	Total	7.58	4.088		
CPI Internality (v.1)	Never hired	11.35	4.639	.085	.055
	Hired	12.31	5.476		
	Total	12.01	5.241		
CPI Norm-Favoring (v.2)	Never hired	25.85	4.121	.062	.160
	Hired	26.42	4.328		
	Total	26.24	4.268		
CPI Self-Realization (v.3)	Never hired	45.19	7.300	.201**	.001
	Hired	48.03	5.996		
	Total	47.13	6.562		
Probability of Substance Abuse Problems (P-Sub)	Never hired	43.45	13.928	-.217**	.001
	Hired	37.55	11.577		
	Total	39.41	12.653		
Probability of Illegal Drug Use Problems (P-Drug)	Never hired	17.75	10.213	-.191**	.001
	Hired	14.15	7.729		
	Total	15.29	8.741		
Probability of Alcohol Use Problems (P-Alc)	Never hired	26.72	12.312	-.189**	.001
	Hired	22.37	9.519		
	Total	23.74	10.660		
Probability of Anger Management Problems (P-Ang)	Never hired	51.61	16.002	-.212**	.001
	Hired	44.87	13.703		
	Total	46.99	14.787		
Probability of Integrity Problems (P-Integ)	Never hired	39.55	11.088	-.203**	.001
	Hired	34.98	9.894		
	Total	36.42	10.492		
Probability of Job Performance Problems (P-Job)	Never hired	47.81	14.526	-.193**	.001
	Hired	42.27	12.442		
	Total	44.01	13.370		
Probability of Rated Poorly Suited (P-Poor)	Never hired	35.91	17.891	-.243**	.001
	Hired	27.37	14.878		
	Total	30.06	16.360		
Probability of Involuntary Departure (P-Fired)	Never hired	14.01	6.406	-.190**	.001
	Hired	11.65	5.303		

	Total	12.39	5.772		
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*Statistically significant at $p < .05$; **Statistically significant at $p < .01$; Not hired = 0; Hired = 1

Appendix C. Test Score Differences between Psychological Recommendation Groups

Predictor	F	Sig.	Partial Eta Squared
Police Opinion Survey	5.441**	.005	.021
Shipley Vocabulary	7.171**	.001	.027
Shipley Abstraction	4.454*	.012	.017
Shipley IQ	8.849**	.000	.034
Locus of Control	1.698	.184	.007
How Supervise	17.325**	.000	.064
COPS Success	35.851**	.000	.124
COPS Socialized Adjustment	24.267**	.000	.087
COPS Motivation	5.795**	.003	.022
COPS Self Discipline	11.148**	.000	.042
COPS Alcohol Abuse	9.012**	.000	.034
COPS Lie Score	2.049	.130	.008
COPS Paranoid Orientation	15.409**	.000	.057
COPS Personality Problems	11.801**	.000	.044
COPS Depression	7.006**	.001	.027
COPS Bias	28.995**	.000	.102
COPS Authoritarianism	12.494**	.000	.047
COPS Impulsivity	17.337**	.000	.064
COPS Negative Work Attitudes	16.661**	.000	.062
COPS Integrity/Dishonesty	27.706**	.000	.098
COPS Inconsistency	.606	.546	.002
MMPI-2 L	.576	.562	.002
MMPI-2 F	9.029**	.000	.034
MMPI-2 K	13.352**	.000	.050
MMPI-2 Hs	12.196**	.000	.046
MMPI-2 D	2.295	.102	.009
MMPI-2 Hy	13.844**	.000	.052
MMPI-2 Pd	1.148	.318	.005
MMPI-2 MF	.448	.639	.002

MMPI-2 Pa	2.127	.120	.008
MMPI-2 Pt	9.489**	.000	.036
MMPI-2 Sc	17.583**	.000	.065
MMPI-2 Ma	10.957**	.000	.041
MMPI-2 Si	3.564*	.029	.014
MMPI-2 A	10.743**	.000	.041
MMPI-2 R	8.402**	.000	.032
MMPI-2 Es	.123	.884	.000
MMPI-2 Mac-R	15.221**	.000	.057
MMPI-2 Aps	.798	.451	.003
MMPI-2 Aas	14.359**	.000	.054
MMPI-2 Fb	16.024**	.000	.059
MMPI-2 OH	.714	.490	.003
MMPI-2 Do	2.685	.069	.010
MMPI-2 Re	18.537**	.000	.068
MMPI-2 Mt	20.981**	.000	.076
MMPI-2 Gm	2.238	.108	.009
MMPI-2 Gf	9.950**	.000	.038
MMPI-2 Pk	19.557**	.000	.071
MMPI-2 Ho	26.889**	.000	.096
MMPI-2 ANX	7.182**	.001	.027
MMPI-2 FRS	1.873	.155	.007
MMPI-2 OBS	8.018**	.000	.031
MMPI-2 DEP	16.367**	.000	.061
MMPI-2 HEA	3.203*	.041	.012
MMPI-2 BIZ	14.296**	.000	.053
MMPI-2 ANG	7.878**	.000	.030
MMPI-2 CYN	23.332**	.000	.084
MMPI-2 ASP	32.727**	.000	.114
MMPI-2 TPA	15.504**	.000	.058
MMPI-2 LSE	7.921**	.000	.030
MMPI-2 SOD	.512	.599	.002
MMPI-2 FAM	7.304**	.001	.028

MMPI-2 WRK	9.770**	.000	.037
MMPI-2 TRT	9.340**	.000	.035
MMPI-2 Psy5-aggr	11.087**	.000	.042
MMPI-2 Psy5-psyc	15.304**	.000	.057
MMPI-2 Psy5-disc	10.830**	.000	.041
MMPI-2 Psy5-nege	5.878**	.003	.023
MMPI-2 Psy5-intr	4.106*	.017	.016
MMPI-2 RC-dem	7.128**	.001	.027
MMPI-2 RC1-som	6.616**	.001	.025
MMPI-2 RC2-lpe	.029	.971	.000
MMPI-2 RC3-cyn	22.552**	.000	.082
MMPI-2 RC4-asb	23.961**	.000	.086
MMPI-2 RC6-per	8.906**	.000	.034
MMPI-2 RC7-dne	5.387**	.005	.021
MMPI-2 RC8-abx	13.561**	.000	.051
MMPI-2 RC9-hpm	15.434**	.000	.057
MMPI-2 II	1.051	.350	.004
MMPI-2 AI	6.431**	.002	.025
CPI Do	1.327	.266	.005
CPI Cs	3.693*	.026	.014
CPI Sy	1.980	.139	.008
CPI Sp	1.809	.165	.007
CPI Sa	3.392*	.034	.013
CPI In -	4.038*	.018	.016
CPI Em	3.410*	.034	.013
CPI Re-	18.521**	.000	.068
CPI So	10.820**	.000	.041
CPI Sc	13.967**	.000	.052
CPI Gi	6.341**	.002	.024
CPI Cm	1.537	.216	.006
CPI Wb	9.268**	.000	.035
CPI To	19.974**	.000	.073
CPI Ac	12.013**	.000	.045
CPI Ai	19.531**	.000	.071
CPI Ie	7.578**	.001	.029

CPI Py	6.579**	.002	.025
CPI Fx	1.968	.141	.008
CPI M/F	2.628	.073	.010
CPI Leo	.814	.444	.003
CPI Nar	11.511**	.000	.043
CPI Mp	19.532**	.000	.071
CPI Wo	13.502**	.000	.050
CPI Anx	.504	.604	.002
CPI Ami	21.166**	.000	.077
CPI Tm	10.758**	.000	.041
CPI Ct	7.951**	.000	.030
CPI Le	9.609**	.000	.036
CPI Lp	9.814**	.000	.037
CPI Smi	10.279**	.000	.039
CPI Cp	2.707	.068	.011
CPI GNVP	10.895**	.000	.041
CPI Inf	9.423**	.000	.036
CPI Ho	21.425**	.000	.078
CPI v.1	2.897	.056	.011
CPI v.2	1.345	.262	.005
CPI v.3	18.655**	.000	.068
CPI (434) Type - CPI Norms	3.324*	.037	.013
CPI (434) Level - CPI Norms	7.623**	.001	.029
CPI (434) Type - PS Norms	.842	.431	.003
CPI (434) Level - PS Norms	6.311**	.002	.024
CPI P(Substance Abuse Problems)	13.874**	.000	.052
CPI P(Alcohol Use Problems)	12.882**	.000	.048
CPI P(Anger Management Problems)	14.210**	.000	.053
CPI P(Integrity Problems)	15.150**	.000	.056
CPI P(Job Performance Problems)	10.907**	.000	.041
CPI P(Rated Poorly Suited)	23.987**	.000	.086
CPI P(Fired If Hired)	16.794**	.000	.062

*Statistically significant at $p < .05$

**Statistically significant at $p < .01$

Appendix D. Employee Survey data

		Frequency	Percent	Cumulative Percent
1. Citizen Complaints	no problems/ problems unknown	229	84.2	84.2
	minor problems	34	12.5	96.7
	moderate problems	8	2.9	99.6
	severe problems	1	.4	100.0
	Total	272	100.0	
2. Excessive force	no problems/ problems unknown	262	96.3	96.3
	minor problems	9	3.3	99.6
	severe problems	1	.4	100.0
	Total	272	100.0	
	3. Inappropriate language	no problems/ problems unknown	257	94.5
minor problems		11	4.0	98.5
moderate problems		3	1.1	99.6
severe problems		1	.4	100.0
Total		272	100.0	
4 Rude behavior	no problems/ problems unknown	250	91.9	91.9
	minor problems	16	5.9	97.8
	moderate problems	4	1.5	99.3
	severe problems	2	.7	100.0
	Total	272	100.0	
5. Bad attitude toward public	no problems/ problems unknown	251	92.3	92.3
	minor problems	17	6.3	98.5
	moderate problems	2	.7	99.3
	severe problems	2	.7	100.0
	Total	272	100.0	

6. Uncooperative towards peers	no problems/	249	91.5	91.5
	problems unknown			
	minor problems	20	7.4	98.9
	moderate problems	3	1.1	100.0
	Total	272	100.0	
7. Uncooperative towards supervisors	no problems/	254	93.4	93.4
	problems unknown			
	minor problems	13	4.8	98.2
	moderate problems	5	1.8	100.0
	Total	272	100.0	
8. Abuse of sick leave	no problems/	264	97.1	97.1
	problems unknown			
	minor problems	8	2.9	100.0
	Total	272	100.0	
9. Tardiness	no problems/	259	95.2	95.2
	problems unknown			
	minor problems	12	4.4	99.6
	moderate problems	1	.4	100.0
	Total	272	100.0	
10. Prevent-able accidents	no problems/	265	97.4	97.4
	problems unknown			
	minor problems	7	2.6	100.0
	Total	272	100.0	
11. Inappropriate personal relationships	no problems/	268	98.5	98.5
	problems unknown			
	minor problems	3	1.1	99.6
	severe problems	1	.4	100.0
	Total	272	100.0	
12. Financial, credit, gambling	no problems/	271	99.6	99.6
	problems unknown			
	minor problems	1	.4	100.0
	Total	272	100.0	

13. Defendant in civil litigation	no problems/	269	98.9	98.9
	problems unknown			
	minor problems	1	.4	99.3
	moderate problems	2	.7	100.0
	Total	272	100.0	
14 Deceptiveness	no problems/	265	97.4	97.4
	problems unknown			
	minor problems	6	2.2	99.6
	moderate problems	1	.4	100.0
	Total	272	100.0	
15. Unlawful activity	no problems/	268	98.5	98.5
	problems unknown			
	minor problems	2	.7	99.3
	moderate problems	1	.4	99.6
	severe problems	1	.4	100.0
Total	272	100.0		
16. Alcohol abuse	no problems/	266	97.8	97.8
	problems unknown			
	minor problems	5	1.8	99.6
	moderate problems	1	.4	100.0
	Total	272	100.0	
17. Substance abuse (including steroids)	no problems/	271	99.6	99.6
	problems unknown			
	minor problems	1	.4	100.0
	Total	272	100.0	
18. Abuse of authority	no problems	267	98.2	98.2
	minor problems	1	.4	98.5
	moderate problems	3	1.1	99.6
	severe problems	1	.4	100.0
	Total	272	100.0	

19. Takes responsibility for mistakes	no problems/	252	92.6	92.6
	problems unknown			
	minor problems	13	4.8	97.4
	moderate problems	4	1.5	98.9
	severe problems	3	1.1	100.0
	Total	272	100.0	
20. Uses position for personal advantage	no problems/	266	97.8	97.8
	problems unknown			
	minor problems	3	1.1	98.9
	moderate problems	1	.4	99.3
	severe problems	2	.7	100.0
	Total	272	100.0	
21. Accepts gratuities	no problems/	269	98.9	98.9
	problems unknown			
	minor problems	2	.7	99.6
	moderate problems	1	.4	100.0
	Total	272	100.0	
22. Shows biased attitudes towards others	no problems/	268	98.5	98.5
	problems unknown			
	minor problems	1	.4	98.9
	moderate problems	2	.7	99.6
	severe problems	1	.4	100.0
	Total	272	100.0	
23. Inappropriate sexual attitudes or behaviors	no problems/	264	97.1	97.1
	problems unknown			
	minor problems	5	1.8	98.9
	moderate problems	1	.4	99.3
	severe problems	2	.7	100.0
	Total	272	100.0	
24. Missing court appearances	no problems/	265	97.4	97.4
	problems unknown			
	minor problems	7	2.6	100.0
	Total	272	100.0	

25. Conduct	no problems	266	97.8	97.8
unbecoming	minor problems	2	.7	98.5
	moderate problems	2	.7	99.3
	severe problems	2	.7	100.0
	Total	272	100.0	
26. Overall	no problems	264	97.1	97.1
honesty, ethics,	minor problems	2	.7	97.8
and integrity	moderate problems	4	1.5	99.3
	severe problems	2	.7	100.0
	Total	272	100.0	
Total Employee	26	183	67.3	67.3
Survey	27	32	11.8	79.0
(Items 1-26)	28	18	6.6	85.7
	29	18	6.6	92.3
	30	7	2.6	94.9
	Over 30	14	5.1	100.0
Total		272		
Response to	very poorly	3	1.7	1.7
feedback and	poorly	9	5.1	6.8
coaching	well	67	38.1	44.9
	very well	97	55.1	100.0
	Total	176	100.0	
	Unknown	96		
Total		272		
Hire again?	yes	244	92.8	92.8
	yes, with	8	3.0	95.8
	reservations	11	4.2	100.0
	Total	263	100.0	
	Unknown	9		
Total		272		