The author(s) shown below used Federal funds provided by the U.S. Department of Justice and prepared the following final report:

Document Title:	Profiling Police: Evaluating the Predictive and Structural Validity of an Actuarial Method for Screening Civil Liabilities Among Police Officer Candidates
Author(s):	Ivory A. Toldson
Document No.:	214121
Date Received:	May 2006
Award Number:	2003-IJ-CX-1006

This report has not been published by the U.S. Department of Justice. To provide better customer service, NCJRS has made this Federallyfunded grant final report available electronically in addition to traditional paper copies.

> Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Profiling police: Evaluating the predictive and structural validity of an actuarial

method for screening civil liabilities among police officer candidates

Ivory A. Toldson, Ph.D.

Howard University, Washington, DC

This project was supported by Grant No. 2003-IJ-CX-1006 and awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. Points of view or opinions contained within this document are those of the authors and do not necessarily represent the official position of the U.S. Department of Justice.

### Abstract

This study investigated the predictive and structural validity of an actuarial method for detecting traits that are associated with negligent and volatile behavior among police officers. An actuarial approach is a screening technique that statistically compares an examinee's profile to thousands of preexisting profiles to determine whether he or she is more similar to 'good cops' or 'bad cops.' Examiners determine indices of 'good' and 'bad' from post-test assessments, supervisor ratings, incident reports, reprimands, and civilian complaints. Investigators obtained actuarial archives of 2852 police officers who completed assessments at the Matrix Corporation – a private police psychology practice. Data reduction and stepwise multiple regression analyses were used to produce models that predicted three separate civil liability categories: 1) Excessive Force; 2) Racially Offensive Conduct; and 3) Sexually Offensive Conduct. Investigators used structural equation modeling to determine structural validity. This study is the first formal standardization of the only known actuarial method for selecting law enforcement personnel. Implications of this study can greatly elevate standards of police psychology screening, effectively reduce civil liabilities and improve the overall integrity of private, city, state and federal law enforcement agencies.

Profiling police: Evaluating the predictive and structural validity of an actuarial method for screening civil liabilities among police officers Introduction and Historical Overview

Police officers' heroic efforts during the terrorist attacks on September 11, 2001 underscore the importance of police officers in society. Everyday, across the United States, there are untold stories of police officers who risk their lives to make society safer and more civil (Albrecht & Green, 1977; Brown, & Wycoff, 1987; and Dunham & Alpert, 1988). Unfortunately, the goodwill of millions of officers does little to obliterate the damage of a few who have violated the constitutional rights of citizens through misconduct (Borrero, 2001; Ogletree, Prosser, Smith, & Talley, 1994; Perry, 1987; Terry, 1995; and U.S. Dept. of Justice, 1996).

Police departments in the United States have a longstanding history of struggling with lawsuits and public perception, especially among minority communities (Ogletree, Prosser, Smith & Talley, 1994). In practical terms, the history dates back to the period of reconstruction. The Civil Rights Act of 1871 provided a method by which individuals deprived of federally guaranteed rights by anyone acting under the *color of law* to be sued in federal court. Currently known as 42 USC 1983, or simply Section 1983, the law has become a cornerstone of federal liability legislation (Kraska & Kappeler, 1997; and Mattison & Hakola, 1992). Under Section 1983, supervisory officials are liable under the doctrine of Police Executive Liability. A law enforcement supervisor is said to be

"deliberately indifferent" to civil rights violations when he or she allows a departmental policy or custom to infringe upon the constitutional rights of citizens.

Many law enforcement agencies have had difficulty maintaining their economic and social stability under the mandates of Section 1983. Section 1983 became the cornerstone of civil rights liability during the 1960's Civil Rights Movement and has subsequently generated substantial case law. For example, Lewis v. Goodie (1992) found a police chief to be financially liable because he was indifferent to the behavior of officers who showed an indifference to the rights of minorities. In Yang v. Harden (1994), supervisory and non-supervisory police officers were held liable for failing to intervene in an unjustifiable arrest and beating of a suspect. More recently, in Brown v. Bryan County (2000), the Fifth District Federal Court held that law enforcement agencies that improperly selects and trains officers are specifically liable for the injuries of those who are hurt by the officers' conduct.

#### Evolving Standards for Police Psychologists

Increased standards among police departments have redefined the role of a police psychologist (Bartol, 1996; and Bergen, Aceto & Chadziewicz, 1992). In a survey of 152 police psychologists, Bartol (1996) found that the future of the police psychology profession hinges on the "political, economic, and social pressures" directed at law enforcement agencies.

Today, a police psychologist's tasks must extend beyond screening for severe psychopathology. As an 'expert,' a police psychologist can reduce the liability of deliberate indifference by scientifically screening traits associated with civil rights violations among new officer candidates (Davis & Rostow, 2002). Such methods would help preserve the financial integrity, public support and reputation of the department and of its executives.

Recent advances in psychometric techniques and statistical models have become an important factor in predicting subsequent police misconduct (Bonhcum & McCrerey, 1985; Hargrave & Berner, 1982; Weiss, Serfino & Serfino, 2000). Bartol (1991) and Hargrave, Hiatt & Gaffney (1988) demonstrated that complex statistical indicators, such as regression and other actuarial techniques, could produce indices for selecting officers who are less likely to violate citizens' civil rights in the future. In many ways, this process is similar to the actuarial methods that the insurance industry employs to forecast mortality among life insurance policy applicants.

To date, police psychologists have used varying methods to screen out officers for severe psychopathology but have done little to examine subtle personality nuances that are statistically associated with negligent and volatile behavior. Cortina, Doherty, Schmitt, Kaufman, and Smith (1992) found that popular personality inventories did not have any more predictive validity than civil service examinations. Furthermore, many police psychological assessments are subjective and prone to human judgment error (Coulton & Feild, 1995).

Most of the problems that police departments have with training and supervising officers could be circumvented in the selection process (Davis & Rostow, 2002). In the past, police psychologists have been involved intermittently in selecting police officers but have not played a central role. Attempts to develop psychometrically adequate tests to select police officers date back to the 1920s (Davis & Rostow, 2002). However, only since the 1960s, amid civil rights unrest, have federal agencies recommended that officers select for "personal stability" (President's Commission on Law Enforcement, Administration of Justice, 1967).

To date, little has been done to develop psychometrically valid, reliable and defendable systems for screening officers. In fact, most individuals involved in police selection and training have concentrated on supervisory and training systems, rather than on systems of selection, in spite of the obvious need to select appropriately (Schrivner, 1994). Classic models of police psychology screening involved 1) Rule Out: Screening out those who have potential "mental instability;" or 2) Rule In: Finding the persons who have the "traits" of the ideal officer. The problems with these methods are that they are subjective in nature, may be prone to human error, and are not defendable under *Federal Rules of Evidence 702* (McCarthy,1992).

If a police department has to defend a hiring decision in court, Federal Rules of Evidence 702 mandates that the expert witness' testimony be based on sufficient facts and reliable principles and methods. Furthermore, *Daubert* 

principles give judges the authority to be the "gatekeepers" over the admission of scientific evidence (Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 1993).

In Hall v. Baxter Healthcare (1996) Daubert principles excluded the testimony of a well-respected scientist, noting that the jury should "not be permitted to be misled by the glitter of an expert's accomplishments outside the courtroom if the expert opinion is based on 'untrustworthy' data or is otherwise not reliable (Hall v. Baxter, 947 F. S 1387, 1996)."

Police psychologists who rely on credentials, rather than hard science, increase police departments' liability for negligent hiring practices.

The overwhelming number of police departments who pay court cost and restitution to victims of civil rights violations underscore the flaws in existing methods for screening officers. Between 1994 and 1996 New York City paid \$70 million in civil settlements; Los Angeles paid \$79 million between 1991 and 1996 in civil and pre-trial settlements; Detroit paid \$100 million between 1986 and 1997 (\$20 million was paid in 20 months); and Philadelphia paid \$32 million between 1993 and 1996 in jury awards and settlements (Davis & Rostow, 2002).

# Purpose, Goals and Objectives

The purpose of this study is to address methodological and conceptual issues regarding the psychological screening of police officers for civil liabilities. Specifically, the study evaluates the predictive and structural validity of an actuarial method for screening police officers for behaviors that are associated

# This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

with misconduct. An actuarial approach is a screening technique that statistically compares the examinee's profile to thousands of preexisting profiles to determine whether he or she is more similar to 'good cops' or 'bad cops' (Davis & Rostow, 2002).

The first objective of this study is to determine whether analyses of an actuarial database of police officer candidates will reveal three robust models that predict (a) Excessive Force; (b) Racially Offensive Conduct; and (c) Sexually Offensive Conduct. The second objective is to determine if the actuarial method has adequate structural validity. The second objective will be determined by fit indicators for three liability indices (Excessive Force, Racially Offensive Conduct, and Sexually Offensive Conduct).

# Methodology

# Participants

One hundred, eighty-five police departments are represented in the research database. Of the 185 departments, 16 are independently contracted municipal departments; 65 are state agencies (including state probation and parole, 2 state universities, the state department of Wildlife and Fisheries and the State Police Department); 5 are parish sheriff departments; and 2 are federal agencies (Federal Air & Aviation Marshals PD and Union Pacific Railroad). The remaining departments are contracted through Risk Management Incorporated (RMI). The database contains approximately 5,000 officer candidates who received a police psychological assessment; 2,852 completed the most current

version of the Minnesota Multiphasic Personality Inventory (MMPI-2), and are suitable for the analysis required by the proposed study. The sample was 85% male, 15% female, 75% White, 23% Black, and 2% other. Almost half (49%) of the sample was married.

The greatest percentage (20%; N=522) of the 2,852 officer candidates in the database are referees from the Louisiana State Police Department. The number of officers who are rural and urban in the state police department is directly proportional to the demographics of Louisiana and includes the states largest cities such as New Orleans and Shreveport. The second largest group of law enforcement candidates are from Louisiana Probation and Parole (10%; N=256). State probation and parole also is also proportional to State demographics. The next largest percentage (8%; N=190) of officer candidates is from Baton Rouge Police Department. Law enforcement agencies that comprise more than 2%, but less than 4% of the database are from Baker PD (N=89); Bogalusa PD (N=62); Iberville PD (N=65); Jennings PD (N=51); Louisiana State University PD (N=78); Natchitoches PD (N=78); and Plaucheville PD (N=65). Each of the remaining agencies comprised less than 2% of the database.

The sample size yields sufficient statistical power to detect moderate effects at the .01 level of significance (Cohen, 1988). Archival records are comprised of background information and results of psychological testing of candidates who were sent to the Matrix Corporation from 1990-2002. State, city, and private police departments sent their candidates to police psychologists for

selection and fitness evaluations. The broad spectrum of police agencies increases the heterogeneity of the sample with respect to extraneous variables.

#### Research Instrumentation

#### MMPI-2

The MMPI-2 is a 567-item, true-false, self-report personality inventory that has been used extensively in forensic settings (Pope, Butcher, and Seelen 1993). The MMPI-2 was normed on a sample of 2,600 individuals. Scores include 10 clinical scales and 3 validity scales. MMPI-2 scale scores are produced by totaling the number of items endorsed on a specified subset of MMPI-2 items and are reported as T scores. Test-retest reliability on validity, clinical and content scales range from .68 to .92 across a 2-week interval (Greene & Clopton, 1994). Graham (1999) describes more than 10,000 validity studies.

### Mental Status Examination

The Mental Status Examination consist of 16 observational variables (i.e., irritable mood, speech difficulties, manifest anxiety, resistance to procedure). A licensed psychologist uses a Likert scale to rate criterion.

#### Background Questionnaire

The Background Questionnaire consists of 78 self-report variables that elicit background information (i.e., Psychiatric treatment, alcohol use, arrears on child support payments, with scorable follow-up questions). Background questionnaire items were obtained from the literature on police executives, legal rulings, and insurance industry risk managers. A postdictive interview is

used to reduce evasions and misconceptions and obtain observations. There is emphasis on uniformity and standardization for statistical and actuarial purposes. Sample items include: Have you ever received a citation for family or domestic violence?; Have you ever been fired from a job, asked to resign or quit under pressure?; Do you have tattoos?; Have you had surgery or been hospitalized for a medical problem in the last six months?; And Have you ever been issued a DWI/DUI?

#### Supervisor Rating Form

The Supervisor Rating Form is a 19-item, standard rating of officer performance. Ratings are dichotomous and objective (e.g. received complaint? Yes/No). Global ratings, such as "Is he a good officer?" are omitted to reduce subjectivity. A reliability of analysis of the Supervisor Rating Form yielded a Cronbach's Alpha of .74. Instead of the entire rating form, authors only use items directly related to the outcome variable. These items were: 1) Has this officer received any formal citizen complaints regarding the excessive use of force?; 2) Has this officer been accused in any way of racially offensive conduct, behavior, verbalizations, or complaints?; and 3) Has this officer been formally accused in any way of inappropriate sexual behavior, sexual harassment, sexual indiscretions, or sexually offensive conduct?

# **Procedures**

Archival records from an actuarial database maintained at the Matrix Corporation were examined to conduct the present study. Officers'

# This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

confidentiality was protected by using randomly assigned identification numbers selected by a third party, which were linked to the archival data. Postassessment field evaluations were conducted as per Institutional Review Board standards. No personal communication with participants was initiated.

The officers in the database were assessed post-initial offer. In other words, only candidates who had been hired by their respective agencies were subject to assessment; not all officer academy students. The candidates' employment offer was pending the assessment, of which there were three recommendations: 1) hire; 2) do not hire; or 3) hire with training in specific areas.

The dataset of this study was assessed for selection decisions as well as scores on specific indices. Files that did not contain a complete assessment were excluded from this study. Files that satisfied all inclusion criteria were also examined to determine if there was sufficient information available that related to the officers' post assessment employment. Information about post-test employment was obtained from multiple independent sources, including posttest assessments, supervisor ratings, incident reports, reprimands, and civilian complaints.

#### <u>Analysis Plan</u>

First, principal components analysis (PCA) with varimax was used to reduce the 352 demographic, background, behavioral observation, and psychometric variables (MMP1-2 T-scores) into 50 theoretical factors. Next, stepwise multiple regression analyses were used to determine which of the 50

factors best predicted the three civil liability indicators of the study: Excessive Force, Racially Offensive Conduct, and Sexually Offensive Conduct (See Figure 1). Objective post-hire supervisor ratings were used to measure liability indicators. Finally, confirmatory factor analysis (CFA) was used to assess the hypothesized model of relationships between observed and latent variables, as well as relationships among the latent constructs. Authors used a model development approach, whereby researchers tested the models using structural equation modeling (SEM) procedures, and then tested alternative models using changes suggested by SEM modification indexes (Anderson and Gerbing, 1988 and Schumacker and Lomax, 1996).



Figure 1: Diagram of steps used to reduce 352 observable variables into 50 components used to predict the civil liability indicators.

Results

Among the 50 factors derived from PCA, only five factors significantly increased R<sup>2</sup> when using three separate stepwise multiple regression analyses to predict Excessive Force, Racially Offensive Behavior, and Sexually Offensive Behavior. All factors were interpretable, with eigenvalues greater than one and multiple factor loadings above .40. Based on the factor loadings, the authors named the meaningful factors Evasiveness, Bizarre Mentality, Family Problems, Insubordination, and Prior Complaints. Table 1 contains a summary of the factors.

Tab pre Offe	le 1: Names, eigenvalues, and factor loadings of components t dicted Excessive Force, Racially Offensive Behavior, and Sexual ensive Behavior	hat y		
Evasiveness (Eigenvalue = 2.41)		Loadin q		
	Guardedness (BO)			
	Poor eye contact (BO)			
	Do you have tattoos? (SI)	.55		
	In arrears on alimony or child support (SI)	.41		
Bizarre mentality (Eigenvalue = 2.13)				
	Psychotic symptomatology (MMPI-2 t-score)	.58		
	Bizarre mentation (MMPI-2 t-score)	.54		
	Schizotypal characteristics (MMPI-2 t-score)	.48		
	Bizarre sensory experiences (MMPI-2 t-score)	.42		
Family Problems (Eigenvalue = 1.95)				
	Familial alienation (MMPI-2 t-score)	.74		
	Familial discord (MMPI-2 t-score)	.70		
	Family problems (MMPI-2 t-score)	.47		
Insubordination (Eigenvalue = 1.72)				
	Written reprimands, suspensions, or FFDE in prior Law Enforcement work? (H/BG)	.47		
	Number of written reprimands, suspensions, or FFDE. (H/BG)	.74		
	Employer warnings due to negligence. (H/BG)	.76		
Prior Complaints (Eigenvalue = 1.71)				
	Unjustified use of force within past 3 years (H/BG)	.61		
	Racial complaints within last 5 years (H/BG)	.74		
	Complaints of sexual harassment within the last 5 years (H/BG)	.79		

\*Factor loadings and eigenvalues estimated through principal component analysis with Varimax rotation and Kaiser normalization.

\*\*BO= Behavioral Observation Variable; \*H/BG=Historical/Background Variable;

SI= Structured Interview Variable.

# Excessive force.

Stepwise multiple regression analysis was conducted to assess the relative value and importance of the predictors for explaining Excessive Force. Evasiveness was entered at Step 1 and the contribution was statistically significant, F (1, 1630) = 18.13, p < .001. Prior Complaints entered the equation at Step 2 and the contribution was also significant, F (1, 1631) = 13.56, p< .001. At the final step, Bizarre Mentality entered and was significant to the equation, F (1, 1632) = 9.501, p< .001. Forty-seven additional factors proposed, but did not contribute to the variance nor add to the prediction of Excessive Force. Beta weights for the indicator variables were computed for the sample. Beta weight squares demonstrated that two variables were significant predictors of Excessive Force at the p < .001 level: For Evasiveness,  $\beta$  = .06, t (1, 1630) = 4.41, p < .001; and for Prior Complaints,  $\beta$  = .09, t (1, 1631) = 3.42, p < .001. Bizarre Mentality resulted in a negative beta that was marginally significant;  $\beta = -.05$ , t (1, 1632) = -1.97, p < .05.

Confirmatory factor analyses were conducted using Amos Version 4.0 (Arbuckle & Wothke, 1999) to test the hypothesized relationship between the latent variables, Evasiveness, Prior Complaints and Bizarre Mentality, and the dependent variable, Excessive Force. After modification indexes were used to reduce the effects of correlated error terms, fit indexes were examined. Figure 2 provides the results of this analysis. Most paths were significant at the .001 level. The fit of this model was very good, chi2 = 49.17, df= 40, p = .152, NFI = .99, IFI = .99, CFI = .90, RMSEA = .01, with a confidence interval of .00 to .02. The inverse relationship between Bizarre Mentality and Excessive Force was not confirmed in the model.



Figure 2: Structural equation model confirming the relationship between Evasiveness, Prior Complaints and Bizarre Mentality, and Excessive Force among police officers. Model originally derived from stepwise regression analyses. Manifest variables on the left are abbreviated with full descriptions in Table 1. All values are standardized estimates; \*p<.05; \*\*p<.001.

# Racially Offensive Behavior.

When using stepwise multiple regression analysis to explore factors related to Racially Offensive Behavior, only Prior Complaints significantly increased R<sup>2</sup>. Prior Complaints entered at Step 1 and the contribution was statistically significant, F (1, 1630) = 23.99, p < .001. Beta weight squares demonstrated that Prior Complaints was a significant predictor of excessive force:  $\beta$  = .12, t (1, 1630) = 4.90, p < .001.

Figure 3 provides the results of the confirmatory factor analysis for Racially Offensive Behavior. All paths were significant at the .001 level, with excellent model fit, chi2 = 1.08, df= 2, p = .58, NFI = .99, IFI = 1.00, CFI = 1.00, RMSEA = .00, with a confidence interval of .00 to .04.



Figure 3: Structural equation model confirming the relationship between Prior Complaints and Racially Offensive Behavior among police officers. Model originally derived from stepwise regression analyses. Manifest variables on the left are abbreviated with full descriptions in Table 1. All values are standardized estimates;\*\*p<.001.

# Sexually Offensive Behavior.

Stepwise multiple regression analysis revealed that Prior Complaints, Evasiveness, Insubordination, and Family Problems best predicted whether a police officer candidate will receive a complaint for sexually offensive behavior. Prior Complaints entered at Step 1 and the contribution was statistically significant, F (1, 1637) = 17.59, p < .001. Evasiveness significantly increased R<sup>2</sup> when entered into the equation at Step 2. The contribution of Evasiveness was also significant, F (1, 1636) = 13.61, p< .001. At the third step, Insubordination was entered, F (1, 1635) = 11.95, p< .001; and at the final step, Family Problems was entered, F (1, 1634) = 9.96, p< .001. Beta weights for all predictors were significant: For Prior Complaints,  $\beta$  = .10, t (1, 1637) = 4.16, p < .001; for Evasiveness,  $\beta$  = .08, t (1, 1636) = 3.11, p < .01; for Insubordination,  $\beta$  = .07, t (1, 1635) = 2.85, p < .01, and Family Problems,  $\beta$  = .05, t (1, 1634) = 2.00, p < .05.

Confirmatory factor analyses indicated a meaningful relationship between Prior Complaints, Evasiveness, Insubordination, and Family Problems, and Sexually Offensive behavior. Figure 4 illustrates the results of this analysis. Most paths were significant at the .001 level. The fit of this model was very good, chi2 = 32.45, df= 4, p = .86, NFI = .99, IFI = 1.01, CFI = 1.00, RMSEA = .00, with a confidence interval of .00 to .010. The path between Family Problems and Sexually Offensive Behavior was not confirmed in the analysis.



Figure 4: Structural equation model confirming the relationship between Evasiveness, Family Problems, Insubordination and Prior Complaints, and Sexually Offensive Behavior among police officers. Model originally derived from stepwise regression analyses. Manifest variables on the left are abbreviated with full descriptions in Table 1. All values are standardized estimates; \*p<.05; \*\*p<.001.

Table 2: Variables, F-tests, significance, and beta weights of Excessive Force,

Racially Offensive Behavior, and Sexually Offensive Behavior resulting from

stepwise multiple regression analyses.

Outcome	Variables	F-test	Sig.	β		
Excessive force						
<ul> <li>Step 1</li> </ul>	Evasiveness	F (1, 1630) =	р <	.06		
		18.13	.001			
<ul> <li>Step 2</li> </ul>	Prior Complaints	F (1, 1631) =	p <	.09		
		13.56	.001			
<ul> <li>Step 3</li> </ul>	Bizarre Mentality*	F (1, 1632) =	p < .05	05		
		9.501				
Racially Offensive Behavior						
<ul> <li>Step 1</li> </ul>	Prior Complaints	F (1, 1630) =	p <	.12		
		23.99	.001			
Sexually Offensive Behavior						
<ul> <li>Step1</li> </ul>	Prior Complaints	F (1, 1637) =	p <	.10		
		17.59	.001			
<ul> <li>Step 2</li> </ul>	Evasiveness	F (1, 1636) =	p < .01	.08		
		13.61				
<ul> <li>Step 3</li> </ul>	Insubordination	F (1, 1635) =	p < .01	.07		

		11.95			
•	Step 4	Family Problems*	F (1, 1634) = 9.96	p < .05	.05

\*Variable note confirmed through structural equation modeling.

#### Discussion

This study evaluated the integrity of an actuarial method for predicting civil liability indicators among police officer candidates. Specifically, this study assessed whether a police psychologist could predict Excessive Force, Racially Offensive Behavior and Sexually Offensive Behavior based on variables from a preexisting database of police officer profiles. The results of this study indicate that an actuarial approach to screening police officer candidates could offer a robust prediction of police behavior, and provide new insights into civil liability indicators.

Through analyzing behavioral observation, historical/background information, structured interviews and psychometric variables, the authors produced three structurally valid models. Each model provides a profile of officers who have engaged in significantly more problematic behaviors when compared to other officers. According to the results, officers who engaged in excessive force were more evasive in presentation and presented with infractions from previous employment. Officers with histories of sexually offensive behavior also presented with prior infractions and evasiveness, but were also more likely to have problems adjusting to family life. Having a history of offensive and volatile behavior was the only significant predictor of racially

#### This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

offensive behavior. For each civil liability indicator, past behavior was a strong predictor of future behavior.

The results of this study has far-reaching implications for police psychology policy and practice, the overall integrity of police departments, and protecting citizens' constitutionally granted civil liberties. As previously stated, police departments in the United States have a longstanding history of negligence and misconduct (Ogletree, Prosser, Smith, & Talley, 1994). The sheer number of lawsuits against individual police officers and police departments under Section 1983 warrants scrutiny at every phase of the law enforcement hiring and training process.

Through carefully examining police psychology practice, it appears that police psychologists use varying methods to screen out officers for severe psychopathology (Bartol, 1996; and Bergen, Aceto & Chadziewicz, 1992) but have done little to examine subtle personality nuances that may be statistically associated with negligent and volatile behavior. Furthermore, many police psychological assessments are subjective and prone to human judgment error.

This study has the potential to elevate standards of police psychology screening, effectively reduce civil liabilities and improve the overall integrity of private, city, state and federal law enforcement agencies. Establishing a uniform method to screen out 'bad cops,' and address the training needs of 'good' but imperfect cops, will improve psychologists' and police executives' confidence when making hiring decisions. Furthermore, improving screening

and training procedures can reduce the number of police officers who systematically profile minorities, make sexist comments to women, use force excessively, or otherwise violate the constitutional rights of citizens – ultimately mending the wedge between police and disenfranchised groups to produce a more functional society.

There are several limitations that must be considered within the context of the findings. First, since data are collected in an actual pre-employment situation, some law enforcement candidates may use impression management or deception during self-report procedures (Schlenker, 1980). Second, the findings of this study must take the general criticisms of actuarial methods into account. Since actuarial methods rely exclusively on factors found to have statistical predictive power, subjective appraisals are not examined. Finally, all of the participants of this study are from jurisdictions within the State of Louisiana. Therefore, although the theoretical population of this study is law enforcement candidates in the United States, the assessable population was police officers in the State of Louisiana. A specific limitation that limits the representativeness of the sample is the dearth of Latino participants. The participant pool however represents a diversity of officer candidates within Louisiana with a broad range of social, lifestyle and cultural variables. While the generalizability of the findings is diminished, the study has strong implications for police psychology procedures.

In conclusion, the proliferation of civil rights infractions among and lawsuits against police officers underscore the importance of developing a uniform method that not only screens out bad officers, but detects the training and supervision needs of average officers. This study is the first formal standardization of the only known actuarial method for selecting law enforcement personnel. Additional research is necessary to elevate standards of police psychology screening, effectively reduce civil liabilities, and improve the overall integrity of private, city, state and federal law enforcement agencies.

### References

- Albrecht, S., & Green, M. (1977). Attitudes toward the police and larger attitude complex: Implications for police-community relationships. Criminology, 15, 67-86.
- Anderson, J. C., & Gerbing, D. W (1988). Structural equation modeling in practice: A review and recommended two-step approach. Psychological Bulletin, 103, 411-423.

Arbuckle, J. L. (2001). Amos users' guide: Version 4. Chicago: Smallwaters.

- Bartol, C. (1996). Police psychology: then, now, and beyond. (Special Issue: The State of the Science and Art of Criminal Justice and Behavior) Criminal Justice and Behavior. 23, p70-89
- Bartol, C.R. (1991). Predictive validity of the MMPI for small-town police officers who fail. Professional Psychology: Research and Practice, 2, 127-132.
- Bergen, G., Aceto, R., & Chadziewicz, M. (1992). Job satisfaction of police psychologists. (Special Issue: Psychology of Policing). Criminal Justice and Behavior 19(3), p314-329
- Blau, T.H. (1994). Psychological services for law enforcement. New York: John Wiley & Sons.
- Bonacum, W.T. & McCrerey, P.W. (1985). Psychological screening and testing. Richmond, VA. Virginia Department of State Police.

Borrero, M. (2001). The Widening Mistrust Between Youth and Police. The Journal

of Contemporary Human Services, 82, p 399-420.

Brown v. Bryant Co., OK. US 5th 98-40877 (2000).

- Brown, L., & Wycoff, M. (1987). Policing Houston: Reducing fear and improving service. Crime & Delinquency, 33, 71-89.
- Browne, M. W., & Cudek, R. (1993). Alternative ways of assessing fit. In K. A. Bollen& L. J. Long (Eds.), Testing structrual equation models. Newbury Park, CA:Sage.
- Cohen J (1988), Statistical Power Analysis for the Behavioral Sciences, 2nd ed. Hillsdale, NJ: Erlbaum
- Cortina JM, Doherty ML, Schmitt N, Kaufman G, Smith RG. (1992). The "Big Five" personality factors in the IPI and MMPI: Predictors of police performance. Personnel Psychology, 45, 119-140.
- Coulton GF, Feild HS. (1995). Using assessment centers in selecting entry-level police officers: Extravagance or justified expense? Public Personnel Management, 24, 223-254.

Daubert v. Merrell Dow Pharmaceuticals, Inc., 113 S.Ct. 2786(1993).

- Davis, R. D. & Rostow, C. D. (2002). M-PULSE: Matrix-Psychological Uniform Law Enforcement Selection Evaluation. The Forensic Examiner, 11(11), 19-24
- Davis, R. D., Rostow, C. D., and Dixon, D. R. (2002, August). What Does Police Candidate Psychological Examination Tell Us?: An Analysis of Self-Report and Outcome Data. Symposium conducted at the APA Police & Public Safety Section Pre-conference, Chicago, IL.

- Dunham, R., & Alpert, G. (1988). Neighborhood differences in attitudes toward policing: Evidence for a mixed-strategy model of policing in a multi-ethnic setting. The Journal of Criminal Law and Criminology, 79, 504-521.
- Grove, W.M., Zald, D.H., Lebow, B.S., Snitz, B.F., & Nelson, C. (2000). Clinical versus mechanical prediction: A meta-analysis. Psychological Assessment, 12, 19-30.
- Hargrave, G.E., Hiatt, D., & Gaffney, T.W. (1988), F+4+9+CN: An MMPI measure of aggression in law enforcement officers and applicants. Journal of Police Science and Administration. 16(4), 268-273.
- Hargrave, G.F. & Berner, J.G. (1984). POST-psychological screening manual. Sacramento, CA. State of California, Department of Justice.
- Heaton RK, Grant I, Matthews CG, (1991). HRB Comprehensive Norms Computer Program. Par, Inc: Lutz, Florida.
- Hu, L., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), Structural equation modeling: Concepts, issues, and applications (pp. 76-99). Thousand Oaks, CA: Sage.
- Kraska, P. and V. Kappeler. 1997. "Militarizing the American police: The rise and normalization of paramilitary units." Social Problems, Vol. 44, No. 1.
- Lewis V. Goodie, 798 F. Supp. 382 (W.D.L.A 1992).
- Mattison, D. A., & Hakola, S. R. (1992). The availability of damages and equitable remedies under IDEA, Section 504, and 42 U.S.C. Section 1983 (IDELR special report No. 7). Horsham, PA: LRP Publications.

McCarthy, M. (1992) "Helpful" or "reasonably reliable?" Analyzing the expert witness's methodology under Federal Rules of Evidence 702 and 703. Cornell Law Review, 77(2), p350-392.

Messick, S. (1996). Validity of performance assessment. In Philips, G. (1996). Technical Issues in Large-Scale Performance Assessment. Washington, DC: National Center for Educational Statistics.

Ogletree, C. J., Prosser, M., Smith, A., & Talley, W. (1994). Beyond the Rodney King story: An investigation of police conduct in minority communities. Boston, MA: Northeastern University Press.

Perry, I. D. (1987). Policing police misconduct. Southern-Exposure, 15, 31--37.

Pope, Kenneth S., James N. Butcher, and Joyce Seelen 1993 The MMPI, MMPI-2, & MMPI-A in Court: A Practical Guide for Expert Witnesses and Attorneys. Washington, D.C.: American Psychological Association.

President's Commission on Law Enforcement and Administration of Justice

(1967). Task force report: The police. Washington, D.C. U.S. Government Printing Office.

Schlenker, B.R. (1980). Impression Management: The self-concept, social identity, and interpersonal relations. Monterey, C.A: Brooks/ Cole.

Schumacker, R. E., & Lomax, R. G. (1996). A beginner's guide to structural equation modeling. Mahwah, NJ: Erlbaum.

Scriener, E.M. (1994). The role of police psychology in controlling excessive force. National Institute of Justice Research Report. Washington, D.C. :NIJ Press.

- Terry, S. (1995). Expert try to pin down extent of police misconduct. New York Times, p. 33.
- U.S. Department of Justice. (1996). National data collection on police use of force. Washington DC: Author.

Weiss, W.U., Serafino G., & Serafino, A. (2000). A three year follow up of the performance of a class of state police academy graduates using the MMPI-2. Journal of Police and Criminal Psychology (in press).

Yang v. Hardin, 37 F. 3d 282 (7th Cir. 1994).

# Author Note

Ivory A. Toldson, Ph.D. is an assistant professor in the Counseling Psychology Department at Howard University, Washington, DC.

This project was supported by Grant No. 02-523702 awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. Points of view or opinions contained within this document are those of the authors and do not necessarily represent the official position of the U.S. Department of Justice.

Correspondence concerning this article should be addressed to Dr. Ivory Achebe Toldson Counseling Psychology Doctoral Program, Department of Human Development and Psychoeducational Studies, Howard University School of Education, 2441 4th Street N.W., Washington, DC 20059.