

Biographical Constructs for Predicting Employee Suitability

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The use of background investigation data in personnel screening is reviewed. Background investigations are routinely conducted on persons seeking positions of trust in law enforcement, the nuclear power industry, and military and civilian occupations requiring government-issued security clearances. The application of background investigation information in personnel screening differs in many important ways from biodata applications developed by psychologists. In this article, these differences are reviewed, and the construct and criterion-related validity of a survey-based measure are examined. This measure taps content domains typically explored in background investigations. Seven background factors were identified. The background scales showed acceptable reliability, informative interscale relationships, and useful levels of criterion-related validity.

Using background data as a predictor of human performance has a long history in psychology (Owens, 1976). Use of background data is based on the premise that an individual's past behavior and experiences are useful predictors of future behavior and experiences. The results of hundreds of studies have shown background data to be an effective predictor for a variety of human performance domains (for reviews, see Asher, 1972; Owens, 1976; Reilly & Chao, 1982). Although data from background investigations are routinely used for screening applicants for positions of trust, background investigation data have received little attention from personnel psychologists (Lipman, 1988; Overman, 1988). In this paper I review the differences between background investigations and the type of biodata applications (hereafter called *biodata inventories*) that are more familiar to personnel psychologists. Then, using a survey instrument that measures content domains typically explored in background investigations, I evaluate the construct and criterion-related validity of the background domains.

The first difference between biodata inventories and background investigations is the type of occupation for which screening is conducted. Biodata inventories have been used to screen applicants for a diverse set of occupations, including taxicab drivers, secretaries, airplane pilots, and managers. In contrast, background investigation data are primarily used when screening personnel for positions of trust in which integ-

riety and positive psychological adjustment are particularly desirable. Such occupations include law enforcement, private security industry, and the nuclear power industry as well as military and civilian positions that require government-issued security clearances.

A second distinction between the two approaches is the data collection methods used. Biodata inventories are almost always pencil-and-paper self-report measures. Although background investigations typically include pencil-and-paper measures such as questionnaires, background information is also obtained through applicant interviews and written or verbal communication with past employers, neighbors, and references. Additional information is sought from law enforcement agencies and credit bureaus.

Another difference between the two screening approaches is the criterion of interest. Although both biodata inventories and background investigations seek to identify capable applicants, the definition of *capable* for biodata inventories typically refers to a global job performance construct, often measured through a supervisor's rating. In contrast, background investigations define capable employees in terms of behavioral reliability, integrity, and personal adjustment.

The two screening approaches also differ in the manner in which background items are selected. For biodata inventories, items are included in the measure if they show an empirical relationship to the criteria. For background investigation data, the items are drawn from background domains with clear content validity for the prediction of behavioral reliability. Typical item domains cover experiences with drug use, criminal history, credit history, and membership in organizations seeking to overthrow the government.

Biodata inventories and background investigation data also differ in their placement on the sign-sample continuum (Wernimont & Campbell, 1968). Biodata inventories can span the continuum. Choice of college major has been used as a sign for predicting managerial success (Howard, 1986), whereas other biodata items (Have you ever been fired from a job for poor performance?) are clearly samples. In contrast, background investigation data are almost entirely found at the sample end of the continuum (Barge, Hough, & Dunnette, 1984).

An earlier version of this article was presented at the 96th Annual Convention of the American Psychological Association, in Atlanta, Georgia. This research was conducted while I was employed by the Defense Personnel Security Research and Education Center, Monterey, California. The opinions expressed in this article are mine and do not necessarily reflect those of my present or past employers.

This article has benefited from comments received from Douglas Rosenthal, Bruce Barge, Frank Schmidt, Hannah Rothstein, Richard Arvey, Janice Laurence, the editor, and an anonymous reviewer. I am particularly indebted to Stephen D. Steinhouse for sharing his knowledge and experience with this data base.

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When compared with biodata inventories, background investigation information primarily measures undesirable behavior. For example, credit history items typically focus on negative credit information. Thus, for those with no negative credit information, persons with little or no credit history are indistinguishable from those with established positive credit histories. Other background investigation domains are defined as having a truncated continuum. For example, for a background domain dealing with criminal arrests, the most favorable answer one can provide is to indicate no arrests. Thus, those who engage in socially undesirable behaviors that do not result in criminal arrest are indistinguishable from persons who refrain from any socially undesirable behaviors.

In contrast with the empirical scoring of biodata inventories, background investigation data are reviewed judgmentally, often using a rationally developed standard. For example, applicants for law enforcement jobs may fail the background screening if they have ever used a hallucinogenic drug (Barge et al., 1984). In brief, whereas biodata inventories result in an empirically based score continuum, background investigations result in a pass-fail decision based on a rationally developed scoring standard.

To date, researchers have paid little attention to background investigation data in personnel screening. No studies have examined the underlying constructs tapped by background investigation data, nor have any studies examined the criterion-related validity of background investigation information for predicting employee reliability. This study seeks to address this gap in the literature by identifying constructs measured in background investigations, examining the interrelations among measures of the constructs, and determining the value of the measures in predicting behavioral reliability in the workplace.

Although no analyses of background investigation data were found for this literature review, the analyses of the Educational and Biographical Information Survey (EBIS; Means & Perelman, 1984) are relevant. The EBIS is a self-report inventory that contains questions regarding educational experiences, drug and alcohol use, criminal activities, and driving record. Thus, this measure taps many of the content domains found in background investigations yet uses close-ended items and thus resembles a biodata inventory. Of the several studies that have examined this data set (Laurence, 1986; McDaniel, 1988; Means & Heisey, 1986; Means & Laurence, 1986; Means, Laurence, & Walters, 1984; Means & Perelman, 1984), the work of Steinhouse (1988) is the most similar to the present investigation. The purpose of the Steinhouse study was to evaluate the relationship between EBIS variables and military attrition. In the paradigm of traditional biodata research, the goal of the Steinhouse effort was to empirically key (Guion, 1965) the EBIS items against a criterion of interest (i.e., attrition from the military during the first 30 months of service). In an innovative departure from typical biodata studies, Steinhouse conducted a factor analysis of the keyed items to better understand the content of the scoring key. The item data that he factor analyzed were not the raw item responses, but the items' empirically derived keyed values. Steinhouse interpreted a six-factor solution. His first factor reflected general nonconformity and getting into trouble. The second factor reflected alcohol use and illegal drug use. Criminal offenses defined the third factor. The fourth fac-

tor reflected quitting behaviors (primarily from high school). The fifth factor was a high school achievement factor, and the sixth factor concerned employment experience.

This study extends and complements the research contribution of Steinhouse (1988) in three ways. First, it introduces personnel psychologists to the role of background investigations in personnel screening and compares this screening method with traditional biodata approaches. Second, this study explores the factor structure of the EBIS background data by using the item responses and not the empirically keyed values of the items with respect to a criterion. Although the Steinhouse factor analysis of the keyed items was both informative and innovative, it is unknown if the analysis of empirically keyed item values yields the same factor structure as the analysis of the item responses. Third, the criterion in this study is a behavioral reliability measure. The Steinhouse research focused on military attrition due to any cause (including behavioral reliability, medical problems, and family hardship).

Method

Sample

During the spring of 1983, the EBIS was administered to about 34,000 military applicants and 40,000 new recruits from all four services. Approximately half of the 34,000 applicants entered military service. About 700 persons took the EBIS as military applicants and once again after joining the service as recruits. This double administration permitted the calculation of test-retest reliabilities. For all other data analyses, the survey responses from the applicant administration for these twice-tested individuals were retained and the responses from the recruit administration were discarded. The criterion-related validity analyses were based on those military applicants who were administered the EBIS and who entered the service within 1 year of the EBIS administration.

Predictor

The EBIS data differ from most background investigation data in that the information is collected in a structured format (i.e., multiple choice questions), does not contain interview data or data from official sources such as police departments or credit agencies, and contains more school adjustment questions than are obtained in most background investigations. However, the data set does tap the most common data domains in background investigations and, thus, is well suited for an examination of the construct and criterion-related validity of background investigation data.

The EBIS item set contained 93 variables that were either ordinal or could be recoded as ordinal. Some of the observations had missing data on one or more of these variables. These missing data were imputed by using a distributional procedure (American Institutes for Research, 1980) to produce a data file with no missing data. This procedure imputes the missing data elements such that the resulting data file accurately reproduces the variances, covariances, and means of the original data file. The accuracy of the data imputation is enhanced when few data points require imputation. Observations with 12 or fewer of the 93 variables coded as missing were retained for imputation, resulting in an analysis sample of 29,697 applicants and 37,437 recruits.

Criterion

The employee suitability criterion for this study was defined as discharge from the military service for "failure to meet minimum behav-

ioral or performance criteria" within the first 30 months of service. This discharge category includes unsuitability discharges stemming from alcohol and drug problems, desertion, imprisonment, and "discreditable incidents" and other discipline problems, as well as dismissal from military training programs. The unsuitable discharge category does not include discharge from the service for medical reasons, dependency or hardship, or pregnancy. The reliability of this dichotomous criterion is unknown. For those military applicants who entered service within 1 year of completing the EBIS, 16.5% were discharged as unsuitable for military service during the first 30 months of service. The source of the both the EBIS data and the criterion data was the Defense Manpower Data Center.

Data Analysis

Exploratory factor analyses were conducted to derive homogeneous scales of background items. The internal consistency and test-retest reliability of the factor-derived scales were calculated. To display the relationships among the scales, a correlation matrix was calculated. The criterion-related validity of the scales was assessed through correlational and logistic regression analyses.

Results

The 93 items were factor analyzed using the SAS (Version 5.16) factor procedure for the principal-factors solution (Gorsuch, 1983). Squared multiple correlations were used as prior communality estimates. On the basis of visual examination of the scree plot, several factor solutions were examined, with various numbers of factors, as suggested by Ford, MacCallum, and Tait (1986). The factors were rotated toward simple structure using the promax procrustean rotation, which alters an orthogonal rotation (here a varimax rotation) to allow the best-fitting least-squares oblique solution (SAS Institute, 1985).

Seven factors were retained on the basis of the scree plot and the favorable interpretability of this solution. Those items loading with an absolute value of .30 or higher were retained for interpretation in the final factor solution and for the calculation of factor scales (53 items were retained). The factor scale scores were calculated by summing items loading on their factor with an absolute value of .30 or greater. Table 1 displays the factor labels, the description of the factors' content, the number of items retained in the factor scale, the alpha reliability, and the test-retest reliabilities of the factor scales.

Table 2 presents the intercorrelations among the factor scales. Also included are correlations between the factor scales and the Armed Forces Qualification Test (AFQT; a cognitive ability measure). Data on the AFQT were obtained from the Defense Manpower Data Center. AFQT scores were not available for military applicants who did not enter the service.

For each scale, Table 3 displays the means, standard deviations, and skewness statistics for the entire study sample, the full applicant sample, the applicant accessions, the other applicants, and the recruit sample. For each of these categories, I have broken out the results by gender. The factor scales were standardized relative to the full applicant sample with a mean of 5.5 and a standard deviation of 2.0.

For the subsample of applicants who entered the service within 1 year of completing the EBIS ($N = 9,326$), Pearson correlation coefficients were calculated between the factor scales, plus AFQT, and the dichotomous unsuitability attrition crite-

riion. To estimate the combined predictive power of the factors, two logistic regressions analyses were conducted. In the first analysis, the seven factors were used as independent variables. In the second analysis, AFQT was added as an eighth independent variable. Validities corrected for the effects of range restriction are also presented (see Table 4).

Discussion

The seven factors derived from the factor analysis are readily interpretable. Items with high loadings on the first factor reflect grade and high school suspensions and propensity for getting into trouble at school (e.g., fighting). A high score indicates a history of school suspensions and fighting. The second factor reflects illegal drug use (both marijuana and "hard" drugs). The items tap frequency of drug use and the age at which drugs were first used. A high score on the Drug Use scale indicates drug use. Reasons for considering quitting school are the focus of the third factor. A high score on this scale indicates that the person often thought about quitting school and completed fewer years of formal education than others. The fourth factor taps employment experience outside of the parental home. A high score on the Employment Experience scale indicates that the person held a paying job outside of the home, held the job for a long time relative to others' job tenure, and had left a job because the pay was low, the chances of getting ahead were few, or because a better job was obtained. The fifth factor measures school grades and participation in school clubs, with a high score indicating that the person received good grades and participated in school clubs. Adult and juvenile criminal arrests and convictions define the sixth factor (high scores indicate a criminal background). The seventh factor appears to measure socioeconomic status (SES), with a high score indicating a high SES level. Factors 3, 5, and 7 are similar to background areas found in traditional biodata inventories. Factors 1 (School Suspension), 2 (Drug Use), and 6 (Legal System Contacts) are content areas seldom tapped in traditional biodata inventories. Factor 4 (Employment Experience) primarily measures whether the person held a paying job outside the home. Although traditional biodata inventories often assess employment experiences, the employment items in the EBIS have a more narrow scope than those found in many biodata inventories.

The seven factor-derived scales appear to be relatively independent. The three school-related scales are the most highly intercorrelated (.25-.35). The Drug Use scale yields its highest correlation with the Employment Experience scale. The SES scale is unrelated to most of the other scales and shows its highest correlation (.19) with the Employment Experience scale. AFQT yields its highest correlation with the Grades and School Clubs scale (.32).

Except for Factor 7, this factor structure is similar to one reported by Steinhouse (1988). Before his factor analysis, Steinhouse had removed several items from further analysis when they displayed very little value in predicting attrition. This screening process removed several of the SES-related items from his item pool before his factor analysis, and it is probably responsible for the failure of a SES factor to emerge in his data. The similarity between the two factor analyses suggests, at least for this data set, that the factor structure of the items is very

Table 1
Factor Analysis and Reliability Results for the EBIS Data Set

Factor label	Description	No. of retained items	Reliability	
			Alpha	Test-retest
1. School Suspension	Suspended from school, fought in school	7	.81	.80
2. Drug Use	Frequently used drugs, began use at early age	9	.79	.46
3. Quitting School	Considered quitting school, reasons for wanting to quit school, years of schooling	8	.49	.86
4. Employment Experience	Worked outside the home, reasons for leaving jobs	9	.60	.75
5. Grades and School Clubs	School grades, participated in school clubs	8	.67	.82
6. Legal System Contacts	Arrested or convicted for offenses as juvenile or adult	7	.51	.55
7. Socioeconomic Status	Parents highly educated, high family income when teenager, father's discipline strict, father in home	5	.63	.82

Note. EBIS = Educational and Biographical Information Survey. Descriptions depict attributes for high scores on factor scales.

similar regardless of differences in the type of items keyed (raw item responses vs. keyed item responses).

The internal consistency and test-retest reliabilities presented in Table 1 are informative. The Drug Use scale shows good internal consistency reliability (.79) but poor test-retest reliability (.46). This suggests that persons can be consistent in their response to a set of drug use items during one administration, but may alter their responses across administrations. Of the seven scales, the Drug Use scale and the Legal System Contacts scale both concern illegal activities. These factors show the weakest test-retest reliability, suggesting substantial response distortion. Except for the Drug Use and School Suspension scales, the test-retest reliabilities are higher than the internal consistency reliabilities.

The skewness statistics in Table 3 indicate that several of the factor-derived scales show departures from normality. The Drug Use and Legal System Contacts scales show the greatest skew. This skewness contributes to the low test-retest correlations of the two scales. Nonnormality is inherent in some of the content domains. For example, the most favorably one can score on the Legal Systems Contacts scale is to indicate zero arrests and convictions. Because most of this sample (and the population of employable adults) has never been arrested or convicted of a criminal offense, the bulk of the sample lies at one end of the scale's distribution. Likewise for the Drug Use scale, the most favorably one can score is to indicate no drug use.

Table 3 also indicates gender differences. Consistent with

Table 2
Correlations Among EBIS Scales and AFQT

	1	2	3	4	5	6	7	AFQT
1. School Suspension	—							
2. Drug Use	.23	—						
3. Quitting School	.34	.14	—					
4. Employment Experience	.08	.21	-.03	—				
5. Grades and School Clubs	-.25	-.10	-.35	.06	—			
6. Legal System Contacts	.14	.15	.10	.05	-.07	—		
7. Socioeconomic Status	-.02	.06	-.11	.19	.13	-.01	—	
AFQT	-.11	.07	-.14	.25	.32	-.01	.24	—

Note. EBIS = Educational and Biographical Information Survey; AFQT = Armed Forces Qualification Test. The sample size for all correlations between factor scales is 66,475. The sample size for all correlations with AFQT is 48,734. AFQT scores are not available for military applicants who did not enter the service. A sample of persons took the EBIS as military applicants and once again after joining the service. For this sample of twice-tested persons, the survey responses from the recruit administration were deleted for these analyses. All coefficients with an absolute value of greater than .01 are significant at $p < .0001$. All coefficients equal to .01 are significant at $p < .01$.

Table 3
Mean, Standard Deviation, and Skewness of Each Factor Scale for All Applicants, Applicant Accessions, Other Applicants, and All Recruits

	Factor						
	1	2	3	4	5	6	7
All applicants							
Male (<i>N</i> = 24,085)							
<i>M</i>	5.66	5.52	5.62	5.61	5.35	5.57	5.55
<i>SD</i>	2.03	2.02	2.06	1.98	1.99	2.16	1.98
Skew	0.78	2.91	0.81	-0.55	0.06	5.70	-0.17
Female (<i>N</i> = 5,412)							
<i>M</i>	4.78	5.40	4.95	5.02	6.16	5.19	5.27
<i>SD</i>	1.67	1.90	1.56	2.04	1.90	0.96	2.07
Skew	1.44	3.04	0.45	-0.46	0.03	8.85	-0.11
Applicant accessions							
Male (<i>N</i> = 8,073)							
<i>M</i>	5.64	5.52	5.46	5.54	5.50	5.40	5.70
<i>SD</i>	2.02	1.92	1.83	1.97	1.93	1.61	1.94
Skew	0.82	2.78	1.07	-0.54	0.06	5.83	-0.22
Female (<i>N</i> = 1,199)							
<i>M</i>	4.71	5.47	4.79	5.14	6.44	5.11	5.44
<i>SD</i>	1.58	2.02	1.47	2.00	1.86	0.53	2.03
Skew	1.55	3.07	0.32	-0.44	0.01	9.20	-0.15
Other applicants							
Male (<i>N</i> = 16,012)							
<i>M</i>	5.67	5.53	5.70	5.64	5.28	5.67	5.48
<i>SD</i>	2.04	2.08	2.17	1.97	2.02	2.38	1.99
Skew	0.77	2.95	0.69	-0.55	0.07	5.41	-0.14
Female (<i>N</i> = 4,213)							
<i>M</i>	4.81	5.38	4.99	4.99	6.08	5.21	5.22
<i>SD</i>	1.70	1.87	1.58	2.04	1.90	1.05	2.08
Skew	1.46	3.02	0.48	-0.46	0.04	8.31	-0.10
All recruits							
Male (<i>N</i> = 32,524)							
<i>M</i>	5.61	5.70	5.44	6.44	5.66	5.53	5.82
<i>SD</i>	1.96	2.13	1.85	1.72	1.98	2.07	1.90
Skew	0.92	3.10	1.14	-0.87	0.49	7.60	-0.26
Female (<i>N</i> = 4,773)							
<i>M</i>	4.62	5.41	4.85	5.85	6.44	5.19	5.49
<i>SD</i>	1.47	1.75	1.40	1.83	1.89	0.97	2.01
Skew	1.68	3.44	0.42	-0.72	-0.04	9.03	-0.14

Note. All applicants = those who completed the EBIS (Educational and Biographical Information Survey) as military applicants. Of these 29,697 applicants, 200 declined to identify their sex. All scales are standardized such that for the full all-applicants sample the mean of each scale is 5.5 and the standard deviation is 2.0. Applicant accessions = those who entered the military service within 1 year of completing the EBIS as military applicants. Of these 9,326 applicants, 54 declined to identify their sex. Other applicants = those who did not enter military service within 1 year of completing the EBIS as military applicants. Of these 20,371 applicants, 146 declined to identify their sex. All recruits = those who completed the EBIS as military recruits. Of these 37,437 recruits, 140 declined to identify their sex.

findings in the criminal justice literature (Wilson & Herrnstein, 1986), women tend to engage in less delinquent behavior than men. The higher mean scores for men on Factors 1 through 3 and Factor 6 indicate that men are less well adjusted than women with regard to school suspensions, drugs, quitting school, and legal system contacts. The higher mean score for men on the Employment Experience scale indicates that the men were more likely than women to hold paying jobs outside

the parental home. The lower mean score for men on Factor 5 indicates that men report poorer grades and less participation in school clubs than women. The men tend to have slightly higher SES background than the women.

The observed validities of the seven scales, and AFQT for predicting unsuitability attrition, were meager (.01 to .15). Validity was not substantially improved through correction for range restriction (.01 to .17). The greatest amount of range re-

Table 4
Validity of EBIS Scales and AFQT in Predicting
Unsuitability Discharges

Factor/predictor	Observed		Corrected ^a <i>r</i>
	<i>r</i>	<i>p</i>	
1. School Suspension	.14	<.0001	.14
2. Drug Use	.08	<.0001	.08
3. Quitting School	.15	<.0001	.17
4. Employment Experience	.02	>.01	.02
5. Grades and School Clubs	-.09	<.0001	-.09
6. Legal System Contacts	.07	<.0001	.09
7. Socioeconomic Status	-.01	>.01	-.01
AFQT	-.06	<.0001	NA
Logistic regression (7 EBIS factors)	.19 ^b		
Logistic regression (7 EBIS factors + AFQT)	.20 ^b		

Note. *N* = 9,336. EBIS = Educational and Biographical Information Survey; AFQT = Armed Forces Qualification Test. NA = not available.
^a Corrected for range restriction. ^b See Harrell (1986) for details concerning the calculation of the observed coefficient, *R*, in logistic regression.

striction was found for the Quitting School and Legal System Contacts scales. The logistic regression using the seven EBIS scales as predictors yielded a validity of .19. The AFQT added to the predictor set raised the validity to .20.

The Quitting School and the School Suspension scales yielded the highest validities. The predictive value of the scales may be more related to their assessment of life adjustment problems rather than cognitive ability. The cognitive ability measure (AFQT) was only correlated $-.06$ with the criterion. The validity of the Grades and School Clubs scale ($-.09$) falls between that of the AFQT and the Quitting School and School Suspension scales. The observed validities of the Drug Use and Legal System Contacts scales are .08 and .07. The validity of these two scales is dampened by their poor test-retest reliability and the severe skewness of the scales. The validity of the Employment Experience scale is very low (.02). Developers of bio-data inventories often include employment experience items in their instruments, presumably due to their validity. The low validity of the Employment Experience scale in this research is probably due to both the limited breadth of the scale (i.e., holding a paying job outside the parental home) and the limited employment experience of military applicants. The SES factor shows no validity for the behavioral reliability criterion.

Although the validity of the optimally weighted background composite is at acceptable levels (.19), characteristics of the criterion serve to dampen the validity. The reliability of the unsuitability discharge criterion is unknown, the distribution of the criterion is dichotomous and very skewed, and the relations between the criterion and other behavioral reliability criteria are unknown. As with any area of personnel research, an improved criterion is likely to yield higher validities.

The validity of the scales may also be limited by a source of range restriction that is inestimable in this data set. Although comparisons of the applicants with the accessions showed little

evidence of range restriction, the applicant pool was screened by military recruiters before the administration of the EBIS. Those individuals who the recruiters judged to be very poor risks for the service were not referred to the testing sites. This procedure screened out some of the most unacceptable potential applicants and probably introduced some level of range restriction in the applicant pool.

Limitations of the Present Study

Although this study makes a contribution to cumulative knowledge on the relations between background information and employment suitability, the limitations of the study should be made explicit and the effect of the limitations on the results should be estimated where possible. Five caveats are offered.

First, although the EBIS survey shares many of the data elements of a background investigation, the instrument is solely a self-report measure and thus does not include the diversity of information sources tapped in a typical investigation. Background investigations usually supplement self-report information obtained from questionnaires and applicant interviews with data obtained from official records (e.g., law enforcement agencies, credit bureaus), past employers, neighbors, and references. In addition to the value of information collected from diverse sources, the applicant's awareness that information is being collected from diverse sources may change the applicant's response set toward a self-report measure. Applicants are likely to self-report more accurately their undesirable behavior when they are aware that their responses could be verified through information collected from other sources (McDaniel & Jones, 1988). In brief, this analysis is limited because of the sole reliance on self-report data.

Second, the EBIS survey undersampled background information concerning motor vehicle driving history and financial credit data. Background investigations usually obtain a person's motor vehicle history from self-reports and from records of law enforcement and government motor vehicle agencies. Information collected includes number and type of parking and moving vehicle violations and the possession or revocation of driving privileges. The EBIS survey did not solicit any information concerning credit history. Background investigations typically collect self-report data and credit agencies' records on financial assets and liabilities.

Third, many of the EBIS items are self-report measures of illegal acts or socially undesirable behaviors. One can expect some systematic distortion of the respondents' answers in the direction of socially desirable responses. The low test-retest reliabilities for the Drug Use and Legal System Contacts scales support the hypothesis that nontrivial amounts of response distortion are present. The effect of this pattern of distorted responses is to limit the variance of the item responses and thus to underestimate the true relationship between the background information and employment suitability.

Fourth, military occupations differ from civilian occupations. For example, in the civilian sector, failure to follow the instructions of one's supervisor may result in some adverse action (e.g., reprimand, firing). In the military, the same action may result in a court martial and a prison sentence. Conversely, in civilian firms strongly motivated by profit-making, margin-

ally suitable employees may be fired. In the military, a person with a similar level of suitability may be reassigned to a less responsible position. In contrast with the civilian sector, in which one may quit one's job, military personnel who wish to leave service may have difficulty quitting. A military recruit who would not normally engage in irresponsible behavior may engage in such behavior with the intent of facilitating a discharge from the service.

Fifth, this study's sample is drawn from a population that differs systematically from other populations of interest. The population of military recruits is young, predominately male, and seldom has education beyond high school. The relative youth of this sample limits the amount and breadth of background experiences that the respondents have obtained.

Suggestions for Future Research

Future research on the development and validation of background investigations may find value in expanding the breadth of the content domains measured. Most background investigations focus on the negative end of the background continuum. Thus, the measures have limited ability to distinguish between persons with very desirable background experiences from those with more neutral background experiences. One would expect that background measures that focus on both positive and negative aspects of background experience would yield better validities.

Future evaluations of background investigation data need to go beyond self-report data and examine the predictive value of information obtained from other sources including police, motor vehicle, and credit agencies, as well as data collected in neighborhood, employer, and reference checks. The reliability and validity of background information may vary by the source of the information. For example, a past employer's appraisal of a person's drug use behavior may have greater predictive validity than self-reports of drug use. Job performance criteria emphasizing behavioral reliability, integrity, and psychological adjustment are also needed to more appropriately evaluate the criterion-related validity of background investigation information.

In this article I have compared background investigation data with the type of background data most frequently used by personnel psychologists. Although the analyses are limited in several ways, the results indicate that background investigation data can be grouped into meaningful background scales. The background scales generally show adequate reliability, informative interscale correlations, and useful levels of criterion-related validity. This study suggests that background investigation data are worthy of increased attention by personnel researchers.

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Received August 12, 1988

Revision received June 5, 1989

Accepted June 6, 1989 ■