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From the Editor

Dear Members,

In this issue the Journal strives to provide new scholarship from top scholars in the discipline. For example, in *Doctoral Programs in Criminal Justice and Criminology: a Meta-Analysis of Program Ranking*, Dr. Jaya Davis and Dr. Jon Sorensen present a ranking of criminal justice/criminology doctoral program which incorporates the results from prior studies to offer a clear description of program ranking in the U.S. Implementing meta-analysis techniques, the authors find that the relative rankings of programs tend to be fairly stable in that the top-ranked programs generally hold above-average positions across studies, while mid- to lower-ranked programs tend to similarly hold their overall positions.

In *Self-Protective Identity Theft Behaviors of College Students: An Exploration Using the Rasch Person-Item Map,* Dr. George Higgins et al., utilize responses to a self-report survey of nine self-protective behaviors and performs Rasch model analysis for scaling and explores the self-protective behaviors that college students use to guard against identity theft. The results indicated that four items are difficult for the students to endorse, specifically, making purchases over the phone, giving out personal information over the phone, contacting organizations that you deal with to limit security risks, and giving out social security numbers.

In *Bite This! The Role of Bite Mark Analysis in Wrongful Convictions*, Dr. Roger Metcalf et al., exhibit how bite mark evidence has been admitted on an *ad hoc* basis by courts. The authors suggest that recent high-profile reversal of bite mark cases upon DNA analysis could signal a change and demonstrate that bite mark evidence, though still relevant, is not as reliable as previous courts have suggested. In *Rape Lore in Correctional Settings: Assessing Inmates' Awareness of Sexual Coercion in Prisons*, Dr. Worley et al., explores whether gender, race, age, sexual orientation, and longer exposure to prison life have an effect on inmate awareness of rape in correctional settings. Lastly, in *Reflections from the One-Percent of Local Police Departments with Mandatory Four-Year Degree Requirements For New Hires: Are They Diamonds in the Rough?*, Dr. Diana Bruns provides an exploratory analysis which provides the possible reasoning behind the small number of police departments which require a four-year degree.

We are very fortunate to have Dr. Craig Hemmens review three books which examine Texas prisons from very different perspectives. *Texas Tough: The Rise of America's Prison Empire* by Robert Perkinson examines how Texas prisons dealt with the contentious issue of racial segregation. *Walking George: The Life of George John Beto and the Rise of the Modern Texas Prison System* by David M. Horton and George R. Nielsen is a biography

of the renowned Texas prison administrator, George Beto. First Available Cell: Desegregation of the Texas Prison System by Chad R. Trulson and James W. Marquart provides a general history of the Texas prison system. All three book reviews provide a compelling piece of the mosaic we call the Texas prison system.

Sincerely,

Roger Enriquez, J.D.
Editor, Southwest Journal of Criminal Justice

REVIEWER ACKNOWLEDGMENTS

DOCTORAL PROGRAMS IN
CRIMINAL JUSTICE AND CRIMINOLOGY:
A META-ANALYSIS OF PROGRAM RANKING

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Abstract

A body of literature has been produced over the last three decades evaluating criminology and criminal justice education outlets. Research productivity, quality, and peer appraisals offer varied methods in determining prestige of individual programs. In order to synthesize this research into a more useable format, a meta-analysis was performed on studies ranking criminal justice/criminology doctoral programs. The findings reveal that rankings of programs tend to be fairly stable. Variance is observed, however, with type of method employed in measuring program quality.

Key words: citation analysis, doctoral programs, peer assessment, publication productivity, scholarly productivity

INTRODUCTION

Early efforts to evaluate criminal justice education stemmed from questions regarding academic legitimacy (Pearson et al., 1980; Sherman, 1978; Wolfgang, Figlio, & Thornberry, 1978). The Joint Commission on Criminology and Criminal Justice Education and Standards stated the paramount need of criminal justice education was to expand its emphasis on research (Ward & Webb, 1984). The creation of, rather than simply the dissemination of, knowledge became the field's focus (Sorensen, Patterson, & Widmayer, 1992). Since that time, academic criminal justice has "come of age," experiencing phenomenal growth in its knowledge base (Clear, 2001). Evaluations related to the production of knowledge have proceeded coextensively with this growth in the field. Laub (2004) laments that "publication counts, citation counts, the amount of external funding generated, and departmental rankings and so forth" (p. 3) have

become central concerns in the fields of criminology and criminal justice. Although energy spent on these types of evaluations on these types of evaluations may detract from the spirit and excitement of passionate criminological thought, they serve pragmatic functions. Program rankings are used to attract prospective students and faculty, and to secure financial support for programs (Frost, Phillips, & Clear, 2007; Walker & Raptolpoulos, 2008).

Because of their role in training scholars and producing knowledge, institutions housing doctoral programs are often looked to as "significant others" in the discipline (Greene, Bynum & Webb, 1985). Studying influential programs is especially informative because they disseminate beliefs and ideas that "guid[e] the direction and parameters of the field" (DeZee, 1980, p. 9). It is not surprising when general studies of productivity, peer reviews, or citation analyses are conducted that doctoral programs and their faculty often come out on top. Given their place in the field, it is also not surprising that most studies of program quality have focused on doctorate-granting programs. While numerous studies have been completed during the past three decades, the ranking of doctoral programs is not immediately clear due to the variety of methods and measures employed. The purpose of the current study is to summarize available program rankings using meta-analytic techniques.

PREVIOUS STUDIES

Early evaluations of the quality of doctoral programs in criminal justice and criminology relied on peer review, faculty members' journal publications, and citations to faculty publications (DeZee, 1980; Fabianic, 1979; Greene et al., 1985; Parker & Goldfeder, 1979; Thomas & Bronick, 1984). Since that time, faculty journal publication has become the preferred measure in evaluating programs (Fabianic, 2001; Fabianic, 2002; Kleck, Wang, & Tark, 2007; Sorensen, 1994; Sorensen, Patterson, & Widmayer, 1992; Sorensen & Pilgrim, 2002; Steiner & Schwartz, 2006; Taggart & Holmes, 1991). While less common, citations to faculty publications (Cohn & Farrington, 1998; Sorensen et al., 1992) and peer assessments (U.S. News and World Reports, 2008) are still being used to measure program prestige. A newer arena of evaluation concerns the productivity of doctoral program graduates (Cohn, Farrington, & Sorensen, 2000; Fabianic, 2001; Steiner & Schwartz, 2007). Below, each of these types of evaluation is briefly reviewed.

Peer Assessment

Peer assessment studies reflect general opinions held by collections of people about the relative reputations of doctoral programs (Fabianic, 1979). The primary strength of these studies is that they incorporate an amalgam of factors in assessing prestige. Peer reviews typically involve asking criminal justice educators to rate various criminal justice and criminology (CJC) programs on a predetermined scale or to rank the top programs. In the first published evaluation of CJC programs, Fabianic (1979, p. 139) asked a random sample of ACJS members and all office holders in a regional or state criminal justice educational organization to rate doctoral

programs as: "Distinguished (5), Strong (4), Adequate (3), Marginal (2), Not Sufficient to Provide Acceptable Training (1), and Insufficient to Judge (0)." With the exception of Greene et al. (1985), who asked respondents to list the top five CJC programs, the remaining peer reviews followed a format similar to Fabianic's initial study (DeZee, 1980). In an ongoing program which incorporated CJC programs in their 2005 survey, U.S. News and World Report (USNWR) sent four surveys to senior faculty and administrators at each of the thirty-two U.S. programs listed as members of the Association of Doctoral Programs in Criminology and Criminal Justice (ADPCCJ). Respondents were asked to rate academic quality of the program at each institution as: "outstanding (5); strong (4); good (3); adequate (2); or marginal (1)" (USNWR, 2008).

The inherent subjectivity of peer assessment has led to criticism concerning bias in ranking certain programs higher based on a "halo effect" when programs are housed at top universities, the presence of "academic stars" on the faculty, size of faculty, and degree-granting program of the rater (Fabianic, 1979). In comparing resultant ratings from the USNWR with their own ranking, Kleck et al. (2007) found "at best, only a modest relationship to the actual scholarly productivity of the faculty of the programs" (p. 402). Further, there was a closer correlation between earlier productivity studies and the USNWR rankings, indicating a lag of approximately a decade for perceived program quality. Nonetheless, peer reviews add a perceptual dimension, typically referred to as prestige, to the measurement of program quality.

Citations to Faculty Publications

Citation analyses are often touted as the best gauge of the quality of faculty members' publications. The logic is that the most influential works in the discipline will receive the greatest number of citations (Cohn & Farrington, 2008; Wright, 2002). Extending this logic, programs whose faculty members are cited most often, on average, are considered to be the most influential and hence highest quality. As one measure of the quality of graduate programs in criminal justice, DeZee (1980) used a citation count from five introductory CJC texts, those most often assigned to introductory classes by survey respondents. The same approach was used by Sorensen et al. (1992) in counting citations to faculty members' publications in forty-three introductory CJC texts published during 1986-1991. An argument against using textbooks as the source of citations is that production factors may be more important drivers of citation practices than scholarly influence. References in textbooks may also be more dated due to publication lags and failure of authors to fully update materials in subsequent editions.

Another approach that addresses those criticisms to some degree is to utilize journals as the source of citations. Cohn and Farrington (1998) counted faculty members' citations in six "major" journals during 1991-1995. In the broadest evaluation of this type, Thomas and Bronick (1984) counted faculty members' citations in the Social Science Citation Index (SSCI) during 1979-1980. In each of the studies, citations were totaled by department, and then divided by the number of faculty to obtain the average number of citations. In Thomas and Bronick's

study the measure was refined further by taking into account the number of experience years (since graduation) per faculty member.

Assessments based on citation analysis are not without problems. Citation analysis focuses on quantity rather than the nature of the citation; any type of citation to article, whether positive, negative, or neutral, is included. Depending upon the popular issues of the time period included in the study, some articles will naturally be cited more than others because they focus on the "hot topic du jour" regardless of the quality of the research. Undetected mistakes in spellings of authors' names can affect results. Older works will be cited more often than newer research causing a definite lag in favorable rankings. Finally, citation analysis requires a subjective judgment regarding which citations are countable and in the selection of the source from which citations are gathered.

Faculty Members' Publication Productivity

Refereed articles are considered the "coin of the realm" of publications in academe (Kleck et al., 2007). For programs, publishing heavily in journals is viewed as an "indicator of scholarly activity and of an active, productive faculty" (Fabianic, 2002, p. 550). Graduate students are warned to "publish or perish" upon orientation to doctoral programs, and faculty promotion and tenure hinges, mainly, on refereed journal publications. The "objectivity" of this method of evaluation is appealing to researchers, promotion and tenure boards, and hiring committees. It is logical, then, that studies of faculty members' productivity based on journal publications is the most widely used and replicated method to address program ranking.

Parker and Goldfeder (1979) conducted the first analysis of publication productivity among faculty members of criminal justice graduate programs. The top CJC journals were selected through an assessment by program chairs. Programs were ranked by the raw number of publications in these selected journals during July 1972 through June 1977. Other studies have used a similar methodology either by attributing articles in select journals to the top institutions without specifying the programs in advance (Fabianic, 1981; Sorensen, 1994; Sorensen & Pilgrim, 2002) or by counting particular programs' faculty publications in them (Cohn & Farrington, 1998; Steiner & Schwartz, 2006). Whereas the former studies credit the total number of articles to the institution as a whole, the latter provide an average number of publications per faculty member for each doctoral program. Another approach includes a broader array of journals in the publication count (Fabianic, 2002), typically weighting them by their level of prestige garnered from peer ratings (DeZee, 1980; Sorensen et al., 1992). In the most recent study of this type, Kleck et al. (2007) counted the number of journal articles published by doctoral program faculty in 256 journals included in the Web of Science (WOS) and Criminal Justice Periodical Index (CJPI) databases during January 2000 through April 2005. When available, article weightings were based on previous journal prestige assessments (Sorensen, Snell, & Rodriguez, 2006; Sorensen et al., 1992).

Although possibly the most objective measure used, criticisms remain that articles published in particular journals are uneven in their influence on the field (Cohn & Farrington,

1998). Further, acceptance of articles may be biased based on the name recognition of authors, their affiliation, or editorial favoritism extended to colleagues. Even assuming that journal ratings could be considered fair proxies of the quality of articles contained within, the procedures used to rank journals remain subjectively determined by peer assessments. An additional problem with these rankings results from the overall low number of annual publications per active faculty member; highly productive faculty members can have a disproportionate impact on school ranking (Kleck et al., 2007).

Program Graduates' Publication Productivity

Cohn, Farrington, and Sorensen (2000) began a new trend in evaluation of program quality, by examining the publication productivity of doctoral program graduates. Similar to studies of faculty publication productivity, journal articles cataloged in the CJPI were tabulated for graduates from CJC doctoral programs during 1988-1997. Fabianic (2001) identified the educational backgrounds of authors publishing in eight CJC journals during 1991-1995. Most recently, Steiner and Schwartz (2007) tabulated graduates' average yearly number of articles published in nine prestigious CJC journals for doctoral programs that had conferred at least ten degrees through 2004.

Most of the criticisms of faculty productivity studies similarly apply to these studies as well. In addition, the fact that not all graduates enter academia causes an issue with the denominator employed in the studies of program graduates. For those employed as practitioners instead of educators, there may not be any incentive to publish (Cohn et al., 2000). Even for those employed as academics, the urgency to publish will depend on the level of institution in which the graduate finds employment. While differential levels of academic placements could be seen as resulting from the training received and thus not a confounding influence on resulting publications, another problem remains. The potential for "academic stars" to skew assessment results is more likely when studying program graduates than when studies are restricted to faculty members teaching in doctoral programs (Cohn et al., 2000; Steiner & Schwartz, 2007).

The variability in measurements has produced inconsistency in program ranking, leaving intended audiences with no clear answers. This study was conducted in the hopes of clearing up some of this ambiguity by offering a ranking which conglomerates the results from prior studies relying on techniques borrowed from meta-analysis.

METHODS

Study selection

To be eligible, a study had to include a ranking of American CJC Ph.D. programs based on quantitative measures of program quality. Doctoral programs eligible for analysis included those listed in the 2008 membership directory of the ADPCCJ. Programs which offered

criminology or criminal justice as an area of specialization within a larger discipline were excluded (Florida International University). Programs that had been ranked in early studies but no longer offered a Ph.D. in CJC were excluded (e.g., U.C.-Berkley). To perform the necessary calculations required for a meta-analysis, doctoral programs had to have been ranked by at least two studies. Thirty-three doctoral programs in CJC met all of these criteria.

Various types of program quality measures have been used in these studies, including the productivity of faculty members or graduates, prestige surveys, and citation analyses. Studies not explicitly designed to examine the quality of doctoral programs, such as those identifying the top programs/institutions based on publications in the top CJC journals, were also included. Studies which overviewed characteristics of the programs without clear performance measures were not eligible for inclusion (Felkenes, 1980; Flanagan, 1990; Frost & Clear, 2007). The universe of potential studies was identified through a number of research avenues, including searches of: (1) computerized bibliographic databases (e.g., Sage, ProQuest, EBSCO) and web search engines (e.g., Google); (2) references contained in eligible studies and studies of similar subjects; and (3) a table of content search of the Journal of Criminal Justice Education and Journal of Criminal Justice. Keywords, in various combinations, that were used to search computerized bibliographic databases and web search engines included: doctoral, graduate, ranking, criminal justice, criminology, prestige, peer review, productivity, journal, and citation. The time frame includes the earliest study written on the subject through 2007.

The goal was to include all available studies meeting the criteria whether published or not. In all, however, only two unpublished studies were identified, both of which failed to meet the criteria for inclusion. One of these studies included an explicit ranking of undergraduate programs (Mijares & Blackburn, 1990). The other was a study of authors of published books on display by publishers at the 2006 Academy of Criminal Justice Sciences (ACJS) Meeting, which was later published (Oliver, Swindell, Marks, & Balusek, 2009). While a new and interesting perspective on productivity, the listing of author affiliations for the measure weighted by author and prestige included only six departments with doctoral programs, and for that reason was not included. Upon reviewing references and speaking with authors, there did not appear to be a "file drawer" problem; most of the research in this area appeared to be carried out with the intent of publishing results.

The search yielded eighteen studies on program quality spanning almost thirty years (1979-2007). Among these, a total of twenty-two different samples were included as some studies relied on more than one method in measuring program quality. DeZee (1980), for example, relied on peer review, citation analysis, and faculty publication productivity in his analysis. Only one measure/effect size was chosen from each sample/method in order to preserve the independence of the samples; however, it must be noted that some overlap inevitably occurs because the same faculty members were included across many of the studies as the units of observation (citation and publication productivity) and perhaps as respondents to peer review surveys. While non-independence of samples, then, is a possible threat to the validity of the summed measures, nearly all of the studies involved either different time periods or measures. Even so, sampling variation across studies remains severely restricted because the

observations were aggregated for many of the same CJC programs. In this sense, the study is not a typical meta-analysis. Nonetheless, meta-analytic methods are justified as the best means of summarizing the results from numerous studies examining the same issue.

Measures

One outcome measure was coded from each separate sample based on the method employed. Where a study relied on multiple methods (i.e. citation analysis, publication productivity, peer review), an effect size was coded for each. Most of the articles included numerous specific measures to choose from. For example, those studies measuring publication productivity typically included a measure of the total number of authorships per department and the number of articles divided by authorships. Average number of publications per faculty member was also a fairly typical measure included. Beyond these, further refinements included weightings for the position of authorship, the number of experience years worked, and the prestige of the journal. For the current study, a decision was made to include the most refined measure available from a particular study.

Missing data on the outcome measures for specific programs in the studies consist of two types. The first relates to the purposeful exclusion of a program either because it did not exist at the time of the study or it did not meet some criterion, such as having a large enough number of graduates to judge their productivity. The second type of missing data resulted when a program failed to reach a minimum threshold for presentation of their data on a given measure, such as when faculty members from a particular program did not publish enough journal articles to make a list of top-producing institutions. In these cases, while the data were "missing" from the presentation, the outcome for a particular program is not completely unknown; their score is somewhere below the minimum score of those institutions presented in the tables. It is this type of missing data that has been completely ignored by authors attempting to summarize rankings from prior studies in the past. Although it is not possible to calculate an exact score for missing programs in this situation, to leave the measure unknown introduces unnecessary error into the analysis.

Under these circumstances, missing data were imputed for institutions with doctoral programs in existence at the median year of the time period included in a particular study. For studies that listed a program/institution if they had published or been cited even once, no imputation was necessary; existing doctoral programs were merely assigned a true score of zero. In other cases, where programs below a certain threshold were not listed, an initial attempt was made to base an imputed score on the standard deviation of the distribution of presented scores. Many of the outcome measures were highly skewed making this impossible. It was noted, however, among the more normally distributed measures that the -2 s.d. scores would have fallen approximately midway between the lowest score possible (although typically zero, it was coded as 1 in the peer review carried out by USNWR) and the lowest score presented in those studies. For that reason, the midpoint between the lowest possible score and the minimum score presented was chosen as the imputed score. An average of six program scores was

imputed for five of the measures (Fabianic, 1981; Fabianic, 2001; Steiner & Schwartz, 2006; Taggart & Holmes, 1991; USNWR, 2008). Programs which received explicit rankings that did not offer a Ph.D. at the time of study publication, but did so by 2008, were included. For example, University of Florida did not offer a CJC Ph.D. until 2004 (Frost & Clear, 2007) but had been ranked as early as 1984 (Thomas & Bronick, 1984).

In addition to the outcome measures, various study descriptors were also coded. The type of measure and median year were coded for consideration as potential moderator variables. The sample size (n) was coded so that inverse variance weights could be calculated (see below). While the n was obvious for peer review measures, simply equaling the number of respondents, it was less apparent for publication productivity studies and citation analyses. For publication studies, the total or weighted number of articles that were attributed to any of the coded programs was treated as the n. For all of the citation studies except DeZee (1980), the average number of citations distributed to any of the coded programs was used due to the disproportionately larger number of citations included in a particular study.

Procedures

Effect sizes from each sample were calculated initially as the standardized mean difference using the following formula: $d = Xi – \mu t/s.d.p$; where Xi is the mean score for each program, μt is the grand mean for all coded programs, and $s.d.p$ is the pooled standard deviation. For ease of interpretation and analysis, the d was then converted to point biserial r using the following formula: $r = d\sqrt{(4+d)}$. Finally, the r was converted into a Fisher's z score relying on the following formula: $zri = .5Loge*(1+r/1-r)$. Overall weighted effect sizes for all samples were then calculated as follows: $Zr = \sum(wizri)/\sum wi$; where wi is the inverse vari ance weighting for a particular effect size (calculated as n-3).

For the moderator analysis, a measure of homogeneity of the distribution of effect sizes was calculated for each program using the following formula: $Q = \sum wi(zri - Zr)2$. For programs where the assumption of homogeneity was rejected, analyses of type of measure as a potential moderator variable was undertaken using an analog to ANOVA, which is obtained by calculating the Q for each group (particular measure type versus all other types) summing them to obtain QW (the pooled Q within groups), and then subtracting QW from the total Q to obtain QB (the Q between groups), the significance of which is distributed as $\chi2$ with j-1 degrees of freedom, where j is the number of groups (two in these comparisons). Weighted regression analysis was also performed in SPSS with median study year as the predictor variable and the effect size for each of the programs as outcomes, with required adjustments to the s.e.b (see Lipsey & Wilson, 2001).

RESULTS

An overview of the meta-analysis study characteristics is presented in Table 1. Among the eighteen studies included in the meta-analysis, twenty-two independent effect sizes were

TABLE 1 OVERVIEW OF META ANALYSIS STUDY CHARACTERISTICS

Study	Measure	Median Year	N	Mean	s.d.
Fabianic (1979)	Peer assessment survey of ACJS members and criminal justice educators	1977	204	2.62	0.64
Parker & Goldfeder (1979)	Average authorships per faculty member in 10 critical journals weighted by department	1975	160	0.72	0.52
DeZee (1980)	Peer assessment survey of ACJS and ASC members	1979	176	2.72	1.31
DeZee (1980)	Average journal publications per faculty weighted by department and journal prestige	1976	71	1.98	2.00
DeZee (1980)	Average citations per faculty member in five introductory textbooks	1976	206	1.37	2.14
Fabianic (1981)	Total publications in 6 selected journals weighted by number of authors	1976	140	10.95	4.77
Thomas & Bronick (1984)	Average citations per faculty member in the SSCI controlling for experience years	1980	179	0.24	0.22
Greene et al. (1985)	Peer assessment surveys of criminal justice faculty members	1981	600	1.12	0.82
Taggart & Holmes (1991)	Total publications in 3 selected journals - first author only	1982	208	13.63	5.83
Sorensen et al. (1992).	Average publications per faculty member weighted for journal prestige	1988	291	17.12	11.07
Sorensen et al. (1992)	Average citations per faculty member in 43 introductory textbooks	1988	207	15.34	10.93
Sorensen (1994)	Total publications in 10 journals weighted by number of authors	1987	486	24.30	11.57
Cohn & Farrington (1998)	Average publications per faculty in 6 leading CCJ journals	1993	221	0.90	0.81
Cohn & Farrington (1998)	Average citations per faculty In 6 leading CCJ journals	1993	177	2.25	1.91
Cohn et al. (2000)	Average number of program graduates' "academic" publications per year	1990	313	0.10	0.05
Fabianic (2001)	Total publications by program graduates in 8 leading journals weighted by number of authors	1993	257	16.14	16.56
Fabianic (2002)	Average publications per faculty in CJPI journals and Criminology weighted by number of authors	1997	496	1.34	0.66
Sorensen & Pilgrim (2002)	Total publications in 8 leading journals weighted by number of authors	1997	298	13.45	8.10
USNWR (2008)	Peer assessment surveys of doctoral faculty	2004	109	2.96	0.94
Steiner & Schwartz (2006)	Average publications per faculty member in 8 leading journals weighted by order of authorship	2002	311	0.50	0.49
Kleck et al. (2007)	Average publications per faculty member in WOS and CJPI journals weighted by journal prestige and favoring authorship order	2002	374	11.68	7.11
Steiner & Schwartz (2007)	Average yearly publications of program graduates in 9 top journals weighted by number of authors	2002	241	0.06	0.04

coded. The effect sizes were based on the following types of measures: peer assessment (4); citation analysis (4); total faculty publication (4); per capita faculty publications (7); and, program graduate publications (3). The grand median year of the time period under study was 1988, ranging from 1975 through 2004. The total combined N for the samples was 5,725, with individual study n sizes ranging from 71 to 600 and a mean of 260. It is easy to see from the broad variation in means and s.d. the need to standardize effect sizes as opposed to simply summing study results.

　　Table 2 presents doctoral programs ranked by their mean effect size along with the number of samples (k) and the total sample size (N) used in the ranking of each. Weighted mean effect sizes (Zr) ranged from -.587 to .551. Scores below zero indicate a below average rating on program quality measures across studies with sample size factored in, while those above zero represent above average scores. With the exception of Rutgers University at .004, the Zr for all of the remaining programs were significantly different from the grand mean (for North Dakota State, p<.05 and for all others, p<.001). Having reviewed prior studies, the top three programs come as no surprise, with University of Cincinnati taking first, University at Albany in second, and University of Maryland in third. These universities have performed well in recent studies, but the top slot often shifts according to the particular of the measurement utilized. Three new Ph.D. programs capture the next three rankings, with University of Florida fourth, University of South Carolina fifth, and George Mason University sixth. The effect sizes for the latter two should be interpreted cautiously, however, having been based on only three and two studies, respectively.

　　For each program whose Q indicated significant heterogeneity in scores across studies significant heterogeneity in scores across studies (all but Prairie View A&M University and Simon Fraser University), an attempt was made to determine the source of the variance. Available potential moderators included median year of the study period and the type of measure employed. An attempt to calculate weighted regression models using median study year to predict program effect sizes did not prove fruitful. Few of the models were significant, and the coefficients indicated an increase of more than .02 in Zr per median study year in only three cases (University of Maryland, .044; University of Missouri-St. Louis, .024; and University of Nebraska-Omaha, .022). For these three universities, measures appeared to indicate increased program quality over the years. Given the small number of studies and lack of additional controls, however, these results should be interpreted with caution.

　　The type of measure employed appeared to have a much greater influence on Zr. In Table 3, the results of a moderator analysis employing the type of measure (peer review, citation analysis, and journal publications) is presented. For this exercise, faculty journal publications were divided into measures that included the total number of publications by program and those that included a faculty per capita measure. It was hypothesized that programs with more faculty members would perform significantly better on the former. Programs with only one observation on a specific type of measure were excluded from those particular comparisons. Because the main interest herein was in determining whether the conglomerated Zr measure under-rated

TABLE 2 DOCTORAL PROGRAMS RANKED BY WEIGHTED MEAN EFFECT SIZE

Program	Z_r	k	N
1. University of Cincinnati	.551	11	3,178
2. University at Albany	.442	22	5,725
3. University of Maryland	.427	22	5,725
4. University of Florida	.413	7	1,965
5. University of South Carolina	.324	3	1,181
6. George Mason University	.277	2	483
7. University of Missouri-St. Louis	.272	10	2,921
8. Pennsylvania State University	.155	19	4,786
9. Michigan State University	.122	22	5,725
10. University of Pennsylvania	.116	11	2,736
11. Florida State University	.104	22	5,725
12. University of Central Florida	.083	5	1,588
13. University of South Florida	.071	8	1,903
14. Rutgers University	-.004	22	5,725
15. Washington State University	-.077	14	3,487
16. Temple University	-.086	13	3,264
17. North Dakota State University	-.087	3	794
18. Indiana University-Bloomington	-.094	9	2,699
19. University of Nebraska-Omaha	-.102	13	3,374
20. University of California-Irvine	-.117	15	4,129
21. Sam Houston State University	-.162	22	5,725
22. University of Illinois-Chicago	-.163	11	2,951
23. University of Delaware	-.269	11	2,737
24. City University of New York-John Jay	-.288	21	5,521
25. Arizona State University-Tempe	-.291	15	3,995
26. American University	-.300	15	3,977
27. Northeastern University	-.358	10	2,772
28. University of Montreal	-.399	3	872
29. Prairie View A&M University	-.446	3	794
30. Indiana University of Pennsylvania	-.447	13	3,333
31. Simon Fraser University	-.459	3	872

TABLE 3 DOCTORAL PROGRAMS WITH SIGNIFICANT IMPROVEMENT IN WEIGHTED MEAN EFFECT SIZE ON PARTICULAR MEASURES

Program	Total	Peer Review	Citation Analysis	Journal Publications		
				Faculty Average	Faculty Total	Program Graduates
University of Cincinnati	.551			.853		
University at Albany	.442	.607			.693	
University of Maryland	.427			.654		.552
University of Florida	.413			.843		
University of Missouri-St. Louis	.272			.531		
Pennsylvania State University	.155			.316	.364	
Michigan State University	.122	.548				
University of Pennsylvania	.116		.929			
Florida State University	.104	.301				.311
University of South Florida	.071	.240				
Rutgers University	-.004		.193	.057	.054	
Washington State University	-.077			-.021		.273
Temple University	-.086				.228	
Indiana University-Bloomington	-.094				-.031	
University of California-Irvine	-.117		.281			.094
Sam Houston State University	-.162	.079				-.073
University of Delaware	-.269		.077			
City University of New York-John Jay	-.288	.116				
Arizona State University-Tempe	-.291	-.095			-.142	
American University	-.300	.090	-.199			

particular programs, only programs experiencing significant positive changes in Zr on a specific measure, when compared to the total aggregate Zr, are presented.

While the top programs did not have far to rise, some significant upward movement was experienced when isolating specific types of measurement. For University of Cincinnati, measures relying on the per capita measures of faculty productivity increased their leading edge over many programs, with the exception of University of Florida which also performed extremely well on this measure. University at Albany experienced a significant increase when peer reviews and the total number of faculty publications were considered. University of Maryland experienced increased scores when per capita faculty measures and the publication productivity of program graduates were considered. Other significant movement into the top slots was seen by University of Missouri-St. Louis and Pennsylvania State University when relying on faculty publications, Michigan State University and Florida State University when relying on peer assessments, University of Pennsylvania when relying on citations, and Florida State University and Washington State University when relying on program graduate productivity. Other less extreme but significant moves were noted for other programs in Table 3. As evident from Table 3, movement based on measurement type is not rare. The type of measurement employed often makes a significant difference in the overall position of a program relative to others. At the same time, as noted in previous studies, a high degree of correlation exists among most of the measures (Sorensen et al., 1992; Kleck et al., 2007).

DISCUSSION

CJC programs have experienced their fair share of growing pains. In the past forty years, CJC has transitioned from a sub-discipline overshadowed by sociology, through the "cop shop" years, and to finally having "come of age" as "an established area of study" (Clear, 2001, p. 723). The number of CJC doctoral programs has increased throughout this period to train the growing body of matriculating doctoral students (Frost & Clear, 2007). This growth has also ushered in a slew of evaluation studies aimed at gauging CJC program quality. The goal of the current study was mainly to summarize, and to a more limited extent evaluate, the findings from prior studies. The findings support somewhat opposite conclusions concerning CJC doctoral program rankings. Overall the relative rankings of programs tend to be fairly stable in that the top-ranked programs generally hold above-average positions across studies, while mid- to lower-ranked programs tend to similarly hold their overall positions. The type of measure employed, however, can dramatically influence the rankings of specific programs. Because particular methods (i.e. faculty journal publications) are relied on more frequently, programs which perform best on often utilized measures tend to benefit from their use.

Specifically, the results from this meta-analysis support the primacy accorded journal publication as a measure of program quality. Of the twenty-two coded effect sizes, 50 percent (11) were based on faculty journal publications; when program graduate publications were added (3), fully 64 percent of doctoral program rankings reviewed were based on journal publication productivity. However, certain problems plague this measure of program quality. In

reviewing the scholarly output of executive members of CJC professional organizations Jennings, Schreck, Sturtz, and Mahoney (2008) noted that publishing, at least in the "elite" CJC journals, was statistically rare. High rejection rates and lengthy submission to publication times resulted in an annual standardized mean publication rate of 1.36 authorships for the top performer.

In a field where active scholars publish one to two articles per year, a single, highly productive faculty member can have an enormous influence on an institution's position in ranking. When Kleck et al. (2007) removed frequently published faculty members, a noticeable reordering occurred. As an example, once Alex Piquero was removed from University of Florida's computations, the department slipped from second to sixth place. While the ability to use multiple measures and points in time can assist in controlling for the arrival or departure of a publication "star" on program rankings, such statistical rendering does not make up for the unidimensionality of the measure. Citation measures are similarly skewed. For this reason, doctoral programs may receive a disproportionate advantage on performance measures by recruiting top performers.

Alternate measures have been employed. Once out of favor as being too subjective, peer assessment of program quality have been revived with the recent inclusion of CJC programs in the USNWR survey. Viewed as the fundamental measure of research quality, citation analyses have not been utilized in over a decade, which is likely due to the many clerical problems inherent in tabulating voluminous citations (Cohn & Farrington, 1998). Even so, less disparate use of these measures would not quell criticism that publications and prestige are limited indices of doctoral program quality. Of faculty members' three-way mission - research, teaching, and service - the abundance of rankings focus exclusively on research. One recent study examined service on executive boards of CJC academic organizations and editorial boards of CJC journals during 1995 through 2005 (Walker & Raptolpoulos, 2008). Although some shifting occurred regarding service rankings of programs in comparison to those included in the current study, two of the top ranked programs herein, University of Maryland and University at Albany, also took the top spots in their study.

Some overall conclusions are warranted from the current review. First, given the trend in more established disciplines and the current level of growth in CJC doctoral education, it seems unlikely that program evaluation will slow. Second, evidence from recent studies suggests that new and innovative approaches will be utilized in the assessment of program quality. Third, at least in the near future, programs that concentrate resources toward more easily measured outcomes such as publication productivity will fare better than those who focus energy elsewhere.

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SELF-PROTECTIVE IDENTITY THEFT BEHAVIORS OF COLLEGE STUDENTS: AN EXPLORATION USING THE RASCH PERSON-ITEM MAP

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Abstract

Identity theft is one of the fastest growing forms of white-collar crime. However, little empirical research has been conducted in this area. In fact, only one study, Milne (2003), has examined the self-protective behaviors in identity theft. The purpose of the present study is to provide an accurate picture of the self-protective behaviors that college students use in identity theft. Using responses to a self-report survey of nine self-protective behaviors from the Federal Trade Commission, Rasch model analysis was conducted for scaling. The original nine items failed to meet the standards of the Rasch model, but seven items did meet the standards of the Rasch model. The results from both the nonfitting nine-item and fitting seven-item measures showed that some college students are performing self-protective behaviors to guard against identity theft, but others are not. These results have policy implications that are discussed.

Key words: white-collar crime, identify theft, self-protective behaviors, rasch model

INTRODUCTION

Identity theft is a growing white-collar crime (Copes & Veraitis, 2009). The United States Department of Justice (1989) defined white-collar crimes as

> . . . those illegal acts which are characterized by deceit, concealment, or violation of trust and which are not dependent upon the application or threat of physical force or violence. Individuals and organizations commit these acts to obtain money, property, or services; to avoid the payment or loss of money or services; or to secure personal or business advantage. (p. 3)

Identity theft has been against the law since the 1970s. The early laws concerning identity theft were specific to the federal government, credit card companies, and consumer groups. To begin the legislation concerning identity theft began with the enactment of the 1974 Privacy Act. This act made sure that the government had regulations that would allow for oversight for the collection and use of personal information. This act, however, only pertains to the federal government. The Fair Credit Reporting Act (FRCA) regulated the collection of personal information by credit card and consumer reporting agencies. Both of these acts were concerned with the collection and use of personal information. They did not specifically address identity theft because they did not name identity theft in the legal statutes.

In 1998, the Identity Theft and Assumption Deterrence Act (ITADA) was the first piece of legislation to specifically label identity theft as a crime. ITADA defined identity theft as

> Knowingly transferring or using, without lawful authority, a means of identification of another person with the intent to commit or to aid or abet any unlawful activity that constitutes a violation of Federal law, or that constitutes a felony under the applicable state or local law. (U. S. Department of Justice, p. 4)

By defining identity theft as a crime, ITADA made it easier for law enforcement to investigate and pursue identity theft cases. In addition, ITADA allowed for identity thieves to be prosecuted, with possible sentences for the misuse of identities that included fines (up to $250,000) and prison time (up to fifteen years).

In addition, ITADA provided for the development of the Federal Trade Commission (FTC) and charged it with several tasks. The first task is the development of a clearing house to keep track of the number of identity theft occurrences. Second, the FTC is charged with the task of developing a consumer complaint process and educational materials including a hotline for assistance. Third, the FTC is to help victims recover their identities by assisting the victims in contacting credit agencies and providing educational information on identity theft. While the enactment of ITADA defined the act and provided for assistance, the act itself is restricted in its ability to provide preventative standards that take into account the methods used for identity theft.

An individual's identity is a conglomeration of personal information that can include, but is not limited to, name, address, driver's license, social security number, telephone number, place of employment, employee identification number, mother's maiden name, bank account numbers (e.g., savings and checking), or credit card number (Federal Trade Commission, 2005). Towle (2004), in a series of modifiable steps, presented one of many possible ways identity

theft can occur. First, identity theft occurs when an individual opens an account (e.g., a credit card) or uses the personal information (most often name, address, and social security number) of a victim and incurs expenses. In the second step, the identity thief diverts the billing statements of the accounts or personal information. This way the victim is unaware that his or her identity has been stolen and that payments on the fraudulent accounts are overdue. The third step is when the overdue payments result in a poor credit rating. Popular opinion is that identity thieves obtain a victim's personal information over the Internet (e.g., through phishing [fraudulent e-mail solicitations]) (Identity Theft, 2004). Hinduja (2004) showed that identity theft is a behavior that could be profitably conducted using a computer. However, identity thieves often obtain a victim's identity through several techniques, such as the theft of a wallet or the victim's mail or trash, or by way of phone or Internet transactions (Federal Trade Commission, 2005). These techniques can be modified and combined, thereby increasing the lack of awareness on the part of the victim. Thus, these techniques indicate that identity theft occurs by deceit and concealment that violates trust without the threat of physical force or violence.

Identity theft is increasing. The FTC (2003) showed that identity theft complaints and related behaviors consistently rose from 86,198 in 2001 to 161,819 in 2002. Other fraudulent complaints to the FTC increased from 107,890 in 2001 to 218,384 in 2002. Other portals of identity theft information (the Office of the Inspector General and the United States General Accounting Office) indicate that large amounts of identity theft cases were prominent offenses from 1998 to 2002.

Individuals that are victims of identity theft can be harmed in several different ways. First, the victim's privacy interest has been breached by the perpetrator. Second, the victim is likely to suffer from psychological stress and trauma due to the problems and confusion produced by a ruined reputation. Sharp, Sherver-Neiger, Fermouw, Kane, and Hutton (2004) used a sample of 37 victims of identity theft to show that victims of identity theft have increased levels of psychological and physical distress that may continue if the identity theft case is unresolved. Third, the victim is often left with substantial financial liabilities that require repayment before a good credit standing may be restored. Fourth, victims are likely to spend a substantial amount of time and energy in restoring their names. Slosarik (2002) reported that victims can spend up to 175 hours and several thousands of dollars to restore their names. Because this white-collar crime is growing, this behavior warrants empirical examination of how individuals can protect themselves against identity theft.

Individuals can protect themselves from identity theft and the harm that it produces if they perform several self-protective behaviors that allow them to wisely manage their personal information. The Federal Trade Commission (2005) has shown that some individuals perform the following behaviors to self-protect their identities: review bank and credit card statements, reduce purchases over the Internet and over the phone, reduce the amount of personal information given over the Internet and phone, contact organizations that deal with security risks, and refuse to give out social security numbers. These behaviors help individuals to manage their personal information better by reducing the amount of information available to

thieves. However, these behaviors do not explain how an individual should dispose of credit card and bank statements when finished with them.

College students provide an excellent opportunity for identity theft. Specifically, college students are usually bombarded with credit card and banking applications. College students are also required to routinely use identifying information (i.e., personal identification codes or social security numbers). The Federal Trade Commission (2005) showed that individuals within the age range of college students are the second most victimized group.

Milne (2003) used a small sample (n=61) to provide a preliminary examination of a different version of self-protective behaviors than those listed above. Specifically, Milne (2003) examined the behaviors from the Federal Trade Commission's (2001) publication "When Bad Things Happen to Your Name." He found that for college students the education on identity theft was working for some behaviors but not for others. For instance, few students kept a copy of the banking PIN and password in their wallets. However, Milne (2003) showed that almost 77 percent of college students had newly ordered checks from the bank sent directly to them. These sorts of patterns persisted in the fifteen behaviors that Milne used.

While Milne's (2003) study made a contribution to the identity theft literature, a few issues arise from the study. First, the study is relegated to using the mean of positive responses to capture a percentage for ranking purposes. This form of ranking does not make efficient use of the responses because it does not place them on a calibrated yardstick that may be transferable to other samples or that would provide much understanding about the item. Put another way, if Milne (2003) had used a different sample of college students then the ranking of the self-protective behaviors would likely be different. This occurs because the different sample is likely to provide different response patterns to the items. Therefore, using the classical test theory version of the mean is not the most optimal method of ranking the self-protective behaviors.

Second, because of the dichotomous response format, Milne (2003) used Kuder-Richardson 20 (KR-20) to examine the internal consistency of the items relative to a social desirability scale. KR-20 has a problem endemic to other classical test theory methods of internal consistency: if several individuals score high on the items and other individuals score in the middle or low on the items the researcher is unable to distinguish which individuals actually provided the greater correlation of the items (Wright & Stone, 1979). That is, KR-20 does not provide researchers with an opportunity to examine the discriminating quality of the items (i.e., the difficulty of the item[s]).[1] Thus, while it does contribute to the literature, Milne's (2003) effort may not provide an accurate picture of what college students are doing to protect themselves from identity theft.

The underlying theme of Milne's (2003) study is that the self-protective behaviors form a unidimensional and reliable measure. The use of this version of self-protective behaviors may be moot if fundamental measurement has not occurred. The analytic techniques that Milne

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[1]Difficulty in this sense is the probability point in the items when the individual's responses will go from positive to negative or from endorsing to non-endorsing.

were not proper for achieving this critical part of social measurement. In the current study, a version of Milne's (2003) self-protective behaviors is examined, with the assumptions that the items form a unidimensional and reliable measure. To examine these issues, the present study uses the Rasch model to assess unidimensionality and reliability. In the next section, the basics of the Rasch model are presented. After that, then the methods and results are shown that are followed by the discussion.

RASCH MODEL

Social scientists repeatedly are at a disadvantage when measuring unidimensional and reliable concepts. Physical scientists usually do not have this problem. That is, physical scientists are able to use properly calibrated instruments (e.g., a yardstick) to make measurements and to readily compare these measurements for relative inferences. In the social sciences, measurements are transformed from nonlinear scores to linear scores. For instance, Piquero, Thus, a social scientist that wishes to understand self-protective behaviors for identity theft is at a disadvantage because no such yardstick measuring these behaviors is readily available. The social scientist must develop an instrument thatexamines self-protective behaviors and subject the instrument to tests for unidimensionality and reliability. As with Milne's (2003) examination of self-protective behaviors, the common method of analysis is to use classical test theory (CTT) methods to assess dimensionality and reliability.

CTT methods have a number of cumulative restrictions. In particular, these methods do not transform the data from non-interval level to interval level (Bond & Fox, 2001; Wright & Masters, 1982). That is, the dimensionality information from factor analysis and reliability coefficients do not take into account the following: 1) the differences in the usage of the response categories; 2) the importance of the items to the individuals; and 3) the differences in which items and individuals exhibit misfit of the model. In short, CTT methods are unable to properly account for the interaction between the individual and the item. The inability of CTT to produce this information suggests that psychometric information developed using these techniques has limits (Piquero, MacIntosh, & Hickman, 2000).

The Rasch model is an alternative to CTT methods that is able to provide more information than CTT methods. Named after Danish Mathematician Georg Rasch (1960), the Rasch model is a probabilistic model that properly scales items. The Rasch model (1960, 1980) is based on the concepts of what Thurstone (1925, 1927) considered fundamental measurement. That is, if a set of items represents a dominant unidimensional trait (e.g., self-protective behaviors against identity theft) then the scores can be developed for the measure (i.e., set of items) that is free from the sample that provided the responses and the items that were used to capture the responses. This logic is best understood in a series of steps of the simple mathematics that outline the Rasch model for the dichotomous case and can be easily extended to the polytomous data (i.e., rating scale data).

Central to the Rasch model are person ability and item difficulty. The proportion of their maximum possible value and their frequency of occurrence is developed. The ability and

difficulty are transformed into log odds. For items, this entails taking the natural log of the proportion of responses that are incorrect divided by the proportion of correct responses. For persons, this process entails the taking of the natural log of successes divided by the proportion of failures. This process transforms nonlinear proportions that are bounded by 0 and 1 (i.e., based on dichotomous responses) to a linear scale of the latent trait that extends from negative infinity to positive infinity. This process shows that the item difficulty will increase as the number of incorrect responses increases and the person ability will increase as the number of correct responses increases. The mean and variance of the logits for item difficulty and persons are then calculated. Wright and Stone (1979) argued that the mean of zero is often used, but this is a necessarily arbitrary decision. This process can be expressed as:

$$Ln(Pni/1-Pni)=Bn-Di$$

From this formula, the probability of individual n selecting the correct response is a function of the log odds of the difference between individual n's ability and item i's difficulty. Beyond the dichotomous case, the Rasch model can take several forms (e.g., rating scale, poisson, and partial credit) (Wright & Masters, 1982). The rating scale model, which is the model for the present study, is the same as the dichotomous model, except a threshold parameter is added. This threshold parameter is the difficulty of category k relative to category k-1 or (Fk). The rating scale model is as follows:

$$Ln(Pnik/1-Pni(k-1))=Bn-Di-Fk$$

where k can take the range of 1 to z response category thresholds. It is important to note that the expansion parameters and the standard errors for persons and items are also calculated for the rating scale model, similar to the dichotomous case. However, unlike the dichotomous case, these calculations take the threshold parameter into account.

Using the Rasch model for analysis provides several useful statistics for examine a rating scale. For instance, person and item reliability are given separately, but both are analogous to Cronbach's alpha. These two types of reliability (i.e., person and item) demonstrate how consistently persons and items can be separately placed on the interval scale. The Rasch model also provides an estimate of separation (i.e., an estimate of the number of levels from 0 to infinity in which the persons and items can be reliably distinguished) (Smith, 2001). For separation, the minimum acceptable score is 2.0 (Smith, 2001). An estimate of 2.0 means persons or items can be reliably distinguished into two strata. This allows for the examination of the items and persons separately as prescribed by fundamental measurement. In the present study, the self-protective behavior instrument is assumed to be reliable for persons and items.

The Rasch model holds that dominant unidimensionality is a necessity for fulfilling the requirements for fundamental measurement (Hambleton, Swaminathan, & Rogers, 1991). That is, the Rasch model examines the data for proper fit between the persons, items, and the unidimensionality assumption. If there is not a proper fit between the model, persons, and items

then unidimensionality has not been found and fundamental measurement is not possible. The present study assumes that the self-protective behavior instrument is a unidimensional measure.

The Rasch model provides fit statistics to test the assumptions of fundamental measurement (Bond & Fox, 2001; Wright & Masters, 1982). Data that properly fit the Rasch model means that the basic assumptions of measurement have been met (i.e., high scores should endorse most of the items on the self-protective behavior instrument). If the model does not fit (i.e., misfit), then the persons and items that misfit may be qualitatively examined to determine their cause. The problems with misfitting persons and items can vary from misunderstanding the item to the item representing a separate dimension from the principal one being studied. Regardless of the problem, poor fit can lead to a change in the scale through removing the items or through improving the items for additional administration.

Empirically, the model fit is examined through fit statistics. The Rasch model presents two forms of fit statistics (i.e., infit and outfit). The infit statistic captures the unexpected influence of responses that are close to the person ability (Wright & Stone, 1979). The outfit statistic captures the outlier responses (i.e., the unweighted values that are influenced by off-target observations) (Bond & Fox, 2001). The infit and outfit statistics take the form of chi-square statistics that have been divided by their degrees of freedom. To evaluate the infit and outfit statistics, the mean square statistics are based on derivatives of the chi-square distribution (Wright & Stone, 1979; Wright & Masters, 1982). The infit and outfit are calculated for persons and items. Person fit (i.e., infit and outfit) is concerned that the individual perform in a consistent manner with other individuals in the sample. Item fit (i.e., infit and outfit) is concerned that the items are used in a consistent manner throughout the individuals in the sample. In general, Linacre's (2002) guidelines for infit and outfit of below .77 and above 1.3 are used as guidelines. In the present study, the persons and items are assumed to fit the model. If either persons or items do not fit the model, qualitative considerations will be used in making decisions on improving or removing items or persons from the analysis.

For additional evidence of unidimensionality, a principal components analysis of residuals is important. For this analysis, it is important that the primary factor explain a substantial portion of the variance (i.e., above 25 percent) (Reskage, 1979) and that the percentage of unexplained variance by the factor is below 15 (Conrad, personal communication, July, 2005). The self-protective behavior instrument is assumed to meet these standards.

The Rasch model allows for the understanding of how the rating scale is operating. Several criteria are used for this analysis. First, each of the response categories should have more than ten observations to avoid having millions of empty cells (Bond & Fox, 2001). Second, while some suggest interpreting the standardized normal transformation of the mean square statistics, with values of above 2 or below negative 2 demonstrating a misfit of the model, Linacre (2002) asserts that the infit and the outfit statistics should be between .77 and 1.3 for each of the response categories. Third, the average measures should advance monotonically with each category (Linacre, 2002). Fourth, the step calibrations (that is, the probabilities of individuals choosing response categories based on the observed measures of the individuals [i.e., thresholds]) should also move monotonically with each category (Linacre,

2002). The rating scale for the self-protective behaviors instrument is thought to be suitable. If these criteria are not met, then the response categories may be revised to provide a properly fitting set of categories.

In short, if the data fit the Rasch model, then the data form a unidimensional measure of the latent trait (i.e., self-protective behaviors). The latent trait will have suitable reliability and fit statistics. Further, if the data fit the Rasch model then the persons will suitably target the items and vice versa. Then the items may be reliably and validly placed on a person-item map. On the person-item map, the distance of the item from the top of the yardstick is associated with its difficulty relative to the other items. Items that are closer to the top are more difficult to endorse, and moving downward the items are easier to endorse.

THE PRESENT STUDY

The purpose of the present study is to provide an accurate picture of the self-protective behaviors that college students use for identity theft. Unlike Milne (2003), the present study makes use of the Rasch model. That is, the Rasch model provides an opportunity to scale social science items on a properly calibrated yardstick that ranking of items on the basis of the mean will not provide. If the items form a unidimensional latent variable (i.e., self-protective behaviors), then the Rasch model affords an opportunity to accurately scale the items separate from the sample and tests. In other words, meeting the assumptions of the Rasch model provides an accurate view of the items used to capture college students' self-protective behaviors for identity theft. The information from this study may be used to guide policy makers, parents, and businesses toward the types of self-protective behaviors that may reduce the instances of identity theft among college students.

METHOD

This section presents a discussion of the methodological procedures used in this study. The section first presents the sampling and procedures. Following this discussion the measure used in this study is described in detail, and a description of the analysis technique follows.

Sampling and Procedures

Data for this study were collected during the spring 2005 semester. The researchers drafted a survey concerning student perceptions and behaviors related to identity theft and fraud. The survey and attending procedures for administration were presented to the Institutional Review Board for review, and approval was received for survey administration. Four faculty members from a liberal arts college of a metropolitan university agreed to allow the researcher to distribute self-administered questionnaires in their classes. These classes were chosen because of convenience and faculty willingness to participate.

After procuring Institutional Review Board (IRB) approval, the researcher asked students to respond voluntarily to the survey. The researcher also advised the students that their responses were anonymous and confidential. Survey participants were not offered extra credit for participating in the survey.

The sample contained 65.0 percent (n=151) females and 35.0 percent (n=81) males. The students in the sample were an average of twenty-one years old and mostly white (77.4 percent). The total sample size for this study was 232 respondents. Overall, the sample was younger than the university from which it was drawn. Table 1 shows that our sample is not drastically different from the university population.

TABLE 1. DEMOGRAPHIC PROFILE OF THE SAMPLE

Measure	f	%
Sex:		
Male	81	35
Female	151	65
Race:		
White	181	77.4
Non-White	52	22.6
Age:		
18	27	11.5
19	41	17.5
20	38	16.2
21	36	15.4
22	32	13.7
23	10	4.3
24	10	4.3
25+	40	17.1

Measurement

We asked the students to report on nine behaviors that could protect them from identity theft and fraud. Specifically, we asked the students to report how often they performed certain tasks that may protect their identities. The students were asked to report, How often do you: review your bank statements; review your credit statements; make purchases over the Internet; give out personal information over the Internet; make purchases over the phone; give out personal information over the phone; limit the amount of your personal information given; contact organizations that you deal with to limit security risks; and give out your social security number. The students indicated how often they did each of these things using five answer categories that are as follows: "never," "a few times a year," "once or twice a month," "at least once a week," "almost every day." Table 2 presents the items with the labels that are used in this study.

TABLE 2. LISTING OF THE ITEMS OF SELF-PROTECTIVE BEHAVIOR WITH NUMERIC NAMES

Numeric Name	Item How often do you:
PROT1	review your bank statements
PROT2	review your credit card statements
PROT3	make purchases over the Internet
PROT4	give out personal information over the Internet
PROT5	make purchases over the phone
PROT6	give out personal information over the phone
PROT7	limit the amount of your personal information given
PROT8	contact organizations that you deal with to limit security risks
PROT9	give out your social security number

RESULTS

The analysis of all nine items on 232 persons produced a person reliability of .55 and separation of 1.11. The item reliability (.99) was much higher and had a separation of 10.51. These results suggest that there are issues with respect to persons. In short, the separation of

self-protective behaviors for persons is too low to provide fundamental measurement. Further investigation is necessary to diagnose the issue for modification. Table 3 provides an examination of the 5-point rating scale. When examining the rating scale, the observed count showed more than ten observations per category, which is sufficient for examination (Bond & Fox, 2001). The observed average column shows that response categories are moving monotonically, as they should. The infit and outfit statistics do not show any misfitting of the

TABLE 3. SUMMARY OF RATING SCALE STEPS FOR 9 ITEM SCALE

Category	Infit MNSQ	Outfit MNSQ	Threshold
1 Strongly Disagree	1.04	1.04	None
2 Disagree	1.03	1.07	-1.41
3 Neutral	.88	.87	-.39
4 Agree	.94	.88	1.10
5 Strongly Agree	1.04	1.06	.69

rating scale. However, the structure calibration column shows a problem with the rating scale. Answer choices 4 (at least once a week) and 5 (almost everyday) are disordered. This disorder could suggest that the students are unable to distinguish between these two answer choices--that is, the students see them as the same.

  The next step is to examine the fit of the items (Table 4 presents the fit of the items). Item 7 does not fit the Rasch model, based on the results from the Infit and Outfit columns. The results indicated that item 7 may be tapping a different concept rather than self-protective behaviors. This result may be an artifact of our coding structure. Even though the rating scale does not seem to work, one item definitely misfits the Rasch model, warranting further investigation.

  A principal components analysis of the residuals was conducted to help determine unidimensionality. The analysis showed that the primary factor accounted for 56.8 percent of the variance. Further, Linacre (personal communication, July, 2005) advised that a measure is probably unidimensional when the first factor extracts less than 3 units. The first factor extracted 2.4 units, suggesting that the measure is adequately unidimensional. This is an important result because it suggests that correcting the rating scale and misfit should improve

TABLE 4. TABLE OF MISFITTING ITEMS FOR THE ORIGINAL 9 ITEMS.

Item	Measure	SE	Infit	Outfit
PROT1	-1.40	.07	.69	.73
PROT2	-.75	.07	.96	1.00
PROT3	.12	.08	.84	.84
PROT4	.14	.08	.78	.80
PROT5	1.17	.11	.84	.89
PROT6	.75	.09	.94	.94
PROT7	-1.43	.07	1.65	1.67
PROT8	.83	.09	1.29	1.17
PROT9	.56	.09	.79	.84

the measure and provide stronger evidence that a unidimensional measure of self-protective behaviors exists.

Figure 1 presents the person-item map for the original self-protective behavior instrument. The "M" for person and items represents the mean. Usually, when these are within a logit (Conrad, personal communication, July, 2005), the "M" for the persons seems to be about one logit away from the M for the items. This demonstrates that the items are reasonably targeting the persons. That is, the items are capturing what the persons actually are doing. In this instance, the person-item map shows that persons are reasonably targeted by the items. However, an important interpretation is the direction of the "Ms". The direction of the "M's" suggests that the items are difficult for the students to endorse. This could be because the students may not perform these actions.   Interpreting the extreme points of the map reveals that the students had a hard time endorsing "making purchases over the phone," but that "reviewing their bank statements" and "limiting the amount of personal information given" were two of the easiest items for the students to endorse. That is, the students were less inclined to make purchases over the phone and more likely to review bank statements and limit the amount of personal information given.

The results from the original self-protective behavior measure are problematic due to poor separation, a disordered rating scale, and a misfitting item. Although they cannot be trusted, given poor separation and misfit, the principal components analysis of the residuals and

FIGURE 1. PERSON-ITEM MAP FOR ORIGINAL 9 ITEMS.

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                        |   PROT5
        1               +
                        |S PROT8
                        |   PROT6
                        |   PROT9
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                     .  T|
                .###  |   PROT3   PROT4
        0            .  +M
               .####  |
                .##  |
                 .  S|
              #####  |
              #####  |
            .######  |   PROT2
       .#########  |S
       -1   #######  M+
                 .#  |
            .#####  |
            #######  |   PROT1   PROT7
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            ##### S|
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                 <less>|<frequ> EACH '#' IS 3 persons.
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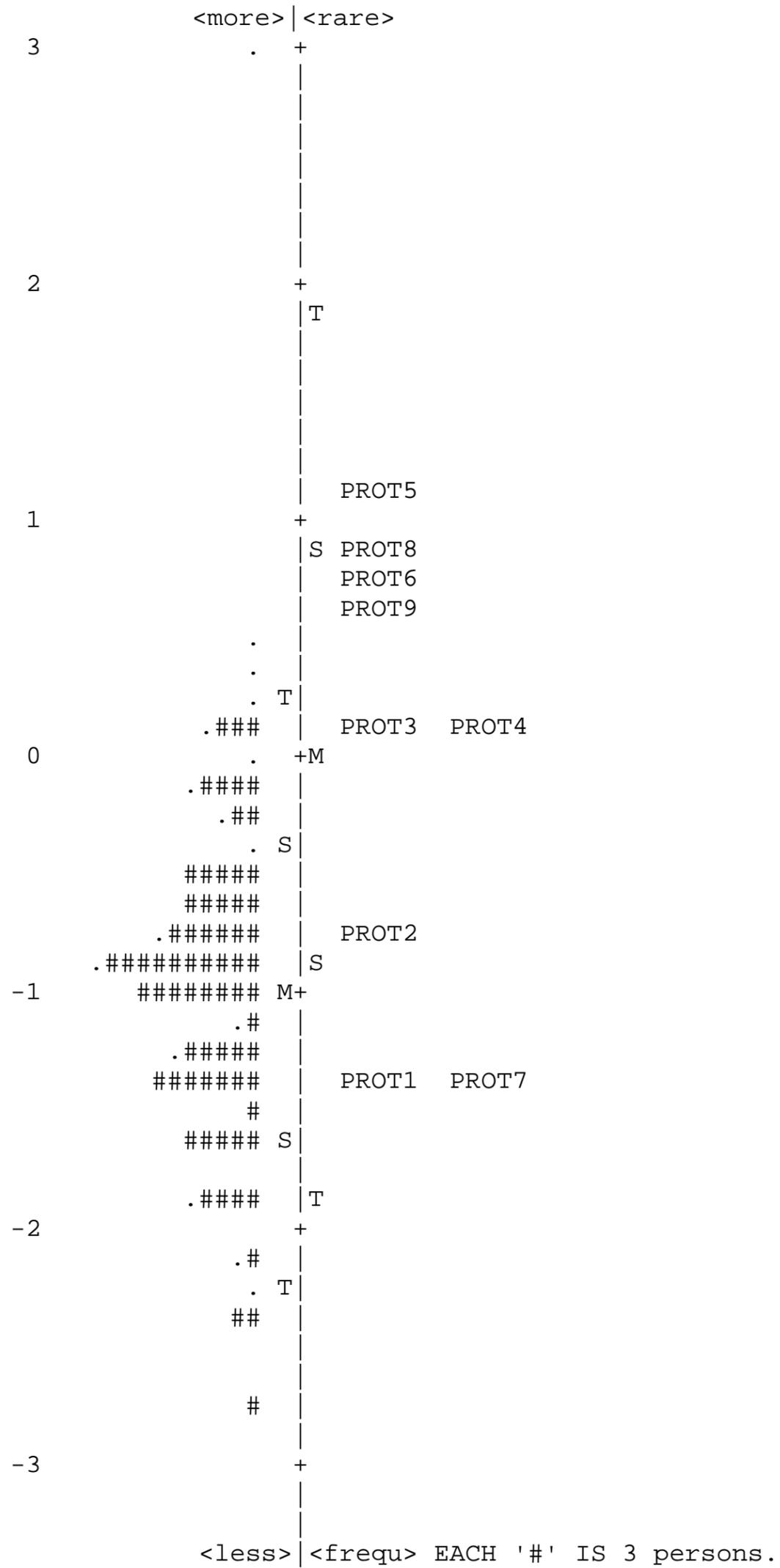
the person-item map suggest that accurate scaling of self-protective behaviors can be developed. To develop this instrument, the original instrument was revised in two ways. First, the rating scale was rescored based on the information from the structure calibrations. Second, data were calibrated and misfit was reexamined. This change resulted in another item misfitting the Rasch model (i.e., "give out personal information over the Internet"). Therefore, the revised self-protective behavior instrument does not include PROT4 and PROT7 because they are essentially redundant.

The revised self-protective behavior instrument was reliable and had proper separation. Specifically, the person separation was 2.00 and had a reliability of .81. The item separation 11.53 and had a reliability of .99. These results suggest that fundamental measurement may be achieved, because the proper degree of separation has been found. This is a substantial improvement over our original calibration of self-protective behaviors. Thus, the revised self-protective behaviors measure is reliable for use.

The principal components analysis of residuals showed that the first factor of the revised instrument explained 65.6 percent of the variance. The first factor extracted 2.1 units. These findings suggest that the instrument is unidimensional and that it is a substantial improvement over the original calibration. However, the fit needs to support the interpretation of unidimensionality. Table 5 presents the fit of the items. The seven remaining items fit the Rasch model. This solidifies that the revised version of the instrument provides fundamental measurement and accurate results.

TABLE 5. TABLE OF MISFITTING ITEMS FOR THE REVISED 7 ITEMS.

Item	Measure	SE	Infit	Outfit
PROT1	-2.19	.10	1.01	1.08
PROT2	-1.11	.09	1.21	1.17
PROT3	.01	.09	.89	.89
PROT5	1.16	.11	.80	.97
PROT6	.73	.10	.82	.84
PROT8	.92	.10	1.21	1.13
PROT9	.49	.09	.87	1.00

Figure 2 presents the person-item map for the revised self-protective behavior instrument. The yardstick for this map was originally in logits. The persons and items are targeted better in the revised instrument than in the original. Further, this map shows that redundant items have been removed and that the remaining items are providing information targeted specifically for self-protective behaviors. It is important to notice that the order of the items did not change between the revised and original instruments. That is, the person-item map showed that it was

FIGURE 2. PERSON-ITEM MAP FOR REVISED 7 ITEMS.

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                            |S PROT5
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                   .##   |     PROT9
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          0            .  S+M PROT3
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         -2        #####  +
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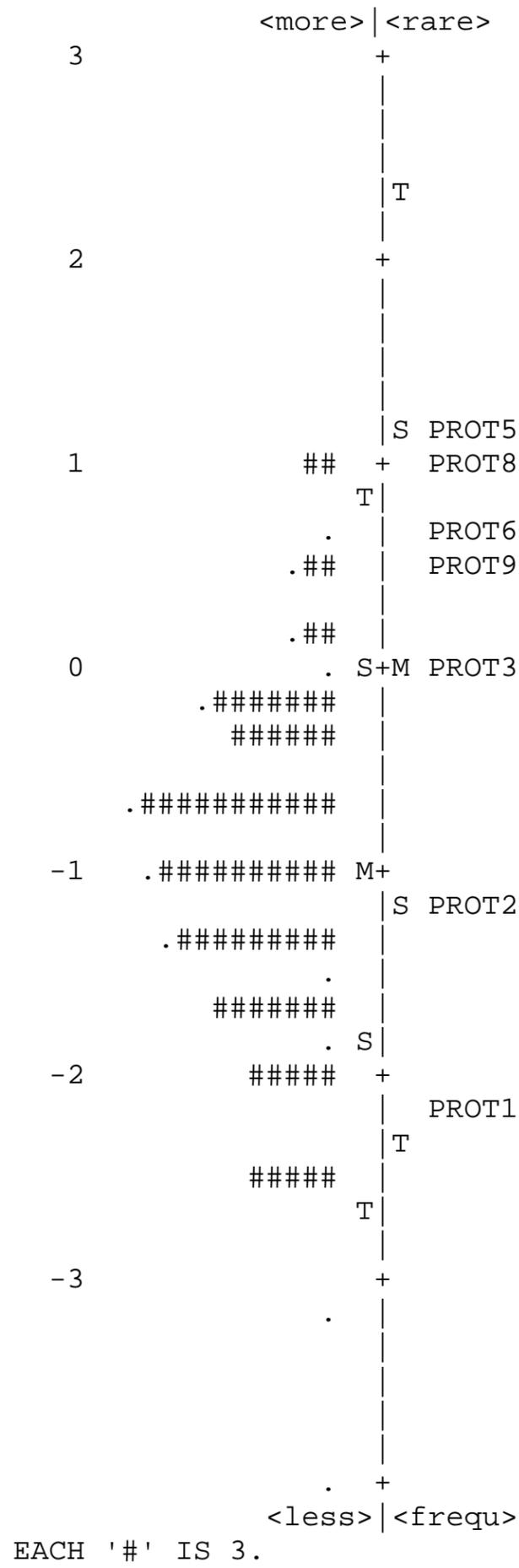
difficult for the students to endorse making purchases over the Internet and over the phone, giving out their social security number, and contacting organizations that deal with limiting security risks.

Table 6 presents the item category frequencies that can be used to probe the hardest to endorse items. These results show that 59 percent of the students reported never contacting organizations that they deal with to limit security risks (PROT8). The results also show that 59 percent of the students reported never made purchases over the phone (PROT5). However, 54 percent of the students reported giving out their social security number (PROT9).[2] The difficulty in these items could arise because the students may have never thought about these issues.

DISCUSSION

The purpose of the present study was to explore the self-protective behaviors that college students use to guard against identity theft. The results of the present study show that the original self-protective behaviors are unable to achieve the standards of fundamental measurement from Rasch modeling. That is, the original instrument is unable to provide proper separation for persons, suitable fit of items, and properly functioning response categories. After the response categories were rescored, the two items did not fit the Rasch model (i.e., they had infit statistics that exceeded 1.3). The two items that misfit (give out personal information over the Internet [PROT4] and limit the amount of your personal information given [PROT7]) may provide indications about behaviors that are so rarely performed that they are not necessary for understanding self-protective behaviors, or they may provide the beginnings of a multidimensional structure. Our view is that these items are so rarely used by the students that they would not properly calibrate using the Rasch model.

After removing these two items, the remaining seven items met the assumptions of the Rasch model. That is, these items provided proper separation and reliability. Further, the items properly fit the Rasch model. The yardstick may be rescaled in a way that would provide easy interpretations (i.e., sometimes logits may be difficult to interpret so the yardstick was rescaled from 0 to 100). Therefore, the items were able to be properly placed on an interval scale that was person and item free. Thus, the results of the final person-item map are accurate based on the standards of fundamental measurement. The specific results indicate that four items are difficult for the students to endorse, specifically, making purchases over the phone (PROT5),

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[2]So as to not overstate the results of this study, the final version of the measure was reanalyzed using WINMIRA. WINMIRA has a few advantages over WINSTEPS. First, WINMIRA allows for item-specific information to be generated. Second, WINMIRA allows for the examination of fit statistics using a bootstrap procedure. The bootstrap procedure allows for the examination of the items when there are more potential response patterns than data available to examine. That is, regardless of having ten observations per category, there may be more response patterns than these data can cover. When this is the case, the chi-square statistic, which is the base statistic for the infit and outfit statistics, are not trustworthy. Von Davier (1997) reported that a small amount of bootstrap samples would be sufficient for this particular purpose. For the present study, the item-specific information supported the findings from WINSTEPS. In addition, fifty bootstrap samples supported the findings that these items fit the Rasch model. In order to conserve space, these findings are not presented but are available on request from the first author.

TABLE 6. 7 SELF-PROTECTIVE BEHAVIOR ITEMS CATEGORY FREQUENCIES.

```
+-----------------------------------------------------------------+
|ENTRY   DATA   SCORE |    DATA     | AVERAGE   S.E.   OUTF|       |
|NUMBER  CODE   VALUE | COUNT    %  | MEASURE   MEAN   MNSQ| ITEM  |
|---------------------+-------------+----------------------+------ |
|    8 A 1        1 |   129   59 |   37.85    .76   1.0 |PROT8  | 1 |
|        2        2 |    62   28 |   45.48    .89    .8 |       | 2 |
|        3        3 |    22   10 |   46.47   1.36   1.3 |       | 3 |
|        4        4 |     4    2 |   51.40   2.91   1.1 |       | 4 |
|        5        4 |     2    1 |   73.40  26.56   1.5 |       | 5 |
|        MISSING *** |     2    1*|                      |       |   |
|                    |            |                      |       |   |
|    2 B 1        1 |    48   23 |   32.17   1.31   1.1 |PROT2  | 1 |
|        2        2 |    16    8 |   38.47   1.58    .9 |       | 2 |
|        3        3 |   108   51 |   43.14    .64   1.0 |       | 3 |
|        4        4 |    24   11 |   48.47   1.16    .9 |       | 4 |
|        5        4 |    15    7 |   51.68   3.76   1.0 |       | 5 |
|        MISSING *** |    10    5*|   39.87   2.53       |       |   |
|                    |            |                      |       |   |
|    1 C 1        1 |     5    2 |   26.52   7.36   1.5 |PROT1  | 1 |
|        2        2 |    28   13 |   33.57   1.98   1.2 |       | 2 |
|        3        3 |   103   47 |   40.82    .68   1.0 |       | 3 |
|        4        4 |    55   25 |   43.60    .96   1.2 |       | 4 |
|        5        4 |    28   13 |   50.06   2.22    .8 |       | 5 |
|        MISSING *** |     2    1*|                      |       |   |
|                    |            |                      |       |   |
|    9 D 1        1 |    79   36 |   38.02   1.03   1.1 |PROT9  | 1 |
|        2        2 |   117   54 |   41.89    .71   1.4 |       | 2 |
|        3        3 |    18    8 |   48.32   2.15   1.1 |       | 3 |
|        4        4 |     3    1 |   52.92   3.50    .9 |       | 4 |
|        5        4 |     1    0 |   99.96          .0 |       | 5 |
|        MISSING *** |     3    1*|   43.65              |       |   |
|                    |            |                      |       |   |
|    5 c 1        1 |   127   59 |   38.15    .76    .9 |PROT5  | 1 |
|        2        2 |    76   35 |   45.11    .72    .8 |       | 2 |
|        3        3 |    12    6 |   50.00   3.13   1.6 |       | 3 |
|        5        4 |     1    0 |   99.96          .0 |       | 5 |
|        MISSING *** |     5    2*|   34.34   7.17       |       |   |
|                    |            |                      |       |   |
|    3 b 1        1 |    73   34 |   34.56   1.01    .9 |PROT3  | 1 |
|        2        2 |    78   36 |   42.07    .67    .7 |       | 2 |
|        3        3 |    58   27 |   46.85    .91   1.0 |       | 3 |
|        4        4 |     6    3 |   50.25   1.44    .9 |       | 4 |
|        5        4 |     2    1 |   79.94  20.01    .4 |       | 5 |
|        MISSING *** |     4    2*|   46.75  13.51       |       |   |
|                    |            |                      |       |   |
|    6 a 1        1 |   108   49 |   36.92    .80    .9 |PROT6  | 1 |
|        2        2 |    85   39 |   43.91    .75    .9 |       | 2 |
|        3        3 |    22   10 |   49.45   1.41    .9 |       | 3 |
|        4        4 |     2    1 |   60.10    .16    .5 |       | 4 |
|        5        4 |     2    1 |   74.69  25.27   1.1 |       | 5 |
|        MISSING *** |     2    1*|                      |       |   |
+-----------------------------------------------------------------+
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giving out personal information over the phone (PROT6), contacting organizations that you deal with to limit security risks (PROT8),and giving out social security numbers (PROT9). These items have import when considering the way the students used the response categories. That is, a large percentage of the students rarely performed PROT8 and PROT6. The categories showed that less than half of the students made purchases over the phone (PROT6), but over half of the students had given out their social security number. We believe, with Milne (2003), that these findings suggest that some students are protecting themselves and other students are not. This interpretation has policy implications.

Policy makers, administrators, parents, and college students should pay attention to these results, since they suggest that more needs to be done to help students deal with the danger of identity theft. As a general goal, programs should provide students with an understanding of risk behaviors and protective measures in which they may engage. Specifically, this research indicates that training and understanding should be enhanced for those situations involving over-the-phone purchasing and the revealing of social security numbers. While many such situations are unavoidable, an outcome goal should be the reduction of this behavior. The giving of social security numbers may, however, be a function of being in the university environment where social security numbers provide a link to a person's identity. If such an organizational practice exists, we believe it should be reduced, if not stopped. Thus, policy makers should seek to enlighten both their student customers and their organizations regarding issues of information security. The findings further suggest that students rarely contact organizations that have their personal information on file. Legal restrictions, policy directives, and market forces have driven many organizations to create privacy and security policies. Indeed, many organizations provide their customers with information regarding the steps to be taken to secure information. Yet many of these policy protections are "opt in" only provisions. That is, in order to avail oneself of the protections some affirmative contact must be made with the organization and a specific protection requested. In such an environment, specific educational efforts are necessary to increase student contacts with organizations to reduce risk to their information. Not only must these efforts provide students with an understanding of the affirmative actions they must take to protect themselves from identity theft, but they must as well provide motivation to engage in such direct proactive behavior. Such educational efforts should come early in a student's college experience and should be supported by frequent reminders of the benefits of proactive self-protective behaviors. In short, to reduce identity theft, we must provide college students with both the tools and the motivation to reduce their risks.

While these findings are unique to the identity theft literature and provide policy implications, the study has limits. First, the study used cross-sectional data from one university. Before the policy implications can be implemented, a longitudinal study that includes more than one university will provide information that helps determine if this pattern remains over time and geography. Second, the study did not use the same measure as Milne (2003). Future studies in this area may consider using both measures to determine if they both capture self-

protective behaviors for identity theft. Third, future studies that examine the items for differential item functioning will be important.

Despite the limits, the present study offers a unique insight into the self-protective behaviors of college students for identity theft. Specifically, the study shows that some behaviors need to be increased to further reduce college students' risk of identity theft. While a multiple-site longitudinal study that compares our measure and the Milne measure will advance our understanding, our use of the Rasch model shows that policy makers, administrators, parents, and college students need to continue the educational process for the prevention of identity theft.

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RAPE LORE IN CORRECTIONAL SETTINGS: ASSESSING INMATES' AWARENESS OF SEXUAL COERCION IN PRISONS

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Abstract

In spite of the passage of the Prison Rape Elimination Act (PREA), sexual assault within correctional facilities continues to be a phenomenon that plagues justice officials, offenders, and inmate rights advocates. In this paper, we utilized a dataset collected by Fleisher and Krienert (2006) in order to assess inmates' awareness of prison rape. We found that sexual orientation is an important predictor of prison rape awareness. Unlike previous studies, however, we did not find race to be significantly correlated with this phenomenon (Hensley, Koscheski, & Tewksbury, 2005; Struckman-Johnson & Struckman-Johnson, 2000; Hensley, Tewksbury, & Castle, 2003). Also, in this sample, male respondents were more likely than females to have higher awareness of prison rape. Finally, it was found that subjects with longer exposures to prison life tended to have increased awareness of prison rape. We attribute such a culture of fear and awareness of prison rape to Foucault's (1972) Discourse Theory which shows the interplay of power and knowledge that restrains truth in a certain setting, here, the prison environment. These findings have important implications for policy makers and should be considered in order to make prisons safer places and address the issue of fear of sexual assault.

Key words: Prison Rape Elimination Act (PREA), prison, rape, inmates, Foucault's Discourse Theory

INTRODUCTION

The Prison Rape Elimination Act, USC § 15601 (2003) was passed to establish a zero tolerance policy towards prison rape and minimize sexual victimization in correctional facilities. This statute provides funding for the protection of inmates from any kind of sexual assault and to examine the prevalence of prison rape and its effects (PREA, 2003). Congress found that approximately 200,000 offenders who are presently imprisoned have been or will be sexually assaulted while serving their sentence. In this same report, it was estimated that more than 1,000,000 offenders in the past twenty years have been the victims of prison rape (PREA, 2003). However, it should be pointed out that some studies indicate that prison rape is rare (Prichard, 2000; O'Donnell & Edgar, 1998; Lockwood, 1994; Blackburn, Mullings, & Marquart, 2008). Thus, research on the actual prevalence of prison rape has contradictory views and results. Departing from the findings of Congress and studies on the actual prevalence of prison rape, this article examines the awareness of prison rape among inmates which we contend is important for the overall health of the prison environment and the morale of inmates. The Prison Rape Elimination Act of 2003 defines prison rape as "the rape of an inmate in the actual or constructive control of prison officials" (PREA, 2003, p. 988). In this Act, the term rape is defined as carnal knowledge, oral sodomy, sexual assault with an object, or sexual fondling of a person in three situations —forcibly or against the person's will; where the victim is incapable of giving consent due to youth, mental or physical incapacity; or exploiting the victim's fear or threat of physical violence or bodily injury (PREA, 2003).

This paper examines inmate awareness of prison rape using the dataset collected by Fleisher and Krienert (2006) for their report to the National Institute of Justice. While several recent studies have examined the actual prevalence of sexual coercion in prisons, whether perpetrated by fellow inmates or officers, this study focuses on the awareness of inmates regarding this issue. In this study, we analyze secondary data that Fleisher and Krienert (2006) gathered in both male and female high-security prisons across the United States. The present paper seeks to ascertain whether certain dimensions of prison life, such as age, race, gender, sexual orientation, and longer exposure to prison contribute to respondents' awareness of prison rape. This study has relevant policy implications because it is important that inmates feel safe in prisons. Even if the prevalence of inmate rape is low, increased awareness might negatively affect the prison environment by creating a sense of anxiety and fear among the prisoner population. This may in turn lead to violence or at the very least psychological distress and turmoil which is not conducive to rehabilitation.

THEORETICAL FRAMEWORK

While the object of this paper is not to test any theory, the conceptual foundation of this paper, rape lore awareness, is based on Michel Foucault's Discourse Theory (Foucault, 1972). In his book, The Archaeology of Knowledge and the Discourse on Language, Foucault refers to

rumor as the

> interplay of representations that flow anonymously between men; in the interstices of the great discursive monuments, it reveals the crumbling soil on which they are based...The analysis of opinions rather than of knowledge, of errors rather than of truth, of types of mentality rather than of forms of thought (p. 137).

Foucault (1972) further discusses the rules of exclusion in a discourse, how there are three types of prohibition: "covering objects, ritual with its surrounding circumstances, (and) the privileged or exclusive right to speak of a particular object" (p. 216). He points out that politics and sexuality are two prohibited or "privileged areas" where great powers are exercised: "prohibitions surrounding it (speech) soon reveal its links with desire and power" (216).

In the prison environment and in the context of rape lore, Discourse Theory shows how certain inmates may construct an atmosphere of fear by spreading rumors about sexual assault, excluding certain information (restraining the truth) and disseminating information of their choice to continue their domination of the weaker members of the prison population. Just as the construction of fear in the outside world is created by the media and other factors, it would be in the interest of these members to spread the culture of fear so that the weaker and younger members remain subservient for fear of assault even if they might not have ever seen or experienced it. It is the gossip, the rape lore, or discourse, as Foucault (1972) puts it, among the inmates that generates the awareness of sexual coercion in prisons. While this explains the fear among the gay/bisexual and younger inmates, it also explains why females are less aware of rape than males as they are more interested in creating a familial atmosphere rather than one based on knowledge, desire, and power. Discourse Theory could also explain why a longer exposure to prison increases the awareness of prison rape among inmates as experience might help inmates become the manipulators who actually construct the culture of fear of sexual assault, thus, engaging in the privileged or prohibited areas of speech, like sex.

REVIEW OF THE LITERATURE

According to Hensley, Struckman-Johnson, and Eigenberg (2000), one of the first studies of coercive sex in prison was conducted by Fishman (1934), a former official who was responsible for inspecting the conditions in federal prisons. Fishman (1934) observed that a substantial number of male inmates were forced into homosexuality by sexual predators. He also explained that the prisoner code prevented inmates from reporting sexual assaults. The current literature regarding sexual violence in prisons relates to both the actual prevalence as well as inmate awareness of prison rape. Various factors such as sexual orientation, vulnerability, race, age, and lax security have been shown to play a role in the victimization of inmates (Hensley, Koscheski, & Tewksbury, 2005; Struckman-Johnson & Struckman-Johnson, 2000; Hensley, Tewksbury, & Castle, 2003).

Sexual Assault

The Federal Criminal Code (Title 18, Chapter 109A, Sections 2241-2248) recognizes sexual abuse and aggravated sexual abuse. The Code defines sexual abuse at three levels: (a) sexual abuse; (b) sexual abuse of a minor or ward; and (c) abusive sexual contact. Aggravated sexual abuse is also defined at three levels: (a) aggravated sexual abuse by force or threat of force; (b) aggravated sexual abuse by other means (administering intoxicants, etc.); and (c) aggravated sexual abuse of a child irrespective of the knowledge of the child's age. Scholars have also attempted to provide definitions of various forms of sexual violence. According to Struckman-Johnson and Struckman-Johnson (2000), coercive sex occurs when someone is forced into sexual contact against his or her will.

Sexual assault usually causes both physical and emotional harm to the victim (Brownmiller, 1975; Fisher, Cullen, & Turner, 2000; Mullings, Marquart, & Hartley, 2003; Perrin, Barnett, & Miller-Perrin, 2005). This may be especially true in regards to inmates, who often have limited resources and support systems to mitigate these harmful encounters. In prisons, inmate-on-inmate consensual and coercive sexual acts are forbidden and can result in disciplinary actions and additional criminal charges. Gaes and Goldberg (2004) noted, "Any kind of sexual activity inside of prison, other than sanctioned conjugal visits, violates prison rules" (pp. 51-52). According to Struckman-Johnson and Struckman-Johnson (2000),

> A majority of the research suggests that less serious incidents of sexual coercion, such as genital fondling and failed attempts at intercourse, are common in men's prison facilities but that completed rapes (defined here as forced oral, anal, or vaginal intercourse) are infrequent (pp. 379-380).

The point is, even if a rape has not been completely carried through, any kind of sexual assault should get the attention of the authorities.

In a special report issued by the Department of Justice on staff abuse of federal inmates, it was noted that consent cannot be used as a legal defense by correctional employees who partake in sexual acts with inmates. The report clarified that according to federal law, any kind of sexual contact between staff and inmates is considered to be abusive. Even if a sexual act between an inmate and a correctional employee appears to be consensual, it is nevertheless a criminal sexual offense when it occurs within a correctional facility [18 U.S.C. § 2243 (c)] (Special Report, Office of the Inspector General, 2005). These staff-inmate boundary violations have been identified in the literature as inappropriate relationships (Worley, Marquart, & Mullings, 2003).

Eigenberg (2000) carried out a study for which questionnaires were given to correctional officers in a mid-western, rural state in order to ascertain how the respondents defined rape in prison. She found that the vast majority of respondents felt that an offender had been raped when he was either physically overpowered or threatened (Eigenberg, 2000). About 75% of the sample, considered it to be a rape situation if an inmate threatened to call another inmate a

snitch for refusing to engage in sexual acts. In this same study, two-thirds of the respondents defined this scenario as rape when an inmate engaged in sexual acts in exchange for protection (Eigenberg, 2000). According to Eigenberg (2000), officers also defined a situation as rape when an inmate was given a choice of sex or a beating to pay off debt or if an inmate demanded cigarettes after sex in exchange for protection. If victims were identified as informants, officers were less willing to consider those situations as rape (Eigenberg, 2000).

Rape in Men's Prisons: Prevalence

Male victims have been the focus of most studies in the area of prison rape (Hensley, Struckman-Johnson, & Eigenberg, 2000). Hensley, Koscheski, and Tewksbury (2005) carried out a study on sexual behaviors of male offenders incarcerated in a Southern maximum-security prison. Hensley et al. (2005) contend that an inmate's sexual orientation is a key variable in determining whether or not an offender is targeted for being a victim of sexual assault. The authors noted, "In the hyper-masculine environment of a maximum-security Southern prison, an identity other than fully heterosexual is perceived as a sign of femininity and weakness" (p. 675).

In an earlier study, Nacci and Kane (1984) found that 70% of homosexual and bisexual offenders had been the targets of sexual assault. Prichard (2000) challenged conclusions drawn from a 1998 study on prison sexual assault conducted in New South Wales, Australia. The earlier study had found that 10% of prisoners in the age group of 18 to 25 years had been sexually assaulted by other inmates on at least one occasion during their incarceration. Of these victims, 25% were sexually assaulted every week, and a small number was assaulted on a daily basis. The 1998 study concluded that prisoners raped other prisoners partly for sexual gratification and partly to assert their power and position in the inmate hierarchy. Prichard (2000) contends that sexual assault occurs very rarely in prisons.

O'Donnell and Edgar (1998), while examining victimization in general inside the prison, also found that sexual assaults were rarely reported in the institutions they studied. Yet, one of the incidents they analyzed illustrates that inmates who are perceived as vulnerable tend to be the victims of assault and violence: "…In the dorms, people get bored and look for entertainment and fun. Unfortunately, it is the weak who are the entertainment" (O'Donnell & Edgar, 1998, p. 271). In another incident, one inmate was reported to say, "They pick on me because I'm black and weak" (p. 271). Sylvester, Reed, and Nelson (1977) found that inmate homicides were highly correlated with same-sex sexual activity in prison.

Blight (2000) studied the sexual coercion of transgendered inmates in prisons and detention centers in all Australian states and territories. A transgendered person is usually defined as one who considers himself or herself to be a member of the opposite sex either by living as a member of that sex, or, if uncertain, identifies himself or herself as belonging to a particular gender. Blight (2000) concluded that transgendered people are at a significantly higher risk of facing sexual assault. This is because transgendered people are seen as weak and vulnerable, and, as such, easy targets in prisons. This risk is even higher when transgendered

inmates, whether male-to-female or female-to-male, are placed in prison with biologically male prisoners as men are more aggressive than women (Blight, 2000).

Struckman-Johnson and Struckman-Johnson (2000) conducted a study of inmates and security staff in seven male correctional facilities located in the Midwest. The authors identified three factors that contribute to sexual coercion in prisons. The primary cause, according to the authors, was the use of barrack housing, where one-half of the sexual assaults took place. The next factor was racial conflict. The researchers found that the targets in 60% of the incidents were Caucasian, whereas the assailants in 74% of the cases were African American. The third factor was lax security where correctional employees tended to be unmotivated and poorly paid. Also, Struckman-Johnson and Struckman-Johnson (2000) found that many offenders complained that some homosexual and/or African American correctional officers had a tendency to allow sexual coercion.

Hensley, Tewksbury, and Castle (2003) noted, "Sexual assault and the fear of sexual assault remain a constant concern for prison inmates and important influences on institutional culture" (p. 599). The researchers conducted a study to determine the features of male sexual assault victims so that administrators could accordingly profile them and provide them with protection. Fifty-eight percent of sexual assault targets were Caucasian, compared to only 44% in the sample. On the other hand, 29% of African Americans claimed to have been the targets of sexual assault, compared to 39% African Americans in the sample. Targets were imprisoned for a mean of 143 days, that is, four to five months, before they were first assaulted. The perpetrators were 38% White, 58% African American, and 4% Hispanic. Of the 40 incidents that took place in the facilities examined, 85% of the assailants were unknown to their victims. About 42% of the inmates who were targeted identified themselves as being heterosexual, compared to more than 78% in the sample. Bisexual inmates comprised 13% of the sample and constituted 42% of the targets.

Rape in Women's Prisons: Prevalence

Struckman-Johnson and Struckman-Johnson (2002) argue that female prisoners "face extensive problems with sexual harassment, molestation during strip searches, coercive sexual fondling, and pressured and forced sexual intercourse, most likely perpetrated by prison staff" (p. 217). Baro (1997) also writes extensively about custodial sexual abuse. She conducted a study of a small female prison in Hawaii that consisted of roughly forty-five to fifty inmates. Baro (1997) found that between 1982 and 1994, there were 38 cases of sexual abuse. Of these female victims, 30 cases involved male perpetrators, while eight of them involved female perpetrators. From her research, Baro (1997) found that the abuses included forced sexual contact, unwanted pregnancies, and even compelling inmates to act as prostitutes in a hotel near the correctional facility. She ascertained that female inmates who had been sexually abused in the past were the most likely to be sexually exploited by the male prison staff.

In an examination of three Midwestern women's institutions, Struckman-Johnson and Struckman-Johnson (2002) found that the rates of incidents depended on the prison population.

Facility 1 was a correctional facility where approximately 50% of the prisoners had committed serious offenses against persons. The inmate population was both ethnically and racially diverse as well as slightly larger than the other two facilities. Additionally, it had security and management problems. All these factors contributed to a higher rate of sexual coercion in *Facility 1* (Struckman-Johnson & Struckman-Johnson, 2002). The authors found that "nearly one-half of the incidents of sexual coercion were carried out by female inmates. Incidents ranged from casual sexual grabs to injurious gang rapes" (Stuckman-Johnson, 2002, p.225). They concluded that prison conditions can lead to acts of aggressive behavior within female offenders.

Hensley, Castle, and Tewksbury (2003) specifically studied prisoner-to-prisoner sexual coercion in women's facilities. Out of the 243 female inmates who responded to the survey, 11 (4.5%) reported incidents of sexual coercion. Sixty percent of the victims were Caucasian, 20% African American, 10% Native American, and 10% belonged to other races. Of the perpetrators, 64% were African American and 36% were Caucasian. Hensley et al. (2003) indicated that underreporting was possible considering the sensitive nature of the subject and the respondents' fear of repercussions from the perpetrators. Of the victims who identified their sexual orientation prior to incarceration, 82% stated that they were heterosexual and 18% reported that they were bisexual (Hensley et al., 2003). During incarceration there was some change in their sexual orientation, with 45% of the victims identifying their sexual orientation as heterosexual, 45% as bisexual, and 10% as homosexual. The prior sexual orientation of the assailants was identified as 60% heterosexual and 40% bisexual, whereas during incarceration, the sexual orientation of the assailants changed to 40% bisexual, 40% homosexual, and 20% heterosexual.

Halleck and Hersko (1962) collected data from 57 girls in juvenile facilities. They found that 69% of the offenders had engaged in "girl stuff." In these cases, 5% of the offenders had stimulated another girl's genitals, and 7% of the subjects allowed another inmate to stimulate their genitals during their incarceration. These relationships were "short-lived and superficial" (p. 913). Ward and Kassebaum (1965) identified two sexual roles in the female penal institution they studied — the "butch" and the "femme." The butch was like the male, in a position of control and power, sexually servicing the femmes. The femmes were the weaker and more submissive types. Their study shows that more than 50% of the females surveyed had partaken in some sort of sexual activity at least sometime during their incarceration. Researchers need to understand that the experiences prisoners go through are due to a lack of heterosexual outlets and that the prisoners turn themselves into *situational homosexuals* (Eigenberg, 2000).

Alarid (2000) conducted a qualitative study in which she examined themes of sexual assault and coercion among female inmates by employing a content analysis of letters sent by one female offender from prison over a five-year period. The researcher concluded that female inmates are much more likely to be the victims of sexual harassment or sexual pressuring than sexual assault. Interestingly, contrary to Ward and Kassebaum's (1965) finding, Alarid (2000) found that women who "participated in homosexual liaisons, particularly in the masculine role of the stud, were more likely to experience repeated incidences of sexual coercion" whereas

femmes tend to be more aggressive sexually, since there are very few formal restraints on their behavior (p. 403).

Inmate Awareness of Prison Rape and Rape Lore

Inmate awareness of prison rape is a situation where an inmate might not necessarily have experienced or seen sexual acts in prison but rape lore and the prison culture itself put them in fear of the prospect of sexual assault. According to Fleisher and Krienert (2009), these tales in prison are enough to increase a prisoner's awareness about the dangers of sexual assaults in the prison context. Fleisher and Krienert (2009) also point out that such fears can easily be developed in a prison setting where inmates communicate very quickly to learn ways to survive and acclimatize to the confined atmosphere.

In their study, Struckman-Johnson and Struckman-Johnson (2000) found that several inmates even alleged that a few high-level officers demanded sexual favors from offenders. The authors found that a culture of fear about sexual assault was prevalent in the male facilities they investigated. Such rape lore was found to be less prevalent in female facilities by other scholars. Females need and have greater social support at the inmate level (Hart, 1995) and as such could have lower awareness of prison rape. Within the prison walls, women have personalized relationships that are intimate and family-like (Jiang & Winfree, Jr., 2006, p. 36; Owen, 1998; Ward & Kassebaum, 1965). According to Owen (1998), "The world of women's prison was quite different than that of the male culture; prison culture among women was tied to gender role expectation of sexuality and family" (p. 4). On the other hand, Greer (2000) interviewed 35 female offenders in a prison facility in the Midwest and concluded that the subculture in female prisons might very well be changing. According to Greer (2000), the subjects stated their interpersonal relationships may be less familial and less secure than in the past.

Smith and Batiuk (1989) focusing on the culture of fear of sexual assault wrote that the fear of being labeled a homosexual or being raped was so strong in prisons that it led to an emphasis on masculinity and power, thus, undermining any feminine emotions like love or compassion which were considered weak. Prichard (2000) concluded that prison rape rates depended upon socially powerful prisoners who influenced the attitudes of prison populations. Jones and Schmid (1989) looked at how new inmates were initiated into the culture of fear of sexual assault, even though they themselves might not be the targets. According to Jones and Schmid (1989), new inmates would initially isolate themselves as a survival strategy as they adjust to the prison setting.

> [T]he fact that he hears about the event is sufficient to destroy his feelings of relative security...The effect of a reported sexual assault is so powerful to a new inmate that a temptation often exists—a few days after the event—to "write off" the incident as an isolated occurrence, and to struggle to regain the sense of well-being that had gradually been developing. (p. 56)

Jones and Schmid (1989) contend that as time goes by, the new inmate understands the incidents in their cultural context and begin to appreciate why they take place, as in a deal that did not work out and so did not end well, and sometimes even look upon an event as "a dramatic disruption of an increasingly tedious prison routine" (p. 59).

According to Clemmer (1940), inmates are affected by what they hear and experience in different settings within their prison life. Lockwood (1980) notes that preconceived notions about sexual violence in prison before an inmate enters prison life may be completely different or exaggerated versions of what really happens in prison. Fleisher and Krienert (2009) identified four transmitters of cultural awareness about rape in prisons: "media portrayals" (newspaper or TV), "other facilities" (where they heard about rape as a common occurrence), "definitional issues" (what constitutes rape is not clear among inmates), and "the time dimension" (incidents happening way back in the past, the tale becoming more violent with the passage of time) (pp. 53-54). Fleisher and Krienert (2009) also found that nearly 80% men and over 90% women clearly reported that they were not worried about rape or the threat of rape in their facilities. Interestingly, they found that the fear of rape was minimal as voluntary sex was readily available: "Inmates reported a lack of 'need' for rape, as the sexual needs of fellow prisoners were easily met through consensual encounter" (p. 55).

Fleisher and Krienert (2009) identified six main themes in male rape lore: "*errors in judgment*," "*deserving it*" as in cases of child molesters, "*retaliation*," "*rape/sex and liked it*," "*lessons to be learned*" as in warnings to new inmates as they enter prison life, and "*good old boy stories*" as in stories that create fear for instrumental gains (pp. 58-60). Fleisher and Krienert (2009) found that women were less likely to believe in rape lore as opposed to men. According to them, the dominant themes in women rape lore are "*socially unacceptable crimes*" as in child abuse and "*in-prison rule violation*" (p. 61).

The aim of the present research is to examine inmate awareness of prison rape and explore whether gender, race, age, sexual orientation, and longer exposure to prison life have an effect on inmate awareness of prison rape.

RESEARCH QUESTIONS AND HYPOTHESIS

Research Question 1: Would being a female increase or decrease prison rape awareness?
Research Question 2: How would race/ethnicity predict prison rape awareness?
Research Question 3: Would age increase or decrease prison rape awareness?
Research Question 4: Would being of a particular sexual orientation increase or decrease prison rape awareness?
Research Question 5: How would length of time in confinement increase or decrease prison rape awareness?
Null Hypothesis: Gender, race, age, sexual orientation, and longer exposure to prison life have no effect on inmate awareness of prison rape.

METHOD

The data that were utilized in this study were collected by Fleisher and Krienert between 2004 and 2005. They collected these data with the intentions of exploring prison rape as a cultural concept or as they put it, "a cultural artifact, which inmates may know something about even if they had never been raped, threatened, or physically or sexually intimidated" (Fleisher & Krienert, 2006, p. iv). We were able to obtain this dataset through the Inter-university Consortium for Political and Social Research (ICPSR). Hagan (2006) suggests that the ICPSR encourages scholars to share raw data and is an excellent means to acquire datasets. The data were collected by Fleisher and Krienert in thirty correctional institutions and in ten different states. Twenty-three of the facilities were designated for male inmates and seven of the facilities were designated for females. Inmates were selected from the highest security level of the facilities in each state. Between April 2004 and September 2005, a grand total of 564 offenders, 409 men and 155 women, were interviewed.

Design

The inmates were chosen from the general offender population using a probability sampling design. A systematic sample was selected using a random start and a fixed selection-interval number thereafter. This process continued, until the researchers reached the minimum number of inmates necessary to conduct their study. In order to adjust for transfers, refusals, medical care, and other unexpected circumstances, fifteen to twenty prisoners per penal institution were added. Face-to-face interviews occurred in rooms that were far away from the view of correctional staff and other inmates. The interview rooms were extremely private in every aspect, and also were separated from each other.

Measures

In the present study, we examined the independent variables, gender, age, race, sexual orientation, and total months in state prison. We also developed one original scale from the dataset in order to measure the respondents' awareness of prison rape, the dependent variable. The *prison rape awareness* scale comprises ten variables. The items were totaled to compute the prison rape awareness scale. Each variable in the Prison Rape Awareness Scale was coded 0= no and 1= yes. A higher score on the rape awareness scale meant that inmates were more aware of actual rape or the possibility of rape in the prison. Cases which had more than four blank answers on the ten variables that constitute the rape awareness scale were deleted. The deleted cases did not show any demographic pattern. In other words, both male and female inmates of various races and from different age groups and sexual preferences failed to answer five or more of the ten questions that make up the prison rape awareness scale.

TABLE 1 PRISON RAPE AWARENESS SCALE
1   Is there one-on-one rape?
2   Is there group rape?
3   Are people worried about rape? Is this a big threat?
4   Do you know for sure of a rape in this unit?
5   Have you heard about an inmate being raped?
6   Have you seen a rape, like in the movies?
7   Is there rape folklore-like stories?
8   Do you know cases of officers and inmates having sex?
9   Do you know cases of officers raping inmates?
10 Have you ever heard officers talking about rape?
(0=No, 1= Yes)
Alpha = .707

The independent variables examined in this study are gender, age, race, sexual orientation, and total months in state prison. For the gender variable, male offenders were coded as 0, whereas female offenders were coded as 1. For race, White respondents were coded as 1, African Americans were coded as 2, Hispanics were coded as 3, and others were coded as 4. In regards to sexual orientation, straight or heterosexual respondents were coded as 1, gay respondents were coded as 2, and bisexuals were coded as 3.

PRELIMINARY ANALYSIS

Univariate Analysis

Independent variables. There are 5 independent variables analyzed in this study. They were sex, age, race, sexual orientation, and total months in state prison. Of the 481 respondents, 351 (73%) were male and 130 (27%) were female. There were 189 (39.3%) White respondents, 227 (47.2%) African Americans, 52 (10.8%) Hispanics, and 13 (2.7%) other respondents. Compared to men (36.8% White), a larger percentage of women were White (46.2%), while a higher percentage of men identified themselves as belonging to a racial minority (63.2%) as compared to 53.8% women. The age of the sample ranges from 24 to 55 years, with the mean age being 34.9 years old with a standard deviation of 9.17 years. The mean ages of both males and females were the same, 34.9 years. As for sexual preference, 377 (78.4%) of the

respondents identified themselves as straight or heterosexuals, while 53(11%) claimed to be gay and 51(10.6%) said they were bisexual. A larger percentage of women identified themselves as either gay or bisexual (39.2%) than men (15.1%). Total months in state prison ranged from 6 to 337, with the mean number of months for males being 95.42, and for females being 58.30 months.

Dependent variable. One dependent variable was examined in this study— the prison rape awareness scale. Scores range from 0 to 10. The score of 0 indicates that the inmate has never heard about or witnessed any prison rape and is not worried about prison rape at all, while a score of 10 suggests quite the opposite. The mean score was 3.23 with 2.12 being the standard deviation. Of all the 481 respondents, there were only two respondents who scored 10 on this scale. The majority of the scores ranged from 0 to 7, 4 being the modal response with 83 respondents scoring 4. The two other highest scores were 2 (76 respondents) and 3 (75 respondents). Sixty-five of the 481 respondents scored 5 on the prison rape awareness scale. Men had a higher awareness of prison rape (M= 3.44, SD=2.2) as compared to women inmates (M= 2.67, SD=1.75).

Bivariate Analysis

Correlations. There were significant correlations between the dependent variable, prison rape awareness scale and most of the independent variables, sex ($r = -.162$, $p < .001$), race ($r = .102$, $p < .05$), sexual orientation ($r = .114$, $p < .01$), and total months in prison ($r = .344$, $p < .001$). Gender had a strong positive correlation with sexual orientation ($r = .258$, $p < .01$) and a very strong negative correlation with total months in prison ($r = -.192$, $p < .001$). Female subjects were more likely to identify themselves as gay or bisexual and they had less exposure to prison life. Additionally, total months in prison had a very strong correlation with age ($r = .473$, $p < .001$) and a significant relation with race ($r = .168$, $p < .05$). Older subjects and those from minority groups tended to be in prison for a longer time. Table 3 shows the correlation between the variables — the independent and the dependent as well as between the independent variables.

Multivariate Analysis

To test the hypothesis that the variables gender, race, age, sexual orientation, and total months in prison, taken together, have no effect on the respondent's awareness of prison rape, a multiple regression was conducted.

Regression results presented in the above table indicate that the overall model significantly predicts prison rape awareness, R square is .164, $F(4, 476) = 21.718$, $p < .001$. This model accounts for 16.4 percent of variance in the prison rape awareness scale. A summary of regression coefficients is presented in Table 4, indicating that total months in state prison contributed most to the model (Beta = .380, $p < .001$). The next highest contributor was age (Beta= -.144, $p < .01$). Sex contributed significantly at the $p < .05$ level (Beta = -.114). Sexual

orientation also contributed significantly at the p<.05 level (Beta = .107). These four variables contributed significantly to the model. Race was not found to be significant.

TABLE 2. CORRELATIONS AMONG STUDY VARIABLES (N= 481)						
	1	2	3	4	5	6
Prison Rape Awareness Scale	1.000					
Sex	-.162***	1.000				
Age	.023	.001	1.000			
Race	.102*	-.044	-.045	1.000		
Sexual Orientation	.114**	.258**	-.097*	.050	1.000	
Months in State Prison	.344***	-.192***	.473***	.076*	.051	1.000
* p<.05 **p<.01 ***p<.001						

Multiple regression analyses of males and females were then conducted separately, with the same variables. The regression results for males indicate that the overall model significantly predicts prison rape awareness of males, R square is .150, F(4, 346) = 15.320, p<.001. This model accounts for 15% of variance in male respondents' awareness of prison rape. Having a longer exposure to prison life (Beta = .373, p<.001) and being gay/bisexual (Beta = .132, p<.01) contributed significantly to the model. The regression results for females indicate that the overall model significantly predicts prison rape awareness among females, R square is .140, F(4, 125) = 5.072, p<.01. This model accounts for 14% of variance in the female respondents' awareness of prison rape. In the female mode, total months in prison was the highest contributor (Beta=.366, p<.001) to the model. The other significant contributor was age (Beta=-.302, p<.01). This indicated that female respondents who were in prison for a longer time, and those who were younger had a higher awareness of prison rape.

Yet another multiple regression was conducted by sexual orientation. The regression results of the straight population indicated that the model significantly predicted the prison rape awareness scale: R square=.151, F(4, 372)= 16.604, p<.001. This model accounts for 15.1% of the variance in the heterosexual respondents' awareness of prison rape. Two variables were found to be significant contributors: total months in state prison (Beta= ,406, p<.001) and age (Beta = -.139, p<.05). The gay and bisexual models had a higher R square indicating that these models explained a higher variance in the rape awareness scale. The gay model had an R square= .305, F(4, 48)= 5.256, p<.01. This models accounts for 30.5% of the variance in the

TABLE 3 MULTIPLE REGRESSION RESULTS FOR STUDY- VARIABLES PREDICTING PRISON RAPE AWARENESS SCALE									
	TOTAL			**MALES (N=351)**			**FEMALES (N=130)**		
VARIABLES	B	S.E.	Beta	b	S.E.	Beta	b	S.E.	Beta
Sex	-.541*	.214	-.114						
Age	-.033**	.011	-.144	.026	.014	-.105	-.055**	.018	-.302
Race	.160	.120	.057	.210	.151	.069	.063	.183	.029
Sexual Orientation	.346*	.143	.107	.521**	.199	.132	.065	.191	.030
Months in State Prison	.009***	.001	.380	.009***	.001	.373	.010***	.002	.366
Constant	2.997	.481		2.451	.598		3.830	.803	
R^2	.164			.150			.140		
	$F_{(4, 476)} = 21.718***$			$F_{(4, 346)} = 15.320***$			$F_{(4, 125)} = 5.072**$		

Note: b= unstandardized regression coefficients; Beta= standardized regression coefficients; S.E.= standard error of b; *p<.05; **p<.01; ***p<.001

TABLE 4. MULTIPLE REGRESSION RESULTS FOR STUDY- VARIABLES PREDICTING PRISON RAPE AWARENESS SCALE									
	STRAIGHT (N=377)			GAY (N=53)			BISEXUAL (N=51)		
VARIABLES	B	S.E.	Beta	b	S.E.	Beta	b	S.E.	Beta
Sex	-.394	.253	-.077	-1.585**	.504	-.389	-.581	.577	-.138
Age	-.030*	.012	-.139	-.077*	.037	-.299	-.054	.055	-.173
Race	.013	.139	.005	.519	.286	.227	.355	.355	.129
Months in State Prison	.010***	.001	.406	.005	.004	.174	.011***	.004	.538
Constant	3.355	.476		2.451	6.220	1.372	3.714	1.644	
R^2	.151			.305			.275		
	F(4, 372)= 16.604***			F(4, 48) = 5.256**			F(4, 46) = 4.371**		

Note: b= unstandardized regression coefficients; Beta= standardized regression coefficients; S.E.= standard error of b; *p<.05; **p<.01; ***p<.001

prison rape awareness scale. The two significant contributors to this model are sex (Beta = -.389, p<.01) and age (Beta= -.077, p< .05). This indicates that male respondents that were gay and younger respondents that were gay, both had a higher awareness of prison rape. In the bisexual model, the R square was .275, F(4, 46)=4.371, p<.01. This model accounts for 27.5% of the variance in the prison rape awareness scale. There was only one significant contributor in this model and that was total months in prison (Beta=.538, p<.001). This indicated that the bisexual population had a greater awareness of prison rape if they were in prison for a longer period of time. Except for the gay model, in all other models, "total months in state prison" was a strong contributor. Accordingly, our null hypothesis that the independent variables in our analysis have no effect on the prison rape awareness scale is rejected.

The conclusions in the first all-inclusive model, the female model, and the straight model show that both the younger prison population and those with a longer exposure to prison life make significant contributions. This might appear to be contradictory. However, they might also be indicative of two dimensions of the construction of fear or rumor about sexual assault, the perpetrators and the vulnerable. While being in prison for a longer time, enables the perpetrators to create the myth of fear to maintain their dominance in keeping with Foucault's (1972) interplay of knowledge, desire, and power in privileged areas of discourse, the younger prison population is the target of the dominant group and as discourse is quickly transmitted to those who are vulnerable as they struggle for survival in the prison setting, so the younger and the homosexual population swiftly gain an awareness of prison rape.

DISCUSSION AND CONCLUSION

Consistent with previous studies, the present study also found that sexual orientation is an important predictor of prison rape awareness. In this sample, gay and bisexual inmates had a higher awareness of prison rape as compared to straight inmates (Hensley et al., 2005; Nacci and Kane, 1984; Blight, 2000). Unlike other studies, race did not play a significant role in the awareness of prison rape (Hensley, Tewksbury, & Castle, 2003; Struckman-Johnson and Struckman-Johnson, 2000).

As for gender, men had a higher awareness of prison rape than women (Fleisher and Krienert, 2009) . This is contradictory to previous findings which suggest that female inmates perceive themselves as more vulnerable than males and as easy targets. (Baro, 1997; Struckman-Johnson and Struckman-Johnson, 2002). A logical inference would have been a higher awareness of prison rape among females. However, the findings are consistent with Discourse Theory in which female inmates tend to form familial relations within correctional environments (Hart, 1995; Jiang and Winfree, Jr., 2006; Owen, 1998; Ward and Kassebaum, 1965) rather than seeking to exercise knowledge-power dynamics. As such, females are likely to have lower awareness of prison rape.

This study examined inmates' exposure to prison life as a factor influencing their awareness of prison rape. It was found that a longer exposure, in the number of months, to the prison life increased the awareness of prison rape. This variable has not been studied in depth in

relation to prison rape. Hensley, Tewksbury, & Castle (2003) found that targets were imprisoned for a mean of 143 days (four to five months) before they were first assaulted. Jones and Schmid (1989) found that new inmates enter into an atmosphere of fear of sexual assault and try to isolate themselves as a survival tactic but their fear dissipates as they become more realistic with passing time and understand the reasons for these assaults. Since this study focuses on the cultural climate of prisons, longer exposure to prison life was found to be an important factor that influenced inmates' awareness. The longer respondents were in prison, the more they were likely to know and hear about incidents of rape, about inmate-guard sexual relations, and similar inappropriate activities occurring in prison. Moreover, applying Foucault's (1972) Discourse Theory, it is likely that this awareness is not the fear felt by new inmates, but the interplay of knowledge, desire, and power exercised by the experienced inmates to maintain their domination of the weaker players in the prison community.

Fleisher and Krienert (2006) found that offenders' level of anxiety about being sexually assaulted remains relatively low during the course of their confinement. However, prisoners "hear gossip about rape incidents or tales of egregious rape that happened long ago" (Fleisher & Krienert, 2006, p. 264). Once socialized into the system, they begin to recognize the disparity between folklore and their own experiences. This causes "anxiety and fear" (Fleisher, & Krienert, 2006, p.265). The *prison rape awareness* scale comprises 10 variables which measure knowledge, both actual and hearsay, about prison rape. Foucault (1972) discusses two types of discursive formations related to the history of ideas: one based on empirical knowledge and the other based on "tangential rumor" (p. 136). Accordingly, the *prison rape awareness* scale tried to capture both actual knowledge and rumor. The more they heard or actually saw these incidents, the higher was their awareness of rape. About 65% of the inmates were aware of officers and inmates having sex, a component of the *prison rape awareness* scale. In such an environment, there is little reason to believe that the inmates felt safe from possibilities of sexual assault. Fleisher and Krienert (2006) opined that "strong inmate orientation and continuous support by staff would aide inmates to establish positive behavioral routines" (p. 265).

One limitation of this study is that it focuses on a narrow aspect of the culture of sexual violence in prisons, namely, the awareness of prison rape. Since the dataset is very recent and only a section of it has been released to the public, there are several values that are either masked or missing in the publicly available dataset. As such, the current research is unable to take into account variables such as officers' efforts to prevent rape lore and sexual coercion. Hence, we are unable to analyze the data from a management perspective which is an important component of the prison environment.

The findings of this research suggest that the gay and bisexual prison population, the men in prison, and those younger in age have a higher awareness of prison rape. While it is likely that the awareness among the young and the gay/bisexual population might be based on fear, the awareness among the male population might be triggered by their own construction of fear by maintaining stories of sexual assault as part of the prison folklore. As such, policies should be specifically designed to alleviate fears of the young and gay/ bisexual population in prison.

This could include stricter vigilance of cells where younger inmates and known gay and bisexual prisoners are housed. The study suggests that men have a higher awareness of prison rape which the researchers contend is based on their being in the position of power and perpetrators of the culture of fear. If this is the case, specific policies designed to monitor men's cells should be put in place.

Another interesting dimension of the prison environment, which had not been explored much in the past, longer exposure to prison life was found to contribute significantly to increased awareness of prison rape. As such, programs aimed at alleviating fears long-term or monitoring rape lore in both men's and women's facilities need to be put in place.

Future studies can focus on whether policies addressing these dimensions of prison rape have been established and specific measures taken by prison officials to ease the anxiety about prison rape and to check actual prevalence. Although Fleisher and Krienert's (2006) study did not find prison rape to be a major concern among inmates, other studies (Struckman-Johnson and Struckman-Johnson, 2000; Hensley et al., 2005) have shown prevalence (21 to 26%) in several prisons across the country. As such, there is a need to address the issue of management intervention in alleviating this problem. The issue of actual prevalence having had mixed findings, the focus needs to be on allaying fears of inmates regarding sexual coercion in prison, i.e., inmate awareness of sexual coercion in prisons. If inmates have fears, whether real or imagined, of being sexually assaulted during the completion of their prison sentences, it is not conducive to their rehabilitation.

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REFLECTIONS FROM THE ONE-PERCENT OF LOCAL POLICE DEPARTMENTS WITH MANDATORY FOUR-YEAR DEGREE REQUIREMENTS FOR NEW HIRES: ARE THEY DIAMONDS IN THE ROUGH?

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Abstract

In an attempt to understand why only one-percent of local police departments require a four-year degree, surveys were sent to police chiefs of the 37 known local law enforcement agencies with mandatory four-year degree requirements. Data from 36 police chiefs were analyzed in this exploratory qualitative study to determine the utility of college degree requirements and why four-year degree requirements nationwide are merely a preference, not a standard mandatory hiring requirement. Current minimum educational requirements for local and state police agencies and implications for the future of the college-degreed officers are explored.

Key words: police departments, educational requirements, college degree requirements, police chiefs, law enforcement education program

INTRODUCTION

The relevance of a college degree for police officers has been debated for decades. Numerous studies have been conducted regarding the importance of the degreed officer, while others have described how a college degree is not an essential or important ingredient for success among police officers. That precise debate—the worth of the bachelor's degree for police officers is not the focus of this endeavor. The focus here is central to three vital panels' recommendations from 1967-1974 proclaiming that police officers obtain baccalaureate degree—the President's Commission on Law Enforcement and Administration of Justice, the National Advisory Commission on Criminal Justice Standards and Goals, and the American Bar Association Project on Standards for Criminal Justice—and why so few local and state police

departments have followed suit in requiring that police officers hold baccalaureate degrees, as less than 1% of such departments require a four-year degree (Hickman and Reeves, 2006).

Varricchio (1998) insisted that growing numbers of law enforcement administrators are considering higher education to be an important asset in transition into community policing as increasing amounts of officer education enhances officers' problem-solving, dispute resolution (Mayo, 2006) and communication skills. However, it is evident that leaders in law enforcement are hesitant to embrace the educational movement. Most police agencies do report that they prefer a college-degreed officer; however, the majority of police agencies (local, state and special jurisdiction) do not require anything more than a high school diploma or equivalent. Upon reviewing the known departments that require a four-year degree, this exploratory analysis attempts to reveal and explore the reasoning behind the small number of police departments actually requiring the degree. Results of this analysis describe the departments with four-year mandatory degree requirements and include opinions of police chiefs regarding why a college degree is important. Qualitative explanations will yield information regarding how exemplary practices of a few departments should serve as role models and guides for departments across the nation in the one hundred year quest to professionalize the policing field.

As the literature suggests, police administrators do prefer police officers to hold a baccalaureate degree, but do not require it. Verrill (2007) called for the need to determine why the select one-percent of local police departments who require the degree actually do so. This study attempts to answer that question. Debates pertaining to the usefulness and value of a college degree for police officers have been commonplace in criminal justice literature for decades. However, at the outset, it is unclear how many police departments actually require a four-year degree and the locations of such departments. This lack of clarity is further exemplified by uncertainty as to how many police officers and police agencies there actually are the in U.S., and leads to difficulty in counting police agencies (Maguire, Snipes, Uchida, and Townsend, 1998). Whatever the case, we can be assured that few police agencies (non-federal) actually require a bachelor's degree.

Current Knowledge About Educational Requirements for US Police Departments

According to the U.S. Department of Justice (2004), there are 12,766 local police departments with 3,067 sheriff's offices, 49 primary state law enforcement agencies, 1,481 special jurisdiction agencies, and 513 'other' agencies totaling 17,876 law enforcement agencies. As of 2003, in a sample of 3000 police departments, 98% of local police departments had an educational requirement for new recruits; 18% had 'some type' of college requirement; nine percent required a two-year degree and less than one-percent required a four-year degree (Hickman and Reaves, 2006).

Another source, The International Association for Chiefs of Police (2008) announced that 16% of state police agencies require a two-year degree, while four-percent require a four-year degree; 13% of county police agencies require a two-year degree and an unknown percentage of

county police agencies require a four-year degree. Nine percent of local police departments require a two-year degree and two-percent require a four-year degree. However, it was unclear the name and location of the departments that required a two or a four-year degree. Furthermore, it is unclear as to where that two-percent was derived.

Overall, scarce information is available regarding which departments require a two or a four-year degree. By searching state police agency and state highway patrol websites, it is evident that only three state police departments require officers to hold four-year degrees— Illinois State Police, New Jersey State Police, and North Dakota Highway Patrol. All three agencies, however, will waive educational requirements. Regarding the New Jersey State Police's minimum qualifications,

> An applicant must have (1) a bachelor's degree, signifying completion of the undergraduate curriculum and graduation from an accredited college or university or, (2) alternatively, an associate's degree or have complete 60 college credits from an accredited college or university, plus at least two years of satisfactory employment, or (3) alternately, have completed 30 college credits from an accredited college or university, plus at least two years of active duty military service with an honorable discharge (http://www.njsp.org/recruit/qual.html).

The Illinois State Police has the following minimum educational requirement:

> Option 1). An Associate of Arts Degree or equivalent coursework and must meet one of the following two job experience requirements: Three consecutive years of continuous, full-time service as a police officer, with the same police agency or three consecutive years of active military duty.

> Option 2). An Associate Degree of Science or equivalent coursework and meet one of the following two job experience requirements: three consecutive years of continuous, full-time service, as a police officer, with the same agency or three consecutive years of active military duty.

> Option 3). An Associate of Applied Science Degree, only if the degree is in Law Enforcement/Criminal Justice and meet one of the following two job experience requirements: Three consecutive years of continuous, full-time service as a police officer, with the same agency, or three consecutive years of active military duty.

> Option 4). A Bachelor's Degree
> (https://www.illinoisstatetrooper.com/requiremnents.html).

Lastly, North Dakota Highway Patrol's minimum educational requirements are:

An Associate degree with two years of work-related experience or a Bachelor's degree (http://nd.gov/ndhp/employment/qualifications.html).

Upon review of each state police or state highway patrol website, the following requirements by state were revealed: presently, ten states require an Associate's Degree or 60 hours of college credit (PA, TX, KY, MN, MO, OK, DE, CN, WI, LA). The remaining states require a high school diploma or equivalent. However, one state-- Nevada, stipulates no educational requirement.

Out of the 100 largest cities in the United States, only four police departments require a four-year degree (Jacksonville, FL, Arlington, TX. St. Paul, MN, and Tulsa, OK). Upon looking at the 100 largest police departments in the United States by number of sworn officers (list provided by the Police Executive Research Forum), only 3 of the largest police departments require a four-year degree (New Jersey State Police, Illinois State Police, and Jacksonville Sheriff's Office). After reviewing each of the 100 largest cities websites, it was determined that 67% of such departments require police officers to have a high school diploma or equivalent; 6% require a high school diploma plus 12 hours college credit; 4% require between 30-40 hours of college credit, 19% require an Associate's degree or 60 hours of college credit, with 4% requiring a four-year degree. Again after searching agency websites regarding career opportunities, the percentages were similar upon reviewing the largest 100 departments by number of sworn officers: 68% required a high school diploma or equivalent; 4% required a high school diploma or equivalent plus 12 hours of college credit; 4% required between 30-54 hours of college credits; 21% required an Associate's degree of 60 hours of college credit, and 3% of the 100 largest police departments (by number of sworn officers) currently require a four-year degree. Once again, even the few that require the degree; the majority will waive the requirement, with certain stipulations—which will be discussed.

To estimate whether or not the one-percent of police departments with degree requirements were actually large or small departments necessitated reviewing the LEMAS report (2003), concluding that

Seventy-four percent (74%) of all local police departments served fewer than 10,000 residents, these agencies employed just 14% of all offices. About half of all officers served a jurisdiction with 100,000 or more residents. While departments serving the largest cities had thousands of officers on average, those serving fewer than 2,500 residents have an average of just four full-time employees, including three sworn officers.

LITERATURE REVIEW

In 1916, police chief and professor at the University of California at Berkeley, August Vollmer, initiated the movement in support of police officer education (Sherman & The National Advisory Commission, 1978). It was Vollmer's vision that a higher education would move the policing occupation into an esteemed profession. Vollmer (1926) acknowledged that

one of the main problems with policing was that officers did not have the necessary intellectual training to deal with the ever changing and cunning criminals of his time. He believed that advanced education would help to stop the constant temptations presented to police officers to break their ethical beliefs. In addition, Vollmer instituted a curriculum that included new fields of policing such as evidence collection, methods of identification and organizational structures of policing departments (Gault, 1918).

The Wickersham Commission, also known as the National Commission on Law Observance and Enforcement (1931) officially acknowledged the need for employees in the criminal justice profession, especially police officers, to be college-educated (Bennett and Marshal, 1979). In the 1960's, politicians, educators, and criminal justice administrators called for the need for higher education to address crime control issues (Carter and Sapp, 1990). The President's Commission on Law Enforcement and Administration of Justice was established in 1967 due to public criticisms of American police departments (Krimmel and Tartaro, 1999). The Commission found that the policing occupation had become more rigorous and complex; standards needed to be raised for new police officers and reported that without higher educational requirements, quality in police services could not be achieved or attained. College-educated and trained individuals were considered necessary to handle community and social problems and to devise new and adequate measures of social control. The Commission's goal was a requirement that all police officers attain a baccalaureate degree and recommended that officers were in need of increased critical thinking skills. That recommendation lead to the Law Enforcement Education Program (LEEP), which offered financial incentives through educational grants and loans to officers with the ultimate goal of providing encouragement to complete the baccalaureate degree. Funding via LEEP also launched numerous studies on the effects of a higher education relative to policing.

Shernock (1992) observed that other similar reports offered by various Commissions followed: (1969) National Commission on the Causes and Prevention of Violence, (1971) President's Commission on Campus Unrest, (1973) American Bar Association Project on Standards for Criminal Justice—which indicated "the police were unable to curb crime and no longer had a relationship with, nor understood, the communities they served" (Hawley, 1998, p. 38) and an era of community policing began in which officers would build partnerships with the community and help members to solve problems. The belief was that a college education would enable officers to become critical thinkers, better communicators and problem-solvers.
A report from the National Advisory Commission of Criminal Justice Standards and Goals, 1973, advised that all police departments mandate and require applicants to possess three years of college education prior to hire. An abundance of studies in the 1970's analyzed the importance of officer education. However, Smith (1978) revealed that studies from the 1970's pertaining to the benefits of higher education in relation to police performance were poorly designed and inconsistent.

Cascio (1977) described the most apparent explanation regarding the longstanding debate pertaining to higher education and policing--a lack of consensus on the definitions of police performance. Police performance has been addressed through a variety of different themes:

officers with four-year college degrees have better written and oral communication skills than non-college educated officers; officers with four-year college degrees have more professional attitudes and display more tolerant views; are more independent and well-rounded thinkers; better able to analyze problems; exhibit a greater understanding of human behavior; are more professional; place a higher emphasis on the value of ethical conduct; are more flexible; demonstrate lower levels of authoritarian attitudes; are more intellectually developed; display increased self-confidence, morale and motivation; require fewer disciplinary actions, including citizen complaints, and display better public relation skills than non–college educated officers (Alpert and Dunham, 1988; Carlan and Byxbe, 2000; Carter and Sapp, 1990; Cascio, 1977; Finckenauer, 2005; Hall, Ventura and Lambert, 2007; Scott, 1986; Sherman et al., 1978; Shernock,1992; Smith, 1978; Scott, 1986; Worden, 1990).

Mahony and Prenzler (1996) found that studies suggest that the disadvantages of college-educated officers are offset by advantages including less discriminatory officers and fewer complaints from citizens, which mirrored findings from Carter, Sapp, and Stephens (1988) that "98% of the responding police departments indicated that officers with two or more years of education received fewer citizen complaints than their counterparts who had less education (p. 39).

The Arguments: Pros and Cons of the College-Educated Police Officer

The idea surrounding the purpose of college-educated officers has stemmed from two sources: the alleged importance of professionalism for the police force and to change officer attitudes (Shernock, 1992). Friedmann (2006) made an excellent point,

> When police officers try to do their job today without a degree, their already difficult task is made more difficult. However, chiefs who mandate the degree requirement should be aware that the transition period—where the police department does not already have a clear majority of officers with degrees—could be difficult. Police officers sometimes resist higher education requirements. Despite this resistance, police officers need higher education for the good of the profession" (p. 23).

Chief of Police Hawkins (2006) reiterated his department's four-year requirement in Burnsville, MN.

> Burnsville's four-year degree requirement helps recruit big-picture thinkers who are creative, culturally aware, and technically sound in constitutional law, and who look for the best solution to the multitudes of challenges they encounter. An officer's well-rounded background enhances his or her ability and desire to partner with community members, use the vast resources both the residents and business owners possess, and make them part of the problem-solving process. The synergy created between the

community and the officers is the basis foundation of Burnsville's community policing efforts. (Friedman, 2006, p. 28).

As the debate over the need for an educated police officers has demonstrated contradictory evidence concerning college educated police officers—meaning that although many studies are supportive that officers need a college education, there is also conflicting evidence. Baro and Burlingame (1999) disputed recommendations that officers need a baccalaureate degree to increase levels of police professionalism, stating that officers need no more than a high school diploma or equivalency. Sherman and McLeod (1979) speculated that higher education for officers may be irrelevant because the education officers receive in higher educational institutions is quite similar to training officers receive in police academies. However, Sherman and McLeod (1979) both believed that advanced education for police officers added value and benefited the communities in which they served. Critics of higher educations believe the "college-educated officers are more likely to become frustrated with their work, with restrictions imposed by supervisors, and with limited opportunities for advancement" (Worden, 1990, p. 567). Hudzick (1978) found that officers with an education place less value on obedience to supervisors and are less satisfied with their careers. Other are concerned that "college-educated officers will quickly tire of the irregular hours, constant pressures, and relative low pay of policing" (Varricchio, 1988, p. 11). Whetstone (2000) acknowledged that, "hiring candidates with improved credentials also invites eventual problems such as greater job dissatisfaction and personnel turnover" (p. 247). Kakar (1998) further demonstrated that a college education might decrease officer's quality of service because police work does not offer opportunities to stimulate the college-educated mind. Furthermore, because police performance measures differ in studies, no real consensus exists on exactly how police performance should be defined and measured.

Carter and Sapp (1990) indicated that regardless of degree requirements, 23% of police officers had obtained a four-year degree and 65% of police officers had at least one year of college. Peterson (2001) gave somewhat higher estimates, in that 30% of police officers sampled from ten medium-sized departments in the Midwest had four-year degrees. Mayo (2006) estimates between 25-30% of police officers have a four-year degree, which realistically nearly mirrors the percentage of U.S. population over age 25 who have obtained a bachelor's degree. According to the US Census Bureau (2005) 28% of the US population over the age of 25 has obtained a bachelor's degree, which is an all-time high.   Common sense dictates that those percentages of police officers with four-year degrees are representative of the education levels of the communities they serve, if we utilize such figures and that line of reasoning. However, the small number of departments requiring degrees necessitates attention to raise awareness to the fact that less than 100 police departments, including special jurisdiction police, state police, county and local police departments mandate degrees, and whether this will change in the future.

Little information exists regarding the 1% of police departments that require the four-year degree. Mayo (2006) revealed several case studies of departments with four-year degrees

regarding the question of the degree and its importance to the sites' organizational success in the communities they serve. One of the departments that was highlighted, the Dover Police Department in N.J., which is now the Toms River Police Department, has changed its language to relax its mandatory four-year requirement, the current ordinance:

> requires candidates to possess a bachelor's degree from an accredited college or university or, the candidate must possess a minimum of 64 college credits combined with two (2) full years of military experience or full time work experience (http://www.trpolice.org/Recruitment.html).

The Chief of Police, Thomas Nestle, III. of Upper Moreland, NJ, responded via email that Upper Moreland only requires 60 hours of college credit. Nestel (2009) offered his opinion, via email, as to why the degree requirements was relaxed at his department,

> *The applicant pool that is suited for this position frequently does not possess the educational pedigree you describe (a four-year degree). Law enforcement tends to draw military veterans and sons/daughters of existing officers. Neither group has a high rate of college graduates. Recruiting on college campuses has proven to be very unsuccessful. Policing doesn't seem to be an appealing direction for the college graduate.*

In recent years, other departments (Memphis, TN, Plano, TX, Portland, OR) once known to have had a four-year degree requirement, further made national headlines regarding the choice to relax their respective educational requirement. However, there are several special jurisdiction police agencies that also require officers to hold a baccalaureate degree and will not waive educational requirements, including the Missouri Department of Conservation (law enforcement) and the Texas Parks and Wildlife Department. However, special jurisdiction police agency degree requirements are not the focus of this analysis.

METHODS

Sixty police agencies (local and county) were discovered through extensive Internet searches to indeed have the requirement--Illinois has the greatest number of police departments requiring a four-year degree, with eleven; New Jersey has seven; Ohio has eight; Pennsylvania has six; Michigan has 5; Texas has four; Wisconsin has 4; Colorado has 3; South Carolina has 2; Florida has 2; Minnesota has 2; Oregon, North Carolina, Oklahoma, Rhode Island, and Missouri each have one local police department that has a four-year degree requirement.

Special jurisdiction police agencies aside, caution however, that of those 60 police departments, only 37 will not waive or relax their educational requirements for any exception. Therefore, there are 37 local police departments that will not waive their educational

requirements on any grounds. It was those 37 police departments that served as the sample of this study.

      This was an exploratory study of 37 police departments known to have mandatory four-year degree requirements for new hires. A questionnaire instrument, utilizing a mixed-method design, consisted of 30 open and closed-ended items. The purpose of the instrument was to provide data that could be utilized to determine why so few departments across America actually require a four-year degree. The survey instrument, which was developed and linked to existing research, has not been previously implemented.

      A qualitative approach was employed to uncover themes predominant to this analysis. Few attempts have been taken to qualitatively explore the important issues relevant here— opinions of police chiefs from the one-percent of police departments with mandatory degree requirements. Of the 37 questionnaires mailed, 36 were returned, with a response rate of 97%. Two questions were explored: Why do their departments actually have a mandatory degree requirement and why they believe so few departments actually require the degree. Several themes emerged from the data describing this phenomenon.

      Table 1 contains the 37 local departments that will not waive educational requirements. Population size, gathered from Sperling's Best Places (www.bestplaces.net) follow to demonstrate the size of each city in which the respective department is located. Regarding county police departments, population size was not included.

RESULTS

      Only one-percent of over 12,000 local police departments require a four-year degree. As stated previously, few studies have addressed why this is the case. This study revealed that many police departments are hesitant to adopt a mandatory educational requirement due to fears that applicant pools will dwindle if requirement is enforced.

      According to this sample, nearly 64% of police chiefs reported that their respective applicant pools have indeed decreased due to their educational mandate. However, others felt differently,

The four-year degree requirement has served us well. We typically receive about 70 applicants for every 1-3 openings we try to fill. All of which have the four-year degree and either enrollment or completion of the police academy.

      Another responded in a way to overcome the issue of lower applicant pools, cautioning a reason why this will not happen at large,

Yes, the requirement decreases this applicant pool. In my opinion, for a department to have an educational requirement such as ours, a strong recruitment effort is necessary. We recruit over 15 northern Ohio colleges that have law enforcement majors programs

TABLE 1 LOCAL POLICE DEPARTMENTS REQUIRING FOUR-YEAR DEGREES, NO EXCEPTIONS

Police Department	Location	Population Size
Arvada Police Department	CO	104,838
Arlington Police Department	TX	367,197
Bethel Park Police Department	PA	31,891
Bloomfield Township Police Department	MI	65,796
Canfield Police Department	OH	7,061
Centerville Police Department	OH	23,046
Cleveland Heights Police Department	OH	47,097
Deer Park Police Department	TX	29,748
Burnsville Police Department	MN	59,321
Eatontown Police Department	NJ	14,022
Elgin Police Department	IL	98,846
Gaston County Police Department	NC	
Flint Township Police Department	MI	32,753
Green Tree Borough Police Department	PA	4,396
Lakewood Police Department	CO	140,024
Leonia Police Department	NJ	8,799
Mahwah Police Department	NJ	24,560
Middleburg Heights Police Department	OH	15,237
Mt. Lebanon Police Department	PA	5,481
Multnomah County Sheriff's Department	OR	
Naperville Police Department	IL	140,633
Norton Shores Police Department	MI	23,429
Novi Police Department	MI	52,621
Owasso Police Department	MI	15,388
Palatine Police Department	IL	66,596
Platteville Police Department	WI	9,748
Pueblo Police Department	CO	103,730
Peters Township Police Department	PA	4,683
Richmond Heights Police Department	MO	9,228
Schaumburg Police Department	IL	73,890
Smithfield Police Department	RI	21,863
South Park Township Police Department	PA	14,647
Strongsville Police Department	OH	43,347
Sugar Land Police Department	TX	79,943
Tulsa Police Department	OK	385,486
Wheaton Police Department	IL	54,611
Wilmette Police Department	IL	26,737

Note: N=37. This may not be the complete list. However, no other such list is available.

to get an adequate number of participants to take our civil service tests. That is an expensive endeavor, one that most cities won't make.

One of the predominant reasons offered as to why more police departments do not have a mandatory degree requirement is that enforcing such a mandate would have a negative impact on recruiting. One chief replied,

It's 'politically correct' to lower education standards to avoid the wrath of the special interest-minority groups who wish to lower educational standards to increase the minority population in the applicant pool.

Other interesting responses emerged regarding the process of calming the regarded negative impact on recruiting,

If I can keep the requirement a few more years, we will have a majority of officers with degrees and there will be less internal pressure to lower standards. As long as we hire a significant percentage of minorities, there will be less claims of adverse impact—nine are female, five are Hispanic. We will evolve to the point that candidates for promotion with degrees are more likely to get the appointment.

We have fewer applicants, but they are higher quality. Our recruitment methods continually change to reach our target audience. We work with many minority groups to reach out to minority populations.

One respondent was adamant regarding this issue,

The minority community that believes there would be an 'adverse impact.' There isn't.

Herein, two vital questions needed exploration: Why do their departments actually have their mandatory degree requirement and why they believe so few departments actually require the degree? After careful thought and consideration, they shared their opinions and beliefs— those of which should be held in high regard, as they are the select few who have shown to be pioneers in their concrete efforts to bring about professionalism to the policing field.

Police Chief's Explanations as to Why Their Respective Departments Have the Four-Year Degree Requirement

Aside from stern recommendations encouraging police administrators and community leaders to adopt educational standards, six themes emerged from analyzing the data regarding why these departments actually have the degree requirement.

1.It is our tradition and part of our institutional, organizational and community culture and we are valued,

> *We are the only agency in the state that still requires a four-year degree. We have always required this and I believe we hire exemplary people with more maturity and a strong sense of direction than those without the degree. It's really a huge part of our culture.*

> *We hope to keep our four-year educational degree requirement forever. With the high percentage of college graduates in today's society, I don't believe this requirement is unreasonable. It's our goal to continue to pursue the 'most qualified' applicants for our department.*

2. The degree carries with it a level of expertise, knowledge and perseverance that represents us in our communities well,

> *The requirement for a bachelor's degree generally assures that an applicant can read and write; has been exposed to complex written materials requiring some level of analysis; has developed some level of critical thinking and communication skills, and has achieved at least some measurable relatively long-term goal in their lifetime.*

> *A bachelor's degree limits the number of applicants who, most probably, would not be selected anyway. It also increases the quality of the applicant pool (education-level wise), which makes for a better police officer and increases the minimum age of the applicants, making them more experienced in life. It also shows that you have people at the very least, had the 'stick-to-it-ivness' to persevere through four years of college. It also eliminates the need for education reimbursement for officers pursuing bachelor's degrees.*

> *We believe that it provides us with a more mature, well-rounded and worldly candidate who has more experience interacting with many different people from all walks of life.*

3. Education levels of the police force should mirror the education level of the communities they serve,

> *The requirement is important to reflect the demographics of the community we serve. According to the Census, Wilmette has one of the highest education levels in America. We want to be representative of those we serve in race, gender,*

education level and foreign language. This is also a successful strategy for maintaining high salaries and benefits.

We wanted to ensure our police officers' education level closely mirrored the education level and demographics of our community.

4. A belief in excellence and quality—the degree makes a difference in performance,

The department instituted this educational requirement in 1993 due to the belief that educated officers will be better decision makers and have better communication skills, both in oral and written form .It is our department belief in excellence—higher quality of service to community, being leaders in profession.

We believe that a better-educated work force is necessary in dealing with the public and are higher educated. We also believe that education enhances communication skills, which are necessary in police work.

A higher educated person is a more rounded individual, which leads to a better police officer.

5. A belief that the mandatory degree promotes professionalism both in their communities and for the entire police field,

We believe that this should be the standard if we are to continue to develop and promote a professional police organization.

Academics have pushed our department to a new level of professionalism and innovation.

6. Officers with a college degree are more mature and have stronger goal- reaching abilities.

I feel that a person demonstrates his/her desire to be a police officer by completing four years of study in criminal justice. They prove not only a strong desire to become a police officer, but possess the ability to set a goal and achieve it. It also demonstrates that ability to learn. That is why a four-year bachelors degree in criminal justice, criminology or law enforcement exists. It is specific to those who set a goal for law enforcement and achieve it.

Police Chief's Explanations as to Why They Believe So Few Departments in the U.S. Actually Require a Four-Year Degree

Only three out of the 36 police chiefs surveyed stated that they were not satisfied with their department's educational policy. However, over 90% were satisfied with their departmental policies requiring college degrees. Aside from the following two realities many police leaders encounter--one being that the college degree is not mandated as a requirement by most licensing boards, and it may be prevented because of civil service regulations--five themes emerged regarding police chiefs explanations as to why they believe so few departments actually require degrees:

1. It's all about money and over-all job satisfaction that one perceives a college- degree should bring,

> *We have issues retaining officers and we frequently lose them to higher paying positions outside the field of policing. University instructors, technical school instructors, social work have all been attractive to our officers.*

> *Higher degreed people are not satisfied being a police officer.*

> *Money. Most departments cannot afford to start out a patrol officer at what a college graduate could make.*

2. The degree requirement decreases applicant pools. Although some did not agree, the majority of police chiefs surveyed stated their department's mandatory degree requirement has reduced applicant pools,

> *It reduces the pool of potential applicants at a time when suitable applicants are hard to find. There remain a high percentage of law enforcement executives and government officials who believe a four-year degree is not a necessity in preparing an individual for a law enforcement career.*

3. The chiefs in this studied strongly valued education, however education overall is under-valued in policing,

> *Most chiefs say they value education, but stop short of making it a requirement.*

> *Education is under-valued in policing. The four-year degree requirement makes recruiting tougher and it creates challenges for retaining personnel.*

> *I still believe that the majority of police leaders are, as a law-enforcement culture, anti-education for police officers.*

4. Police leaders who have not attained a college degree may not find one necessary. Therefore, this presents itself as a great challenge, one of increasing overall education standards,

> *Administrators may not believe a college degree is necessary, especially if they have not earned one.*

> *It is challenging to staff a police agency with a four-year college degree requirement and research indicates officers with experience may out perform those only with a college degree.*

5. The other side of the debate that a college degree is not necessary for a police officer,

> *The traits required of a police officer are not learned at the college level. Character is forged long before that point in one's life and if not it is probably too late.*

> *It is unnecessary. The qualities required of a police officer—maturity, judgment, discipline, are not attained by going to college. College can make a good person more educated, but it does not make a good person. We have been forced to bypass very qualified and exceptional people owing to the lack of a college degree. I have several officers I would gladly exchange for non-college graduates with a good work ethic.*

CONCLUSION

Although at first glance, that one-percent of police departments requiring degrees signifies that professionalism for policing is stalling. However, there have been enormous improvements over the past 60 years. Bell (1979) found that in the 1950's, increasing numbers of local police departments began requiring at least some college as a prerequisite for entry-level hiring. By 1990, Carter and Sapp realized that 65% of police officers had at least one year of college and 23% attained a four-year degree. According to the Police Foundation (1979) approximately 25% of officers had at least one year of college. Whetstone (2000) added the "every national consensus of police personnel shows the average educational level is on the rise, as is the proportion of officers holding degrees" (p. 247). In reality, the one-percent possibly may not receive attention because it may be all about perceptions, and a paradox—

> *The number of police departments requiring degree is low because most law enforcement agencies do not serve a community that demands a college education. However, even without the requirement, many or most candidates have the college degree.*

Additionally, there is irony in the mix—

> *It's ironic because although many law enforcement agencies have low minimum entry level educational standards, the final pool generally consists of candidates possessing bachelor's degrees, Master's degrees and higher.*

Those three vital panels' recommendations of the 1960's and 1970's stipulated that a degree would be good for the policing profession. As one chief suggested, this may not have happened because agencies are not selling themselves well to the public. However, if it is done correctly, mandatory degree requirements may serve communities well.

> *We have had the four-year degree requirement since 1991, and it has served us well. If I were to speculate, it could be that lower wage agencies have trouble attracting four-year candidates or that these agencies do not do a good job 'selling' their departments to the public and applicant pool.*

The survey instrument in this analysis has not been previously implemented. Therefore, sufficient evidence for validity cannot be provided. Lastly, other variables not explored such as crime rates of communities, organizational cultures and style of policing may influence educational degree requirements and deserve attention in the future.

As stated earlier, the limitations presented in this analysis are obviously an estimate of the true numbers and locations of police departments requiring degrees. However, information regarding the subject is sparse. This rings true among police chiefs who required the degree. The majority was unaware as to whom the rest of the one-percent actually was. This is merely a beginning, and as this list and information unfold-- regarding the realities of educational requirements-- there will continue to be disagreements and misunderstandings representing the true purpose of a college education for a police officer. Whatever the case, police officers are appearing to become educated regardless of the requirement. Therefore, the degree does matter. It is unclear whether findings from this study can be generalized. For example, do police chiefs' opinions differ regarding whether their department requires the degree, but will waive the degree? One aspect is clear: the chiefs in this study as a whole do not intend to alter their degree requirement in the future—which may separate them from others.

Overall, the one-percent of police departments requiring degrees should be recognized and celebrated for their efforts in being role models and leaders in bringing about professionalism. They are entities that truly should be considered as diamonds in the rough. Roberg and Bonn (2004) reiterated the nearly nonexistent numbers of police departments requiring degrees. Although leaders in law enforcement continue to hesitate the implementation

of educational requirements (Breci, 2004; Carlan, 2007; Remington, 1990; Roberg and Bonn, 2004), recruitment for college graduates continues to increase.

Future study should focus on officers' abilities to adjust to new technological demands, as well as the language barrier in the U.S. population demographic shift in the 21st century and beyond. The effect of educational attainment upon the community policing movement is also another area of needed research.

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BIOGRAPHICAL SKETCHES

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Texas Prison Books: A Review Essay

Horton, D.M. and Nielsen, G.R. (2005). *Walking George: The Life of George John Beto and the Rise of the Modern Texas Prison System*. Denton, TX: University of North Texas Press. ISBN 978-1-57441-199-7. 257 pages, cloth, $29.95.

Perkinson, R. (2010). *Texas Tough: The Rise of America's Prison Empire*. New York: Henry Holt and Company. SBN 978-0-8050-8069-8. 484 pages, cloth, $35.00.

Trulson, C.R. and Marquart, J.W. (2009). *First Available Cell: Desegregation of the Texas Prison System*. Austin, TX: University of Texas Press. ISBN 978-0-292-71983-5. 277 pages, cloth, $55.00.

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TEXAS PRISONS: A WORLD UNTO THEMSELVES

In this review essay I discuss three books that examine some aspect of Texas prisons. One book is a general history of the Texas prison system, another examines how Texas prisons dealt with one contentious issue (racial segregation), and another is a biography of the renowned Texas prison administrator, George Beto. One book is written by a historian, one is written by two criminal justice scholars with extensive experience working in and researching Texas prisons, and the third is coauthored by a criminal justice professor and a history professor. These different perspectives and different foci, taken together, provide a rich and compelling portrait of America's most notorious prison system.

Texas prisons are well known. They have a long and violent history that is tied up in the racial and class issues that have long enveloped the South. They have at different times been cited as among the worst and best of prison systems. Texas prisons have been at the forefront of a number of developments in corrections, including convict leasing, the development of prison farms, the massive building boom of the 1990s, and the revitalization of the death penalty. Corrections scholars know well a number of Texas prison attributes, such as the use of building tenders and the control model of prison management. The sheer size of the Teas prison system is hard for many to grasp: it is the largest prison system in the country, larger even than California's, even though California has a population that is fifty percent greater. There are currently more than 170,000 inmates housed in Texas prisons.

As a result, Texas prisons are a rich source for scholars who wish to study prisons. The books reviewed in this essay all approach the study of Texas prisons from slightly different perspectives, and have different foci. Together they provide a fascinating window into a world

that, while oft-studied, seems always to offer more to those interested in corrections history and practice.

TEXAS TOUGH: THE RISE OF AMERICA'S PRISON EMPIRE

In Texas Tough, historian Robert Perkinson has used the Texas prison system and the history of corrections in Texas as a springboard for a general critique of American incarceration policy. He argues that incarceration has been used since the Civil War as a means of controlling racial minorities. Prior to the Civil War, Blacks were controlled, in the South in particular, largely via the institution of slavery. With the elimination of slavery the White power elite had to find new ways to control Blacks, and they turned increasingly to prisons. In the South this first meant the rise of the convict lease system, which was popular until the early twentieth century. Multiple scandals and the rise of the Progressive movement led Texas to eliminate convict leasing and build prisons. These prisons, for the most part, took the form of prison farms—little different in many aspects from the former plantations that they were built on.

The Texas prison system was largely ignored by the general public and, by the 1940s, was widely regarded as among the worst in the country. Two politically savvy administrators, O. B. Ellis and George Beto, were able to dramatically improve the image of Texas prisons, however, so that by the 1960s Texas was heralded for its "modern" prison system. There were serious problems hidden underneath this well-organized, clean, and efficient system, however. Prisons were in large part controlled by inmate "Building Tenders" who helped the tremendously understaffed and poorly trained prison administrators and correctional officers run the prisons. The rise of the inmate rights movement in the 1970s led to a major class action lawsuit, Ruiz v. Estelle, which resulted in major changes in the prison system.

While the Texas Department of Corrections struggled to comply with court-mandated changes, inmate violence skyrocketed and race-based inmate gangs became a major problem. This rise in violence coincided with a tremendous increase in the number of people being sentenced to prison. In 1970, Texas prisons housed approximately 15,000 inmates. By 1990 this number had increased to 49,000. By 2000 the inmate population had risen to more than 135,000, and today it is near 170,000. This rise in incarceration has been felt most by the minority community. Seven times as many Blacks are in prison as Whites. According to Perkinson, the rise in incarceration is tied to racial discrimination: "Denied a place in society, Jim Crow has moved behind bars." He argues that emancipation led to a penal backlash in the South, and that the civil rights movement led to penal backlash nationally. He also notes that Texas prisons have followed a sad cycle: a crisis spurs efforts at reform; this reform is poorly implemented and results in unrest and perceived failure; this unrest results in a rollback of the reform effort and then neglect, which eventually results in another crisis. The pendulum swings back and forth, but rarely moves forward.

Perkinson provides a readable account of the history of Texas prisons, one that is no doubt news to those who do not study Texas prisons. Scholars will find relatively little new here, however, as much of what he discusses has been extremely well covered by scholars focused on Texas (Crouch and Marquart, 1989; Martin and Ekland-Olsen, 1987; Walker, 1998)

or other Southern prison systems (Bergner, 1998; Myers, 1998; Oshinsky, 1996; Taylor, 1993). What sets his account apart, however, is its scope—it is greater than those who have come before him, and he has done an admirable job of compiling previous accounts. Where he fails, however, is in his failure to provide a detailed portrait of the individuals and the events that made the Texas prison system what it is. He provides relatively brief descriptions of the major players, such as George Beto and David Ruiz, and provides only cursory descriptions of some of the most important developments in Texas prisons, such as the rise in inmate violence in the 1980s and the attempt to desegregate the prisons.

His account also suffers, at times, from trying to do too much. At times his rhetoric and passion overwhelm his presentation. While I tend to agree with his political perspective, his relentless attack on Texas prisons and refusal to see alternate explanations for some of what took place pushed me, as a reader, to question his objectivity. Perhaps he would argue that the time for calm, dispassionate examination is past and society needs to act now to reverse the trend towards mass incarceration of the poor, Black and Brown. But when one protests too much, he risks losing his academic audience, which is trained, rightly or wrongly, to be objective. Finally, the presentation suffers somewhat from a tendency towards repetition, the not infrequent use of clichés, and some difficulty with focus—Perkinson uses the history of Texas prisons as the jumping off point for a critique of American corrections in general, which is fine, but at times he bounces back and forth between these two themes and loses his narrative drive. Nonetheless, his book is a welcome addition to the literature and a valuable one –volume resources for those wishing to better understand the Texas (and American) system of mass incarceration.

WALKING GEORGE: THE LIFE OF GEORGE JOHN BETO AND THE RISE OF THE MODERN TEXAS PRISON SYSTEM

In Walking George, coauthors David Horton and George Nielson provide a biography of the best-known Texas prison administrator, George Beto, who served as the head of the Texas Department of Corrections (TDC) from 1962-1972. Dr. Beto is a key figure in Texas prisons, as he oversaw a tremendous number of reforms in the Texas prison system and became a leading figure in corrections nationally. His tenure and the so-called "control model" of prison management was featured in John Dilulio's influential book Governing Prisons (1987). Walking George is not limited to coverage of Beto's tenure in Texas prisons, however; it is a full biography covering his entire life.

George Beto took an unusual route to prison work. He studied to become a Lutheran pastor, and eventually became president of a Lutheran college in Texas and then a seminary in Illinois. During his tenure in these positions he served on the Texas Prison Board and worked with Joseph Ragan, the well-known warden of Illinois' Stateville Prison. He achieved a record as an extremely capable and progressive administrator (he integrated and made co-educational Concordia Lutheran College in Austin, Texas in the 1950s). He became head of TDC in 1962, succeeding O. B. Ellis, his mentor and friend.

During his tenure as head of TDC he oversaw the development of the Windham School District (limited to inmates and providing education from elementary to college level) and the expansion of training and industry programs for inmates. What set him apart form other capable administrators, though, was his personal style. He was known as "Walking George" for his habit of showing up, usually unannounced at any of the Texas prisons, to conduct an inspection and meet with both staff and inmates. He would walk through the prison yard and speak with any inmate who wished to talk to him. He took an extremely "hands on" approach to management, and was involved in virtually everything in the Texas prison system. This was a bit easier to do in the 1960s, when the inmate population was below 15,000 and most of the Texas prisons were located in East and Southeast Texas, but it still required a tremendous amount of time and energy. Beto was a politician, in the best sense of the word—he listened to everyone, and made everyone feel like he cared about them.

This book is the first attempt at a biography of George Beto and, as such, is absolutely essential reading for anyone interested in Texas prisons. That said, it is not without its limitations. While I can appreciate the authors' decision to cover all of Beto's life, as a corrections scholar I wish they had devoted more time to his tenure at TDC. The description of his life prior to TDC is important in understanding how he ran TDC, and the description of his activities subsequent to his time at TDC is also important (particularly to those of us who attended Sam Houston State University), but the authors unfortunately do not delve deeply into the ten years at TDC. There is little in the way of detailed description or analysis, and when the authors do mention some of the problems TDC experienced as a result of Beto's control model approach to prison management, they invariably gloss over the shortcomings of his approach. It would be interesting to know if Beto could have prevented or at least diminished some of the multitude of problems that TDC experience in the 1970s and 1980s—were these problems preventable? Or were they inevitable, given how Beto ran TDC? The authors endorse John Dilulio's analysis of the control model, an analysis that has, since its publication in 1987, been rather heavily criticized.

The book at times reads less as biography and more as hagiography. This is understandable to a degree, as the authors are former students of Dr. Beto and there is no doubt that he was an extremely impressive figure. The book is filled with references to Beto as a "father figure" and his so-called "Betoisms," pithy (and often earthy) sayings that passed for wisdom. In the end, however, the reader does not have any real sense of why Beto was the way he was, or why he did the things he did. What sort of man has the courage to integrate a school in 1950s Texas and who is also willing to allow inmates and staff to mistreat other inmates on a regular basis? Clearly he was both ahead of his time, and a man of his time. The authors are unable to explain the man. This is a shame, for it is evident that Beto was both a tremendously important and interesting figure. He has been described by other writers as an icon, a visionary, and consequential. It would be nice to have a better understanding of the man than these authors able to provide.

FIRST AVAILABLE CELL: DESEGREGATION OF THE TEXAS PRISON SYSTEM

In First Available Cell, coauthors Chad Trulson and James Marquart provide a fascinating description and analysis of a significant event in Texas prisons, one that demonstrates both the culpability and resilience of the Texas Department of Corrections—the movement to desegregate the prison system right down to the level of two-person cells.

Texas prisons were, like other Southern prisons and many Northern prisons, largely racially segregated until well after the advent of the civil rights movement. In fact, it was not until 1975 that the Texas legislature changed the law that until that time required that prisons be segregated. The authors provide an excellent description of racial issues in Texas prisons leading up to the latter half of the twentieth century.

In 1965 Director George Beto did take the then-remarkable step of permitting the voluntary desegregation of TDC prisons and work assignments. Until then, both were largely segregated, with Black and Hispanic inmates typically sent to the large prison farms to work in the fields and many of the White inmates assigned to prisons with industrial work assignments. There was no effort made to require inmates to live together after Beto's decision in 1965, however, and TDC in fact intentionally avoided assigning inmates of different races to the same cell.

In 1972 a Black inmate, Allen Lamar, filed a lawsuit seeking, among other things to require Texas prisons to desegregate completely. This lawsuit dragged on for many years, becoming entangled in the Ruiz v. Estelle lawsuit. Once the Ruiz decision was issued, there was a tremendous increase in violence in Texas prisons, as the system struggled to deal with the elimination of the Building Tender system, overcrowding, officer apathy, and a lack of staff. Trulson and Marquart provide a detailed (and fascinating) account of the years of legal wrangling and foot-dragging by TDC.

While TDC was able to compromise on a number of issues in Lamar, it resisted with all its might the government's (the federal government entered the case on Lamar's side) efforts to require cell desegregation. It was a fear of violence that led TDC to refuse to integrate cells. This fear was based on prejudice, anecdote, and an unenlightened staff. Nonetheless, when TDC was forced to implement a cell desegregation plan, it did so, beginning in 1991. As part of this implementation, TDC created a data management plan to allow it (and, fortuitously, corrections scholars) to study the impact of the plan.

Trulson and Marquart closely examine the data collected by TDC and determine that in fact, cell desegregation did not lead to increased violence in Texas prisons in general, or among cell partners. This finding flies in the face of what TDC and many corrections experts thought would happen. Interestingly, while the empirical data demonstrates that cell desegregation did not lead to increased violence in prison, an inmate survey revealed that inmates generally did not like the cell desegregation policy—apparently this dislike served simply as another of the pains of imprisonment and not a precipitator of violence.

Texas prisons, long castigated as bastions of racism, are today among the most integrated living areas in the entire country. In First Available Cell, Professors Trulson and Marquart have provided a fascinating account of what they assert was (and is) one of the greatest social

experiments in American history. This book is required reading for anyone interested in Texas prisons, American correctional policy, and race relations in America.

CONCLUSION

It is often said that Texas is more like a country than a state, given its immense geographical size, large population, history, and attitude. There is more than a little truth to this assertion. And if Texas is like another country, Texas prisons are like another world. Isolated for years by their location in rural East Texas and ignored by politicians and citizens willing to turn the punishment of convicted criminals over to corrections "experts" whose only qualification for employment was all too often their residence near a prison, Texas prisons developed their own unique culture. The result has been often tragic, and always fascinating to those who wish to understand how prisons affect those who live and work in them.

The three books discussed in this review essay join a rather long list of books written about Texas prisons. Clearly scholars have found TDC fertile ground for study. All three of these books add to the knowledge base, and all three provide a compelling portrait of America's best-known, biggest, and most unusual prison system. I recommend all three for anyone interested in better understanding how prisons used to work, how they operate today, and what is wrong with our system of mass incarceration.

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