CONTENTS

From the Editor 2

Law Enforcement Responses to
Homeland Security Initiatives: The Case of Ohio
By Nancy Marion and Kelley Cronin 4

Environmental Crime and Injustice:
Media Coverage of a Landmark Environmental Crime Case
By Melissa L. Jarrell 25

Theoretical and Practical Application of Loose Coupling: A Study of Criminal Justice Agencies in the State of Florida By Christopher R. Sharp 45

Book 'em Dano: The Scholarly Productivity of Institutions and Their Faculty in Criminal Justice Books By Willard M. Oliver, Sam Swindell, John Marks, Jr., and Ken Balusek 59

> Identifying "Deterrable" Offenders in a Sample of Active Juvenile Offenders By Lynn S. Urban 79

Book Review

Linn, E. (2009). Arrest Decisions: What Works for the Officer?

New York: Peter Lang Publishing, Inc

Robert M. Worley 100

Book Review

Forst, B. (2009). *Terrorism, Crime, and Public Policy*. New York: Cambridge University Press. Claudia San Miguel 103



From the Editor

EDITOR

Roger Enriquez.

University of Texas at San Antonio

MANAGING EDITOR

Katherine Greenup

University of Texas at San Antonio

ASSOCIATE EDITORS

Cyndi Banks, Ph.D.

Northern Arizona University

Ronald Burns, Ph.D.

Texas Christian University

Myrna Cintron, Ph.D.

Prairie View A&M University

Rolando del Carmen, J.S.D.

Sam Houston State University

James W. Golden, Ph.D.

University of Arkansas at Little Rock

W. Wesley Johnson, Ph.D.

Sam Houston State University

Tana McCoy, Ph.D.

University of Arkansas at Little Rock

Marilyn McShane, Ph.D.

University of Houston-Downtown

Mary L. Parker, Ph.D.

University of Arkansas at Little Rock

Clete Snell, Ph.D.

University of Houston-Downtown

Jonathan Sorenson, Ph.D.

Prairie View A&M University

William E. Stone, Ph.D.

Southwest Texas State University

Prabha Unnithan, Ph.D.

Colorado State University

Jeffrey T. Walker, Ph.D.

University of Arkansas at Little Rock

Dear Friends,

This is my first edition as Editor of the *Southwest Journal of Criminal Justice*, and I think that the old adage "the first cut is the deepest" is still true. We have encountered many challenges but I remain optimistic about the future of the Journal.

I would like to start out by thanking Will Oliver for his work as Editor of the Journal. He has worked hard to make the transition as smooth as possible, and I am grateful to him and his staff for all of their help. I would also like to recognize Napoleon Reyes, Managing Editor, for his advice and assistance. Lastly, Christopher Fisher, our Copy Editor, has proven himself to be an indispensible part of the SWJCJ equation. Together, the three made for a formidable team and I owe them a debt of gratitude.

This first issue is an eclectic collection that blends two editorial styles. The articles Environmental Crime and Injustice: Media Coverage of a Landmark Environmental Crime, which explores the media coverage surrounding the first federal criminal trial involving a petroleum refinery and violations of the U.S. Clean Air Act against CITGO Petroleum and Refining, Law Enforcement Responses to Homeland Security Initiatives: The Case of Ohio, which explores homeland security responses of local law enforcement across the state of Ohio after 9/11, and Book 'Em Dano: The Scholarly Productivity of Institutions and their Faculty in Criminal Justice Books represent works vetted under the University of Texas at San Antonio editorial team. The remaining two articles—Theoretical and Practical Application of Loose Coupling: A Study of Criminal Justice Agencies in the State of Florida, and Identifying "Deterrable" Offenders in a Sample of Active Juvenile Offenders—were accepted under the Sam Houston State editorial group. Under either regime, the end result is an exceptional and compelling collection of works.



Lastly, I would like to make an appeal to our members. The future success of *SWJCJ* is inextricably tied to the willingness of our members to actively participate in the process of publishing the Journal. I am pleased to report that many members have volunteered to review manuscripts and assist in determining publication worthiness. However, we still need more help. If you can review a manuscript, please email swjcj@utsa.edu and express your desire to become a reviewer for the Journal.

Thank you for your continued support, and I look forward to working with you over the next three years.

Regards,

Roger Enriquez, J.D.

Editor, Southwest Journal of Criminal Justice

Law Enforcement Responses to Homeland Security Initiatives: The Case of Ohio

Nancy Marion

University of Akron

Kelley Cronin

Notre Dame College

Abstract

After the terrorist attacks of September 11, 2001, law enforcement's roles changed dramatically at the federal, state, and local levels. Although there have been some mandated changes in local policing (i.e., in training and communication), the specific responsibilities of local police remain unclear and undefined. This study looks at the responses that local departments have made in Ohio since 9/11. A survey of all Ohio police chiefs was conducted in the fall of 2007, asking about what they have done to protect their communities from potential terrorist attacks, the grant money they have received, and their responses.

Key Words: homeland security, Ohio, local law enforcement

INTRODUCTION

Homeland security became a prominent national concern after the terrorist attacks on the twin towers of the World Trade Center and the Pentagon on September 11, 2001 (Pelfrey, 2005). Congress reacted to the attacks by passing the U.S.A. Patriot Act that reshaped the federal bureaucracy (Roberts, 2005) and gave new powers to law enforcement that altered the day-to-day operations of policing in almost every agency nation-wide at all levels of government. Those new laws, combined with the continual threat of potentially deadly acts against the U.S., ultimately redefined federal, state, and local policing (Oliver, 2007, p. 98). Many of the traditional policing patterns changed dramatically. Law enforcement personnel are still trying to understand how to use these new powers to fight terrorism in their jurisdictions (Oliver, 2007, p. 98). These changes are of particular concern to state and local law enforcement personnel, who are the first responders to emergency situations.

The goal of this paper is to examine more fully the role of state and local law enforcement in homeland security policy in the post-9/11 period (Reddick & Frank, 2006). It is hoped that

the study will provide better clarity about what state and local governments are doing to protect their citizens in response to the terrorist attacks and the subsequent Patriot Act. This will be done by examining what Ohio's law enforcement agencies have done to respond to changes in federal funding opportunities, training requirements, and increased communication with other agencies. The results will show if law enforcement departments across Ohio are responding to mandates from the federal and state governments concerning homeland security. This case study will give insight into how local departments are responding to threats posed by terrorism and challenges in protecting the public.

LITERATURE REVIEW

Although many people may consider Homeland Security to be a response to the terrorist attacks of September 11, it is not a new policy area for the United States government (Beresford, 2004). Federal involvement in domestic disturbances can be traced back to the early 1800s (Oliver, 2007, p. 61). At that time, it was then related to civil defense (Relyea, 2002). During World War I, more attention was given to protecting the home-front from foreign enemies (Oliver, 2007, p. 62). It was after September 11, 2001, that the concept of homeland security, as we now know it, began to take shape (Relyea, 2002), becoming the "in" policy (Friedmann & Cannon, 2007).

Prior to the 2001 attacks, experts studied the risks of terrorism and repeatedly identified the lack of coordination as the greatest problem between the many agencies related to homeland security. At that time, law enforcement intelligence was highly fragmented and compartmentalized. For instance, the FBI dealt with domestic threats, whereas the CIA dealt with foreign threats. The Defense Department had a separate intelligence operation, with each of the armed forces running their own version. The NSA gathered electronic intelligence from spy satellites and intercepted cell phone calls. The operations between the State Department and Secret Service were related, but mainly to each other (Kettl, 2007). During this time, the U.S. government did not have a framework for bringing resources together to deliver security against terrorism (Carter, 2001: 12).

Inadequate information sharing by these and other federal entities was a primary factor in the terrorist attacks on this country in 2001 (Relyea, 2004, pp. 420, 423; see also Caruson, 2004; Clayton & Haverty, 2005). Once the attacks occurred, it became obvious that our national security efforts on American soil lacked coordination between agencies responsible for disaster management (Caruson & MacManus, 2006). To address this problem, the Department of Homeland Security (DHS) was created (Caruson, 2004; Simpson & Strang, 2004). Officially established in March of 2003, DHS was created to enhance the coordination among state and municipal law enforcement agencies (Relyea, 2003, 2004). DHS concentrated the anti-terrorism mission into a single agency, since none of the existing cabinet departments was a natural lead agency (Carter, 2001, p. 12). The mission of DHS is to protect the American public from future acts of terror and minimize the impact if one does occur (Caruson, 2004). Under the Homeland Security Act of 2002, five directorates were established to better coordinate efforts: Border and Transportation Security (BTS), Emergency Preparedness and Response (EP & R), Information Analysis and Infrastructure Protection (IAIP), Science and Technology (S&T), and the Office of Management.

In addition to creating DHS, the Bush administration also announced two major directives that set forth federal homeland security initiatives. One was the Homeland Security Presidential Directive Number 5, Subject: Management of Domestic Incidents. This directive established clear objectives in the effort to prevent terrorist attacks, minimize the damage done, and recover from attacks and other major disasters. This directive enhances the ability of the United States to manage domestic incidents by establishing a single, comprehensive management system. The second initiative, HSPD-8, deals with National Preparedness. This directive identifies steps for improved coordination in response to incidents (Caruson, 2004). Specifically, it describes the way the federal departments and agencies will prepare for such a response plus prevention of terrorist incidents. Together, HSPD-5 and HSPD-8 are central to the training requirements for state and local agencies.

In addition, HSPD-5 directed the Secretary of Homeland Security to develop and administer a National Incident Management System, or NIMS. NIMS was designed to provide a national approach to incident management and is applied at all jurisdictional levels (Caruson, 2004). In other words, it provides for a consistent approach to attacks and disasters that directs federal, state, and local governments to work together when responding to incidents of all magnitude (Ohio Department of Public Safety, 2007). In the future, NIMS standards are to be included in all hazards plans, policies, procedures, training and exercises. NIMS has two key functions. The first is to be applicable across a full spectrum of potential incidents and hazard scenarios, regardless of size or complexity. The second is to improve coordination and cooperation between public and private entities in a variety of domestic incident management activities (Emergency Management Institute, 2008).

Compliance with NIMS was to take place by fiscal year 2005. Moreover, Federal departments are to make the adoption of NIMS by state and local organizations a condition for federal preparedness assistance (grants, contracts, and other activities). Jurisdictions could also comply in the short term by adopting the Incident Command System (ICS). ICS is a disaster management tool that provides a set of rules to guide organizations when responding to a disaster. It created a division of labor and coordinates them (Buck, Trainor, & Aguirre, 2006).

Based on HSPD-5, the National Response Plan (NRP) was also created. The NRP has specific standards to enhance the ability of U.S. agencies to respond to domestic incidents. The NRP combines many response plans into one effective structure to reach their goals of a safer nation. Effective in early 2008, the NRP was changed to the National Response Framework. This document sets up goals surrounding training, communication, and grants, each of which are described below

Training

Training and acquiring skills are important for both trained citizens and first responders (Drabczyk, 2007; Humphress, 2007). The NRP and the Patriot Act set forth specific requirements for training law enforcement officers to better deal with potential terrorist acts. For fiscal year 2007, training courses IS-100 and 200 (related to incident command), and IS-700 and 800 (related to the NRP and NIMS), were considered a "Tier 1" requirement. The expectation was for these courses to be completed by the appropriate personnel and that new or returning personnel would also complete such requirements. IS-700 is an introduction to NIMS. It introduces the key concepts and principles underlying NIMS. IS-800 is an introduction to the

NRP. DHS now mandates use of IS- 800b, which reflects the new National Response Framework. Together, these courses specify how the resources of the federal government will work in coordination with state, local, and tribal governments and the private sector to respond to incidents of national significance. IS-100 is an introduction to ICS—the Incident Command System. This course specifically discusses major ICS function and their primary responsibilities. Other aspects include: ICS organizational units, span of control, major incident facilities and the function of each, what an Incident Action Plan is and how it is used, and the common responsibilities associated with incident assignments from the response perspective. Finally, IS-200 is a complement to IS-100. This is a more detailed take on the ICS features and includes such elements as ICS management functions, organizational flexibility, resource management, and personnel accountability.

Grants

In order to help states fulfill their homeland security needs, DHS distributed grants to local law enforcement agencies. The grants serve to influence the priorities and behavior of state and local governments (Roberts, 2007). These major grants were the State Homeland Security Grant Program (SHSGP), The Law Enforcement Terrorism Prevention Program (LETPP), and the Urban Area Security Initiative (UASI) (Roberts, 2007). The SHSG funds were distributed according to a formula, requiring that 80% of the money had to be passed on to local governments (Caruson, 2004). The counties would get the money and distribute it as they saw fit. At the outset, the funding was based on population so everyone got roughly the same amount of money (Kady, 2004).

Studies show that there has been a reallocation of federal funding to homeland security. Prior to 9/11, the emphasis for federal funds was on crime reduction and quality-of-life issues. Money was put into projects that increased communications between police and citizens. Now, the emphasis is on national security and anti-terrorism issues. Money is focused on programs that are aimed at reducing the threat of terrorism, or the consequences of terrorist acts. Federal grants support equipment and training, security, and communication between police departments and agencies on the federal level (Braunstein, 2007, p. 157-158). However, as noted earlier, in order to get preparedness funding, states were required to adopt and implement NIMS.

DHS has recognized the important role that local police play in homeland security and has increased monetary assistance to them (Friedman & Cannon, 2007). In fact, DHS has spent \$11 billion on emergency preparedness response from 2001-2004 (Roberts, 2005). More recent figures show that \$400 million has gone directly to support state and local programs (Friedman & Cannon, 2007). In fact, grant funding for state homeland security grants from DHS in 2004 was over 10 times the amount it was in 2001, reaching \$1.7 billion (Roberts, 2005, p. 439).

In fiscal year 2006, DHS provided approximately \$1.7 billion in funding to states and local government through the HSGP grant program (U.S. Government Accountability Office, 2007). By Fiscal Year 2008, DHS estimated it would award more than \$3 billion in grants to states and urban areas, all designed to increase national preparedness and protect critical infrastructure. The bulk of that money would be awarded through HSGP, which would total about \$1.7 billion itself. Other money would go toward the Infrastructure Protection Program (IPP) (\$852.4 million), Emergency Management Performance Grants (EMPG) (\$291.4 million), Operation

Stonegarden grants (OPSG) (\$60 million), Regional Catastrophic Preparedness Grant Program (RCP) (\$60 million), and others (Department of Homeland Security, 2008).

But there have been problems with the grant programs. When compared to other budget areas, homeland security received less than 2% of the overall budget ("Setting Our Priorities," 2008). Some reports show that small, isolated states receive more money per capita for homeland security than do large, high-risk states (Roberts, 2005). Many departments receive funds for which they have little use, while others do not receive money they need (Friedmann & Cannon, 2007). They are also not giving grant money to the states that face a greater terrorist threat. Like most grants, they follow a formula that provides a minimum amount of money for each state. This means that small, low-risk states receive more money per capita than larger or high risk states (Roberts, 2005).

Even with federal funding, for many agencies, these initiatives often exhaust a region's emergency resources (Vedra, 2005). State and local departments often feel the brunt of financial burdens that may result from homeland security initiatives. Some officials feel that homeland security will become an unfunded mandate, where the federal government demands action but the cost of action is borne largely by cities and states (Kady, 2004). Protecting critical infrastructure from terrorists has already been identified by some as a federal mandate which has placed additional obligations on state and local governments. (Swindell, 2004). The first Homeland Security Secretary, Tom Ridge, often said that homeland security is a "national" responsibility, not just a federal one. This means that state, county, and city agencies are partly responsible for costs (Swindell, 2004; Tubbesing, 2007). In FY 2005, Homeland Security activities cost states over 1.145 billion ("States Stuck," 2004, p. 10). However, the mandate to provide homeland security is not technically unfunded. The federal government recognizes that when state resources and capabilities are overwhelmed, governors may request and receive federal assistance.

Even though DHS has tried to create different methods to provide guidelines to direct states and local agencies (Roberts, 2007), they have had little guidance on how to spend the money, or how to divide it among the potential mix of preparing for terrorism, natural disasters, or even technological disasters. In other words, even though the federal government is providing money, they are not providing guidance on how to spend it (Caruson, 2004; Roberts, 2005).

Communication

DHS has identified the need to improve coordination and communication between all agencies that are responsible for collecting, analyzing, and disseminating intelligence information as a way to reduce the threat of future terrorist attacks (Caruson, 2004). Extensive communication between local, state and federal governments has become a key characteristic of U.S. homeland security policy (Gerber, Cohen, Cannon, Patterson, & Steward, 2005), and most law enforcement agencies view information sharing as a necessity (Friedmann & Cannon, 2007). Local police departments must communicate with the federal government, and they must also be willing to transmit information to other local governments. The information sharing can also involve joint efforts geared toward identifying and preventing terrorist plots (Friedmann & Cannon, 2007).

Many departments lack the ability to communicate successfully with other departments. Even if they have the incentive to communicate, they can only do so with the proper infrastruc-

ture (Caruson, 2004). Many small, rural communities lack the technology to do that. Many other local agencies are finding it difficult to meet the standards set by state and federal departments because of a lack of money, even with federal assistance (Kettl, 2004, Gerber et al., 2005). Many cities lack appropriate protective gear, communications equipment, and training experience (Hart & Rudman, 2002; Gerber et al., 2005).

OHIO LAW ENFORCEMENT AND HOMELAND SECURITY

The U.S. Constitution establishes a system whereby the primary role of homeland security is given to state and local governments (Oliver, 2007, p. 59). Even though this role has evolved over time, state and local governments today have primary domain over homeland security (Oliver, 2007, p. 61). According to the NRP, incidents should be managed at the lowest possible geographic, organizational, and jurisdictional levels as these personnel are often the first to arrive at an emergency. Even DHS has identified the challenge of achieving preparedness at the state and local level as key to the success of homeland security (Caruson, 2004, p. 3). So it makes sense that the focus of homeland security analysis should be centered on state law enforcement activities.

Ohio's Governor at the time of the terrorist attacks, Republican Bob Taft, created the State of Ohio Security Task Force to develop a coordinated, integrated, comprehensive state strategy to address security issues by strengthening state preparedness at all levels of government. The Task Force includes four working groups that assist in coordinating Ohio's efforts in preventing, identifying, and responding to terrorist activities against potential Ohio targets. The working groups include the Ohio Homeland Security Advisory Council, Public Information, Pandemic Preparedness Coordinating Committee, and Ohio Citizen Corps Council. As above, there were three areas of need addressed—communication, training, and funding.

Communication

Many law enforcement personnel across Ohio identified the need for increased communication after 9/11, not only within an agency itself, but also between agencies within the state (horizontal communication), and between the federal and state agencies (vertical communication) (Caruson & MacManus, 2007). It was hoped that this would result in increased cooperation between agencies on not only anti-terrorism, but other issues as well (Braunstein, 2007, pp. 159-160). In their Homeland Security Strategic Plan, one of Ohio's goals was to facilitate increased sharing of timely, reliable, and pertinent homeland security intelligence and information across many jurisdictions and disciplines. Law enforcement officers must be able to electronically share data and records in order to prevent a future terrorist attack or to ensure the ability to communicate during a crisis. The Ohio Local Law Enforcement Information Sharing Network (OLLEISN) was designed to meet these goals.

OLLEISN is a secure, Internet-based system designed to enable Ohio local law enforcement agencies to share various types of information with each other. This is very much dependent upon the kind of information collected by a local agency. However, OLLEISN is able to retrieve and share multi-jurisdictional information about persons, locations, and property related to wants and warrants, incident data, and alerts. Other types of information available include: field interview notes; suspect, witness, and victim information; property types; search warrants; traffic citations; pawn transactions; service calls; registered offenders; concealed carry permits

and firearm registrations; evidence; biometrics (i.e., mug shots, finger prints, signatures); and text searches (Ohio Local Law Enforcement Information Sharing Network, 2008). Overall, the purpose of OLLEISN is to improve officer safety, provide information on persons of interest and any record of contacts they have had with the law enforcement agencies in Ohio, provide information to confirm or disprove an officer's hunches, and provide statewide information to supplement other investigatory tools. Currently, there are 753 law enforcement agencies contributing information to OLLEISSN, with and additional 60 agencies interested in participating (Ohio Local Law Enforcement Information Sharing Network, 2008).

Training

Ohio officials created a strategy to accomplish full implementation of NIMS throughout the state in a multi-phase operation. Their Homeland Security Strategic Plan, created in 2004 by the Ohio NIMS Implementation Senior Advisory Committee, identifies 36 strategic goals and 205 objectives that are designed to protect the state from terrorism. Law enforcement agencies in the state were required to meet specific standards by the end of FY 2007, as outlined in the Strategic Plan.

Grants

Changes in federal funding priorities have led to changes in the organization of agencies at the state and local level (Roberts, 2005). Much of the federal money for homeland security is given to the state, which is then responsible for disbursing it to local agencies. Table 1 [bottom] has the grant totals received by Ohio from the Department of Homeland Security. When that money is distributed to states, it is often earmarked for specific purposes. For example, in July 2007 it was announced that the state was to receive over \$75.6 million in federal Homeland Security grant funding for the purpose of assisting with communications and other homeland security initiatives. That money consisted of:

\$15,480,000 in Urban Areas Security Initiative (UASI) funding

\$16,830,000 in State Homeland Security Program (SHSP) funding

\$12,020,000 in Law Enforcement Terrorism Prevention Program (LETPP) funding

\$1,548,971 in Metropolitan Medical Response System (MMRS) funding

\$441,938 for the Citizen Corps Program (CCP) funding

\$29,337,337 in Public Safety Interoperable Communications (PSIC) grant funds ("Ohio to Receive").

	Table 1. Federal funding allocated to Ohio from DHS
Year	Amount
2002	\$28.95 million
2003	\$117.9 million
2004	\$121.55 million
2005	\$101.37 million
2006	\$41.3 million
2007	\$75.6 million

Obviously, funding is central to Ohio's law enforcement responses to homeland security initiatives. Unfortunately, there have been some problems with such funding. The money provided to fulfill domestic security goals has often been inequitable, and there have been issues with the allocation, management, and shortages of funds. Many departments have received funds they have little use for, while others have waited for needed federal dollars (O'Hanlon, 2006).

CURRENT STUDY

Through the Patriot Act and the NRP, the federal government has established standards and guidelines for all law enforcement agencies to prepare for, and respond to, potential terrorist action. Some police agencies are facing new challenges in responding to these mandates as the roles played by different law enforcement agencies are still being clearly defined. Law enforcement agencies on the state and local levels are complying with the federal standards to different degrees (Roberts, 2005). Specifically, what is the role of state and local government in a post-9/11 environment? (Bodrero, qtd., in Oliver, 2005).

It is important to study states not only because they are the first responders to emergencies (Friedmann & Cannon, 2007), but because their commitment to homeland security is an essential component of effective counterterrorism across the country. Local governments have the best knowledge of their individual needs (Reddick & Frank, 2006; Wise & Nader, 2002), and most homeland security policy contends that information should be gathered on the local level and then shared with state and federal governments, and that infrastructure protection and response is at the local level (Friedman & Cannon, 2007). Because there has been so much federal emphasis on enhancing local government counterterrorism preparedness, it is important to examine local policy responses in the area of homeland security (Gerber et al., 2005). The current research will show us how or if shifts in federal funding have influenced local communities in different ways.

Past research has indicated that it is important to understand if a community has improved its overall capacity to respond (Simpson & Strang, 2004). The current study will show if the changes departments make, if any, are dependent factors such as the size of the department, resources available (both financial and personnel), federal funding, and the location of the department (city versus rural). Since there is still much confusion as to agency roles and funding, the question remains, "where does that leave state and local police and their role in homeland security?" (Oliver, 2007, p. 98).

METHODS

To get a better understanding of how local law enforcement agencies have responded to the strategic goals and directives defined by the federal government, a survey of all Ohio's law enforcement chiefs was administered in the fall of 2007/spring 2008 time period. The purpose of the survey was to determine if state and local police agencies in Ohio are addressing the required changes and, if so, to what extent. It was also a way to know why they are making changes, or conversely, why not? Since little is currently known about local police departments' responses to homeland security issues, this study was a way to fill the gap that now exists about the overall trends or patterns concerning law enforcement's responses to terrorism, the Patriot Act, or mandates set forth by either the state or federal government.

In total, there were 466 surveys mailed to all police chiefs in Ohio, from major cities to rural agencies in a two-wave process. The survey was intentionally kept short, for a minimum time commitment on the part of the respondents (Drabczyk, 2007). The chiefs were assured confidentiality of their responses, and thus no identifying marks were placed anywhere on the survey (Reddick & Frank, 2006). In the end, 260 responses were returned, for a response rate of 56%, which is an above average response rate for this group of respondents (Reddick & Frank, 2006; Caruson & MacManus, 2007).

The survey respondents were asked to self-identify the type of community in which they work. There were six categories presented, ranging from rural/small town to major city. The sample distribution for the survey is as follows: 31% were from a rural/small town; 30% from a small city; 17% from suburbs/medium city; 7% from medium city; 13% from suburbs of a major city; and 3% from a major city. Because many respondents voluntarily identified themselves in their responses, it is possible to report that every major city was represented in the responses (i.e., Cleveland, Cincinnati, and Columbus).

Two sets of analyses were completed on the survey responses. First, a correlation analysis on the responses was completed to determine if there were any statistically significant relationships. This was determined with a Pearson's r which determines the strength of relationships between two variables (Cronk, 2004, p. 39). Second, a logistic regression was completed on the data since many of the variables were coded as nominal dichotomous or categorical variables (Pollock, 2005, p. 180). A test for multi-collinearity was run, with values ranging from .035 to .493, and suggested no correlation between the independent variables.

RESULTS

Overall, the survey results show that about 90% of the responding law enforcement agencies in Ohio reported making changes in their policies regarding homeland security after 9/11. Every large and medium-sized city police chief reported making some changes. Ninety-eight percent of suburb/medium city chiefs did so, as did 94% and 93% of suburbs of medium-city and small-city chiefs, respectively. The lowest percent of departments reporting change was rural/small town departments, with only 78% reporting changes made after September 11. The changes made by different departments varied, but were generally made in each of the three categories noted above: communication, training, and funding. Each of these categories and the results of the survey are described in more detail below.

Communication

The survey results show that in Ohio, approximately 72% of police chiefs report increased communication with other Ohio law enforcement agencies. Every major city reported doing so, as did 92% of suburban departments. The medium cities were the smallest percentage (63%) to report increased communication with other state police departments. Additionally, almost half (about 48%) of Ohio departments reported having increased their communication with the federal government since 9/11. Again, more of the major cities reported increased communications with federal agencies (86%). Small-town agencies had the lowest percent of agencies reporting more communication with federal agencies (35%).

Moreover, 29% of agencies reported that they have created a contingency plan in case of a future terrorist attack. Over half (57%) of large city police departments reported having one, whereas only 20% of small, rural departments reported developing such a plan. When it comes to increased intelligence information overall, 53% of Ohio's agencies reported increased intelligence operations after 9/11. In the large cities, 86% reported doing so, whereas only 39% of rural/small town departments reported increased intelligence operations.

When asked if the department had a written plan that describes the procedures for responding to a future attack, less than half (40%) reported they did. This included 70% of medium cities, 64% of small cities, and 67% of large cities. Across the state, only 32% of agencies overall reported that they are part of a Joint Terrorism Task Force. Those task forces sometimes included other agencies, including FBI, DEA, CIA, Secret Service, Highway Patrol, and many others. Of the large cities in the study, 71% reported being part of a task force. On the opposite end, only 10% of small, rural departments reported similar action.

Training

The survey of Ohio law enforcement showed that 73% of agencies reported increased training of their officers and management. Almost every agency in Ohio (98%) took part in NIMS training at some level. This included 100% of large cities, 90% of medium cities, and only 53% of rural departments. For many, this was online training, but many departments opted for classroom training instead. Departments across the state completed a variety of courses either online or in a classroom setting. All but 27 departments reported training in some combination of ICS 100, 200, 700 and/or 800.

As one might expect, police departments in larger cities were more likely to report increased training of officers. Specifically, 100% of large cities reported more training after 9/11. Also as one might expect, small, rural police departments had the lowest percent of increased training, with only 53% reporting as such.

Grants

According to the survey results, only 30% of police agencies across Ohio received some kind of financial assistance to help pay for the changes they have made. Almost all of the funding (81%) was a one-time grant payment, but for some (10%) it was some type of automatic payment sent to all departments. Of those agencies that received grant money, about half (47%) used it to purchase new equipment. Others (37%) used it to improve communication either within their department or with other agencies, and 17% used the money for training. The amount of the funding ranged from \$2,000 to \$10,000,000, with an average of \$412,190.50.

Correlations

The responses to the question, "has your department made changes since 9/11 regarding Homeland Security?" were statistically related to other survey responses. These are listed in Table 2 [next page]. This shows that those departments that made changes were more likely to increase training of officers, create a contingency plan, and purchase new equipment. They also increased communication with both the federal government agencies and those based in Ohio, increasing intelligence information overall. They made changes to protect their critical infra-

structure, created a written response plan for future attacks, and were more likely to be part of a joint terrorism task force. Not surprisingly, those departments that made changes also took part in NIMS training and received some type of grant money to facilitate those changes. There was a significant correlation between making changes and type of community: larger communities were more likely to make changes.

	Table 2. Correlat	IONS		
	Pearson's r			
Question	Did your department make changes	Number of Officers	Money?	Community
Changes?	1.0	.062	.192**	.201**
Increased Training	.493**	.094	.124*	.147*
Purchased new equipment	.338*	.126*	.431**	.139*
Created a contingency plan	.195**	.170**	.153*	.116
Increased communication with fed govt	.287**	.134*	.167**	.213**
Increased communication with ohio agencies	.493**	.086	.271**	.160*
Increased intelligence info	.237**	.126*	.110	.184**
Changes to protect critical infrastructure	.219**	.168*	.276**	.193**
Written Plan	.195**	.108	.138*	.171**
JTTF	.185**	.187**	.153*	.282**
NIMS training	.242**	.048	.169**	.094
Money?	.192**	.177**	1.0	.146*
Community type	.201**	.355**	.146*	1.0
Grant Amount	+	.714**	+	.301*
HS Officer	.120	.199**	.103	.153*
Officers	.062	1.0	.177*	3.55**

^{**:} Significant at .01 level; *: Significant at .05 level; +: Unable to compute

There were also strong positive correlations found between the number of officers in a department and many other responses, as shown in Table 2. Those responding departments with more sworn, full-time officers were associated with a department's choice to purchase new equipment after 9/11 and creating a written contingency plan in case of a future attack. The larger departments were more likely to have increased communication with the federal government and increased intelligence overall. There was an association between the number of officers and if they had made changes to protect their infrastructure, and if they were part of a joint terrorism task force. The number of officers was associated with receiving money and having a homeland security officer in their department.

When asked if the department had received any fiscal grants geared toward making changes with regards to homeland security, many departments answered that they had. If a department

received more money, they were more likely to make changes, as reported in Table 2. Receiving money was also correlated with increased training of officers, purchasing new equipment, creating a contingency plan, and increased communication with both federal and Ohio law enforcement agencies. If a department received money, it was more likely to have made changes to protect its critical infrastructure, be part of a joint terrorism task force in their area, have a written plan for a future attack, and take part in NIMS training. Whether or not a department received money was associated with membership in a joint terrorism task force, type of community, and number of officers.

As expected, the size of the community in which a department was located was related to many variables. In larger communities, departments were more likely to make changes, including increased training of officers, purchase of new equipment, and increased communication with other departments, both on the federal and state levels. Larger communities were more likely to have made changes to protect their infrastructure and have a written plan in case of future attack. Police departments in larger communities were associated with having a written plan, and being part of a joint terrorism task force. Larger departments were more likely to receive money, have more officers, and a homeland security officer. These results are also listed in Table 2.

LOGISTIC REGRESSION

The second analysis completed on the data was a series of logistic regression analyses. In the first analyses, three models were created in which three different dependent variables were explained by the same three independent variables. Each of the independent variables would logically seem to drive events: the amount of money received in grants, the size of the department (as measured by the number of officers) and the type of community (i.e., rural, urban, etc.). The three dependent variables were if the department made changes, if they took part in NIMS training, and if they had a homeland security officer. In other words, it was assumed that whether a department made changes in their homeland security measures, whether they chose to take part in NIMS training, and whether they had a homeland security officer was dependent upon whether the department received money to do so, the size of the department, and whether they were located in a major city.

Model 1

The first model included, as a dependent variable, whether or not a department made changes. The independent variables were money received, the department size (number of officers), and type of community. The model is:

Changes = a + b(1) money + b(2) officers + b(3) community

To determine if a variable is statistically significant, the significance of the Wald statistics must be under .10 (Pollock, 2005, p. 188). In this first model, the results indicate that only one of the variables is statistically significant, which is money received. This means that, controlling for other variables, a one-unit increase in money received increases the odds that a department will make changes in its homeland security procedures. These results are shown in Table 3 [next page].

Table 3. Logistic Regression Results					
		Constant	Money Received	Number of Officers	Community Type
Dependent '	Dependent Variable				
Changes					
	В	.750	2.107	.022	.478
	SE	.495	1.047	.027	.350
	Wald Statistic	.130	4.055*	.704	.401
	Exp(B)	.2.116	8.226	.1.023	1.613
NIMS Train	ning				
	В	1.649	18.165	.067	099
	SE	.576	3961.473	.040	.290
	Wald Statistic	8.208	.000	2.890*	.117
	Exp(B)	5.204	77432056	.089	.732
HS Officer					
	В	2609	.361	.002	.210
	SE	.427	.392	.001	.132
	Wald Statistic	37.313	.848	1.664	2.525
	Exp(B)	.074	1.435	1.002	1.233

Model 2

The second model in the study attempts to determine why a law enforcement department would complete NIMS training. The model is shown as:

NIMS Training = a + b(1) money + b(2) officers + b(3) community

The results, shown in Table 3, show that neither money received nor community type are statistically significant in explaining if departments completed the required training. However, the size of the department is slightly significant. Thus, a one-unit increase in department size (number of sworn officers) will increase the odds of completing NIMS training. In other words, we can estimate the odds of a department completing NIMS training based on the number of officers in the department.

Model 3

The third model in the study was an attempt to determine why some agencies have an officer who focuses on homeland security issues, such as writing and obtaining grants. This is depicted as:

Homeland Security Officer = a + b(1) money + b(2) officers + b(3) community

According to the results in Table 3, we cannot estimate the odds of a department having a homeland security officer. None of the variables are statistically significant, and thus do not have a role in determining the probability that a law enforcement agency will designate one person to serve as a homeland security officer.

Model 4

The fourth regression model incorporates funding as a dependent variable to determine if the size of the community, the size of the department, and whether they had a homeland security officer have an impact on the funding received by a police department (Reddick & Frank, 2006; Caruson & MacManus, 2006). A variable noting whether or not the department had an identified critical infrastructure was not included in the model because too many of the departments would not answer that question in the survey. Thus, the following formula shows the proposed relationship:

Money received = a + b(1) officers + b(2) community + b(3) HS Officer

The results of this analysis are in Table 4, below.

Table 4: Logistic Regression Results				
	В	SE	Wald	Exp(B)
Constant	-1.079	.285	14.303	.340
Officers	.011	.006	3.216*	1.011
Community	.041	.113	.113	1.041
HS Officer	.259	.405	.410	1.296

These results show that while neither the community type nor the presence of a homeland security officer influences the amount of money a department receives for homeland security, the size of the department does. As the size of the department increases, the agency is more likely to receive homeland security grants.

RESPONDENT COMMENTS

The survey gave respondents an opportunity to provide their opinions about the status of homeland security in Ohio. Some of the comments made by the responding police chiefs were very telling. They indicated a frustration about homeland security initiatives and the funding (or lack thereof) for such. Almost every comment had the same general theme—the lack of funding for small departments to meet the goals set for them. Some of the comments were:

- No funding ever reaches the township.
- HS grants are bled dry before they reach the college level.
- They don't give money to small agencies.
- Too small for grant monies.
- Small departments get no help in this area.
- Grants are very unequal.
- Funding is getting tough, yet government expects us to do more.
- Money has gotten stuck with the sheriffs and big cities—has not made it to 85% of local police agencies.

- Very disappointed with lack of funding.
- Community-wide protection has deteriorated since 9/11. Grant dollars that used to come to law enforcement now go to the state. 9/11 has cost my department \$50,000 per year in loss of grant dollars. When the terrorists strike Ohio, we'll be walking after them.
- Funding should be provided for all to fortify protection of this country. We do not need million-dollar buildings and increased administration overhead in the name of homeland security. We need funding for more personnel.
- It appears that homeland security money is specifically earmarked for federal or state-level entities. Their restrictions prohibit or at least discourage use of any funds on the county or local level. However we know that in all likelihood any terrorist activity is more likely to be noticed and recognized by local law enforcement than any federal source. Federal resources are scarce and seldom interact with local law enforcement authorities either in training or in sharing information or equipment.
- EMA/Fire departments get bulk of funding.

CONCLUSION/DISCUSSION

Since 2001, Homeland security has become a national priority, with programs implemented at the federal, state, and local levels that are geared toward increasing the safety of the U.S. (Simpson & Strang, 2004). Since the brunt of homeland security is handled at the local level, this study focused on that population. A survey of police chiefs across Ohio was completed to determine what changes were being made, and how different police agencies were responding to homeland security measures.

The survey results show that police departments across the state are responding in a variety of ways to the federal NRP and Ohio's *Homeland Security Strategic Plan*. One area where police chiefs have reported action is in improving communication either within their departments or with other agencies. Currently, homeland security policy lacks a common language, so increasing communication becomes key (Gerber et al., 2005). The majority (90%) of the departments reported making changes, including every large and medium department and 78% of the small ones. The changes varied, obviously in response to the needs of the department and their location. This points to the trend that there will be enhanced and more consistent communication within and between state and federal agencies (vertical and horizontal communication) to prevent terrorist attacks. Sadly, only about a quarter of Ohio's police departments (29%) have a contingency plan for a future attack in their jurisdiction. The lack of planning for the future could be a concern for many citizens and officials living in those areas.

There have also been changes in training for Ohio law enforcement officers in the post 9/11 period. Police agencies are now required to include NIMS training for all officers, from patrol to management, and most departments in Ohio are doing so. However, the current analysis shows that the size of the department, not the money they've received, tends to determine the extent to which a department has embraced officer training. Thus, small, rural departments lag behind larger ones in this regard, as one might expect. The training in many departments, regardless of size, however, is often limited, and involves officers completing an on-line program instead of hands-on training.

Finally, there have been changes in funding of police departments after 9/11. About a third of departments have received money to fund some sort of program for training or purchasing new technology. As expected, the larger cities are more likely to receive more funding, which in turn enables them to make more changes, either to purchase equipment or increase training of personnel. Most chiefs report using the money to purchase new equipment rather than to increase training of their officers. This seems unfair to the small and rural departments across the state that report that they do not receive enough additional money to meet the guidelines as set forth by the State of Ohio. Although it can be argued that the larger cities may be more likely to be the target of terrorist attacks, and that they are more likely to have structures that need to be protected, small agencies are equally in need of funding that will help them protect citizens in their direct jurisdictions and meet the safety standards set by the state. This finding supports earlier research that shows that 73% of Texas county officials indicate a lack of money for homeland security (Reddick & Frank, 2006). In fact, many local governments both in Ohio and elsewhere are still in need of equipment, gear, and training that will help them deal effectively with a terrorist attack (Caruson, 2004). Many states, in order to pay for homeland security equipment and training, have had to divert money from funds set aside for more frequent natural disasters (Roberts, 2005).

It appears as if no particular variable helps to explain if a department has a homeland security officer who can help the department focus their anti-terrorist activities. This means that small and large departments alike choose to have officers regardless of their financial situation.

The results of the current study show that law enforcement agencies across Ohio are responding to the new threats posed by the terrorist attacks of 9/11. It appears that they are "on track" to developing law enforcement agencies that are ready and capable to respond to different emergencies. The departments are actively making changes to keep their citizens safe. The changes in homeland security procedures are, to some extent, driven by the amount of grant money they received from federal and/or state sources. Obviously, if a department has more money, they are more likely to make changes in response to terrorism. They are also driven by the size of the departments, and the type of community. At the same time, it is clear that more needs to be done, particularly in the equitable distribution of funds. This way, law enforcement agencies can protect the citizens of Ohio from any future, potential terrorist attacks, regardless of their size or type of community.

The findings of the current research are, of course, limited to law enforcement agencies in Ohio. Future research concerning local law enforcement's role in homeland security in other states and regions will provide a better understanding of the needs faced by local law enforcement and the necessary actions of the federal government. This research should continue in all states, as each one faces different situations and problems.

Future research should also address the federal role in homeland security. A major task of the counter-terrorism program is defining the federal role in supporting state and local government programs (Carter, 2001, p. 21). While some have declared that it is not practical to have one agency in the federal government that is in charge of a mission that inherently must involve all levels of government as well as the private sector (Carter, 2001, p. 22), it seems to be virtually impossible for local law enforcement agencies to respond to federal mandates without substantial federal financial assistance. Homeland security seems to be on the path to becoming an unfunded mandate such as the Americans with Disabilities Act, Help Amer-

ica Vote Act, Health Insurance Portability and Accountability Act, Incarceration of Criminal Aliens Act, and No Child Left Behind ("Counties Identify," 2005; Pascopella, 2006; "States Stuck," 2004; Swindell, 2004; "Unfunded Mandates," 2005). Unfortunately, states may have to accept that the federal government will not provide the money they need for homeland security in the future (Swindell, 2004).

Nonetheless, federal funding will need to continue as most experts in homeland security expect that local police will gradually develop new areas of expertise, increase their level of surveillance on their communities, and continue to protect their infrastructure (Friedmann & Cannon, 2007). DHS should lend its expertise to help shape subnational governments that may be struggling as to how to incorporate homeland security into their agencies (Roberts, 2007). The states must have discretion concerning how money is spent, since they know the greatest risks in their geographic areas (Roberts, 2007).

In sum, it appears that law enforcement agencies in Ohio are actively making efforts to meet the guidelines set by the federal and state government, but more needs to be done to help them accomplish this goal. Much remains to be done, including improving technology, coordinating intelligence information, and integrating federal and state initiatives (Caruson, 2004).

REFERENCES

- Beresford, A. D. (2004). Homeland security as an American ideology: Implications for U.S. policy and action. *Journal of Homeland Security and Emergency Management, 1*(3), 1042–1064.
- Bodrero, D. D. (2002). Law enforcement's new challenge to investigate, interdict, and prevent terrorism. *The Police Chief*, 69(2), 41–48.
- Braunstein, S. (2007). The future of law enforcement communications. In J. A. Schafe (Ed.), Policing 2020: Exploring the future of crime, communities, and policing (pp. 133–172) Washington, DC: U.S. Department of Justice, Federal Bureau of Investigation.
- Buck, D. A., Trainor, J. E., & Aguirre, B. E. (2006). A critical evaluation of the Incident Command System and NIMS. *Journal of Homeland Security and Emergency Management*, 3(3), 1252–1279.
- Carter, A. B. (2001). The architecture of government in the face of terrorism. *International Security*, 26(3), 5–23.
- Caruson, K. (2004). Mission impossible? The challenge of implementing an integrated homeland security strategy. *Journal of Homeland Security and Emergency Management*, 1(4), 1071–1093.
- Caruson, K., & MacManus, S. A. (2006, July/August). Mandates and management challenges in the trenches: An intergovernmental perspective on homeland security. *Public Administration Review*, 66(4), 522–536.
- Caruson, K., & MacManus, S. A. (2007). Designing homeland security policy within a regional structure: A needs assessment of local security concerns. *Journal of Homeland Security and Emergency Management*, 2(2), 1243–1266.
- Clayton, R., & Haverty, D. M. (2005). Modernizing homeland defense and security. *Journal of Homeland Security and Emergency Management*, 2(1), 1122–1133.
- Counties identify unfunded mandate. The American City and County, 120(5), 26.
- Cronk, B. C. (2004). How to use SPSS. (Glendale, CA: Pyrczak Publishing).
- Department of Homeland Security. (2004). *National response plan*. Washington, DC: Department of Homeland Security.
- Department of Homeland Security. (2006). Quick reference guide for the national response plan. Washington, DC: Department of Homeland Security.
- Department of Homeland Security. (2008). Fact sheet: Fiscal Year 2008 preparedness grants. Retrieved February 25, 2009, at http://www.dhs.gov/xnews/releases/pr_1201882312514.shtm
- Drabczyk, A. L. (2007). Ready, set, go: Recruitment, training, coordination, and retention values for all-hazard partnerships. *Journal of Homeland Security and Emergency Management*, 4(3), 1315–1332.
- Emergency Management Institute. (2008). IS-700 National Incident Management System (NIMS) course summary. Retrieved February 27, 2008, from http://training.fema.gov/EMIWeb/IS/is700.asp
- Friedman, R. R., & Cannon, W. J. (2007). Homeland security and community policing: Competing or complementing public safety policies. *Journal of Homeland Security and Emergency Management*, 4(4), 1372–1391.

- Gerber, B. J., Cohen, D. B., Cannon, B., Patterson, D., & Steward, K. (2005) On the front line: American cities and the challenge of homeland security preparedness. *Urban Affairs Review 41*(2), 182–210.
- Hart, G., & Rudman, W. B. (2002) *America—Still unprepared, still in danger*. Washington DC: Council on Foreign Relations.
- Humphress, R. (2007). Building an emergency response competency system: Optimizing emergency personnel mobilization. *Journal of Homeland Security and Emergency Management*, 4(3), 1370–1385.
- Kady, M., II (2004, April 10). Localities get the bill for beefed-up security. *CQ Weekly*, p. 852.
- Kettl, D. F. (2007). System under stress: Homeland security and American politics. Washington, DC: Congressional Quarterly Press.
- Kettl, D. F. (2004). *System under stress: Homeland security and American politics*. Washington, DC: Congressional Quarterly Press.
- MacManus, S. A., & Caruson, K. (2006). Code red: Florida city and county officials rate threat information sources and the homeland security advisory system. *State and Local Government Review*, 38(1), 12–22.
- O'Hanlon, M. (2006). The roles of D.O.D. and first responders. In M. d'Arcy, M. O'Hanlon, P. Orszag, J. Shapiro, & J. Steinberg (Eds.), *Protecting the homeland 2006/2007* (pp.113-128). Washington, DC: Brookings Institution Press.
- Ohio Department of Public Safety. (2007). State of Ohio NIMS (National Incident Management System) implementation guide. Columbus: Ohio Department of Public Safety.
- Ohio Department of Public Safety. (2007, July 18). Ohio to receive \$75.6 million in homeland security funding. Media release.
- Ohio Local Law Enforcement Information Sharing Network. Retrieved on March 31, 2008, from http://www.olleisn.org
- Oliver, W. M. (2007). Homeland security for policing. Upper Saddle River, NJ: Pearson Prentice Hall.
- Oliver, W. M. (2005, March/April). The era of homeland security: September 11, 2001, to.... *Crime and Justice International*, 21(85), 9–17.
- Pascopella, A. (2006). NEA fights its own battle. District Administration, 42(3), 28.
- Pelfrey, W. V. (2005). The cycle of preparedness: Establishing a framework to prepare for terrorist threats. *Journal of Homeland Security and Emergency Management 2*(1), 1081–1102.
- Pollock, P. H., III. (2005). The essentials of political analysis. Washington, DC: CQ Press.
- Reddick, C. G., & Frank, H.A. (2006). Homeland security administration and finance: A survey of Texas county officials. *Journal of Homeland Security and Emergency Management*, 3(3), 1255–1276.
- Roberts, P. S. (2005). Shifting priorities: Congressional incentives and the homeland security granting process. *Review of Policy Research*, 22(4), 437–449.
- Roberts, P. S. (2007). Toward a national hazards risk assessment. *Journal of Homeland Security and Emergency Management*, 4(3), 1351–1366.

- Relyea, H. C. (2002). The law: Homeland security: The concept and the Presidential Coordination Office—First assessment. Presidential Studies Quarterly, 32(2), 397–411.
- Relyea, H. C. (2003). Organizing for homeland security. Presidential Studies Quarterly, 33(3), 602–642.
- Relyea, H. C. (2004). Homeland security and information sharing: Federal policy considerations. *Government Information Quarterly*, 21(4), 420–438.
- Setting our priorities. (2008, March). Kiplinger's Personal Finance, 62(3), 22.
- Simpson, D. M., & Strang, W. (2004). Volunteerism, disasters and homeland security: The AmeriCorps National Civilian Community Corps and community preparedness. *Homeland Security and Emergency Management*, *1*(4), 1061–1073.
- States stuck with \$29-billion bill. (2004, March 22). Human Events, 60(10), 10.
- Swindell, B. (2004, April 10). Political pendulum swings back to "unfunded mandates." CQ Weekly Report, 844–845.
- Tubbesing, C. (2007, January). What a ride. State Legislatures, 33(1), 12–15.
- U.S. Government Accountability Office. (2007). Homeland security grants: Observations on process DHS used to allocate funds to selected urban areas. Retrieved on February 25, 2009, from http://www.gao.gov/products/GAO-07-381R
- Unfunded mandates drain local coffers. (2005). American city and county, 120(5), 24–25.
- Vedra, W., Jr. (2005). Planning for emergency response: The Ohio system. *Fire Engineering*, 158(5), 111–112.
- Voegtlin, G., & Boyter, J. (2004). 2005 federal budget proposal released: State and local law enforcement assistance programs face cuts. *The Police Chief*, 71(3).
- Wise, C. R., & Nader, R. (2002). Organizing the federal system for homeland security: Problems, issues and dilemmas. *Public Administration Review 62*(special issue), 44–57.

BIOGRAPHICAL SKETCHES

Kelley Cronin is an Assistant Professor of Political Science at Notre Dame College of Ohio. She has published work in law enforcement and administrative theory. Her interests include homland security policy and politics.

Nancy Marion is a Professor of Political Science at the University of Akron in Ohio. She has published numerous articles and books on the interplay of politics and criminal justice.

Environmental Crime and Injustice: Media Coverage of a Landmark Environmental Crime Case

Melissa L. Jarrell

Texas A & M University-Corpus Christi

Abstract

In May 2007, the first federal criminal trial involving a petroleum refinery and violations of the U.S. Clean Air Act began in Corpus Christi, Texas, against CITGO Petroleum and Refining. This article describes the case, outcome of the trial, and print news media coverage of the trial. Although the trial was newsworthy on many levels, news media coverage at the local, state, and national level was extremely limited. News media coverage of CITGO's positive contributions to the community, however, appeared frequently in the news media. As a result, it is not surprising that the public rarely conceptualizes environmental harm and injustice as "crime" despite overwhelming evidence to the contrary.

Key Words: environmental crime, environmental justice, media, petroleum refining

INTRODUCTION

Every day, thousands of people die from various diseases and illnesses. Their deaths may be recorded as the result of a heart attack, cancer, stroke, or the like. But there will be no parentheses beside the cause of death to indicate: lived near a toxic waste site or high levels of benzene in the air. Their deaths will not be counted as homicides or negligent manslaughters. The media will not highlight their deaths in print or in newscasts aside from the obligatory obituaries.

Every once in a while, if too many people living in close proximity to one another appear to be getting the same illnesses and diseases, there might be some social, political, and media attention given to the community. If this community is disproportionately minority or low-income, the attention will be slow to come, and action will be less likely to occur. Social, political, and media attention will only be maintained if the very people getting sick, who are also trying to raise families and support families, fight for the attention. Industry will pour millions of dollars into elaborate PR campaigns ("green-washing"), touting their companies as

environmental stewards, regardless of their prior records and long histories of environmental violations. The majority of the people cannot move away from the community. They do not have the financial resources to do so, and their homes are losing value. Across the country, hundreds of thousands of people reside in the shadow of massive industrial plants and deal with the consequences of environmental pollution on a daily basis.

On August 9, 2006, a federal grand jury in Corpus Christi, Texas, returned a 10-count indictment, charging CITGO Petroleum Corporation, its subsidiary, CITGO Refining and Chemicals Co., and the environmental manager at its Corpus Christi East Plant Refinery with criminal violations of the Clean Air Act (CAA) and the Migratory Bird Treaty Act (MBTA). On June 27, 2007, a Corpus Christi federal jury unanimously determined that CITGO Petroleum and Refining knowingly operated two large open-top tanks as oil-water separators between January 1994 and May 2003 without the required emission controls that regulate the amount of benzene released into the environment. Consequently, for over nine years, uncontrolled amounts of benzene, a cancer-causing agent, streamed into the air and into the adjoining neighborhoods. On July 17, 2007, Judge John Rainey found CITGO guilty of three counts of violating the Migratory Bird Treaty Act.

The present study describes the case against CITGO and examines print news media coverage of the CITGO indictment and trials. The purpose of the present study is to examine print news media coverage of a highly complex case (and the first Clean Air Act criminal trial against a refiner) involving corporate crime. Previous research shows that while street crime receives a great deal of media attention, corporate crime receives limited media attention (Evans & Lundman, 1983; Lofquist, 1997; Lynch, Nalla, & Miller, 1989; Lynch, Stretesky, & Hammond, 2000; Morash & Hale, 1987; Randall, 1987; Randall & Lee-Sammons, 1988; Swigert & Farrell, 1980; Wright, Cullen, & Blankenship, 1995). Despite the enormous costs associated with corporate crime, the media generally ignores or underestimates the costs of corporate crime (Hills, 1987; Kappeler, Blumberg, & Potter, 1996; Reiman, 1998).

In addition to examining indictment and trial coverage, general coverage of CITGO is examined in order to ascertain the image of CITGO presented to the public via the mass media. Corporations, unlike most criminal offenders, possess billions of dollars as well as public relations personnel whose primary job is to protect and promote the corporation's image (Greer & Bruno, 1996). Consequently, the present study sought to examine if CITGO utilized the mass media from the time of the indictment through the conclusion of the trials in an effort to direct attention away from the criminal indictment and criminal trials. The present study begins with an overview of environmental crime and an overview of the literature on media coverage of environmental crime.

ENVIRONMENTAL CRIME

Environmental crime is considered to be one type of white-collar or corporate crime (Burns & Lynch, 2004). The government, the media, and the public rarely conceptualize environmental harm and injustice as "crime" despite overwhelming evidence to the contrary. Researchers suggest that environmental crime causes more illness, injury, and death than street crime (Albanese & Pursley, 1993; Burns & Lynch, 2004; Burns, Lynch, & Stretesky, 2008). According to Burns and Lynch (2004, p. ix), "we estimate that each year in the United States, up to ten times

as many people die from environmental crimes, such as exposure to toxins in the workplace, home, and school, as die by homicide."

Despite overwhelming evidence that environmental crime is responsible for a great deal of harm to the environment and human health, the vast majority of the public is unaware of or ignorant to this type of crime (Jarrell, 2007). One reason for this lack of understanding has to do with media coverage of environmental crime. While only a few studies have examined media coverage of environmental crime, results indicate that the media either under-reports environmental crime or frames such crimes as "accidents" (Jarrell, 2007; Lynch, Nalla, & Miller, 1989; Lynch, Stretesky, & Hammond, 2000). In the case of corporate negligence, Lofquist (1997, p. 258) highlights that "organizational wrongdoing is obscured; the weakness of regulation and of media scrutiny limits the likelihood of 'naming and blaming' and allows a vocabulary of 'accident' to prevail." Given the importance of the media in creating public awareness and garnering attention for certain social problems, it is essential for researchers to examine media coverage of environmental crimes.

Media Coverage of Environmental Crime

Researchers generally agree that crime as it is portrayed in the mass media is distorted and over sensationalized (Barlow, Barlow, & Chiricos, 1995; Benedict, 1992; Chermak, 1994; Kappeler, Blumberg, & Potter, 1996), presents a misleading view of crime (Chermak, 1998; Fishman, 1978; Graber, 1980; Lotz, 1991; Marsh, 1989), and blurs the line between news and entertainment (Newman, 1990). Politicians, the public, and the media are preoccupied with violent crime and neglect other types of crime, in particular corporate crime (Kappeler, Blumberg, & Potter, 1996).

A limited number of studies have examined representations of corporate crime in the media (Evans & Lundman, 1983; Lofquist, 1997; Lynch et al., 1989; Lynch et al., 2000; Mc-Mullan & McClung, 2006; Morash & Hale, 1987; Randall, 1987; Randall & Lee-Sammons, 1988; Swigert & Farrell, 1980; Wright, Cullen, & Blankenship, 1995). The research indicates that reporters appear to have an inadequate and simplistic understanding of the complexity of corporate crime (Levi, 1994; Randall, 1987; Randall & Lee-Sammons, 1988) and are unlikely to conceptualize corporate deviance as "crime" (Lynch et al., 1989; McMullan & McClung, 2006; Wright et al., 1995).

There are only a handful of studies that have examined media coverage of corporate crime, and even fewer studies have examined media coverage of environmental crime. Lynch, Nalla, and Miller (1989) analyzed media coverage of the Union Carbide lethal gas leak in Bhopal, India, which resulted in the immediate deaths of over 2,000 people. The authors compared articles and pictorial representations of the event as depicted in American and Indian magazines. American magazines portrayed the event as an "accident" or as a disaster and labeled Union Carbide as a victim. Conversely, Indian magazines labeled the event as a crime and portrayed Union Carbide as the negligent offender. Similarly, Lynch, Stretesky, and Hammond (2000) emphasize that most environmental problems and disasters (e.g., pollution, hazardous waste dumping/siting) are described in the news media as accidents. In addition, the authors suggest that it is common to depict environmental pollution as the "price we pay for technology" (Lynch et al., 2000, p. 115). Lynch et al. (2000) found that only 8 (1.5%) of 544 cases of chemical crimes in Tampa were actually reported in the Tampa Tribune. Of the eight articles

discussing chemical crimes in Tampa, two indicated that the crimes were accidents and the other six articles suggested that poor individual decision-making was the cause of the chemical incidents. Furthermore, while there were only 47 homicides in Tampa in 1995, there were 88 articles on these particular homicides and 4,089 articles concerning homicide in general. Overall, the study found that there was no discussion of corporate negligence in news media coverage of environmental crime in Tampa. More research is necessary in order to determine the prevalence across news media outlets of neglecting and ignoring corporate crime, in particular (Burns & Orrick, 2002; Lynch et al., 2000). With constant media attention to random violent encounters and lack of exposure to the extent and severity of environmental harms, it is unlikely the public will regard environmental risks as serious.

The Petroleum Refining Industry

There is no single type of "environmental crime"; consequently, research focusing on environmental crime must selectively examine a more narrow range or particular type of environmental offense and offender. Oil and natural gas are our biggest sources of energy in the United States (65%) (American Petroleum Institute, 2004). Our nation uses two times more petroleum than natural gas or coal and four times more than nuclear power or renewable energy (Department of Energy, 2004). According to the Natural Resources Defense Council (2001), the petroleum refining industry is one of the major sources of pollution in the United States. There are numerous air, water, and soil hazards associated with the petroleum refining industry and their processing methods. The petroleum refining industry is the largest industrial source of volatile organic compounds; the second largest industrial source of sulfur dioxide; and the third largest industrial source of nitrogen oxides (Natural Resources Defense Council, 2001).

Air, water, and soil pollutants generated by the petroleum refining industry are directly related to a wide range of human health and environmental problems. Many of these toxic and hazardous air, water, and soil pollutants are known cancer-causing agents and are also responsible for liver damage and cardiovascular impairment. Human health consequences of exposure to petroleum refinery air pollutants also include gastrointestinal toxicity, kidney damage, blood disorders, reproductive and developmental toxicity, pulmonary disorders, polyneuropathy, cataracts, and anemia (Environmental Protection Agency, 1995). Benzene exposure is associated with aplastic anemia, multiple myeloma, lymphomas, pancytopenia, chromosomal breakage, and weakening of bone marrow (EPA, 1995). In addition to causing a plethora of human health problems, exposure to pollutants generated by petroleum refineries causes a great deal of worry and fear among residents living near petroleum refining operations.

According to Randall and DeFillippi (1987), the media virtually ignored the oil industry prior to the early 1970s. However, following the oil embargo in 1973, the media and thus the public began to scrutinize the oil industry with more fervor than ever before. By the end of the 1970s, the oil industry had been accused of direct involvement in several incidents of illegal and unethical practices. Industry leaders angrily protested that the media had an anti-business slant. Leading corporate crime researchers, Clinard and Yeager (1980) stated that "the history of the oil industry has been characterized by the oligopolistic domination of the industry by a few massive corporations able to cooperate in controlling worldwide supplies and their distribution and thus to influence prices in a noncompetitive manner and a tendency for the federal government to defer to the power and interests of the industry."

Only a few criminological studies to date have examined petroleum refining industry violations (Jarrell, 2007; Lynch, Stretesky, & Burns, 2004a, 2004b; Randall & DeFillippi, 1987). Lynch, Stretesky, and Burns (2004a) examined whether petroleum refineries that violated environmental laws in Black, Hispanic, and low-income areas were more likely to receive smaller fines than refineries in White and more affluent communities. The authors found that "Black and low-income communities appear to receive less protection (via the deterrence goal of monetary penalties) from the EPA than areas with high concentration of White and high-income residents" (Lynch et al., 2004a, p. 436-437). In a similar study examining petroleum refinery violations from 2001 to 2003, the authors found that refineries in Hispanic and low-income zip codes received lower penalties than refineries located in non-Hispanic and more affluent zip codes (Lynch, Stretesky, & Burns, 2004b). The authors conclude that penalty disparities are not the result of the seriousness of the violation, number of past violations, facility inspection history, facility production, or EPA region, but are the result of unequal protection of environmental laws for low-income and minority communities (Lynch, et al., 2004a). Similarly, Jarrell (2007) found that the racial composition of the community surrounding a violating facility had an impact on the penalty assessment decision-making process. When compared to primarily White communities, African-American communities were more negatively and disproportionately impacted by penalty assessment decisions.

Although examination of the relationship between the media and crime has received considerable attention in the academic literature, only a small number of studies have examined news media coverage of petroleum refining industry violations. Randall and DeFillippi (1987) examined patterns of media coverage of the 25 largest American oil firms from the late 1970s. The authors hypothesized that corporations with greater net sales, more frequent violations of law, and more serious offenses would receive greater media attention than corporations with lesser net sales, few law violations, and less serious offenses. Randall and DeFillippi's (1987) content analysis revealed that the media attention was greater based primarily on the seriousness of the offense rather than the net sales of the firm or the frequency of offenses. The authors concluded that there was a "systematic media bias toward oversampling the most serious and undersampling the least serious oil firm violations" (p. 40). Their results are not surprising considering the media's tendency to focus on the most serious violations of law across administrative, civil, and criminal categories.

More recently, Jarrell (2007) examined print news media coverage of federal penalties assessed against the petroleum refining industry from 1997 to 2003. The Environmental Protection Agency (EPA) initiated and/or settled 162 civil cases involving 78 petroleum refining companies from 1997 to 2003. Jarrell (2007) found that while there were a considerable amount of federal petroleum refining industry violations, only a few cases received media attention. Companies assessed the highest penalties appeared in news media articles; however, only the top seven penalty assessments received news coverage. The news reporting was rarely critical of the industry or of the government's lack of enforcement efforts. The news reporting relied on Environmental Protection Agency (EPA) information and had virtually no investigative component. The news reporting allowed the offenders to comment but ignored the victims. Environmental violations were reported in general terms, and human health consequences associated with the violations were either ignored or glossed over. The offenders were given extensive press coverage and the ability to defend their actions, creating the image

of a remorseful company that didn't realize they were in violation of an environmental statute rather than creating the image of a knowingly negligent offender committing an environmental crime (Jarrell, 2007).

According to Jarrell (2007), the lack of news media coverage of petroleum industry violations suggests that this type of crime is considered less important despite the vast amount of harm to the environment and human health produced by petroleum refining industry violations. Lack of attention by the news media to these important issues may lead to public misunderstanding and ignorance to the causes and consequences of environmental crime. The media construction of corporate and environmental crime fails to adequately represent the actual nature of such crime (Evans & Lundman, 1983; Jarrell, 2007; Lynch, Nalla, & Miller, 1989; Lynch, Stretesky, & Hammond, 2000; Lofquist, 1997; Maguire, 2002; Morash & Hale, 1987; Swigert & Farrell, 1980; Wright, Cullen, & Blankenship, 1995).

Overall, media reporting of federal petroleum refining industry violations is not only lacking; it is misleading and downplays the seriousness of environmental crime (Jarrell, 2007). Although environmental crimes committed by the petroleum refining industry are widespread (Jarrell, 2007), the mainstream mass media does not focus much attention on this type of crime. If the public is only exposed to environmental crimes committed by the petroleum refining industry via newspaper reports, it should come as no surprise that these violations are not regarded as serious crimes, if crimes at all.

U.S.A. VS. CITGO

The city of Corpus Christi, Texas, is a coastal city of approximately 300,000 people about 225 miles south of Houston. Corpus Christi, located in Nueces County, is home to a lengthy corridor of refineries and chemical plants known as "Refinery Row." According to data from the U.S. Environmental Protection Agency's Toxics Release Inventory (TRI) from 2002 as reported in Scorecard (2009), Nueces County is the 7th most polluted county in Texas and the 84th most polluted county in the nation. Residents from the predominantly low-income minority communities within close proximity to the refineries (several homes within a few blocks) constantly complain of foul chemical odors, and many residents believe their health problems are directly associated with toxic air pollution emitted by the refineries (Lerner, 2007). Birth defects studies conducted by the Texas State Department of Health Services found that the rate of severe birth defects in Corpus Christi from 1996 to 2003 was 17% higher than the rest of the state, and the rate of overall birth defects was 84% higher (Langlois, 2008). In 2002, Nueces County ranked twentieth among all counties in the United States for reported releases of recognized reproductive toxicants to the air (Scorecard, 2009).

Three corporations own and operate six oil refineries in Corpus Christi, the densest concentration of petroleum refineries in the country: Valero, Flint Hills (Koch Industries), and CITGO. According to the Environmental Integrity Project (2007), Corpus Christi is home to two of the most polluting oil refineries in the nation (Flint Hills and Valero). According to the EPA's Enforcement and Compliance History Online (ECHO) database (2008), Corpus Christi refineries have had 20 formal enforcement actions taken against them over the past five years. In 2000, a federal grand jury in Corpus Christi returned a 97-count indictment against Koch Industries Inc., Koch Petroleum Group, and four corporate employees, charging them with environmental crimes as well as conspiracy and making false statements to Texas environmental

officials (Department of Justice, 2000). According to the indictment, Koch Industries and Koch Petroleum Group earned profits of more than \$176 million in 1995, while operating the refinery in violation of the Clean Air Act (Department of Justice, 2000). Except for a few highly sensational cases, the criminal prosecution of environmental violations at the federal and state level is a relatively recent development (Edwards, Edwards, & Fields, 1996).

On August 9, 2006, a federal grand jury in Corpus Christi, Texas, returned a 10-count indictment, charging CITGO Petroleum Corporation, its subsidiary, CITGO Refining and Chemicals Co., and the environmental manager at its Corpus Christi East Plant Refinery with criminal violations of the Clean Air Act (CAA) and the Migratory Bird Treaty Act (MBTA). The Department of Justice (2006) issued the following information in a press release:

Citgo was indicted on two counts of operating their refinery in Corpus Christi in violation of the National Emission Standard for Benzene Waste Operations and two counts of operating open top tanks as oil water separators without first installing the emission controls required by federal and state regulations. The CAA regulations require Citgo to control the emission of benzene from waste water produced at the refinery.

The indictment also charges the refinery's environmental manager, Philip Vrazel, with failing to identify in a report filed with the Texas Commission on Environmental Quality (TCEQ) for the year 2000 all of the points in the refinery wastewater system where a potentially harmful chemical, benzene, was generated. An accurate report is required by regulations to be filed with the TCEQ annually.

According to the indictment, CITGO operated two large open top tanks as oil water separators between January 1994 and May 2003 without the required emission controls (Department of Justice, 2006). More than 4.5 million gallons of oil were discovered in the tanks during an unannounced inspection by the Texas Commission on Environmental Quality (TCEQ) in March 2002. Resident complaints of odors were investigated by the TCEQ and it was determined that tanks 116 and 117 were the source of continuous emissions into the neighboring community.

The indictment did not mention that state regulators with the Texas Commission on Environmental Quality had been aware of problems at CITGO for several years (Caputo, 2006). Even though the indictment included charges related to excessive benzene emissions in 2001 and 2002, TCEQ records indicated that CITGO also exceeded regulatory limits in 1998, 1999, and 2000 (Caputo, 2006). State regulators had been trying unsuccessfully for years to force CITGO to install lids on tanks 116 and 117. State enforcement actions against CITGO occurred in 1999, 2001, 2002, and 2004 and totaled over \$5 million in penalties (Caputo, 2006). A report by the Texas State Auditor's Office (2003) on the TCEQ enforcement activities found the following: 1) the enforcement process does not consistently ensure the violators are held accountable, 2) the lack of timely enforcement orders may allow violations to continue and slows penalty collections, and 3) recent changes to penalty calculation policies may not deter violations. The indictment also included the following charges involving the Migratory Bird Treaty Act (Department of Justice, 2006):

Citgo Refining and Vrazel are also facing five counts of violating the MBTA for the illegal taking of protected birds. The birds were found coated with oil as a result of landing in the open top tanks. The tanks attract the birds and, thus, must be fitted with nets or other equipment to prevent the birds from entering or landing in the oil. The MBTA implements

international treaties that protect birds which migrate between countries by requiring permits and placing limits on the taking of certain species.

From 2002 to 2004, the state's highest benzene readings were recorded at a monitoring site in Corpus Christi along Interstate 37, near three refineries and an elementary school (Olsen, 2005). The Department of Justice (2006) discussed the concerns related to benzene in their indictment:

Benzene is a hazardous air pollutant found to cause cancer in people exposed to small amounts of the chemical. Congress passed the CAA, and the Environmental Protection Agency (EPA) prescribed regulations governing the operation of refineries to limit the amount of benzene that can potentially be emitted to the atmosphere at such facilities. According to the indictment, Citgo operated its Corpus Christi refinery in 2000 with more than 57 megagrams of benzene in waste streams that were exposed to the air. A megagram is equal to one metric ton. Federal regulations limit refineries to operating with no more than six megagrams of benzene in their exposed waste streams. Citgo is also charged with operating in 2001 with more than seven megagrams of benzene in its exposed waste streams.

On May 17, 2007, a federal jury in Corpus Christi heard opening statements in the case against CITGO. The case represented the first criminal trial of a refinery under the Clean Air Act. It was not the first time a corporation had been accused of criminally violating the Clean Air Act, but in all previous cases, the corporations decided to settle rather than go to trial. In addition to being the first criminal trial involving the Clean Air Act, the trial was also extremely newsworthy due to the attorneys involved on both sides of the case. Senior Litigation Counsel for the Environment Crimes Section of the Department of Justice Howard P. Stewart is known as one of the country's most talented environmental crime prosecutors. Infamous defense attorney Dick DeGuerin, counsel for Tom Delay, David Koresh, as well as numerous other high-profile clients, and a team of over thirty other corporate attorneys represented CITGO.

Witness for the prosecution Jean Salone, a resident of Hillcrest, the predominantly low-income, minority community bordering CITGO, testified for the prosecution that she woke up the morning of September 23, 2001, because of a "strong heavy smell from the refinery that was making me sick." Salone said that she has gotten used to the smell but noticed when it is much worse than usual. Salone immediately contacted the Texas Commission on Environmental Quality (TCEQ) to report the strong odor. "The smell was so strong, it woke me up. The smell was indescribable," Salone stated at the trial. Two years later, Salone was diagnosed with breast cancer. According to Salone, burning throat, watery, irritated eyes and itchy skin are a common occurrence for her and many other residents of the Hillcrest and Oak Park communities.

On June 27, 2007, four and a half weeks after opening statements were heard and numerous witnesses had testified for the United States and for CITGO, a Corpus Christi federal jury unanimously determined that CITGO knowingly operated two large open-top tanks as oil-water separators between January 1994 and May 2003 without the required emission controls that regulate the amount of benzene released into the environment. Consequently, for over nine years, uncontrolled amounts of benzene, a cancer-causing agent, streamed into the air and into the adjoining neighborhoods. On July 17, 2007, Judge John Rainey found CITGO guilty of three counts of violating the Migratory Bird Treaty Act. Did the CITGO federal environmental crime trial, newsworthy on many levels, receive coverage in the local, state, and national print news media? Did CITGO launch a local media PR campaign prior to commencement of the trial?

DATA AND METHODS

The purpose of the present study was to examine print news media coverage of the CITGO indictment and trials as well as print news media coverage involving CITGO outside of the indictment and trial coverage. The federal indictment was issued in August of 2006, and the verdict in the second trial was handed down in July of 2007. Print news media articles pertaining to the CITGO indictment and trials were collected through LexisNexis and Google news search as well as the archives from newspapers in Texas, including the *Corpus Christi Caller-Times*, the *Houston Chronicle*, and the *San Antonio Express*. Print news media articles pertaining to CITGO coverage (outside of the indictment and trials) were collected only from the *Corpus Christi Caller-Times*. The purpose of examining media coverage of CITGO (outside of the indictment and trials) is to gain a better understanding of CITGO's portrayal in the local media and thus in the local community immediately following the indictment through the conclusion of the trial.

A guided news search was conducted utilizing a wide range of search terms in order to reliably identify news articles covering the indictment and trials as well as coverage of CITGO in general. General search terms included the following: CITGO, criminal indictment, criminal trial, Clean Air Act, petroleum refining, violations, and fines. Each article was examined for the following information: article location (e.g., front page, business section, etc.); article type (news, editorial, etc.); word count, headline keywords, and article themes. Each article was analyzed for manifest and latent content. Content analysis generally involves examining the manifest and latent content of the data. Manifest content refers to the obvious surface content of the data while the latent content refers to the meaning underlying what is stated. Both manifest and latent content analysis were utilized in the present study.

Results: Indictment and Trial Media Coverage of CITGO

There were 24 print news media articles concerning the indictment and the trials. Of the 24 articles, 5 articles came from the *Houston Chronicle*, 2 from *Reuters*, 1 from the *San Antonio Express*, and 16 from the *Corpus Christi Caller-Times*. There was some general national coverage in a variety of news sources (after the indictment and the verdicts were read); however, the source of information in these articles was either a Department of Justice or Environmental Protection Agency press release. Investigative journalism was limited to the 24 articles.

Four of the 24 articles pertained to the indictment, 10 articles to the Clean Air Act trial, 8 articles to the Bird trial, and 2 articles to pre-sentencing. Only four of the *Caller-Times* articles appeared in the Local section of the paper. The remaining 12 articles all appeared in the Business section. There were 10 articles concerning the CAA trial but only 2 articles that actually appeared during the trial, which lasted over a month. One article appeared before the trial began; four articles dealt with jury deliberations; and three articles presented the verdict. Table 1 [next page] presents the results of print news media coverage of the CITGO indictment and trials.

A CITGO spokesperson was quoted in 12 of the articles, while victims were only quoted in 4 of the articles (and in only two of the local paper articles). Fourteen articles made reference to benzene as a cancer-causing agent or carcinogen, but only 2 articles elaborated on the health concerns associated with benzene exposure. Only one article, in the *San Antonio Express*, made reference to state regulatory problems and included information pertaining to CITGO's past record of environmental compliance and enforcement activities.

TABLE 1. DATE, WORD COUNT, NEWS SOURCE, FOCUS AND LOCATION OF PRINT NEWS
Media Coverage of the CITGO Indictment and Trials

Article Date	Word Count	Source	Focus	Location
8/10/2006	403	Houston Chronicle	Indictment	Business 1
8/10/2006	626	Caller-Times	Indictment	Local
8/11/2006	412	Caller-Times	Indictment	Business
10/1/2006	1,666	San Antonio Express	Indictment	Metro
5/10/2007	530	Caller-Times	CAA Trial/Jury Selection	Local
5/23/2007	485	Caller-Times	CAA Trial/Witness	Local Business
6/21/2007	488	Caller Times	CAA Trial/Last Witness	Local Business
6/23/2007	418	Caller-Times	CAA/Deliberations	Local Business
6/23/2007	307	Reuters	CAA/Deliberations	Web
6/23/2007	858	Houston Chronicle	CAA/Deliberations	Business 1
6/26/2007	256	Caller-Times	CAA/Deliberations	Local Business
6/27/2007	498	Reuters	CAA/Verdict	Web
6/27/2007	656	Caller-Times	CAA/Verdict	Local
6/28/2007	744	Houston Chronicle	CAA/Verdict	Business 1
6/29/2007	462	Caller-Times	Bird Trial/Pre-trial	Local Business
7/10/2007	472	Caller-Times	Bird Trial/Witness	Local Business
7/11/2007	416	Caller-Times	Bird Trial/Witness	Local Business
7/12/2007	465	Caller-Times	Bird Trial/Witness	Local Business
7/13/2007	423	Caller-Times	Bird Trial/Motions	Local Business
7/14/2007	425	Houston Chronicle	Bird Trial/Motions	Business 1
7/18/2007	549	Caller-Times	Bird Trial/Verdict	Local
7/19/2007	529	Houston Chronicle	Bird Trial/Verdict	Business 3
7/26/2007	604	Caller-Times	Pre-Sentencing	Local Business
7/28/2007	262	Caller-Times	Motion for New Trial	Local Business

Results: General Media Coverage of CITGO

Lynch, Stretesky, and Hammond (2000) argue that crime news is constructed not only by what is said about corporate crime, but by what is left out. That is, the public image of crime is shaped by the non-reporting of corporate crime. The present study suggests that the image of corporate crime is not only shaped by non-reporting of corporate crime but also by positive news media coverage of the corporate offender. The present study was interested in whether or not CITGO utilized what are known as "green-washing" strategies after the indictment and prior to the trial. "Greenwash" refers to public relations efforts to pose as friends of the environment and the community through elaborate public campaigns (Stauber & Rampton, 1995). Corporations developed "greenwash" as a strategy for dealing with the community-based environmental movement. Corporate economists determined that it would be more cost effective to change the corporation's image rather than their practices. In the past few decades, corporations

have *appeared* to become more concerned with the environment. To challenge environmental justice legislation and mandates, in addition to distancing themselves from criminal actions and convictions, corporations have utilized a wide range of techniques, including the "greenwash" and "spin" of environmental justice claims (Stauber & Rampton, 1995).

While print news media coverage of the CITGO indictment, and in particular the trials, was lacking, print news media coverage (in the *Corpus Christi Caller-Times*) of other CITGO involvements in the community flourished after the indictment and prior to the criminal trial. Table 2 [below] presents the results of general media coverage of CITGO from August 2006 to August 2007.

TABLE 2: ARTICLE DATE, LOCATION, AND HEADLINES FOR PRINT NEWS MEDIA			
Coverage of CITGO in the Caller-Times			
Article Date	Location	Headline/CITGO Involvements	
8/14/06	Local	CITGO to commission new gas hydrotreater	
8/20/06	Local Business	Chamber comes to defense of CITGO	
9/18/06	Community	Sponsorship of Boys and Girls Club Annual Steak and Burger Dinner	
10/4/06	Entertainment	Annual CITGO Chili Cook-off to benefit the United Way	
12/4/06	Community	Sponsorship of a holiday gala	
1/9/07	Local	CITGO, heart association promote value of healthy employees	
1/29/07	Local Business	CITGO to spend \$800M on refinery maintenance, upgrades	
1/30/07	Local Business	CITGO's permit to produce more gasoline expires	
2/5/07	Local Business	Flaring possible at CITGO refinery	
2/20/07	Front Page	CITGO gives private school \$2M	
2/21/07	Front Page	Carmody calls CITGO's \$2M gift a blessing	
2/22/07	Sports	Free gasoline give-away at RAYZ game	
3/1/07	Local	Donations to Craft Training Center	
3/4/07	Local Business	Leaders in Business: CITGO's Vice President and General Manager	
3/22/07	Entertainment	Sponsorship of Fiddlers Festival	
4/9/07	Community	Sponsorship of Botanical Gardens spring celebration	
4/29/07	Local	Hooks team gets its own landmark CITGO sign	
5/11/07	Entertainment	Sponsorship of Mother's Day celebration	
5/13/07	Local Business	CITGO receives 14 national awards for safe operations during 2006	
5/22/07	Local Business	Sponsorship of health fairs	
6/15/07	Local	Donations to Gulf War Veteran's Memorial	
7/3/07	Local	CITGO reports oil sheen in the ship channel	
7/13/07	Local	Donations to Public Libraries	
7/17/07	Local	Sponsorship of Miller High School students	

DISCUSSION

Local and national print news media coverage of the CITGO environmental crime indictment and trial was sparse given the significance of the case. The trial ran for over a week before the Corpus Christi Caller-Times produced a single article. Even then, the story appeared in the local business section (suggesting more importance as a business issue rather than a local issue) and provided limited information. Subsequent articles, less than eight overall, appeared in the business section of the paper, aside from the outcome of the case which finally made it to the front page, below center. Reporters from Reuters, the Houston Chronicle, and the San Antonio Express both provided greater in-depth coverage of the trial and verdict; however, coverage beyond the local level was limited to less than eight articles for both trials. While the San Antonio Express can be credited with providing the most in-depth article which included over 1,600 words, research into CITGO's enforcement history, and interviews with the prosecution, defense, victims, experts, and state regulators, there was no coverage beyond this one article. The San Antonio Express covered the indictment but did not offer any coverage of the trials or verdicts. Interestingly, the Caller-Times offered more coverage of the second trial which involved violations of the Migratory Bird Treaty as well as charges against CITGO Environmental Manager Phillip Vrazel. The killing of birds (misdemeanor charges) appeared to be much more newsworthy than ten years of knowingly and willingly polluting the community (felony charges).

Results of the analysis of media coverage of the CITGO indictment and trials mirror results from Jarrell's (2007) media content analysis of petroleum refining industry violations. Human health concerns were either ignored or glossed over; the offenders were given the opportunity to defend themselves liberally in most articles while the victims were rarely included or quoted in the articles; and CITGO's actions were often referred to as regulatory issues rather than criminal behaviors.

From August 2006 through May 2007, there were no articles in the *Caller-Times* pertaining to the alleged crimes committed by CITGO. The *Caller-Times* reported on the indictment but did not report again until right before the trial began over nine months later. However, general news coverage of CITGO flourished in the *Corpus Christi Caller-Times* after the indictment was made public. The following paragraphs highlight some of the more prominent articles pertaining to CITGO's corporate citizenship.

In an article on August 20, 2006, eleven days after the indictment was issued, the headline reads, "Chamber comes to defense of CITGO." The article pertains to a Corpus Christi Chamber of Commerce Newsletter entitled, "CITGO, a Great Corporate Citizen." President and CEO of the Chamber, Terry Carter stated that CITGO is, "innocent until proven guilty. . .CITGO has been and will continue to be a great corporate citizen." Carter goes on to applaud CITGO's humanitarian efforts and states, "Often, we take for granted such wonderful contributions. We think they just happen. CITGO continues to make a deliberate decision to reinvest its capital, both monetary and human, in our community to help improve our quality of life." Interestingly, one year later, after CITGO was found guilty, the Chamber of Commerce issued a second newsletter addressing the outcome of the trial entitled, "It's Better to See the Glass More Than Half Full Than Believe It's Empty: CITGO Found Innocent Regarding Reporting Requirements and will Appeal Verdict on E.Q. Tanks." The Chamber of Commerce letter was released

just two days after CITGO took out a full page advertisement in the *Caller-Times* touting their innocence. Terry Carter's letter was virtually verbatim from the CITGO press release.

Even though CITGO was convicted on criminal charges, Carter continued to support the company, stating, "We now know that the U.S. District Court in Corpus Christi rendered an innocent verdict for CITGO on 2 counts and that the corporation will appeal the verdict on 2 other counts." Carter goes on to state, "It is important to note that the charges absolutely do not involve any releases or spills to the environment. CITGO, like our other local refineries, has an excellent environmental record and is confident that the verdict on Counts 4 and 5 will be reversed on appeal." Carter made several blatant errors in his newsletter, none of which were checked by the Caller-Times. For one, CITGO was not found innocent; CITGO was found guilty on two charges and not guilty on two charges. Furthermore, there were an abundance of releases into the environment and subsequently the community, a fact well-documented by the prosecution. In addition, Corpus Christi refineries are not well known for their "excellent environmental records." Corpus Christi is the only U.S. city with the distinction of having two refineries on the top-ten list of refineries emitting cancer-causing substances. Most notably, when comparing the Chamber of Commerce letter written in August 2006 with the newsletter written in July 2007, a more troubling pattern appears. Carter uses several of the exact same statements in both newsletters. The two newsletters, one year apart, are virtually identical. The Chamber of Commerce continues to support CITGO despite the criminal conviction.

On January 30, 2007, the *Caller-Times* headline read, "CITGO's permit to produce more gasoline expires." The headline was extremely misleading. The permit in question did not expire; the permit was voided by the Texas Commission on Environmental Quality because the control measures described by CITGO were considered inadequate. The voiding of the permit was a huge victory for local and national environmental groups, a point mentioned later in the article but omitted in the headline.

On February 5, 2007, the *Caller-Times* reported "*Flaring possible at CITGO refinery*." The article also included the following statements, ". . .but don't be alarmed" and "the periodic flaring, a safety process that occurs when a unit is starting up or shutting down, burns excess gases that develop within the unit and should burn for five to 30 minutes." What the article doesn't mention is that flares' emissions have been linked to asthma and other breathing problems in residents living near oil and chemical refineries (Public Citizen, 2005). In addition, although the *Caller-Times* reported on this incident, 147 other emissions releases occurred at refineries in Corpus Christi from August 2006 to July 2007. Only one air emissions event received media coverage.

With only three months before the trial was to commence, CITGO made a concerted effort to increase their positive presence in the community. On February 2, 2007, the *Caller-Times* front page proclaimed, "CITGO gives private school \$2M" and Bishop Carmody praised CITGO, "It is a real gift to the community." The following day, another article appeared on the front page of the local section, "Carmody calls CITGO's \$2M gift a blessing." The article states, "CITGO looks for ways to contribute to the communities that house their refineries, especially related to issues of education and poverty." The article does not mention the indictment or impending trial.

On March, 4, 2007, just two months prior to the trial, the *Caller-Times* published a 1,000 word article entitled, "*Leaders in Business: CITGO's Vice President and General Manager*

Eduardo Assef." In the interview, Assef says, "Commitment to employee safety and community well-being are priorities to a leader." At the same time, CITGO was under indictment for knowingly polluting the neighboring community with unregulated amounts of benzene for over nine years; a fact left out of the article.

On April 29, 2007, less than a month before the trial, the front page of the Caller Times local section stated, "*Hooks [baseball] team gets its own landmark CITGO sign.*" The article reported that, "the 50-foot, double-sided neon sign with an 18-by-18 face symbolizes the club's partnership with the petroleum company. We've got a great relationship with CITGO. We wanted to extend that relationship." Once again, the news article neglected to mention the criminal indictment and impending trial.

I was curious to see if CITGO publicity in the year following the indictment increased significantly as compared to the previous year. In the year prior to the indictment (August 2005 to July 2006), news about CITGO appeared to be relatively mixed. While there were a handful of articles pertaining to CITGO's corporate donations and sponsorships, there were also a plethora of articles which reported on Venezuelan President Chavez's ties to CITGO, CITGO's increase in profits, and a fire that occurred at the refinery. In comparing the coverage of CITGO in the year prior to the indictment and in the year following the indictment it appears that CITGO launched a public relations campaign and was aided by the *Caller-Times*. After the indictment, the *San Antonio Express* requested state agency documents and published an in-depth investigative piece which detailed CITGO's past record of violations and enforcement activities. The San Antonio article also included interviews with multiple victims, state agency representatives, and environmental crime and law experts as well as photographs of the refinery and neighboring community. The *Caller-Times* appeared to focus efforts on highlighting CITGO's corporate citizenship rather than the criminal charges lodged against the company.

CONCLUSIONS

The positive publicity surrounding CITGO far outweighs any negative publicity CITGO received due to the indictment and during the trial. Even the indictment and trial articles weren't exactly negative in their constructs. For example, a Caller Times article on June 23, 2007 proclaims, "CITGO didn't do wrong knowingly, lawyer says." Is it any wonder that many people in Corpus Christi continue to support CITGO despite their crimes, which included knowingly and willingly polluting the community? The media, local city leaders, schools, public and private agencies, sports teams, etc. all benefit from receiving CITGO monetary donations. Corporate criminals are treated differently than street criminals in terms of news media access and coverage. Corporate leaders and corporations appear to have open access to the media and control of their image.

Residents of the neighboring communities do not have the financial resources or the political connections to uniformly declare their own response to the outcome of the trial. Nor do they feel particularly grateful that CITGO offers donations to various charities including health-related agencies while at the same time heaping pollution onto the residents of the neighboring communities. Heartbreaking stories of illness and disease are shared among residents and the occasional curious reporter or writer from afar. Residents claim that because they are low-income people of color that corporations and the government don't care about them. Hillcrest and Oak Park can be included in the long list of low-income communities disproportionately

affected by environmental hazards (see: Bullard, 1983; Lavelle & Coyle, 1992; Mohai & Bryant, 1992; United Church of Christ, 1987; U.S. General Accounting Office, 1983).

In a letter to Judge John Rainey from lead Prosecutor Howard P. Stewart on July 7, 2006, Mr. Stewart stated, "The emissions from these tanks were uncontrolled for more than ten years and routinely engulfed the Hillcrest community and physically affected the citizens that live there. The government introduced evidence that the emissions from tanks 116 and 117 made people living in the community and at least one TCEQ investigator physically sick." Jean Salone, a resident of Hillcrest for over 45 years, stated, "Many residents know they're going to die here and it's just so sad." Salone was not allowed to comment on the health concerns of the community during the trial but later stated, "What is air pollution if it doesn't touch people? People have died out here, not knowing why they died. We hear the sirens at night but no one tells us anything. They never ask us if anyone is sick. And now we know that for ten years they knowingly polluted the community. It hurts."

While "street crime" is given more than its fair share of media, political, and enforcement attention, "white-collar" crime is generally ignored unless the consequences of such corporate actions result in several immediate deaths, affect hundreds or even thousands of lives, and cost several hundred millions of dollars (e.g., Enron) (Jarrell, 2007). Even then, media attention is terminal. Headlines and leading news reports favor the isolated violent encounter. Although both "street crime" and "white-collar" crime involve violence, victims, offenders, and injury, "street crime" is more sensational and simplistic and, therefore, more appealing for copy than the often misunderstood and more injurious "white-collar" variety. The media, our government, and our justice personnel convince us that street crime is rampant and that we are all potential victims; worst case scenarios dominate our thinking and appear to be the norm. Consequently, voters are affected by this slanted portrayal. Over the past 20 years, we've become extremely adept at waging war against street criminals. Each year we build more and more jails and prisons. The war on street crime has diverted our attention away from the more serious problem of white-collar crime and corporate crime, despite recent headlines devoted to coverage of Enron, Madoff, and the like.

As long as we conceptualize street crime as the major criminal threat to society, we will continue to ignore far more deadly, costly, and destructive crimes of corporate America. This cultural image of our crime problems is fed by the media, politicians, and crime specialists who emphasize the growing epidemic of the war on drugs, school violence, workplace violence, terrorism, and the like. In essence, murder by gun, knife, or other weapon is considered horrendous, while murder by unsafe working conditions, pollution, and defective products is accidental and, therefore, not as problematic or deserving of public attention (Jarrell, 2007). To compound the problem, many of the individuals who commit white-collar offenses are the very same individuals who have the power, resources, and influence to shape laws and determine where much of our federal and state money goes. White-collar crime doesn't fit prevalent stereotypes of "real" crime, hence it is not given as much attention by the media, politicians, the public, or academics.

Lack of local, state, and national media coverage of the criminal trial against CITGO does a great disservice to the public. It is no wonder the public perceives environmental crime as less serious when compared to street crime, despite the fact that environmental crime is responsible for more illnesses, diseases, and deaths than street crimes. Corporations are able to spend mil-

lions to prepare defenses and to create PR campaigns that tout their environmentally-friendly image. If scientific tests eventually connect the human sickness and disease to the environmental toxins and the corporations responsible for their illegal (and sometimes legal) presence in the air, soil, or water, the battle will not be over. In some cases, the corporation will be required to pay a fine. Forcing a multi-billion dollar corporation to pay a \$500,000 fine for criminal pollution is akin to a slap on the wrist. In most cases, the community will be forced to live with the consequences of the environmental contamination; the government rarely relocates communities due to environmental contamination. Social, political, and media attention will be short lived if given at all. And the people will continue to suffer and die.

As of March 2009, almost two years since CITGO was convicted in federal criminal court for violations of the Clean Air Act, the corporation has yet to be sentenced. Over 400 Hillcrest and Oak Park residents attended townhall meetings held by the Department of Justice in the fall of 2007. Over 300 people signed victim impact statements, describing the health problems associated with breathing toxic air. Fifteen residents testified at the pre-sentencing hearings held in 2008 about the odors and health problems associated with CITGO's crimes. On February 22, 2008, an explosion at the CITGO refinery severely injured four workers and spewed hot oil across the community. Initially, the Texas Commission of Environmental Quality (TCEQ) refused to investigate and instead sided with CITGO, suggesting that nothing hazardous was released and that no violation had occurred. It was only after Citizens for Environmental Justice (CFEJ), a local grassroots environmental group, conducted its own investigation and sampled oil specks found on cars over two miles from the explosion that the TCEQ decided to investigate. TCEQ's sampling results supported the CFEJ's results, concluding that hazardous chemicals were released, resulting in yet another enforcement action against CITGO.

In order to understand and effectively deal with corporate environmental crime, we must acknowledge social structural factors, economic variables, and institutionalized racism as primary issues related to this type of behavior. In order to counter corporate "greenwash," researchers and activists must first educate themselves on the tactics utilized by corporations. Changing perceptions of what constitutes crime, simplifying environmental crime research for public consumption, and challenging corporate "greenwash" are not easy tasks. But they are necessary for the sake of our environment and health. "Criminologists may well serve the commonwealth when they unmask the implicit biases of reporters and challenge the media to join the public discourse concerning the seriousness and potential criminality of corporate violence" (Wright et al., 1995, p. 35). Academics should be willing to become active participants in the fight to eliminate and reduce corporate and environmental violence. We must not only research, we must act. Beyond contributing to the growing body of environmental crime literature, criminologists can use their knowledge and expertise to educate the public and their students as well as to assist in grassroots activist efforts. We know that the mass media play a critical role in the shaping of public perceptions of crime and justice. As criminologists, we need to become part of the social construction of public opinion of crime and justice. We cannot continue to leave the media construction of crime and justice solely to journalists and the media elite.

REFERENCES

- Albanese, J. S., & Pursley, R. P. (1993). *Crime in America: Some existing and emerging areas*. Englewood Cliffs, NJ: Regents/Prentice Hall.
- American Petroleum Institute. (2004). *About oil and natural gas*. Washington, DC: American Petroleum Institute.
- Barlow, M. H., Barlow, D. E., & Chiricos, T. G. (1995). Economic conditions and ideologies of crime in the media: A content analysis of crime news. *Crime & Delinquency*, 41, 3–19.
- Benedict, H. (1992). *Virgin or vamp: How the press covers sex crimes*. New York: Oxford University Press.
- Bullard, R. (1983). Solid waste sites and the Houston black community. *Social Inquiry*, *53*, 273–284.
- Burns, R. G., & Lynch, M. J. (2004). *The sourcebook on environmental crime*. New York: LFB Publishers.
- Burns, R. G., Lynch, M. J., & Stretesky, P. (2008). *Environmental law, crime, and justice*. New York: LFB Scholarly Publishing.
- Burns, R. G., & Orrick, L. (2002). Assessing newspaper coverage of corporate violence: *The dance hall fire in Qoteborg, Sweden. Critical Criminology* 11(2), 137–150.
- Caputo, A. (2006, September 30). Citgo pollution charges in Corpus highlight problems with law. *The San Antonio Express*, p.1.
- Chermak, S. (1994). Body count news: How crime is presented in the news media. *Justice Quarterly, 1,* 561–82.
- Chermak, S. (1998). Police, courts, and corrections in the news. In F. Bailey & D. Hale (Eds.), *Popular culture, crime and justice*. Belmont, CA: Wadsworth.
- Clinard, M. B. and Yeager, P. C. (1980). Corporate Crime. New York: Free Press.
- Department of Energy. (2004). Energy information administration industry briefs. Washington, DC: Office of Industrial Technologies.
- Department of Justice. (2000). Koch Industries indicted for environmental crimes at refinery. Washington, DC: Department of Justice.
- Department of Justice. (2006). Citgo Petroleum and environmental manager indicted for environmental crimes. Washington, DC: Department of Justice.
- Edwards, S. M., Edwards, T. D., & Fields, C. B. (1996). *Environmental crime and criminality: Theoretical and practical issues*. New York: Garland Publishing, Inc.
- Environmental Integrity Project. (2007). Refinery rankings. Washington, DC: Environmental Integrity Project.
- Environmental Protection Agency. (1995). Regulatory impact analysis for the petroleum refinery NESHAP. Research Triangle Park, North Carolina: Office of Air Quality Planning and Standards, Emission Standards Division.
- Environmental Protection Agency. (2008). Enforcement and compliance history online. Washington, DC: Environmental Protection Agency.
- Evans, S. S., & Lundman, R. J. (1983). Newspaper coverage of corporate pricefixing. *Criminology*, 21, 529–41.

- Fishman, M. (1978). Crime waves as ideology. Social Problems, 25, 531-43.
- Graber, D. A. (1980). Crime news and the public. New York: Praeger.
- Greer, J., & Bruno, K. (1996). *Greenwash: The reality behind corporate environmentalism*. New York: The Apex Press.
- Hills, S. L. (1987). *Corporate violence: Injury and profit for death*. Totowa, NJ: Rowman and Littlefield.
- Jarrell, M. L. (2007). *Environmental crime and the media: News coverage of petroleum industry violations*. New York: LFB Scholarly Publishing.
- Kappeler, V., Blumberg, M., & Potter, G. W. (1996). *The mythology of crime and criminal justice* (2nd ed.). Prospect Heights, IL: Waveland.
- Langlois, P. (2008). A case-control study of the association between birth defects elevated in Nueces County and sites of concern to Citizens for Environmental Justice. Houston, TX: Texas Department of State Health Services.
- Lavelle, M., & Coyle, M. (1992). Unequal protection: The racial divide in environmental law. In R. Hofrichter (Ed.), *Toxic struggles: The theory and practice of environmental justice* (pp. 136-143). Philadelphia, PA: New Society Publishers.
- Lerner, S. (2007). Corpus Christi: Hillcrest residents exposed to benzene in neighborhood next door to refinery row. Bolinas, CA: The Collaborative on Health and the Environment.
- Levi, M. (1994). The media and white collar crime. Presented at the annual meetings of the American Society of Criminology, Miami.
- Lofquist, W. (1997). Constructing 'crime': Media coverage of individual and organizational wrongdoing. *Justice Quarterly*, 14, 243–263.
- Lotz, R. (1991). Crime and the American press. New York: Praeger.
- Lynch, M. J., Nalla, M. K., & Miller, K. W. (1989). Cross-cultural perceptions of deviance: The case of Bhopal. *Journal of Research in Crime and Delinquency, 26*, 7–35.
- Lynch, M. J., Stretesky, P. B., & Burns, R. G. (2004a). Slippery business: Race, class, and legal determinants of penalties against petroleum refineries. *Journal of Black Studies*, *34*, 421–440.
- Lynch, M. J., Stretesky, P. B., & Burns, R. G. (2004b). Determinants of environmental law violation fines against oil refineries: Race, ethnicity, income, and aggregation effects. *Society and Natural Resources*, 17, 333–347.
- Lynch, M. J., Stretesky, P. B., & Hammond, P. (2000). Media coverage of chemical crimes, Hillsborough County, Florida, 1987-97. *The British Journal of Criminology, 40*, 112–126.
- Maguire, B. (2002). Television network news coverage of corporate crime from 1970-2000. *Western Criminology Review, 3*. Retrieved from http://wcr.sonoma.edu/v3n2/maguire. html
- Marsh, H. L. (1989). Newspaper crime coverage in the U.S.: 1893-1988. *Journal of Criminal Justice*, 19, 67–78.
- McMullan, J. L., & McClung, M. (2006). The media, the politics of truth, and the coverage of corporate violence: The Westray disaster and the public inquiry. *Critical Criminology* 14(1), 67–86.

- Mohai, P., & Bryant, B. (1992). Environmental racism: Reviewing the evidence. In B. Bryant & P. Mohai (Eds.), *Race and the incidence of environmental hazards: A time for discourse* (pp. 163-175). Boulder, CO: Westview Press.
- Morash, M., & Hale, D. (1987). Unusual crime or crime as usual? Images of corruption at the Interstate Commerce Commission. In T. S. Bynum (Ed.), *Organized crime in America: Concepts and controversies*. Monsey, NY: Criminal Justice Press.
- Natural Resources Defense Council. (2001). Oil companies, making record profits, seek environmental rollbacks. Washington, DC: Environment Media Services.
- Newman, G. (1990). Popular culture and criminal justice: A preliminary analysis. *Journal of Criminal Justice*, 18, 261–74.
- Olsen, L. (2005, January 18). In harm's way: Texas' toxic problems appear widespread. *The Houston Chronicle*, p.1.
- Public Citizen. (2005). *Industrial upset pollution: Who pays the price?* Austin, TX: Public Citizen.
- Scorecard. (2009). Nueces County pollution report card 2002. New York: Environmental Defense Fund.
- Stauber, J. C., & Rampton, S. (1995). *Toxic sludge is good for you! Lies, damn lies, and the public relations industry*. Monroe, ME: Common Courage Press.
- Swigert, V. L., & Farrell, R. A. (1980). Corporate homicide: Definitional processes in the creation of deviance. *Law and Society Review, 15*, 161–82.
- Randall, D., & DeFillippi, R. (1987). Media coverage of corporate malfeasance in the oil industry. *The Social Science Journal*, 24, 31–42.
- Randall, D., & Lee-Sammons, L. (1988). Common versus elite crime coverage in network news. *Social Science Quarterly*, 69, 910–29.
- Reiman, J. (1998). The rich get richer and the poor get prison. Boston: Allyn and Bacon.
- Texas State Auditor's Office. (2003). An annual report on the commission on environmental quality's enforcement and permitting functions for selected programs. Retrieved on September 1, 2007, from http://www.sao.state.tx.us/reports/main/04-016.pdf
- Wright, J. P., Cullen, F. T., & Blankenship, M. B. (1995). The social construction of corporate violence: Media coverage of the Imperial Food Products fire. *Crime & Delinquency*, 41, 20–36.
- United Church of Christ. (1987). *Toxic wastes and race: A national report on the racial and socio-economic characteristics of communities with hazardous waste sites.* New York: United Church of Christ.
- U.S. General Accounting Office. (1983). Siting of hazardous waste landfills and their correlations with racial and economic status of surrounding communities. Washington, DC: U.S. Government Printing Office.

BIOGRAPHICAL SKETCH

Melissa L. Jarrell is an assistant professor of criminal justice at Texas A&M University-Corpus Christi. She received her M.A. and Ph.D. in Criminology from the University of South Florida. Dr. Jarrell is the author of *Environmental Crime and the Media: News Coverage of Petroleum Refining Industry Violations*. Her research interests include environmental justice, corporate crime, and crime and the media. She works with local communities and grassroots environmental justice activists to address issues of poverty, pollution, and injustice.

Theoretical and Practical Application of Loose Coupling: A Study of Criminal Justice Agencies in the State of Florida

Christopher R. Sharp

Valdosta State University

Abstract

Karl Weick's (1976) application of loose coupling theory to the study of organizations presented an opportunity to explore how social service agencies interact in exchange relationships. However, there has been little empirical research in the social sciences that applies loose coupling to social service organizations since that time. This is especially problematic as public agencies, such as criminal justice agencies and mental health agencies, are increasingly being tasked with the daunting prospect of working together to address social issues. However, what was not addressed was the systemic fragmentation associated with both the criminal justice and mental health systems. The current study sought to explore the fragmentation within the criminal justice system based on the theory of loose coupling. To accomplish this, a Tailored Design Method (Dillman, 1991) survey, utilizing multiple mail-based and email-based contacts, was administered to all law enforcement agencies within the state of Florida. Findings indicate that the system is not as fragmented as believed in that responding agencies are not only willing to couple with outside agencies but also report relatively high levels of experience with interprofessional collaboration. These findings have profound implications for the future of multi-agency responses to social problems.

Key Words: coupling, interprofessional collaboration, collaboration, loose coupling, organizational behavior, organizational relationships

INTRODUCTION

In 1976, Karl Weick first introduced the concept of loose coupling, a conceptual framework formerly relegated to the field of computer systems, to organizational studies. From an organizational perspective, the concept of loose coupling suggests a resilient system of independent agencies that work harmoniously in an exchange relationship while the different parts retain physical and professional autonomy (Hagan, Hewitt, & Alwin, 1979; Weick, 1976). Moreover, coupling can occur within organizations, forming a more cohesive organization, as well as

without, which creates interdependent partnerships between organizations. For public service organizations, effectively exchanging information between agencies can be especially valuable when the objective of their relationship is in a state of change or unclear, but a sudden response to a social issue is warranted (Orton & Weick, 1990). However, the degree of coupling within the organization may affect the amenability to couple with external agencies and accept changes in the delivery of social services.

A contemporary example of coupling, and the ambiguity associated with the concept in social service organizations, can be illustrated in the relationship between criminal justice and mental health agencies and the dilemma of appropriately handling mentally ill offenders. Although there continues to be growing support for collaboration between mental health and criminal justice practitioners when handling mentally ill offenders, the paradox of providing the most appropriate treatment in the least restrictive criminal justice setting has led to ambiguity among the participants as to their exact purpose in the exchange relationship (i.e., treatment vs. incarceration). However, the ambiguity of the exchange relationship is overshadowed by a shared perspective of a social issue (such as incarceration being an inappropriate response to the mentally ill offender) (Hagan, Hewitt, & Alwin, 1979), which allows the opportunity for a shared perspective and response (Glassman, 1973). Using the example of mental health and criminal justice agencies, this shared perspective has made effective coupling even more plausible because both the mental health and criminal justice systems fall under the umbrella of human services, which, simply stated, are loosely coupled to begin with.

The flexibility of loose coupling allows for systems, even those that seem ideologically incompatible (like criminal justice and mental health) to join when a need arises and create composite services (such as intensive case management of mentally ill offenders, which utilizes the power of criminal sanctions to enforce mental health treatment). These composite services occur when managers redefine their perceptions of their operational environments based on the creation of a shared view with external agencies regarding a social issue. However, the fact that the systems may be incompatible due to ideology, operations, etc., along with the fact that ineffective loose coupling can allow for exchange relationships to be disassembled quickly leads to the reality that the structural and organizational elements within the system are often only nominally linked. This leads to rule and jurisdiction violations, unimplemented decisions, and unpredictable consequences for decisions that are implemented (Hagan, Hewitt, & Alwin, 1979; Meyer & Rowan, 1977).

The impact of inappropriate coupling within a system allows for the possibility of ceremonial representation within the system instead of legitimate involvement of organizational resources (Hagan, Hewitt, & Alwin, 1979). This allows for the system to accept increasing facets of operation (e.g., the criminal justice system's adoption of drug courts, mental health courts, etc.) without significantly altering day to day operations (Glassman, 1973), thereby increasing societal legitimacy while maintaining organizational efficiency (Hagan, Hewitt, & Alwin, 1979; Meyer & Rowan, 1977). However, ceremonial representation produces negative effects that can lead to further specialization and fragmentation between and within agencies, which exacerbates the ambiguity of the concept of loose coupling and exchange relationships.

Systemic fragmentation within the fields of mental health treatment and criminal justice, coupled with a lack of inter-communication between the practitioners in both fields, has made practical coupling between criminal justice and mental health practitioners exceedingly dif-

ficult. The reality that both systems are individually fragmented and loosely coupled (Hagan, Hewitt, & Alwin, 1979) makes the prospect of successful coupling between the systems to address the treatment of the mentally ill highly problematic. The result is that both criminal justice and mental health systems have been attempting to address the problem as autonomous entities. In effect, the most logical course of action, collaboration, has been haphazardly pursued without a basic knowledge of the willingness to collaborate among criminal justice practitioners, or knowledge of collaborative practices among criminal justice practitioners. This situation provides the impetus for the current study of criminal justice practitioner's views on collaboration, and a study of the collaboration practices among criminal justice agencies.

MEASURING COUPLING

The coupling of criminal justice agencies can be measured in two ways. First, from a theoretical standpoint, coupling can be measured through an agency's willingness to communicate with outside agencies. Appropriately coupled agencies theoretically possess a willingness to communicate with outside agencies (Hagan, Hewitt, & Alwin, 1979). This communication with outside agencies and social institutions facilitates a holistic view of the offender and creates a Beccarian style, offender-based punishment that would deter that specific offender from future criminal activities.

An integral factor related to interagency communication and decision making is the presence of professional autonomy. Autonomy for agency representatives within a collaborative effort allows for immediate decision making from the line practitioners and provides flexibility to the collaborative effort through a process of information sharing (Brundrett, 1998; Corrigan, 2000; Creamer, 2003; Johnston & Hedeman, 1994; Jordan, 1999; Koehler & Baxter, 1997; Leonard, 1999a, 1999b; Leonard & Leonard, 2001). Retaining professional autonomy is an important facet of a harmonious partnership within a collaborative effort that is appropriately coupled because it allows the stakeholders to take ownership of the decisions being made (Hagan, Hewitt, & Alwin, 1979; Weick, 1976). The literature acknowledges that agencies that are inappropriately coupled retain nominal linkages, which can lead to rule violations, unimplemented decisions, and vague consequences for the decisions that are not implemented (Hagan, Hewitt, & Alwin, 1979; Meyer & Rowan, 1977).

It is recognized that for professional autonomy to remain significant within appropriately coupled agencies, open communication without fear of reprisal is necessary (Leonard & Leonard, 2001; Short & Greer, 1997). The uninhibited flow of communication permits trust building and provides a dissemination of differing ideas among collaborative stakeholders while fostering a sense of selflessness (Jordan, 1999; Knop, LeMaster, Norris, Raudensky, & Tannehill, 1997; Leonard & Leonard, 2001). Therefore, open communication can be measured through the degree to which respondents feel comfortable exercising professional autonomy within collaborative efforts and the degree of importance that they give to other stakeholders within the collaboration.

The ability to communicate without fear of reprisal, as well as the willingness of collaborative partners to share decision-making power and responsibility, are but some of the criteria that were utilized as measures in this study. Other factors, such as the ability to volunteer to work with outside agencies, valuing the diverse backgrounds of other agencies, sharing a clear sense of purpose, and staying committed to a collaborative effort, were used as measures of coupling.

Unfortunately, due to the divergent ideologies often found within interprofessional collaboration efforts, and the lack of shared theoretical foundations for collaborating (Walsh, Brabeck, & Howard, 1999), there frequently develops a vying for authority (Abramson & Mizrahi, 1996; Allen-Meares & Moroz, 1989; Biaggio & Bittner, 1990; Reppucci & Crosby, 1993; Staley, 1991; Tharinger, Bricklin, Johnson, Paster, Lambert, Feshbach, Oakland, & Sanchez, 1996; Theil & Robinson, 1997; Walsh, Brabeck, & Howard, 1999; Weil, 1982). Such power-struggles do not allow for professional diversity to accomplish strategic planning and problem solving (Knop et al., 1997; Jordan, 1999) and dissuade willingness to share power (Leonard & Leonard, 2001; Mankoe, 1996). The ultimate result of this power struggle is the emergence of non-coupled agencies that are unwilling to relinquish authority or communicate with outside agencies. This situation represents the negative side of the coupling continuum where agencies are, at best, nominally linked and any collaborative effort is ceremonial.

As stated, agencies that are appropriately coupled experience a symbiotic relationship with other agencies that involves open communication and information sharing. However, practically speaking, a second way to measure an agency's coupling is to analyze an agency's past experience of involvement in community outreach programs and team approaches to social problem solving (Leonard & Leonard, 2001; Short & Greer, 1997). This collaborative experience provides useful insight into the practice of the agency's philosophy. Logically, the concepts of agency coupling and collaborative experience are inextricably linked. This rationale is based on the assumption that as agencies become more coupled with outside agencies, then their collaborative experience will increase, and the inverse should also hold true. Even though it is possible that agencies may be highly coupled with outside agencies and not have any practical experience with collaboration, such agencies are not actually expected to be found, as agencies that participate in an exchange relationship are hypothesized to have engaged in an actual collaboration project (Hagan, Hewitt, & Alwin, 1979; Maguire & Katz, 2002; Manning, 1997).

To attempt to dissect collaborative experience from coupling is a complex yet necessary task. Hypothetically, appropriately coupled agencies will have undertaken several collaborative experiences in several forms. However, the necessity to divide coupling from collaborative experience lies in the fact that one concept, coupling, lies in the theoretical understanding of what it means to participate in an exchange relationship with external agencies. The other concept, collaborative experience, is equally important in that it measures the practical application of that theoretical understanding. This scrutiny of coupling and collaborative experience as separate principles, theoretical and practical, is the basis for the current study.

STUDY ADMINISTRATION

The current study utilized a mail- and email-based survey to focus on the perceptions of leaders in all of the Florida criminal justice agencies toward collaborating with non-criminal justice agencies regarding mentally ill offenders. A complete enumeration of the 20 state's attorney's offices, 50 county probation offices, 67 county sheriffs, and 316 municipal police departments across the State of Florida was surveyed. The survey was distributed to the agency head, or their designated representative responsible for mentally ill offender policy, for each agency using the Tailored Design Method, as formulated by Don Dillman (2000), for a total of 453 possible respondents. The Tailored Design Method, as stated by Dillman (2000) utilizes several design elements, such as; easily understood questionnaires, multiple contacts (with

the potential for multiple modes of contact), and inexpensive response methods (i.e., stamped return envelopes, a computer-based survey, etc.) in order to increase the response rate. For the purposes of this survey, respondents were contacted over a 45-day period, with a letter once before and once after survey administration, as well as three "survey reminder" emails distributed after the post-survey letter.

There were 222 actual respondents, which accounted for 49% of the 453 possible respondents. Within this, 56% (37 total) of sheriff's offices responded, 50% (158 total) of municipal police departments, 45% (9 total) of state's attorney's offices, and 33% (18 total) of probation offices. On the surface, this distribution presents a representative sample of all agencies surveyed with the exception of probation offices. This was in large part due to the number of privately run probation departments (approximately 56% of all departments) with outdated contact information: Approximately 80% of all privately funded probation departments could not be contacted. Additionally, two of the potential respondents for publicly funded probation offices no longer existed, as the county had done away with the services altogether, which left a total of 39 possible respondents. Eighteen of these 39 possible respondents from probation offices actually responded, which equates to an adjusted response rate of 46% for probation offices, and represents primarily publicly funded probation offices.

Furthermore, it was found that 65% of overall responding agencies came from the top 30% of counties based on population density (as reported by the 2000 census). The other agency types had at least 55% of their respondents coming from the top 40% of counties based on population density. Dade, Broward, and Palm Beach Counties had the highest modes of responding agencies respectively, and 76% of responding municipal police departments coming from the top third of counties based on population density. Approximately 49% of responding agencies possessed less than 50 total personnel (sworn and unsworn), 17% had 51–100 personnel, and 33% of responding agencies possessed 101 or more total personnel within the agency.

Furthermore, the data illustrates that the respondents were slightly skewed (although not significantly) toward areas with higher total crime rates. The total crime rate for the State of Florida in 2000 was 4,855.3 per 100,000, while the average crime rate of the responding agencies was 4,989.9 (median = 4,824.6; range = 937.6 to 7,306.8, standard deviation 1,475.9; skewness = -.269; Standard Error of the skew = .163).

Additionally, responding agencies were significantly skewed toward areas with higher per capita income. The average per capita income for the State of Florida was \$29,559. Alternatively, the average community per capita income among responding agencies was \$27,727 (median = \$26,594; range = \$12,385 to \$43,626; standard deviation = 7,200.12), but the most frequently reported per capita income among responding agencies was significantly higher at \$43,626, which led to the positive skewing of results (skewness = .836, Standard Error of the skew = .163). Regardless of the positive skewing, both the median and the mean of responding agency's per capita income are lower than the State of Florida average per capita income. This indicates responding agencies that are from areas with lower per capita incomes.

COUPLING SCALE RESULTS

It must be noted that the derived measures for coupling are purely exploratory. The concept of coupling in organizational research has enjoyed little in the way of empirical research. As such, the measures used in this study were obtained from the literature-based theoretical foun-

dations of coupling (i.e., open communication without fear of reprisal, professional autonomy and use of discretion, a shared perspective with external agencies regarding social issues, and views on the extent of agency involvement). Coupling is an elusive term, as it presents a bipolar scale ranging from little practice with the above named concepts (inappropriate coupling) to a deeper understanding and practice (appropriate coupling). As the concept of coupling is problematic to construct, this study presents an exploratory construct of coupling. Although not exhaustive, the construct presented in this study presents a unique and much needed foundation for future research on the concept of coupling.

Collectively, the following variables provide indicators of "coupling" and specifically cover the theoretical components of "coupling." Measures of appropriate coupling (no repercussions for open discussion, divert mentally ill out of criminal justice, open communication encouraged, agency values outside input, flexible with outside agencies, shares decision-making power, decision responsibility should be shared, defined goals are necessary, collaboration possible when all are committed, and collaboration effective when not forced) were reverse coded as Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree = 1. This was done to facilitate interpretation of results so that higher numbers would represent greater levels of coupling. Additionally, measures of inappropriate coupling; prior approval for decisions, plan of action in order to collaborate, unlikely to share decision making, commitment determined by agency leadership, and seeks blame for problems were coded as Strongly Agree = 1, Agree = 2, Neutral = 3, Disagree = 4, and Strongly Disagree = 5 with the same logic in mind that higher numerical values would represent greater levels of coupling. Coding the variables in this way would lead to an expected range of 15 (very uncoupled) to 75 (highly coupled) if all 15 variables are used in the final scale construction. Multiple measures were used (as with shared decision making) in order to begin to adequately measure the multiple facets associated with coupling between agencies. It is believed that this would allow the current study to address how agencies feel about sharing decision-making power with external agencies (from both a negative and positive perspective) as well as measure the propensity to do so.

The fifteen measures of coupling were further analyzed through a test of Cronbach's alpha for group inter-correlationonal consistency in order to assess the ability to create a coupling scale based on these variables. Analysis of Cronbach's Alpha statistics displayed that the variables "leadership determines level of commitment" and "collaboration more effective when not forced" should be removed from the final scale in order to increase the alpha coefficient. This was done, and the resulting scale produced a coefficient of .654 (Friedman's $X^2 = 120.70$, p = .000, p = .

The mean score for the coupling scale was 48.73, and the scale ranged from 38 (moderately coupled) to 62 (highly coupled) with a standard deviation of 4.08. The sample's observed range of coupling was compared to the expected range of coupling (13 - not coupled at all to 65 – very highly coupled; based on 13 variables) in order to assess the sample's level of coupling.

A one-way ANOVA was calculated to compare the mean scores of coupling among the responding groups (sheriff's offices, police departments, probation offices, and state's attorney's offices). A significant difference was found (F (3, 180) = 3.11, p=.028) among the means with probation offices showing the highest mean score for coupling followed by sheriff's offices, state's attorney's offices, and municipal police departments respectively.

Overall, the sample represents responding agencies that are moderately to highly coupled with outside agencies. Interestingly, agencies that are either not coupled at all or possess low levels of coupling are not represented in the sample. This raises questions on whether uncoupled agencies exist or chose not to respond, or if the conceptual framework of coupling as espoused by the literature is accurate.

COLLABORATIVE EXPERIENCE INDEX

Like the theoretical concept of coupling, which moves from inappropriate to appropriate along a continuum, the practical application of coupling through collaborative experience logically falls into a continuum from not experienced to possessing a great deal of experience.

Due to the dichotomous nature of the variables used to measure collaborative experience, the variables (agency currently working with community leaders, agency works to keep mentally ill out of criminal justice, agency participates in outreach programs, agency represented in community improvement, and agency provides CIT training) were not checked for skewness (due to the obvious data ramifications of having just yes/no responses). Further analysis through Cronbach's alpha, to determine the feasibility of creating an index of collaborative experience, produced a coefficient of .639; Friedman's $X^2 = 24.77$, P = .000, R = 222.

The collaborative experience index ranges from 0 (no experience) to 4 (a great deal of experience; standard deviation = 1.29), with a mean of 2.43 (median = 3.00), which displays moderate to high levels of collaborative experience.

Unlike levels of agency coupling where a statistically significant, although not substantial, difference between agency means emerged with probation offices displaying the greatest levels of coupling and police departments displaying the least amount of coupling, the index of collaborative experience displayed more substantial differences. A one-way ANOVA was calculated comparing the mean scores of respondents' agency type and levels of collaborative experience. A significant difference was found (F (3, 218) = 6.23, p = .000) with sheriff's offices displaying the greatest level of collaborative experience followed by municipal police departments, probation offices, and state's attorney's offices respectively. Interestingly, municipal police departments report high levels of collaborative experience yet reported the lowest levels of agency coupling among all responding agencies. This alludes to the possibility of negative experiences with collaborative exchanges that drove municipal police departments to become less coupled with other agencies.

DISCUSSION OF THE FINDINGS ON COUPLING

Overall, the current study suggests that coupling falls into a continuum, much like the previous literature on coalitions and collaboration propose (Schrage, 1995; Leonard & Leonard, 2001). Theoretically, this continuum ranges from being appropriately coupled and desiring communication and input from outside agencies to less appropriately coupled with agency

leadership determining the extent of commitment to collaborative efforts and agencies unlikely to share decision-making powers. Within the current study, however, the respondents reported a truncated version of the coupling continuum in that all of the responding agencies were at least moderately coupled. There were no agencies that were inappropriately coupled, and it is therefore difficult to determine if an actual scale of coupling (from inappropriate to appropriate) exists. Furthermore, in the construction of the scale of coupling, agencies that did not respond to all of the measures being used were excluded from the results, which further limits the generalizability of the results.

Due to the truncation of the coupling scale (representing agencies that are moderately to highly coupled) agencies with low levels of coupling were not represented. This presents several possibilities for future researchers. First, the research on the coupling of criminal justice agencies may be dated, as shown that much of the research on agency coupling comes from the 1970s (Glassman, 1973; Hagan, Hewitt, & Alwin, 1979; Meyer & Rowan, 1977; Weick, 1976). Therefore further study is necessary in order to further determine the current nature of agency coupling within the criminal justice system. A second possibility is that those agencies that are uncoupled chose not to respond to the survey. As a result, research is needed to determine if non-responding agencies chose not to respond to the study due to lower levels of coupling. Although these agencies did not respond to a mail-based survey, a qualitative analysis of a few agencies via face-to-face, or phone-based interviews may produce better results.

Finally, it is possible that the conceptual framework of agency coupling as espoused by the literature from the 1970s does not reflect the actual current practice of agency coupling. Therefore, uncoupled agencies would not have been able to appropriately respond in a way that was reflective of their coupling status. As a result, future research should continue to form a definition of coupling that is reflective of contemporary day-to-day operations, which responding agencies may more easily associate with. This study provides a foundation from which to begin the evolution of this definition as it represents one of the very few studies of loose coupling in the social services.

A possible direction for this future research lies in the finding that similar to the minimal literature on coupling, which is based on bringing order to a fragmented criminal justice system through interprofessional collaboration (Manning, 1997; Maguire & Katz, 2002; Weick, 1979), the respondents in the current study appear to focus on increasing knowledge and skills through peer interaction. This is displayed through the measures of coupling, which illustrate a desire for open communication because the agency values outside input and is flexible in working with outside agencies. This is an especially important finding for advocates of the collaborative treatment of mentally ill offenders. If, as reported, criminal justice agencies desire input from external agencies and are flexible in working with outside agencies, then their amenability to accepting the President's Criminal Justice/Mental Health Consensus Project (2004) objectives is very high. Additionally, it would appear from the data that criminal justice agencies are not as loosely coupled or fragmented as once thought and seek to maximize their organizational development through peer interaction (Vygotsky, 1978; Walsh, Brabeck, & Howard, 1999; Wood & Gray, 1991).

This development would seem to make criminal justice agencies more approachable for information sharing with outside agencies and negates a long-standing criticism of the criminal justice system. Although there was nothing in the current data, other than a less than major-

ity response rate, to make the findings suspect (such as outliers), continuing research on the coupling continuum would be able to discern if the respondents in the current study were an anomaly or are representative of the true nature of coupling among criminal justice agencies.

PRACTICAL APPLICATION OF COUPLING THROUGH COLLABORATIVE EXPERIENCE

The concept of collaborative experience is theoretically enmeshed with agency coupling in that collaborative exchanges are believed to represent the manifestation of an agency's level of coupling. This led to several measures associated with collaborative exchanges that would assess the participation of agencies in activities external to the agency. It was believed that presenting the concepts of coupling and collaborative experience as separate concepts would be a difficult prospect due to the theorized interrelationship between the two concepts, as espoused by the literature. This co-relationship was supported and alluded to a continuum of collaborative experience much like the continuum of coupling.

Along this continuum, sheriff's offices reported the highest levels of collaborative experience, which corresponds with their reported high levels of agency coupling. However, other responding agencies report moderate to low levels of collaborative experience. This may be due to the generalized measures of collaborative experiences (i.e., participation in community outreach programs) as opposed to identifying specific collaborative exchanges that responding agencies may have more easily identified with. Through a general definition of collaborative experiences, errors in interpreting the true meaning of a survey item used within the study may have occurred. Therefore, specificity in identifying and defining collaborative exchanges would assist in reducing this interpretation error and may increase response rates.

Future researchers should reduce ambiguity about studying types of collaborative exchanges as much as possible. Reducing ambiguity about what is involved in collaborative activities is important in reducing the apprehension associated with engaging in a collaborative exchange and was cited, in this study, as an important part of why agencies couple with other agencies. Furthermore, a study of why sheriff's offices report having engaged in more collaborative exchanges needs to be made. It is believed that this engagement may be due to the fact that county sheriffs are elected to their positions and highly visible to the public, which may cause more participation in collaborative exchanges as a result of political pressure to do so. The presence of political pressure to engage in collaborative exchanges would support Farmakopoulou's (2002) assertion that agencies (and allegedly agency leaders) will engage in collaborative exchanges out of a sense of self-preservation. The result of this political pressure may have an unmeasured effect on assessing the perception of benefits from collaboration and true levels of support for collaboration. The current study did not address political pressures that agency leaders face to collaborate, and therefore provides another avenue for researchers to focus on.

CONCLUSION

The current study on the coupling of criminal justice agencies was conducted in order to begin to measure the willingness of criminal justice agencies to enter into an exchange relationship with external agencies. Prior to this, little research was conducted into the collaborative behaviors or ideologies among criminal justice practitioners, and it was often assumed that

criminal agencies were fragmented and inappropriately coupled. Instead, responding agencies reported being highly coupled and supportive of collaboration. This negates the arguments posed by much of the research that the criminal justice system is unlikely or unwilling to seek collaborative exchanges. Apparently, not only do criminal justice practitioners acknowledge the growing problem of increased incarceration of the mentally ill, as illustrated by the prior research, (Ditton, 1999, Bonovitz & Bonovitz, 1981, Hagan, Hewitt, & Alwin, 1979), they are willing to work with outside agencies in an exchange relationship to respond to this special needs population. This has profound implications for the success of interprofessional collaboration efforts between mental health and criminal justice agencies. Although this study has helped to dispel the myth that the criminal justice system is a fragmented system that is unwilling to communicate with outside agencies, actual support for interprofessional collaboration needs to continue to be established. Through measuring support for collaboration, and identifying types of collaborative activities that agencies are willing to participate in, a foundation for advocates of policy reform (especially in regards to the mentally ill) can be established. This has profound implications for interdisciplinary systems building and a reduction in the duplication of services, as well as providing linkages to services from agencies that are qualified to address unique social issues.

REFERENCES

- Abramson, J., & Mizrahi, T. (1996). When social workers and physicians collaborate: Positive and negative interdisciplinary experiences. *Social Work, 41*, 270–281.
- Allen-Meares, P., & Moroz, K. (1989). Interfacing the professions of social work and education. *Arete, 14*, 22–31.
- Bayley, D. (1988). Community policing: A report from the devil's advocate. In J. R. Green & S. D. Mastrofski (Eds.), *Community policing: Rhetoric or reality* (pp. 225–238). New York: Praeger.
- Biaggio, M. K., & Bittner, E. (1990). Psychology and optometry: Interaction and collaboration. *American Psychologist*, *45*, 1313–1315.
- Bonovitz, J., & Bonovitz, J. (1981). Diversion of the mentally ill into the criminal justice system: The police intervention perspective. *American Journal of Psychiatry*, *138*(7), 973–976.
- Brundrett, M. (1998). What lies beyond collegiality, legitimation or control? An analysis of the purported benefits of collegial management in education. *Educational Management & Administration*, 26(3), 305–316.
- Choo, C. (1996). The knowing organization: How organizations use information to construct meaning, create knowledge and make decisions. *International Journal of Information Management*, 16, 329–340.
- Corrigan, D. (2000). The changing role of schools and higher education institutions with respect to community-based interagency collaboration and interprofessional partnerships. *Peabody Journal of Education*, 75(3), 176–195.
- Creamer, E. (2001). *Working equal: Academic couples as collaborators*. New York: Routledge Falmer Press.
- Creamer, E. (2003). Exploring the link between inquiry paradigm and the process of collaboration. *The Review of Higher Education*, 26(4), 447–465.
- Criminal Justice/Mental Health Consensus Project. (2003). Chapter 5—Improving collaboration. Coordinated by the Council of State Governments.
- Dillman, D. (2000). Mail and Internet surveys: The tailored design method. New York: J. Wiley.
- Ditton, P. (1999). *Mental health and treatment of inmates and probationers*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Dvoskin, J., & Steadman, H. (1994). Using intensive case management to reduce violence by mentally ill persons in the community. *Hospital and Community Psychology*, 45, 679–684.
- Farmakopoulou, N. (2002). What lies underneath? An inter-organizational analysis of collaboration between education and social work. *British Journal of Social Work 32*(8), 1051–1066.
- Glassman, R. (1973). Persistence and loose coupling in living systems. *Behavioral Science*, 18, 83–98.
- Hagan, J., Hewitt, J., & Alwin, D. (1979). Ceremonial justice: Crime and punishment in a loosely coupled system. *Social Forces*, *58*, 506–527.
- Harrington, S. (1999, May/June). New bedlam: Jails not psychological hospitals now care for the indigent mentally ill. *Humanist*, *59*, 9–13.
- Johnston, S., & Hedeman, M. (1994). With devolution comes collaboration, but it's easier said than done. *School Organization*, *14*(2), 195–207.

- Jordan, C. (1999, December). Using collaboration action teams to create community schools. *NASSP Bulletin*, 48 56.
- Klockars, C. (1988). The rhetoric of community policing. In J. R. Greene & S. D. Mastrofski (Eds.), *Community policing: Rhetoric or reality* (pp. 239–258). New York: Praeger.
- Knop, N., LeMaster, K., Norris, M., Raudensky, J., & Tannehill, D. (1997). What we have learned through collaboration: A summary report from a national teacher education conference. *The Physical Educator*, *54*(4), 170–179.
- Koehler, M., & Baxter, J. (1997). *Leadership through collaboration: Alternatives to the hierar-chy*. Larchmont, NY: Eye on Education.
- Lamb, H., & Weinberger, L. (1998). Persons with severe mental illnesses in jails and prisons: A review. *Psychiatric Services*, 49(4), 483–492.
- Leonard, P. (1999a). Understanding the dimensions of school culture: Value orientations and value conflicts. *Journal of Educational Administration and Foundations*, 13(2), 27–53.
- Leonard, P. (1999b). Inhibitors to collaboration. In P. T. Begley & P. E. Leonard (Eds.), The values of educational administration (pp. 84–105). London: Falmer Press.
- Leonard, P., & Leonard, L. (2001). The collaborative prescription: Remedy or reverie? *International Journal of Leadership in Education*, *4*(4), 383–399.
- Lurigio, A., Fallon, J., & Dincin, J. (2000). Helping the mentally ill in jails adjust to community life: A description of post-release ACT program and its clients. *International Journal of Offender Therapy and Comparative Criminology*, 44(5).
- Maguire, E., & Katz, C. (2002). Community policing, loose coupling, and sensemaking in American police agencies. *Justice Quarterly*, 19(3), 503–536.
- Mankoe, J. (1996). Building partnerships: A strategy in resource mobilization for public education. Paper presented at the WWIV Canadian Society for the Study of Educational Conference, Brock University, St. Catharines, Ontario, 4–7 June.
- Manning, P. (1989). Community policing. In R. G. Dunham & G. P. Alpert (Eds.), *Critical issues in policing: Contemporary readings* (pp. 395–405). Prospect Heights, IL: Waveland.
- Manning, P. (1997). Organizations as sense-making contexts. *Theory, Culture, and Society,* 14, 139–150.
- Meyer, J., & Rowan, B. (1977). Institutionalized organizations: Formal structures as myth and ceremony. *American Journal of Sociology*, 83, 340–363.
- Office of Community Oriented Policing Services. (1997). COPS Office report: 100,000 officers and community policing across the nation. Washington, DC: U.S. Department of Justice.
- Repucci, N., & Crosby, C. (1993). Law, psychology, and children: Overarching issues. *Law and Human Behavior*, 17, 1–10.
- Schrage, M. (1995). *No more teams! Mustering the dynamics of creative collaboration*. New York; Doubleday.
- Short, P., & Greer, J. (1997). Leadership in empowered schools. Upper Saddle River, NJ: Merrill.
- Staley, J. (1991). Physicians and the difficult patient. Social Work, 39, 74–79.
- Tharinger, D., Bricklin, P., Johnson, N., Paster, V., Lambert, N., Feshbach, N., Oakland, T., & Sanchez, W. (1996). Education reform: Challenges for psychology and psychologists. *Professional Psychology: Research and Practice*, *27*, 24–33.

- Theil, M., & Robinson, M. (1997). Physicians' collaboration with chaplains: Difficulties and benefits. *Journal of Clinical Ethics*, 8, 94–103.
- Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Walsh, M., Brabeck, M., & Howard, K. (1999) Interprofessional collaboration in children's services: Toward a theoretical framework, children's services. *Social Policy, Research and Practice* 2(4), 183–208.
- Weatheritt, M. (1988). Community policing: Rhetoric or reality? In J. Greene & S. Mastrofski (Eds.), *Community policing: Rhetoric or reality* (pp. 153–176). New York: Praeger.
- Weick, K. (1979). The social psychology of organizing (2nd ed.). Reading, MA: Addison-Wesley.
- Weick, K. (1976). Educational organizations as loosely coupled systems. *Administrative Science Quarterly*, 21, 1–18.
- Weil, M. (1982). Research on issues in collaboration between social workers and lawyers. *Social Service Review*, *56*, 393–405.
- Wood, D., & Gray, B. (1991). Toward a comprehensive theory of collaboration. *Journal of Applied Behavioral Science*, 27, 139–162.

BIOGRAPHICAL SKETCH

Christopher R. Sharp received his Ph.D. in Public Affairs from the University of Central Florida. His dissertation, titled "Interprofessional Collaboration between Criminal Justice and Mental Health Practitioners regarding Mentally Ill Offenders: Perceptions of Collaboration from Criminal Justice Practitioners" sought to study support for interprofessional collaboration efforts, in treating mentally ill offenders, between criminal justice and mental health practitioners. Dr. Sharp is currently an assistant professor of criminal justice at Valdosta State University. He is currently involved in researching the concept of loose coupling and organizational collaboration among public service organizations, as well as treatment options for mentally ill offenders.

Book 'em Dano: The Scholarly Productivity of Institutions and Their Faculty in Criminal Justice Books

Willard M. Oliver

Sam Houston State University

Sam Swindell

Sam Houston State University

John Marks, Jr.

Sam Houston State University

Ken Balusek

Sam Houston State University

Abstract

A number of studies have assessed the status of criminal justice programs through peer review, institutional affiliation in journals, and citation analysis in both journals and textbooks. No study to date has attempted to analyze the institutional affiliation of authors through criminal justice books. An analysis of books available to criminal justice academics was conducted at the 2006 ACJS annual meeting. This study assesses the leading criminal justice book authors and ranks their institutional affiliation. Findings revealed that John Jay College and Eastern Kentucky University were the most productive institutions and had the most productive faculty.

INTRODUCTION

As the academic discipline of criminal justice has grown over the past three decades, so too has the body of literature attempting to evaluate and rank criminal justice programs (Cohn, Farrington, & Wright, 1998; Sorensen & Pilgrim, 2002; Wright, Bryant, & Miller, 2001). The methods for assessing these programs have been primarily conducted through three distinct methodologies: peer review (Fabianic, 1979; U.S. News & World Report, 2005), analysis of institutional affiliation in journals (Fabianic, 1981, 2002; Parker & Goldfeder, 1979; Sorensen, 1994; Sorensen & Pilgrim, 2002; Steiner & Schwartz, 2006; Taggart & Holmes, 1991), and citation analysis (Cohn & Farrington, 1994, 1996, 1998a, 1998b, 1998c, 1999; Shichor, 1982; Wright, 1995, 1997, 2000, 2002; Wright & Cohn, 1996).

Peer review, the most subjective of the three methodologies, has once again come to the forefront of rankings by way of the first such ranking of "criminology" programs by *U.S. News & World Report* (2005). Institutional affiliation studies have looked at the authors and their institutional affiliation in leading criminal justice and criminology journals (Fabianic, 1981, 2002; Parker & Goldfeder, 1979; Sorensen, 1994; Sorensen & Pilgrim, 2002; Steiner & Schwartz, 2006). Finally, citation analysis has looked to both journals (Cohn & Farrington, 1994, 1996, 1998a, 1998b, 1998c, 1999) and textbooks (Wright, 1995, 1997, 2000, 2002; Wright & Cohn, 1996), usually introductory textbooks (Shichor, 1982; Wright, 1995), to assess the most-cited authors and articles. To the best of our knowledge, however, no study to date has measured the institutional affiliation of criminal justice academics in criminal justice textbooks. Through an analysis of books available to criminal justice academics at the 2006 annual meeting of the Academy of Criminal Justice Sciences from publishers' display of books in their criminal justice lines, this study reports the leading criminal justice academic book authors and their institutional affiliation.

CRIMINAL JUSTICE ACADEMIC ASSESSMENTS

As criminal justice began to emerge in the late 1960s and early 1970s (Morn, 1995) a number of scholars demonstrated concern for the development of criminal justice, or elements thereof, into a well respected academic discipline (Bennett & Marshall, 1979; Pearson, Moran, Berger, Landon, McKenzie, & Bonita, 1980; Sherman, 1978; Ward & Webb, 1984). Highly related to assessing the status of criminal justice as an academic discipline was the ability to develop the appropriate empirical methods to evaluate these programs. Although Wolfgang, Figlio, and Thornberry (1978) would be the first to do so, their methodology was limited to citation analysis, a method which was notably well accepted in other disciplines (See for instance Bain, 1962). It was the work of DeZee (1980), however, that attempted to evaluate criminal justice and criminology programs with the most comprehensive means of empirical analysis. DeZee (1980) opted to use peer review, analysis of author affiliation in journals, and citation analysis of introductory textbooks. These three categories over time have therefore come to be considered the most accepted means for evaluating criminal justice programs: peer review, institutional affiliation, and citation analysis.

PEER REVIEW

One of the earliest peer rankings in criminal justice was conducted in the late 1970s, which attempted to assess the relative prestige among doctoral programs at the time (Fabianic, 1979). While peer review has always been a means of assessing academic programs, it is not always looked upon with favor. According to Sorensen and Pilgrim (2002) peer reviews "have become the least commonly used method due to their subjective nature" (p. 12). In comparing the number of peer review assessments with the author affiliations and citation analysis studies below, one would conclude this has largely been the case. This may have changed with the new peer review rankings of "criminology" programs by the *U.S. News & World Report* (2005).

The magazine *U.S. News & World Report* has, over the past two decades, created one of the most notorious peer review evaluations of higher education. While they have been both praised and vilified, the *U.S. News & World Report* rankings have become a part of academia. Until

recently, however, criminal justice and criminology programs were not assessed. In the fall of 2004, *U.S. News & World Report* surveyed professors of colleges and universities with doctoral programs in both criminology and criminal justice and had them rate the entire list of programs on a scale of one to five, with one being considered marginal and five outstanding. Although it is unclear whether or not this will become an annual survey, it is the most recent peer review assessment of these programs.

INSTITUTIONAL AFFILIATION

The first work to assess the status of criminal justice higher education employed journal publications to determine graduate program productivity in the criminal justice field (Parker & Goldfeder, 1979). This initial attempt to analyze author affiliation in journals bore fruit by inspiring a long line of research examining different journals, different time frames, and different subsets of criminal justice academia, but all of them have been aimed at determining the institutions with the highest faculty productivity in criminal justice and criminology peer-reviewed journals. After Parker and Goldfeder's study, Fabianic (1981) looked at the institutional affiliation of authors in six leading criminal justice journals from 1974 through 1978. Another study analyzed the faculty publications in the Journal of Criminal Justice (1976-1988), Criminology (1976-1988), and Justice Quarterly (1984-1988) by institutional affiliation (Taggart & Holmes, 1991). Sorensen (1994) analyzed the publication productivity of faculty members in both criminology and criminal justice programs. Sorensen (1994) also examined the institutional affiliation of authors in the top ten criminal justice journals from 1983 through 1992. More recently, Sorensen and Pilgrim (2002), examined the institutional affiliation of authors in the top eight criminology and criminal justice journals during the years 1995 through 1999, to build on the works of Fabianic (1981) and Sorensen (1994). Steiner and Schwartz (2006) then replicated Sorensen and Pilgrim's 2002 study with data from 2000-2004.

Several studies have also added unique elements to this analysis of author affiliation in peer-reviewed journals. One study included authors' races and found that there have been a limited number of publications by African-American scholars in criminal justice and criminology journals (del Carmen and Bing, 2000). Another unique twist to this type of analysis was published by Cohn, Farrington, and Sorensen (2000), where they assessed the quality of 12 criminal justice doctoral programs by analyzing the publication rates of their Ph.D. graduates in criminal justice journals. A follow-up to this original study, in order to find out "where they are now?" was also recently published (Rice, Cohn, & Farrington, 2005).

CITATION ANALYSIS

Another common method to assess criminal justice academic programs and individual scholars is through citation analysis in both journals (Cohn & Farrington, 1994, 1996, 1998a, 1998b, 1998c, 1999) and textbooks (Wright, 1995, 1997, 2000, 2002; Wright & Cohn, 1996). The earliest citation analysis was conducted by Wolfgang, Figlio, and Thornberry (1978), in which they analyzed citations in journals and research books in criminology and criminal justice from 1945 to 1972. Shichor (1982) would soon follow with an analysis of citations in criminology textbooks, published between 1976 and 1980, as Wolfgang et al. (1978) had ignored these in their study.

One study used the *Social Science Citation Index* to rank programs by looking at faculty citations (Thomas & Bronick, 1984) and another used the *Index* to list the 75 most cited articles in criminology and criminal justice from 1979 to 1993 (Cohn & Farrington, 1996). Another looked at citations from the top six criminal justice/criminology journals (Cohn & Farrington, 1998) and still another study looked at citations of faculty as found in forty-three introductory criminal justice and criminology textbooks (Sorensen, Patterson, & Widmayer, 1992).

There can be little doubt that the most extensive citation analyses of criminal justice and criminology textbooks has been conducted by Richard Wright (1994, 1995, 1997, 2000, 2002) along with associates (Wright & Cohn, 1996). In addition, Wright and associates have explored the most-cited scholars in regard to critical criminology (Wright & Friedrichs, 1998; Wright, Miller & Gallagher, 2000), police studies (Wright & Miller, 1998), corrections (Wright & Miller, 1999), women and crime (Wright & Sheridan, 1997), criminological theory (Wright & Rourke, 1999), and white-collar crime (Wright, Bryant & Miller, 2001).

There have been variations on citation analysis, such as Fabianic's study (1999) analyzing the educational backgrounds of the most-cited scholars finding that the majority had a sociology background and most earned their degrees from the top "scholar-producing universities." Another study assessed the most cited African-American scholars in criminology textbooks and the most cited publications by these scholars (Gabbidon & Greene, 2001).

THE CURRENT STUDY

While there have been numerous institutional affiliation studies, all of them have focused on journal publications. Citation analysis studies have focused on both journals and books, but they have, as their name implies, only assessed citations rather than the book authors themselves. Some studies have examined textbooks specifically, but they have either dealt with content (e.g., Burns, 2002), or they have topically compared textbooks (e.g., Withrow, Weible, & Bennett, 2004). To the best of our knowledge, no study has attempted to look at the institutional affiliation of the authors of criminal justice texts.

There are perhaps a number of reasons why no study has analyzed the scholarly productivity of institutions and their faculty in criminal justice books to date. One reason is that in criminal justice, as in most of academia, the most respected endeavor is to publish in the peer-reviewed journals. These journals lend prestige to the author and institutions due to the nature of the work that gets published in them, namely original research and ideas. Criminal justice books, at least the workbooks, textbooks, and edited collections that usually feature journal articles, are compilations of the original research found in the journals. When edited books feature original research, either by an author or editor (e.g., collections of original research), they often stem from research the authors have previously published in the journals. Books are often seen as non-theoretical as well, as the typical criminal justice book simply conveys descriptive information, hence they are not held in as high esteem. Despite these reasons, the authors argue that assessing books is important to understanding criminal justice as an academic discipline.

First, while the peer-review process has ensconced such journals as the most prestigious of academic publications, the publication of books is generally acknowledged nonetheless as having great value. They are generally part of the faculty evaluation process, are typically included in the author's vitae, and can be one of the factors that contribute to faculty tenure. Second, criminal justice books can contribute significantly to the discipline, especially those consisting

of original research. Third, these books are adopted by other faculty for use in the classroom to educate criminal justice students on various aspects of the criminal justice discipline; they are the basis for educating future criminal justice practitioners and academics. Finally, studying the institutional affiliation of authors publishing textbooks in the field offers some benefit for identifying the top-producing institutions in criminal justice, thus specifically contributing to the body of research on institutional affiliation. Therefore, it is the aim of this study to address a gap in the literature by extending the analysis of institutional affiliations of authors in journals to the criminal justice book publishing world.

METHODS

Although no assessment of institutional affiliation of criminal justice books has been done to date, numerous studies related to journals have been, and it was, therefore, the intent of these researchers to adhere closely to the methodology of these previous studies. In particular, the methodology of Fabianic (2002), Sorenson and Pilgrim (2002), and Steiner and Schwartz (2006) were selected to serve as a basis for developing this study's methodology.

After Steiner and Schwartz (2006) selected their journals and time frame, they examined each article for the author(s), their institutional affiliation, and whether or not the authors were faculty or otherwise. In order to achieve this for the books, a preliminary assessment of criminal justice academic book authors was conducted by the researchers, which analyzed the publisher catalogs of Prentice Hall, Wadsworth, Sage Publications, LexisNexis (Anderson Publishing), Allyn & Bacon, Waveland Press, Inc., and Carolina Academic Press. This verified that the author's name is listed alongside the books, as well as their institutional affiliation, in both the books and catalog entries. The majority of books listed an institutional affiliation of the author as long as there was one to be listed. All of the catalogs did list the name of the author(s), but some did not list institutional affiliation (LexisNexis and Waveland Press, Inc.). This identified the need to verify the institutional affiliation for some publisher's books during the actual data collection.

The methods of analysis used in the aforementioned studies (Fabianic, 2002; Sorenson & Pilgrim, 2002; Steiner & Schwartz, 2006) were also replicated in this study. The author's institutional affiliation at the time the book was published was utilized, and the total number of publications by each university/college was computed. Then, in order to replicate both Sorenson and Pilgrim (2002) and Steiner and Schwartz (2006), the publications were weighted by equally dividing each book among the number of authors. If all four authors were from the same academic institution, the university/college received one book (See also Fabianic, 1981; Sorenson, 1994). In order to then extend the methods used by Steiner and Schwartz (2006), because co-authored books, like co-authored journals, could be used to inflate productivity (See Fine & Kurdek, 1993; Sever, 2005; Taggart & Holmes, 1991), a second analysis gave the lead author a half-credit weight, and the remaining half-credit was divided equally among the remaining co-authors.

Unlike the journal studies, however, books presented a somewhat unique problem in the fact that they will often be updated in new editions, and the level of prestige is not necessarily found in the publisher. Therefore, it was determined that two additional weights would have to be employed for this study. The first of the weighting measures proceeded from the publishing edition of the books being reviewed. The justification for this is that publishing companies will

presumably not enter into a contract for a second edition of a book if the first edition has not sold well. If a book has sold well, that generally signifies that the book has been widely adopted in classrooms, hence increasing the book's value. As it is generally individual faculty members or faculty committees that determine which books are adopted, it can be said that those books that have higher edition numbers are more readily accepted in the criminal justice field. Thus, a book in its first edition was given an additional weighting of one credit, while a second or subsequent edition was given as weighting of two.

The second weighting is slightly more difficult to assess. Criminal justice academic books come in many different forms. Some books feature original research or expanded versions of an authors' research first published in a journal article. Others are simply student workbooks that are created in a tear-sheet three-hole punched format to create a consumable text. The contribution of these books to the criminal justice academic discipline is clearly different, but determining a ranking method can be highly subjective. The researchers, therefore, determined the categories of books, and then ranked them categorically in order of prestige. The order of prestige is, in descending order by category: original research, collections of original research from multiple authors, textbooks, brief format textbooks, collections of reprinted articles, and workbooks. These categories of books were correspondingly assigned the weights ranging from six to one. The weights assigned to each authorship were then totaled for each author, and separately for each affiliated institution. The final *weighted score* was then determined by combining the prestige ranking with the numbered edition of the publication.

Next, in order to deal with the numerous publishing companies that publish books on either criminal justice or a related subject, not to mention the difficulties of assessing "criminal justice" versus "criminology" books, the authors decided to use the commercial decisions of the major criminal justice book publishers to determine which books to include in the final database. Thus, the book vendor fair at the 2006 annual meeting of the Academy of Criminal Justice Sciences (ACJS) in Baltimore, Maryland, served as our sampling frame. Book vendor fairs at the ACJS conference are a common mechanism for criminal justice publishing companies or publishers with a criminal justice line of books to show their publications to the widest audience of criminal justice academics. What criminal justice academics had available to peruse at the conference book fair from the largest publishers therefore became the basis for data collection. The resulting publishers were Allyn & Bacon, American Correctional Association, Carolina Academic Press, Copperhouse, Foundation Press, Jones and Bartlett, Lexis-Nexis (Anderson), McGraw-Hill, Peter Lang, Prentice Hall, Roxbury Publishing, Sage, Thomson Wadsworth, Thomson West, and Waveland Press.

Once the data was collected and entered into a spreadsheet, a process of verifying authors and institutions was conducted. In many cases there was no institutional affiliation either listed or discernible for the author, and these were removed from the database. As a result, the publisher Copperhouse no longer had any books in the database and, hence, does not appear in the final analysis. In other cases, the institutional affiliations listed were non-academic institutions such as police and fire academies, and these were removed from the database. Where the author was listed as deceased with no institutional affiliation listed, the book was likewise removed from the final database.

In addition, many authors listed their institutional affiliations as a particular university without designating the specific location of the university. Therefore, a further Internet inves-

tigation was conducted to determine the actual affiliation at the time the book was published. For instance, an author may have listed their institutional affiliation as University of Nebraska without specifying either Omaha, Lincoln, or Keaney. Every effort was made to determine the specific affiliation at the time of publication. In many cases, on-line vitas were used to trace the publication dates of a specific book and the institutional affiliation listed at that time. Finally, in several cases the names of the college or university had changed since the publication of the book, or the method by which the author listed their institutional affiliation differed from other authors. In these cases, every effort was made to create uniformity among the institutional affiliations in order to ensure the institutions were not split based simply on a name change.

RESULTS

At the Academy of Criminal Justice Sciences annual meeting in Baltimore, Maryland, in 2006, excluding non-publishing and international publishers, there were 14 publishers with 586 books representing the work of 627 authors from 305 different colleges and universities for a total of 1,010 entries in the database. Of the publishing companies (See Table 1, below), Prentice Hall had the largest number (121) and percentage (20.9%) of books out of the publishers assessed. The second largest was the Thomson Wadsworth line of books with 93 total books and 14.8% of the 586 books in this study. Even if the Thomson West publishing line was included with the Thomson Wadsworth line, which they were not, Thomson would still remain in second place with 119 books and 18.9% of the sample. The third largest number of books, associated with Prentice Hall through its parent company Pearson Education, was Allyn & Bacon with 69 books and 11% of the total database. The smallest publisher represented was the

Table 1. Publishing Companies								
Ranking	Publishing Companies	n	Percent					
1	Prentice Hall	131	20.9					
2	Thomson Wadsworth	93	14.8					
3	Allyn & Bacon	69	11.0					
4	Lexis Nexis/Anderson	68	10.8					
5	Roxbury Publishing	48	7.7					
6	Sage	47	7.5					
7	Waveland Press	31	4.9					
8	Peter Lang	30	4.8					
9	Carolina Academic Press	29	4.6					
10	Thomson West	26	4.1					
11	Foundation Press	20	3.2					
12	Jones and Bartlett	18	2.9					
13	McGraw-Hill	13	2.1					
14	American Correctional Association	4	.6					

^{1.} It should be noted that in September of 2007, Pearson Education realigned their criminal justice holdings by placing the Allyn & Bacon Criminal Justice line of books under Prentice Hall.

American Correctional Association (ACA) with only four books in the final database. This was not because the ACA only brought four books to display, but rather because the majority of the ACA's authors are non-academics and thus were excluded from the final analysis.

In assessing the number of books by edition (See Table 2, below), it is not surprising to find that the majority of books in the study were first editions: 347 books consisting of 59.2% of all the books analyzed. For the most part, the number and percentage of the books in the study fall off precipitously as one increases edition numbers. There were four books in their 10th edition and another four in their 11th edition.

Table 2. Number of Books by Edition									
Edition	n	percent							
1	347	59.2							
2	81	13.8							
3	38	6.5							
4	41	7.0							
5	26	4.4							
6	18	3.1							
7	14	2.4							
8	6	1.0							
9	7	1.2							
10	4	.7							
11	4	.7							
Total	586	100.0							

The majority of books in the study were classified as textbooks with 391 books representing 66.7% of the sample (See Table 3, below). The next largest category was edited collections of reprinted articles consisting of 109 books accounting for 18.6% of the sample. There were 17 (2.9%) books classified as original research and another 38 (6.5%) books that were collections of original research. The smallest category included 10 workbooks accounting for 1.7% of the sample.

Turning to the author and institutional rankings, this study expanded slightly the goal of obtaining the top 25 producing institutions, measured by the institutional affiliations of

Table 3. Number of Books by Prestige								
Level of Prestige	n	percent						
6 – Original Research	17	2.9						
5 – Collection of Original Research	38	6.5						
4 – Textbook	391	66.7						
3 - Abbreviated Textbook	21	3.6						
2 – Edited Collection (Reprints)	109	8.6						
1 – Workbook	10	1.7						

authors as originally conceived by Fabianic (1981, 2002), Sorenson and Pilgrim (2002), and Steiner and Schwartz (2006) to 37, but similarly ranked the productivity of authors. As a result, Table 4 [below] presents the top producing book authors by raw authorships and then with authorships divided per capita.

Table 4. Author Ranking Weighted by both Prestige & Edition										
Author		Publications				Publica	Raw Publications			
	D:	by contribution				estige and rided		Public	ations	
(ranks)		Divided Favoring equally first author		_		naea ially		oring author		
Roberson, Cliff	(1)	5.83	(1)	5.75	(1)	38.64	(2)	38.00	(1)	8
Schmalleger, Frank	(2)	5.50	(2)	5.50	(3)	36.00	(3)	36.00	(9)	6
Kappeler, Victor E.	(3)	5.33	(2)	5.50	(6)	31.64	(6)	33.00	(1)	8
Siegel, Larry J.	(3)	5.33	(2)	5.50	(1)	39.64	(1)	41.00	(4)	7
Pollock, Joycelyn M.	(3)	5.33	(5)	5.25	(5)	34.32	(5)	34.00	(4)	7
Champion, Dean J.	(6)	5.00	(6)	5.00	(3)	36.00	(3)	36.00	(1)	8
Stevens, Dennis J.	(6)	5.00	(6)	5.00	(16)	18.00	(16)	18.00	(13)	5
Bartollas, Clemens	(8)	4.50	(8)	4.50	(8)	25.50	(10)	25.50	(9)	6
Smith, Christopher E.	(9)	4.33	(8)	4.50	(13)	21.32	(13)	22.00	(9)	6
Albanese, Jay S.	(9)	4.33	(8)	4.50	(12)	21.65	(12)	22.50	(13)	5
Oliver, Willard M.	(11)	4.00	(11)	4.00	(15)	20.00	(15)	20.00	(13)	5
Holmes, Stephen T.	(12)	3.83	(13)	3.75	(19)	17.64	(18)	17.00	(4)	7
Walker, Samuel E.	(12)	3.83	(11)	4.00	(11)	22.64	(11)	24.00	(13)	5
Abadinsky, Howard	(14)	3.50	(14)	3.50	(7)	28.00	(7)	28.00	(20)	4
Holmes, Ronald M.	(15)	3.33	(16)	3.25	(20)	16.64	(20)	16.00	(4)	7
Peak, Kenneth J.	(15)	3.33	(14)	3.50	(9)	24.64	(9)	26.00	(13)	5
Crank, John P.	(17)	3.00	(19)	3.00	(16)	18.00	(16)	18.00	(20)	4
Muraskin, Roslyn	(17)	3.00	(19)	3.00	(29)	10.00	(29)	10.00	(20)	4
Reichel, Philip L.	(17)	3.00	(19)	3.00	(14)	21.00	(14)	21.00	(25)	3
Conklin, John E.	(17)	3.00	(19)	3.00	(22)	15.00	(21)	15.00	(25)	3
Martin, Gus	(17)	3.00	(19)	3.00	(23)	14.00	(24)	14.00	(25)	3
Reese, Renford	(17)	3.00	(19)	3.00	(25)	12.00	(26)	12.00	(25)	3
Weizer, Paul I.	(17)	3.00	(19)	3.00	(30)	8.00	(30)	8.00	(25)	3
Gaines, Larry K.	(24)	2.99	(28)	2.75	(18)	17.96	(18)	17.00	(4)	7
del Carmen, Rolando V.	(25)	2.86	(16)	3.25	(10)	23.80	(8)	27.00	(9)	6
Thurman, Quint C.	(26)	2.83	(19)	3.00	(26)	11.82	(25)	12.50	(13)	5
Walker, Jeffery T.	(26)	2.83	(28)	2.75	(21)	15.64	(21)	15.00	(13)	5
Arrigo, Bruce A.	(26)	2.83	(19)	3.00	(28)	11.32	(27)	12.00	(20)	4
Worrall, John L.	(26)	2.83	(28)	2.75	(27)	11.65	(28)	11.25	(20)	4
Hemmens, Craig K.	(30)	2.82	(16)	3.25	(24)	12.92	(21)	15.00	(4)	7

(italicized rankings skip intermediate authors not ranked in top 30 for first column)

Table 5 [below] presents the top 30 textbook producing institutions in two manners: first per capita between multiple authors (Fabianic, 2002; Sorenson & Pilgrim, 2002) and then with the lead author given a 50% share of the authorship, with remaining authors dividing the remaining 50% share per capita (Steiner & Schwartz, 2006). Each of these is further weighted by edition and prestige, and Table 6 [page 71] presents the top 30 textbook producing institutions using the same weightings, but dividing each number by the number of faculty in the relevant department. In Table 4, unlike Sorenson and Pilgrim (2002), who only listed authors producing four or more articles, this study lists authors with two or more authorships. The number of authorships is listed for each author in Table 4 and each academic institution in Table 5.

Table 5. Book Publication Productivity by Institution,											
Weighted by Contribution, Prestige and Edition											
Institution	Publications by contribution					Publica		Publications			
	Divided					prestige a			unwei	gntea	
(ranks)		raea ially		Favoring first author		Divided equally		oring author			
John Jay College of Criminal Justice	(1)	14.49	(1)	14.50	(2)	74.93	(2)	75.25	(2)	22	
Eastern Kentucky University	(2)	14.31	(1)	14.50	(1)	83.48	(1)	85.00	(1)	25	
California State Univ San Bernardino	(3)	11.48	(3)	11.25	(5)	55.93	(6)	54.75	(2)	22	
Sam Houston State University	(4)	11.16	(3)	11.25	(6)	55.60	(5)	57.00	(6)	17	
University of Louisville	(5)	10.81	(5)	11.00	(4)	56.70	(4)	57.84	(2)	22	
Michigan State University	(6)	10.33	(6)	10.50	(3)	59.32	(3)	60.00	(11)	13	
Wichita State University	(7)	9.49	(7)	9.75	(21)	33.96	(19)	35.00	(12)	12	
Boise State University	(8)	9.48	(7)	9.75	(18)	35.39	(16)	36.75	(9)	14	
Northeastern University	(9)	8.98	(9)	9.00	(12)	43.85	(12)	44.25	(5)	19	
University of Central Florida-Orlando	(10)	8.32	(11)	8.00	(13)	39.44	(14)	38.00	(8)	15	
Rutgers University– Newark	(11)	8.00	(10)	8.17	(15)	38.50	(13)	39.84	(12)	12	
University of Nebraska- Omaha	(12)	7.82	(13)	7.75	(11)	45.24	(11)	45.00	(12)	12	
East Tennessee State University	(13)	7.30	(12)	7.92	(9)	47.80	(7)	52.34	(6)	17	
University of Massachusetts-Lowell	(14)	7.16	(14)	7.25	(8)	50.28	(9)	51.00	(20)	10	
University of Massachusetts-Boston	(15)	6.99	(15)	7.00	(28)	29.96	(27)	30.00	(20)	10	
(Continued on next page)											

University

Table 5. Book Publication Productivity by Institution, Weighted by Contribution, Prestige and Edition (continued)										
Institution		Publications by contribution				Publica estige a	w/	Publications unweighted		
(ranks)		ided ally	Favoring first author		Divided equally		Favoring first author			
University of South Florida	(16)	6.90	(16)	6.92	(23)	31.88	(23)	31.34	(16)	11
Texas State University- San Marcos	(17)	6.83	(17)	6.58	(7)	52.14	(8)	51.17	(9)	14
Virginia Commonwealth University	(18)	6.33	(18)	6.50	(26)	30.15	(25)	31.00	(24)	8
Washburn University	(19)	5.83	(19)	5.75	(14)	38.64	(14)	38.00	(24)	8
St. Johns University	(19)	5.83	(19)	5.75	(24)	31.64	(25)	31.00	(28)	6
University of Florida	(21)	5.82	(22)	5.58	(20)	34.62	(21)	33.25	(16)	11
University of Cincinnati	(21)	5.82	(19)	5.75	(25)	31.57	(24)	31.25	(16)	11
Univ. of North Carolina- Pembroke	(23)	5.50	(23)	5.50	(17)	36.00	(17)	36.00	(28)	6
East Carolina University	(23)	5.50	(23)	5.50	(27)	30.00	(27)	30.00	(26)	7
University of Miami	(25)	5.32	(25)	5.25	(33)	26.28	(33)	26.00	(23)	9
Texas A&M International University	(26)	5.00	(27)	5.00	(10)	46.00	(10)	46.00	(26)	7
University of South Carolina	(27)	4.99	(25)	5.25	(36)	24.28	(35)	25.00	(12)	12
California State Univ Long Beach	(28)	4.83	(29)	4.75	(16)	36.64	(17)	36.00	(28)	6
Florida Atlantic University	(28)	4.83	(29)	4.75	(19)	35.32	(19)	35.00	(20)	10
Bowling Green State University	(30)	4.75	(27)	5.00	(32)	27.00	(30)	29.00	(16)	11

Table 4 gives the number one ranking to Cliff Roberson (Washburn University) in four of five measures, with Larry J. Siegel (University of Massachusetts at Lowell) rising to first ranking on the most complex weighting and sharing it with Roberson on the closely related weighting. On the raw number of books on display at the ACJS conference in 2006, Roberson shares the number-one rank, at eight publications, with Victor E. Kappeler (Eastern Kentucky University) and Dean J. Champion (Minot State University). Frank Schmalleger (University of North Carolina - Pembroke) was in second (publications by contribution) or third place (publication by contribution with prestige and edition) on the weightings, though he shared the ninth rank for his six raw publications with Rolando V. del Carmen (Sam Houston State University), Clemens Bartollas (University of Northern Iowa) (consistently in the top 10), and Christopher E. Smith (Michigan State University). Jocelyn M. Pollock (Texas State University - San Marcos) was ranked fifth in most of the weighted rankings, third in the equally shared publications,

and shared the fourth rank for raw publications with Larry Siegel, Stephen T. Holmes, Ronald M. Holmes, Larry K. Gaines, and Craig K. Hemmens, all with seven books on display. Some authors, such as Dennis J. Stevens and Jay S. Albanese, ranking sixth and eighth respectively on the simpler rankings, sank out of the top ten on the more complex weightings, which in turn buoyed others like del Carmen, Howard Abadinsky, and Kenneth J. Peak into the top ten.

Turning to institutional productivity, in Table 5, the number one place was held by John Jay College of Criminal Justice, tied and closely followed or led by Eastern Kentucky University on all measures. The top six on Table 5 really did not change significantly across the alternate weightings and included these two institutions followed by California State San Bernardino, Sam Houston State University, the University of Louisville, and Michigan State University. As can be seen, the two alternate methods of dividing authorships mattered little; we report both, as Steiner and Schwartz (2006) did, but similarly the differences are slight, never causing more than a change of two places in the rankings. The rankings weighted just by dividing authorships then placed Wichita State University, Boise State University, Northeastern University, and Central Florida University to round out the top ten. Weighting by edition and prestige did have more effects on these next places as East Tennessee State University, University of Massachusetts - Lowell, Texas State - San Marcos, and Texas A & M International rounded out the top ten. Interestingly enough, whereas most of the top journal article producing institutions came from doctoral programs (Sorenson & Pilgrim, 2002; Steiner & Schwartz, 2006), several top book-producing institutions do not have a doctoral programs, but rather noted masters programs. Raw authorships are also reported, and the top six are largely the same with minor shuffling—the ascent of Northeastern University to the fifth spot, and the sharing of the sixth spot between Sam Houston State University and East Tennessee State University.

Table 6 [next page] presents the averaged productivity of criminal justice authors, which takes the reported productivity from Table 5 and divides it by the number of faculty in the department. This had the intuitive effect of boosting a few very small departments that did not make the original list and now placed them at the top of the list, such as the University of Massachusetts - Boston and Normandale Community College, which moved into the top three, and Castleton State College and California State Polytech - Pomona, which moved into the top ten. The inclusion of these four institutions into the top ten is revealing in itself, but it is conversely revealing that when faculty size increases above the mean of 12.9, the descent down the list increases dramatically. John Jay College, Central Florida University, and the University of Cincinnati were pushed off the list completely, while others, such as Michigan State University and South Florida University were pushed further down the list. The positions of the top six or seven were reasonably stable across the table, similar to the productivity reported in Table 5, with California State University - Bernardino, Texas A&M International, and Washburn University filling these ranks. The exceptions were Boise State University and Eastern Tennessee State University, whose positions were more effected by the weighting methodology, with Boise State University making the fourth rank on the divided weighting, and Eastern Tennessee State University in sixth (favoring first author) and seventh (divided equally) when the weighting of edition and prestige were added.

While "average publishing productivity" alone may seem important for an administrator, here the approach of Fabianic (2002), of comparing like to like, shows its merit. Trying to judge the relative merit of a small college faculty to a large Ph.D. granting institution where refereed publications are the primary coin of the realm may seem a distraction. This table may be seen

Table 6. Book Publication Productivity by Institution,
AVERAGED PER CAPITA AND WEIGHTED BY CONTRIBUTION, PRESTIGE AND EDITION

# Faculty	Institution]	Public by conti	ations	n	Publications w/ prestige and edition			
			rided		oring		rided	Favoring	
	(ranks)	equ	ıally	first	author	equ	ıally	first	author
4	University of Massachusetts-Boston	(1)	1.75	(1)	1.75	(3)	7.49	(3)	7.50
8	California State University- San Bernardino	(2)	1.44	(2)	1.41	(4)	6.99	(4)	6.84
3	Normandale Community College	(3)	1.33	(3)	1.33	(1)	10.67	(1)	10.67
9	Boise State University	(4)	1.05	(4)	1.08	(12)	3.93	(10)	4.08
5	Texas A&M International University	(5)	1.00	(5)	1.05	(2)	9.20	(2)	9.20
6	Washburn University	(6)	0.97	(7)	0.96	(5)	6.44	(5)	6.33
15	Eastern Kentucky University	(7)	0.95	(6)	0.97	(6)	5.57	(7)	5.67
12	University of Louisville	(8)	0.90	(8)	0.92	(9)	4.73	(9)	4.82
4	California State Polytechnic-Pomona	(9)	0.88	(10)	0.88	(10)	4.00	(11)	4.00
5	Castleton State College	(10)	0.86	(12)	0.85	(38)	1.86	(41)	1.60
11	Wichita State University	(11)	0.86	(9)	0.89	(20)	3.09	(19)	3.18
9	East Tennessee State University	(12)	0.81	(10)	0.88	(7)	5.31	(6)	5.82
4	University of Northern Colorado-Greeley	(13)	0.75	(13)	0.75	(8)	5.25	(8)	5.25
9	Virginia Commonwealth University	(14)	0.70	(14)	0.72	(18)	3.35	(18)	3.44
8	East Carolina University	(15)	0.69	(15)	0.69	(14)	3.75	(14)	3.75
7	University of Northern Iowa	(16)	0.64	(16)	0.64	(15)	3.64	(16)	3.64
8	Bowling Green State University	(17)	0.59	(17)	0.59	(17)	3.38	(17)	3.63
6	University of Scranton	(18)	0.58	(18)	0.58	(10)	4.00	(11)	4.00
13	University of Massachusetts-Lowell	(19)	0.55	(19)	0.56	(13)	3.87	(13)	3.92
8	University of Nevada-Reno	(20)	0.54	(19)	0.56	(16)	3.58	(14)	3.75
15	Rutgers University-Newark	(21)	0.53	(21)	0.54	(28)	2.57	(26)	2.66

Table 6. Book Publication Productivity by Institution,
Averaged per Capita and Weighted by Contribution, Prestige and Edition
(Continued)

# Faculty	Institution		Public by conti	ations	n	Publications w/ prestige and edition			
	(ranks)		ided ally	Favoring first author		Divided equally			oring author
9	University of Minnesota-Duluth	(22)	0.52	(22)	0.53	(25)	2.70	(27)	2.61
9	New Mexico State University	(23)	0.50	(23)	0.50	(19)	3.11	(20)	3.11
22	Michigan State University	(24)	0.47	(24)	0.48	(25)	2.70	(25)	2.73
10	Southern Illinois University-Carbondale	(25)	0.45	(25)	0.45	(30)	2.30	(29)	2.30
13	University of North Carolina-Pembroke	(26)	0.42	(27)	0.42	(24)	2.77	(25)	2.77
27	Sam Houston State University	(27)	0.41	(27)	0.42	(32)	2.06	(30)	2.11
19	University of Nebraska- Omaha	(27)	0.41	(28)	0.41	(29)	2.38	(29)	2.37
11	University of Nevada-Las Vegas	(27)	0.41	(28)	0.41	(36)	1.93	(33)	2.00
12	University of South Carolina	(27)	0.41	(26)	0.44	(31)	2.03	(31)	2.09
17	University of South Florida	(27)	0.41	(28)	0.41	(37)	1.88	(37)	1.84

more as a footnote to overall productivity, but it also gives administrators an insight into the productivity of some large masters programs like Eastern Kentucky University, and others such as Bowling Green State University, which has presented previously in Steiner and Schwartz (2006) and also in this study.

It should also be noted that the institution of the author holding the top spot is actually ranked eighth and lower in the results. Although Larry Siegel was crucial to the University of Massachusetts at Lowell placing fourteenth or eighth, he was not the sole reason. This finding reflects the results of Sorenson and Pilgrim's (2002) study on institutional affiliation of authors in leading criminal justice and criminology journals, that although individual faculty members were crucial to the overall productivity of an institution, the institutions (at least in the top ten) did not make it there through the efforts of only one author. It should also be pointed out that many of the colleges/universities were greatly assisted by the proclivity of several academic institutions to collaborate in authoring books by its faculty. While this assuredly boosted a number of these institutions, including the one holding the top spot, Eastern Kentucky University, it is generally acknowledged that collaboration is held in high esteem, not only among criminal justice academics but academia as a whole.

One final point of interest is that when compared with the most recent study of institutional affiliation of authors in leading criminal justice and criminology journals from 1995-2004 (Steiner & Schwartz, 2006), of the top 30 book-producing institutions only 6 were also on the list of top journal productivity: Michigan State University, Sam Houston State University, University of Cincinnati, University of Central Florida, University of Florida, and University of Nebraska at Omaha. In fact, three of the top book-publishing institutions were not even on the top 24 journal list: Eastern Kentucky University, John Jay College, and University of Louisville; Northeastern University ranked 16th in 2000-2004, but did not appear in the 1995-1999 list (Steiner & Schwartz, 2006; Sorenson & Pilgrim, 2002). This suggests that journal article producing institutions may produce less books and vice versa. Another way of looking at this finding is the fact that only one of the top five journal-producing institutions, University of Cincinnati, even appeared on the top 30 book ranking.

CONCLUSION

The present study assessed the institutional affiliation of criminal justice book authors by analyzing the books available at the 2006 annual meeting of the Academy of Criminal Justice Sciences. From these 586 books, written by 627 different authors, from 305 institutions for a total of 1,010 authorships, we were able to identify the top authors and the top 30 institutions producing books in the field of criminal justice. We reported the data in two manners, once by reporting the productivity by institution including weights for contribution, edition, and prestige. The second manner in which our data was reported was by controlling for the size of each institution's faculty by averaging per capita and including weights for contribution, edition, and prestige. In both cases, the weighting by contribution reported two sets of data as well, the first dividing credit equally among multiple authors and the second by giving the lead author half-credit and the remaining authors being divided equally by the remaining half-credit.

The top author position was given to Cliff Roberson (Washburn University) by a nose over Larry J. Siegel (University of Massachusetts at Lowell), with strong showings, ties and inconsistencies among weightings considered, from Frank Schmalleger, Victor E. Kappeler, and Dean J. Champion. The top institutions, when the publications were not divided by the number of faculty, were consistently two universities: Eastern Kentucky University and John Jay College. As Eastern Kentucky University placed first more often, we conclude that Eastern Kentucky University has the faculty that is most productive in publishing criminal justice books. The top three institutions, when the publications were divided by the number of faculty, were Normandale Community College, California State University at San Bernardino, and the University of Massachusetts at Boston.

We found that although top publishing authors do have the effect of increasing an institutions ranking, they are typically not the sole reason for where an institution places on the list. We also found, however, that when controlling for faculty size, many institutions with few full-time criminal justice faculty move rapidly up the list, while many of those institutions with large full-time criminal justice faculty move farther down the list. Finally, it should be noted that when compared with the most recent analyses of institutional affiliation of authors in leading criminal justice and criminology journals (Sorenson & Pilgrim, 2002; Steiner & Schwartz, 2006), we found few institutions producing both journal articles and books on an equal footing, as most institutions are ranked in only one or the other.

As previously noted, there are a number of limitations to our study. We did not look at the entire population of books published in the criminal justice field, nor did we look at book publications longitudinally, but rather only those presented at ACJS in February of 2006. In addition, we did not analyze every publisher but kept with the main publishers of criminal justice books with predominately United States authors, thus excluding from this study several publishers whose books come overwhelmingly from international authorships (e.g., Willan Publishing Company). Further, we eliminated any non-academic affiliations from the final analysis, thus purposefully looking to only academically-affiliated authors. Moreover, our analysis relied on the two weighting methodologies for authorships, and then further factored in weightings developed for this study. We did not report the effects of all combinations of these weightings, such as using or giving full weight to each author and then weighting by prestige and edition. We have tried to avoid, by dual reporting, the debate regarding multiple authorship versus sole authorship (See Rice, Cohn, & Farrington, 2005). And it must be said that any analysis that attempts a relative ranking of institutions will, in fact, be affected by the measures and methodology employed (Again, See Rice, Cohn, & Farrington, 2005). Recognizing that this study is essentially a snap-shot in time with many limitations, we still believe the results carry some weight as no other assessment to date has been conducted on institutional affiliation of authors of criminal justice books, thus we have created an alternative mechanism for assessing the criminal justice discipline.

Future studies could look at the broader scope of available criminal justice books from such venues as international publishers, university presses, and the myriad of independent publishers. In addition, future studies could simply replicate this study to assess trends in the discipline, for as Sorenson and Pilgrim (2002) point out, "trends in the discipline can be discerned when studies using a similar methodology to rate institutions are tracked over time" (p. 17). Further study using actual commercial sales information might also provide further insight, should that information be available.

Finally, we must also agree with Sorenson and Pilgrim (2002) in that examining the institutional affiliation of authors in criminal justice books is "more than a simple popularity contest" (p. 16). We believe this analysis is important for several reasons. First, we believe that books make an important contribution to the criminal justice academy and, therefore, should not be ignored as an area of research. Books are widely read by our peers, sometimes given to peer review analysis and very often post-peer review analysis (book reviews), and they disseminate knowledge through the education of the next generation of criminal justice leaders and academicians. Second, we believe that this analysis of institutional affiliation of authors in criminal justice books will present us with a deeper understanding about the specific authors and institutions that are disseminating criminal justice knowledge. Lastly, we believe that along with assessing the top producing authors and institutions, this study assists us in understanding our discipline and the type of literature it produces.

REFERENCES

- Bain, R. (1962). The most important sociologists? *American Sociological Review*, 27, 746–748.
- Bennett, R. B., & Marshall, I. H. (1979). Criminal justice education in the United States: A profile. *Journal of Criminal Justice*, 7, 147–172.
- Burns, R. (2002). Assessing jail coverage in introductory criminal justice textbooks. *Journal of Criminal Justice Education*, 13, 87–100.
- Cohn, E. G., & Farrington, D. P. (1994). Who are the most-cited scholars in major American criminology and criminal justice journals? *Journal of Criminal Justice*, 22, 517-534.
- Cohn, E. G., & Farrington, D. P. (1996). Crime and justice and the criminal justice and criminology literature. In M. Tonry (Ed.), *Crime and justice: A review of research* (pp. 265–300). Chicago, IL: University of Chicago Press.
- Cohn, E. G., & Farrington, D. P. (1998a). Assessing the quality of American doctoral program faculty in criminology and criminal justice, 1991–1995. *Journal of Criminal Justice Education*, *9*, 187–210.
- Cohn, E. G., & Farrington, D. P. (1998b). Changes in the most-cited scholars in major American criminology and criminal justice journals between 1986–1990 and 1991–1995. *Journal of Criminal Justice*, 26, 99–116.
- Cohen, E. G., & Farrington, D. P., (1998c). Changes in the most-cited scholars in major international journals between 1986–1990 and 1991–1995. *British Journal of Criminology*, 38, 156–170.
- Cohn, E. G., & Farrington, D. P. (1999). Changes in the most-cited scholars in twenty criminology and criminal justice journals between 1990 and 1995. *Journal of Criminal Justice*, 27, 345–359.
- Cohn, E. G., Farrington, D. P., & Sorensen, J. R. (2000). Journal publications of Ph.D. graduates from American criminology and criminal justice programs. *Journal of Criminal Justice Education*, 11, 35–48.
- Cohn, E. G., Farrington, D. P., & Wright, R. A. (1998). *Evaluating criminology and criminal justice*. Westport, CT: Greenwood.
- DeZee, M. R. (1980). *The productivity of criminology and criminal justice faculty*. Chicago, IL: Joint Commission on Criminology and Criminal Justice Standards and Goals.
- del Carmen, A., & Bing, R. L. (2000). Academic productivity of African Americans in criminology and criminal justice. *Journal of Criminal Justice Education*, 11, 237–249.
- Fabianic, D. A. (1979). Relative prestige of criminal justice doctoral programs. *Journal of Criminal Justice*, 7, 135–145.
- Fabianic, D. A. (1981). Institutional affiliation of authors in selected criminal justice journals. *Journal of Criminal Justice*, *9*, 247–252.
- Fabianic, D. A. (1999). Educational background of most-cited scholars. *Journal of Criminal Justice*, 27, 517–524.
- Fabianic, D. A. (2002). Publication productivity of criminal justice faculty in criminal justice journals. *Journal of Criminal Justice*, *30*, 549–558.
- Fine, M., & Kurdek, L. (1993). Reflections on determining authorship credit and authorship order on faculty-student collaborations. *American Psychologist*, 48, 1141–1147.

- Gabbidon, S. L., & Greene, H. T. (2001). The presence of African American scholarship in early American criminology texts (1918-1960). *Journal of Criminal Justice Education*, 12, 301–309.
- Morn, F. (1995). Academic politics and the history of criminal justice. Westport, CT: Greenwood Press.
- Parker, L. C., Jr., & Goldfeder, E. (1979). Productivity ratings of graduate programs in criminal justice based on publications in ten critical journals. *Journal of Criminal Justice*, 7, 125–133.
- Pearson, R., Moran, T. K., Berger, J. C., Landon, K. C., McKenzie, J. R., & Bonita III, T. J. (1980). *Criminal justice education: The end of the beginning*. New York, NY: Doubleday.
- Rice, S. K., Cohn, E. G., & Farrington, D. P. (2005). Where are they now? Trajectories of publication 'stars' from American criminology and criminal justice programs. *Journal of Criminal Justice Education*, 16, 244–264.
- Sever, B. (2005). Ranking multiple authors in criminal justice scholarship: An examination of underlying issues. *Journal of Criminal Justice Education*, 16, 79–100.
- Shichor, D. (1982). An analysis of citations in introductory criminology textbooks: A research note. *Journal of Criminal Justice*, 10, 231–237.
- Sherman, L. J. (1978). *The quality of police education: A critical review with recommendations for improving programs in higher education*. San Francisco, CA: Jossey-Bass.
- Sorensen, J. R. (1994). Scholarly productivity in criminal justice: Institutional affiliation of authors in the top ten criminal justice journals. *Journal of Criminal Justice*, 22, 535–547.
- Sorensen, J., Patterson, A. L., & Widmayer, A. (1992). Publication productivity of faculty members in criminology and criminal justice doctoral programs. *Journal of Criminal Justice Education*, *3*, 1–33.
- Sorensen, J., & Pilgrim, R. (2002). The institutional affiliation of authors in leading criminology and criminal justice journals. *Journal of Criminal Justice*, 30, 11–18.
- Steiner, B., & Schwartz, J. (2006). The scholarly productivity of institutions and their faculty in leading criminology and criminal justice journals. *Journal of Criminal Justice*, *34*, 293–400.
- Taggart, W. A., & Holmes. M. D. (1991). Institutional productivity in criminal justice and criminology: An examination of author affiliation in selected journals. *Journal of Criminal Justice*, 19, 549–561.
- Thomas, C. W., & Bronick, M. J. (1984). The quality of doctoral programs in deviance, criminology, and criminal justice: An empirical assessment. *Journal of Criminal Justice*, 12, 21–37.
- U.S. News & World Report. (2005). America's best graduate schools. U.S. News & World Report, 138, 48–78.
- Ward, R. H., & Webb, V. J. (1984). Quest for quality. New York: University Publications.
- Withrow, B. L., Weible, K., & Bennett, J. (2004). Aren't they all the same? A comparative analysis of introductory criminal justice textbooks. *Journal of Criminal Justice*, 15, 1–18.
- Wolfgang, M. E., Figlio, R. M., & Thornberry, T. P. (1978). *Evaluating criminology*. New York: Elsevier.
- Wright, R. A. (1994). Criminology textbook, 1918 to 1993: A comprehensive bibliography. *Journal of Criminal Justice Education*, *5*, 51–256.

- Wright, R. A. (1995). The most-cited scholars in criminology: A comparison of textbooks and journals. *Journal of Criminal Justice*, *23*, 303–311.
- Wright, R. A. (1997). The most-cited scholars in criminology and criminal justice textbooks, 1989 to 1993. *The Justice Professional*, 10, 199–213.
- Wright, R. A. (2000). Recent changes in the most-cited scholars in criminology: A comparison of textbooks and journals. *Journal of Criminal Justice*, 28, 117–128.
- Wright, R. A. (2002). Recent changes in the most-cited scholars in criminal justice textbooks. *Journal of Criminal Justice*, *30*, 183–195.
- Wright, R. A., Bryant, K. M., & Miller, J. M. (2001). The most-cited authors and works in white-collar crime. *Journal of Contemporary Criminal Justice*, 17, 383–399.
- Wright, R. A., & Cohn, E. G. (1996). The most-cited scholars in criminal justice textbooks, 1989 to 1993. *Journal of Criminal Justice*, 24, 459–467.
- Wright, R. A., & Friedrichs, D. O. (1998). The most-cited scholars and works in critical criminology. *Journal of Criminal Justice Education*, *9*, 211–231.
- Wright, R. A., & Miller, J. M. (1998). The most-cited scholars and works in police studies. *Policing: An International Journal of Police Strategies and Management, 21*, 240–254.
- Wright, R. A., & Miller, J. M. (1999). The most-cited scholars and works in corrections. *The Prison Journal*, 79, 5–22.
- Wright, R. A., Miller, J. M., & Gallagher, P. (2000). Citations to critical criminology in introductory criminology textbooks. *The Justice Professional*, 13, 125–142.
- Wright, R. A., & Rourke, J. (1999). The most-cited scholars and works in criminological theory. In W. S. Laufer & F. Adler (Eds.), *Advances in criminological theory* (pp. 493–512). New Brunswick, NJ: Transaction.
- Wright, R. A., & Sheridan, C. (1997). The most-cited scholars and works in women and crime publications. *Women & Criminal Justice*, *9*, 41–60.

BIOGRAPHICAL SKETCHES

Willard M. Oliver is a Professor of Criminal Justice at Sam Houston State University. He is the author of eight books, including Community-Oriented Policing 4th Edition (Prentice Hall, 2004), A History of Crime and Criminal Justice (Allyn & Bacon, 2006), Policing for Homeland Security (Prentice Hall, 2007) and The Public Policy of Crime and Criminal Justice (Prentice Hall, 2006). His research interests include policing, public policy, and criminal justice history.

Sam Swindell, J.D., is an Assistant Professor of Criminal Justice at West Virginia State University, where he teaches criminal law. He is completing his Ph.D. in Criminal Justice at Sam Houston State University. His research interests include criminal law, procedure and the courts.

Ken Balusek, J.D. is a Visiting Assistant Professor at The University of Houston Downtown where he teaches ethics, corrections, research methods, and statistics. He is completing his Ph.D. in Criminal Justice at Sam Houston State University. His research interests include corrections, criminological theory and sex offenders.

John J. Marks, Jr. is a Doctoral Student in the Criminal Justice program at Sam Houston State University. His research interests include small-town policing, rural sheriffs, and game wardens.

Identifying "Deterrable" Offenders in a Sample of Active Juvenile Offenders

Lynn S. Urban

University of Central Missouri

Abstract

This article seeks to explore whether or not the deterrence-based hypothesis put forth by Pogarsky (2002), that individuals can be divided into three offending categories (acute conformists, deterrables, and incorrigibles), applies to a group of active juvenile offenders. Investigator-administered questionnaires were given to a nonprobability sample of 118 active juvenile offenders, and the juveniles were divided into the three offending categories. Unlike the original study, deterrable individuals reported the highest levels of certainty of punishment. OLS regression indicates guilt predicts the offending likelihood similar to the original study, but several other variables did not reach significance. The most likely explanations for differences between the two studies are sample composition and sample size.

Key Words: deterrence theory, juvenile offenders, juvenile justice

INTRODUCTION

Prior perceptual deterrence studies have included all respondents in the final analyses, but Pogarsky (2002) argues that individuals should be placed into categories based on their offending likelihood to make the analyses more meaningful. Pogarsky (2002) hypothesizes that individuals can be classified as acute conformists (those who are restrained by morals rather than punishment and will not offend), incorrigibles (those who will offend anyway, regardless of whether or not a punishment is present), and deterrables (those who will offend only when the threat of punishment is low). A significant finding is that acute conformists have extremely high perceptions of certainty of punishment and will thus skew final results regarding this variable (Pogarsky, 2002). This represents an important development in the application of deterrence theory. If dividing the respondents into categories affects the strength of the effect of certainty and severity of punishment, previous results of deterrence research may be questioned.

Deterrence theory is the basis for many juvenile court programs, including Scared Straight, curfew monitoring, and drug court monitoring, not to mention the concept of supervision in general. These types of programs typically involve conditions that a juvenile must abide by (i.e., maintain curfew, refrain from drug use, participate in weekly probation officer visits), and pro-

vide for sanctions if the condition is not met. Such sanctions may range from an extra office visit or a writing assignment, up to and including a stay in detention. In this way, such programs can be classified as deterrence-based, in that a juvenile must weigh the cost of punishment in relation to the benefit of breaking the condition. Given that many juvenile programs function on the cost/benefit of compliance with supervision conditions, it is important to assess whether juvenile offenders perceive the certainty and severity of punishment in the same manner as the general public or a sample of college students (the focus of much previous deterrence research).

This paper reports the findings of an exploratory research study that sought to divide a sample of active juvenile offenders into such offending categories. This could possibly fill two important research gaps. First, if these offending categories are indeed identified, it will strengthen the idea that these categories are worthwhile and may inform theory building and interpretation of future research. Second, if active juvenile offenders can be divided into these offending categories, it could significantly impact court-based decisions and policy building. The remainder of this paper will provide the history of deterrence theory as it relates to Pogarsky's hypotheses, briefly explain Pogarsky's original study, compare it to the current study in terms of sample selection and other methodology, report the findings of the current study, and conclude with suggestions for further study and policy implications.

THEORETICAL BACKGROUND AND LITERATURE REVIEW

Research involving deterrence theory has a long and varied history. Interest in the theory has waxed and waned through time, new methodology has been put forth, and new concepts deemed important. Certain aspects of deterrence testing have remained rather stable through time, however. For the most part, prior testing of deterrence involved the use of samples of college students (Saltzman, Paternoster, Waldo, & Chiricos, 1982; Pogarsky, 2002), "regular" high school students (Keane, Gillis, & Hagan, 1989; Carmichael, Langton, Pendell, Peitzel, & Piquero, 2005), or the general public (Meier & Johnson, 1977; Grasmick & Bryjak, 1980; Grasmick, Bursik, & Arneklev,1993), and certainty and severity of punishment have been found to be significant predictors of behavior (for example Waldo & Chiricos, 1972; Nagin, 1998; Pogarsky, 2002).

The original concept of deterrence is rooted in classical criminology. Early deterrence theorists predicted that individuals aware of the costs (risk of punishment) of their behavior would choose to be law abiding, as humans are rational beings (Beccaria, 1963; Bentham, 1962). Three dimensions of deterrence were identified to affect the cost to the individual: severity, certainty, and celerity (swiftness) (Bentham, 1962; Gibbs, 1975). When the unpleasant consequences of behavior are strict, sure to happen, and occur soon after the act, the individual is more likely to be deterred from that behavior, according to theory. These simple dimensions remain the cornerstone of the theory; however, nearly innumerable influences on human behavior and decision making have been incorporated into deterrence theory and have guided subsequent theoretical research.

The earliest research stemmed from the original formulations of deterrence theory and focused on formal legal threats at the aggregate level, including the deterrent effect of capital punishment (for example, Phillips, 1980; Savitz, 1958; Schuessler 1952). These early studies produced highly variable results, however, many with serious methodological flaws (Phillips, 1980). Thus, no definitive conclusions were drawn regarding the existence of a deterrent effect, and interest in deterrence research waned.

Prior to the 1960s, much work on deterrence was philosophical rather than empirical (Tittle, 1969; Waldo & Chiricos, 1972), and a few scholars reconsidered the subject of deterrence by conducting aggregate level empirical studies. Tittle (1969) used aggregate measures at the state level to attempt to uncover a deterrent effect of legal sanctions. Number of prison admissions was used to measure certainty, while mean length of time served was used to measure severity for seven crimes. The results indicate that certainty of punishment does have a general deterrent effect, but the severity of punishment is not significant, except in the case of homicide (Tittle, 1969). Studies such as this one caused researchers to realize that the existence of punishment was not sufficient, that different individuals perceive the certainty and severity of punishment differently. This focus on perceptions became the key component to deterrence research.

More recent examinations of deterrence theory have sought to define the concept in more detail and reveal contingencies that may affect the deterrability and decision making of particular individuals. Bentham's calculation of costs and benefits failed to specify under which conditions punishment would deter the individual (Gibbs, 1975) and failed to encompass other possible deterrent effects (or lack of such effects). Researchers and theorists realized that deterrence depends not only on rationality, but on how moral and personal views, individual traits such as self control, and the perception of threats and punishments (both formal and informal) affect decision making. This application of perceptions to the deterrence framework caused a renewed interest in research on the subject. Research during the 1970s and 1980s expanded to include not only perceptions of individuals, but the influence of informal as well as formal sanctions. Studies began to include individual perceptions of the certainty and severity of punishment on official and self-reported crimes, rather than group-level data. It was noted that the existence of a punishment is not sufficient to assume it deters all individuals in the same manner, as each individual has a unique interpretation of a particular situation and its consequences (Grasmick & Bryjak, 1980; Waldo & Chiricos, 1972). This application of perceptions to the deterrence framework focused the theory at the micro level and on specific factors that influence a particular individual's decision-making.

Another significant finding was that past behavior influences current attitudes, and the "experiential effect" can affect perceptions (Saltzman et al., 1982). In general, it was still supported that increased certainty of punishment resulted in decreased criminal behavior (Erickson, Gibbs, & Jensen, 1977; Jensen, 1969; Nagin, 1998; Silberman, 1976; Waldo & Chiricos, 1972), although this conclusion was not universal (Meier & Johnson, 1977). This association tends to hold whether the sample consists of active adult offenders (Decker, Wright, & Logie, 1993; Horney & Marshall, 1992) or "regular" students (Carmichael et al., 2005; Paternoster & Iovanni, 1986; Pogarsky, 2002), but does not appear to apply to youth from economically depressed areas (and hence high crime areas) (Foglia, 1997). In addition, prior studies have made the fairly consistent argument that certainty of punishment has a greater effect on decision making than severity of punishment (Klepper & Nagin, 1989; Paternoster, 1987; Pogarsky, 2002; evidence of an interaction effect of severity can be found in Grasmick & Bryjak, 1980).

In addition to general and specific deterrence, other explanations for decision making have since been offered. The threat of punishment may have no deterrent effect on an individual, because the behavior is not an act they would have considered committing anyway (Zimring & Hawkins, 1973; also Gibbs, 1975 refers to this as "absolute" deterrence), or the threat may encourage deviant behavior through rebellion against the threat (Sherman, 1993; Zimring & Hawkins, 1973). In addition,

the threat of punishment for one behavior may be perceived as too high for the individual and cause displacement to another that is perceived to be less risky (Zimring & Hawkins, 1973).

Pogarsky (2002) formalized these concepts into three offending patterns: acute conformist (those who are restrained by morals and not deterrence), incorrigible (those who are not affected by deterrence and will be deviant anyway), and those who are in fact deterrable. Acute conformists are hypothesized to have consistently higher perceptions of certainty of punishment, which suggests that including them in a wide sample, as past research has done, will skew the results and lessen the effect of both certainty and severity of punishment (Pogarsky, 2002). This finding has potentially far-reaching consequences, as prior research may come into question, not to mention that identifying individuals who already have a high perception of certainty of punishment and a low risk of recidivism may affect criminal and juvenile justice policies.

Thus, deterrence research has reported fairly consistent results regarding the role of certainty and severity of punishment, and has shifted from a general social concept of deterrence to a more individualized examination of certainty, severity, and celerity of punishment. However, as Foglia (1997) points out, most studies have used samples of students or adults with few examinations of the perceptions of inner-city residents. This leaves a gap in the literature not only in terms of offending populations in general, but for juvenile offenders in particular. Another gap exists in assessing whether active juvenile offenders can be placed into offending categories and whether this division will affect the results regarding the certainty and severity of punishment. This research will significantly add to the perceptual deterrence literature by assessing whether juvenile offenders can be separated into these offending categories and whether offenders have different perceptions of certainty and severity of punishment compared to college students.

Thus, the current study is limited in its scope. A seemingly endless array of issues and theoretical explanations for decision making has been offered using the deterrence framework. Researchers have looked into the role of gender on deterrence (Carmichael et al., 2005), the notion of deterrence vs. amplification or defiance (Keane, Gillis, & Hagan, 1989; Sherman, 1993), the subtle difference between deterrence and punishment avoidance (Grasmick, Bursik, & Arnaklev, 1983; Stafford & Warr, 1993), as well as the overall perception of risk (Foglia, 1997). While all of these examinations of the mechanism of deterrence are significant, the primary focus of this paper is to examine the specific aspect of Pogarsky's offending likelihood categories. The remainder of this paper will outline Pogarsky's 2002 study and compare the sample and methods to the current study. Results for the current study will be presented in a similar fashion to those of Pogarsky's original study, followed by discussion of the findings and avenues for future policy and research.

POGARSKY 2002

Sample Composition and Method

The original study consisted of asking undergraduates at a large public university to complete questionnaires (Pogarsky, 2002). The sample consisted of 412 undergraduates with varying experiences and attitudes regarding drinking and driving. Several hypothetical scenarios were offered involving drinking alcohol at a bar and whether or not the individual would at-

tempt to drive home. The scenarios included details such as how far the respondent would be driving, that they suspected their blood alcohol level was over the legal limit, and leaving their vehicle behind would be inconvenient.

Measurement of Variables

Measurement of variables in Pogarsky's study included several "classic" deterrence variables such as certainty and severity of punishment, as well as variables based on informal social controls and other personal traits. Respondents were asked to estimate their *certainty of punishment* (that they would be apprehended and convicted) on a scale from 0 to 100. *Severity of punishment* was also taken into account, with respondents randomly selected to a scenario with 1-month or 12-month license revocation as punishment. *Offending likelihood* was estimated by asking respondents how likely they would drive home under the conditions given in the scenario, on a scale from 0 to 100. This measure is denoted OL and is used as the dependent variable in subsequent analyses.

Classifying the respondents into the three offending categories is accomplished by changing the conditions of the scenario. Respondents are asked to rate how likely they would drive home under the given conditions, except that now they know that there is a 0% chance they will be caught and punished. This measure is denoted OL_0 . These two values are compared, and the offending likelihood category of the individual (acute conformist, deterrable, incorrigible) is calculated based on the outcome. Acute conformists will not drive drunk, no matter what the punishment (or lack thereof). Both values will be the same, and zero $OL = OL_0 = OL_0 = OL_0$. For a deterrable respondent, the threat of punishment will reduce the offending likelihood. The value for OL will be less than the value for OL_0 , indicating that the absence of certainty of punishment raises the certainty of committing the act $OL = OL_0$. For incorrigibles, the threat of punishment has no effect, they would drive drunk anyway. Both values will be the same, and high $OL = OL_0 > 50$.

Measurement of several key personal variables was also important for Pogarsky's study. Impulsivity was measured by asking respondents how much they agree with the following six statements: 1) I act on impulse. 2) I often do things on the spur of the moment. 3) I always consider the consequences before I take action. 4) I rarely make hasty decisions. 5) Sometimes I do things on impulse I later regret. 6) Occasionally I act first and think later. Responses were coded 1–5 and corresponded with a 5-point Likert scale that ranged from strongly disagree to strongly agree. Reverse coding was applied to questions 3 and 4, and the higher the respondents' score, the higher their level of impulsivity.

Social and self-disapproval were also measured during the original study and adapted from Grasmick and Bursik (1990). To measure *social disapproval*, respondents were asked, "If other people whose opinions you value found out you drove home in the situation just described, how big of a problem would this create for you?" Again, responses were on a Likert scale, this time from "none at all" to "an overwhelming problem." *Self disapproval* was measured with the question, "Would you feel guilty driving home in the situation just described?" with a similar Likert scale, from "none" to "overwhelming." Additional variables in the original study included any previous self-reported instances of driving drunk, or conviction of drunk driving (prior offending). *Age*, *sex*, and *weekly income* information was also collected from each respondent.

THE CURRENT STUDY

The current study was part of a more complex project aimed at evaluating the effectiveness of a specific juvenile court program (Urban, 2007). Many variable and methodological choices were made to accommodate the larger research questions (as well as the unique participant population), but information was collected for specific variables to facilitate testing Pogarsky's hypotheses. The program is deterrence-based and involves checking the court-ordered curfew of juveniles on probation. Juveniles who violate their curfew receive sanctions, while those who comply receive rewards.

The aspect of the program that sparked the current research question involves the administration of parent satisfaction surveys by juvenile court staff. Most parents were highly pleased with the program and its staff; however, a few parents expressed extreme displeasure at the added supervision. The reason given for their displeasure was that their child "would have stayed home anyway," which is consistent with Pogarsky's acute conformist. While it may seem implausible to have conforming juveniles assigned to official court supervision, it is theoretically possible to have a juvenile who has committed a delinquent act but does not identify himself as delinquent (Paternoster & Iovanni, 1989) and thus still maintains internal controls that will classify him as a conformist. In fact, prior research indicates that nearly every juvenile commits some kind of delinquent act during their adolescence, yet few go on to become incorrigible career criminals (Schumaker & Kurz, 2000).

Sample Composition and Method

Every attempt was made to replicate the original study as closely as possible, given the goals of the overall project and the differences in the study populations. However, certain modifications were necessary to the research design. The venue for Pogarsky's study was a university campus, while the venue for the current study is a city that is consistently ranked as one of the top five "most dangerous" cities in the United States. Pogarsky's sample was made up of literate college students, while the current study included several juveniles with developmental disabilities.

The participant population is a nonprobability purposive sample of juvenile offenders recently referred to a large urban juvenile court for official delinquency. Court records were examined daily during the study period, and juveniles admitted to the detention center were screened for inclusion in the study. In this way, it is a convenience sample, in that juveniles chosen for the study were those who happened to offend during the study period. This is not a cohort sample, but rather a tracking of particular individuals during their time in contact with the court (and the curfew check program). Thus, this sample is significantly different than a classroom of students, but necessary to obtain information on this particular population.

The only criteria used to screen juveniles for inclusion in the study was that they have no prior experience with the curfew check program (to reduce the impact of the experiential effect). No restrictions were in place regarding offense, sex, or age when selecting juveniles to participate in the study. This ensured that the widest possible variety of demographics and offenses were available for analysis, as well as to obtain the largest sample size possible to increase statistical strength. Surveys were administered between November 2003 and January 2005 to 118 juveniles, roughly a 10% sampling of juvenile court referrals for this jurisdiction. The final sample consisted of 95 (80.5%) males and 107 (90.7%) individuals who identified

themselves as Black/African-American.¹ The mean age for the group was 14.5. A majority of juveniles were in contact with the court for a car-theft-related offense (N = 70, 59%), with a fairly large proportion (N = 22, 20%) charged with assault in various forms (assault at school, assault with a weapon, assault on a police officer). Other offenses included burglary (N = 6, 5%), sex crimes (N = 5, 4%), unlawful use of a weapon (N = 5, 4%), drug offense (N = 4, 3%), robbery (N = 3, 2.5%), property damage (N = 2, 2%), and stealing (N = 1, 1%).

An investigator-administered questionnaire format was used to obtain information (after parental consent and juvenile assent were secured). Questions were read aloud to the juvenile, and the juvenile circled the appropriate response on the questionnaire. This method was the most appropriate for this population based on their reading abilities, the time available to complete questionnaires, and the research questions. Questions were all based on prior research, yet the wording was often modified to be more age- and reading-level-appropriate for the target population. For example, Pogarsky focused on the single violation of drinking and driving, while the current study examined not only curfew violations but several other rule violations as well.

Measurement of Variables

The original study was duplicated as closely as possible when choosing variables and measurements. The classic deterrence variables were presented in a Likert-style format, rather than a range-of-score format. For *certainty of punishment*, juveniles were asked how likely it would be they would get caught breaking the law (no specific agent was mentioned, such as parents or police). Choices for response included: 1) "very unlikely," 2) "somewhat unlikely," 3) "somewhat likely," and 4) "very likely" (Foglia, 1997). Severity of punishment was divided into formal and informal components. Formal severity of punishment was assessed by asking juveniles to suppose they broke the law and were caught and punished; how much of a problem would that punishment create in their life (Grasmick, Bursik, & Arneklev, 1993)? Responses included: 1) "no problem at all," 2) "hardly a problem," 3) "a little bit of a problem," and 4) "a very big problem." This general question does not specify a punishment but allows the juvenile to subjectively think about what the severity of punishment may be (Grasmick & Bryjak, 1980; Grasmick, Bursik, & Arneklev, 1993). The same question was repeated with specific sanctions included as the "punishment," which are actual punishments that may be invoked for a probation violation. These activities included attendance at a meeting with other juveniles (restorative conference), writing a book report, picking up trash around the court, and a 24-hour sentence to the detention center. Juveniles reported how much of a problem each of these activities would create in their lives, using the "no problem at all" to "a very big problem" scale. In all cases, the higher the score the more severe the perception of the punishment for the juvenile.

Information regarding *informal severity* was collected by asking juveniles to suppose they were caught and punished for breaking the law; how much of a problem would that create with 1) parents, 2) friends, 3) teachers, and 4) getting a good job (Grasmick & Bursik, 1990)? Responses were coded exactly the same as responses for the formal punishment questions, and these four questions were used to create an additive index of informal punishment. This measure is similar to *social disapproval* in Pogarsky's study.

^{1.} While this number appears to be extremely disproportionate, it is actually quite representative of the juvenile population of the jurisdiction, and not unlike other inner-city samples (Foglia, 1997).

Measures for the personal variables were quite similar between the two studies. The current study replicated exactly Pogarsky's measure of *impulsivity*. Identical questions and coding schemes were utilized. Self disapproval is termed *guilt*, with juveniles asked how they would feel about breaking the law, even if they weren't caught (Grasmick & Bursik, 1990). Scale choices included: 1) "not guilty at all," 2) "somewhat guilty," 3) "a little guilty," and 4) "very guilty," with a higher score indicating more guilt. *Embarrassment* was assessed by asking juveniles if they did feel guilty about breaking the law and not getting caught, how much of a problem would that feeling of guilt cause in their lives? Again, responses were scaled from "no problem at all" to "a very big problem" (Grasmick & Bursik, 1990), again with a higher score indicating a higher level of embarrassment.

In addition, the present study uses a measure of *moral view*. For this measure juveniles were asked how "wrong" they believed certain activities to be. The activities in this section were similar to the activities presented in the self-report delinquency section of the survey. Respondents were asked "how wrong is it" to participate in a variety of activities, which are presented in Appendix A. Possible answers were "not at all wrong," "sometimes wrong," "usually wrong," or "always wrong" (University of Nebraska at Omaha, 1995). Answers were combined into an index of moral view (range = 9–36), with a higher score indicating a higher internalization of pro-social thoughts and a higher "moral view."

Pogarsky measured prior offending using a self-report measure of prior instances of drinking and driving. The current study uses an index of *self-report delinquency* that includes a variety of juvenile behaviors, not all of which are law violations, and presented in Appendix B (University of Nebraska at Omaha, 1995). Juveniles were asked if they had ever engaged in the activity (yes/no), and whether they had engaged in the activity "recently," within the last two months. If they had participated in the activity recently, additional information was sought regarding the number of times the act was committed. The total of these self-report recent incidents is the basis for prior offending in the current study.

Offending likelihood was calculated for each individual in the current study using Pogarsky's method. Offending likelihood is determined by the difference in the juvenile's response to the questions, "How likely is it that you will break the law?" (OL) and, "How likely is it that you will break the law if you knew *for sure* you would *not* get caught?" (OL $_0$). Choices for respondents include: 1) "very unlikely," 2) "somewhat unlikely," 3) "somewhat likely," and 4) "very likely." Thus, the higher the response, the higher the juvenile's perception that he will offend in the future, whether he thinks he will get caught or not.

The basis for categorization of the juveniles is basically identical to the original study, with adjustments due to differences in measurement. Acute conformists will not break the law even if guaranteed not to get caught ($OL = OL_0 = 1$). Deterrable respondents will present an offending likelihood that is reduced by threat of punishment ($OL < OL_0$), while incorrigible respondents will show no difference in regards to threat of punishment ($OL = OL_0 >$ "somewhat likely").

RESULTS

Identical to the Pogarsky study, results are presented in two phases. The first step divides the juveniles into the three offending categories and makes comparisons between the three groups. The second step uses multiple regression to determine which variables predict offend-

ing likelihood, and whether dividing the juveniles into the three categories affects the strength of the certainty and severity variables.

Phase I (Subject Profile)

The first phase consists of a test for differences in explanatory measures across the three profiles, which will be shown here. Bivariate correlations (also reported in Pogarsky, 2002) for all offending likelihood variables are presented in Table 1 [next page]. Several relationships are consistent with prior deterrence research, but several anomalies emerge as well. First, there is a significant positive relationship between certainty of punishment and the baseline measure of offending likelihood (the measure that assumes no punishment). This is unexpected, as it would be assumed that the higher the perception of certainty of punishment, the lower the offending likelihood (a negative relationship), whether punishment was present or not. Second, and more in line with prior research, certainty of punishment is negatively related to prior self-reported delinquency, and positively related to guilt and embarrassment. Thus, juveniles with a high level of certainty of punishment commit fewer delinquent acts, and have higher levels of guilt and embarrassment. In addition, guilt and embarrassment are negatively related to self-reported delinquency and positively related to informal severity. Juveniles with high levels of guilt and embarrassment are less likely to report delinquent activity, but more likely to report that parents or friends would be upset at their offending behavior. Not surprisingly, guilt, embarrassment, and moral view are all positively related, indicating that juveniles with high levels of one had high levels of all of these constructs, and impulsivity is negatively related to each of these, although not always at a significant level. Finally, impulsivity is positively related to self-reported delinquency. Those juveniles reporting a high level of impulsivity were also reporting higher levels of delinquent behavior. Thus, several relationships are present that coincide with prior deterrence research, at least at the bivariate level, particularly that certainty of punishment is negatively related to offending behavior and positively related to informal social control measures.

Using the formula presented above, the juveniles could be classified into the three subject profiles of incorrigible, deterrable, or acute conformist. For this sample of juveniles, 19% (N = 23) were classified as acute conformist, 51% (N = 60) were classified as deterrable, 5% (N = 6) were incorrigible, and 24% (N = 29) were unclassified. The sample sizes were quite different between the two studies, but the percentages of individuals in each category were comparable. Pogarsky surveyed 412 students, with 21% conformist, 62% deterrable, and 8% incorrigible.

Table 2 [page 89] presents descriptive statistics by subject profile, including means and standard deviations. All means are differentiated at the .10 level, indicating the relationships in this study are not as strong as those in Pogarsky's study, which were distinguished at the .05 level.

Several differences between the groups were significant, but not all in the expected directions. The deterrable group demonstrates a significantly higher perception of certainty of punishment than the other two groups. Proceeding down the table, no significant relationships are present between any of the groups for severity (formal or informal), age, sex, or embarrassment. For formal severity and age, this is the same result reached by Pogarsky, that these variables show no difference between the profiles. For informal severity (social disapproval), sex, and embarrassment, Pogarsky noted significant differences between the groups on these variables, but the present study does not. Embarrassment indicates a measure of social disapproval, while guilt indicates self-disapproval. For the present study, acute conformists are

Table 1. Correlations Between All Variables for Offending Likelihood in Sample												
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Offending Likelihood	1.0											
2. Baseline (OL ₀)	02	1.0										
3. Certainty	.05	.24*	1.0									
4. Formal Severity	.01	.00	05	1.0								
5. Informal Severity	04	.15	.10	.11	1.0							
6. Age	.10	.01	03	03	.01	1.0						
7. Sex	.06	.04	05	.03	07	06	1.0					
8. Self Report Total	03	.18	22*	12	03	.05	.17	1.0				
9. Guilt	12	04	.33**	02	.25*	23*	08	34**	1.0			
10. Embarrassment	04	.10	.25**	.06	.31*	27**	10	28**	.54**	1.0		
11. Impulsivity	.10	.07	07	02	01	13	25**	.20*	09	09	1.0	
12. Moral View	06	.02	.02	24*	.12	12	.18	04	.26**	.19*	20*	1.0

^{*}Correlation is significant at the .05 level (2-tailed)
** Correlation is significant at the .01 level (2-tailed)

Table 2. Variable Means by Offending Likelihood Profile										
	Acute Conformist $OL = OL_0 = 1$ N = 23		Deterrable $OL < OL_0$ N = 60		Incorrigible $OL = OL_0 > 3$ N = 6		Total Sample N = 118			
Variable	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D		
Certainty	1.35	.78	1.64a	.58	1.17	.98	1.50	.69		
Formal Severity	1.0	.74	.92	.72	1.17	.75	.90	.77		
Informal Severity	1.17	.58	1.32	.62	1.33	.82	1.26	.62		
Age	14.35	1.07	14.57	1.16	14.00	1.41	14.52	1.22		
Sex	.74	.45	.82	.39	.67	.52	.81	.40		
Embarrassment	3.39	.89	3.35	.88	3.17	.98	3.31	.85		
Guilt	3.52b	.85	3.12	1.04	2.67	1.51	3.09	1.06		
Impulsivity	1.87	.55	2.00	.65	2.17	.75	1.91	.63		
Moral View	1.87	.46	1.93c	.31	1.67	.52	1.91	.35		
Self Report Total	2.17b	1.53	3.18	2.10	4.00	3.16	3.05	1.97		

Note: 29 subjects were not classified ($0 \le OL$ and $OL_0 \le 3$)

significantly different from the other two groups in regards to guilt—the one variable that is consistent with Pogarsky's results.

Moral view is another internal control measure. Pogarsky does not include a specific measure for moral view, but it is presumed to have similar findings to other informal controls. Again, it is the deterrable group that is significantly different from the other two groups on this measure. Deterrable individuals show a higher level of moral view and internal controls than other individuals in the study. A major finding by Pogarsky was that incorrigibles were the most impulsive, and significantly so. This study finds no support whatsoever for this hypothesis. In fact, the deterrable group shows a higher level of impulsivity than either of the other groups, but not at significant levels.

Finally, the measure of self-reported delinquency is consistent across studies. Pogarsky's conformists had the lowest reports of ever having driven drunk, and the juvenile conformists had the lowest self-reported delinquency totals. Thus, even though the acute conformists do not have the highest measures of social disapproval, they still report the lowest frequency of offending. In addition, the deterrable group with the highest levels of moral view and perceptions of certainty of punishment were not the lowest reported offenders.

Phase II (Regressions)

The regression models presented here were initially reproduced exactly as in the original study. If results were not consistent with the original study or not significant, other models were considered. The original study used a regression with a Tobit correction for the full and

a = p < .10 between the deterrable and both the acute conformist and incorrigible groups

b = p < .10 between the acute conformist and both the deterrable and incorrigible groups

c = p < .10 between the deterrable and incorrigible groups

deterrable samples, as many respondents indicated an offending likelihood of zero. For incorrigibles, an ordinary least squares (OLS) regression was used in the original study. Table 3 [below] presents regressions estimating the deterrent effects of certainty and severity. The first step is to regress the offending likelihood (OL) against the perceptual deterrence variables using the entire sample (Model 1). To refresh, the OL is the question that asks how likely the juvenile is to break the law, with the prospect of some kind of punishment present. The model does obtain significance, indicating these variables represent a linear relationship. For the most part, the multiple correlation values are fairly low, however, indicating these variables do not predict offending likelihood as well as those in the original study. Unlike Pogarsky's results, neither certainty nor severity of punishment is significant in this model. In fact, several variables in the original study proved to be significant predictors of offending likelihood, but that is not the case with the current sample. Guilt is the only variable that obtains significance, and this finding is consistent with Pogarsky's results. The coefficient is negative, indicating that juveniles with high guilt scores are reporting a low offending likelihood.

TABLE 3. OLS REGRESSIONS FOR FULL AND REDUCED SAMPLE

Dependent Variable Is Offending Likelihood

("How likely is it that you would break the law?" 1 = very unlikely; 2 = somewhat unlikely; 3 = somewhat likely; 4 = very likely)

	Model 1 F	ull Sample	e N = 113	Model 2 Deterrable Only N = 58			
	В	S. E.	β	В	S.E.	β	
Certainty of Punishment	4.31E-02	.12	.04	1.83E-02	.18	.09	
Formal Severity of Punishment	3.63E-02	.11	.03	7.69E-02	.14	.58	
Age	11	.07	16	12	.10	.23	
Sex	.12	.21	.05	.32	.30	.30	
Self Report Offending	6.82E-02	.04	.16	7.07E-02	.05	.19	
Guilt	23**	.09	29	18	.11	.10	
Impulsivity	9.36E-02	.14	.06	6.27E-02	.19	.75	
Constant	3.13**	1.27		2.88	1.98		
R	.37			.44			
\mathbb{R}^2	.14			.19			
Adjusted R ²	.07			.06			

Note: The constant is included in all models; *p < .10 **p < .05; B represents the unstandardized regression coefficient; S.E. represents the standard error; β represents the standardized regression coefficient; the Model with incorrigibles only could not be calculated due to the small sample; size (N = 6)

Model 2 analyzes only those individuals classified as deterrable. This separates out the acute conformists, who theoretically have a higher perception of certainty of punishment. Recall from the earlier comparisons by profile that deterrable offenders had the highest certainty, while acute conformists had the highest levels of guilt. This model fails to achieve significance. Again the multiple correlation values are relatively low, indicating these variables are not good predictors of offending likelihood. Again, in the original study several variables proved to be

significant, but that is not the case here. No variables prove to be significant for the deterrable group. This is not surprising, given the earlier discovery that the acute conformist group exhibited the highest levels of guilt, and removing them from the analysis removed the significance of this variable from the model. The deterrable group exhibited the highest levels of certainty, but for Model 2 this variable did not significantly predict offending likelihood. The current study was not able to complete a third model with only incorrigible offenders similar to the original study, due to the small number of juveniles in this group.

Unclassified Individuals

One large difference between the two studies that may be problematic involves the number of unclassified individuals. This study had a significant number of individuals who were unclassified based upon their responses. Twenty-nine juveniles responded to the combination of questions in a way that was not classifiable by the formula listed above, which constitutes 24% of the sample. Two individuals failed to answer one of the questions, making classification impossible. Of the remaining individuals, 13 juveniles answered both questions the same at the level of "somewhat unlikely," indicating they were not committed to delinquency, but were not willing to state they would never commit an offense. These individuals were consistent in their answers, similar to a conformist or incorrigible, but not at a level that would place them in either of those categories. Subsequently, additional analyses were conducted to determine if these "somewhat unlikely" individuals affected the results if included and are discussed below. Fourteen individuals answered that they were *less* likely to offend in the absence of getting caught. This is opposite of the expected scenario: that a juvenile would be *more* likely to offend in the absence of getting caught.

The large percentage of unclassified individuals led to further analyses to determine whether a different formula should be used for classification. Two additional analyses were conducted, whereby the individuals who consistently reported they were "somewhat unlikely" to offend were included with either the conformists or the incorrigibles to assess any significance in relationships. Including the individuals with the acute conformists caused significant relationships in the original analysis to disappear. This indicates that, while they are consistent in their responses, they are not similar to acute conformists on the other measures. Including them with the incorrigibles revealed no significant relationships among any of the groups or variables. Therefore, the original classification was maintained.

Thus, there are significant differences between the two studies in regards to unclassified individuals. The proportion of individuals unclassifiable in Pogarsky's sample is only 8%. In addition, the number of respondents giving "illogical" responses involving lower perceived offending with less certainty comprised 11% of this study, while Pogarsky only reported a handful of such individuals. Several explanations for such differences may be offered, including the cognitive ability or world-view of the sample, or the measure of offending likelihood. The Likert format was chosen because it was consistent with the larger evaluation and was less time-consuming than the scenario format. The scale was presumably not sensitive enough to accurately assess the offending likelihood for this sample, however. Other studies using samples of inner-city youth also report difficulties with obtaining "usable" results (Foglia, 1997).

DISCUSSION AND CONCLUSIONS

Threats

Given that this study was part of a larger research project, there are several threats to the validity of the results, not only for this facet, but for the entire project. Most important to discuss here are selection bias, sample size, and construct validity. All juveniles admitted to the detention facility were eligible for inclusion in the study, provided they had no prior involvement with the curfew check program. Thus, selection bias was not a significant concern in this regard, but it did present a potential bias in obtaining informed consent. Only parents who came to the detention center to visit their child were approached for consent, and it is quite feasible that there is a significant difference between parents that visit their children and those who do not. A handful of parents were approached at other court venues, and were cooperative in granting consent. In addition, a vast majority of juveniles detained at this large, inner city facility come from similar backgrounds and share similar lifestyle traits, but the risk of bias is still present. While this method was not the most ideal, given the available resources (and safety issues) it was the most viable approach for this study.

Another major threat for this study involves the sample size. The largest problem that a small sample creates is a loss of statistical power (Harris, 1998). A power analysis was conducted prior to data collection that indicated a sample size of approximately 100 would be sufficient at the p < .05 level. However, given the division of the sample into offending categories and the regression analysis, a larger sample may have produced more significant and theoretically consistent results. The arduous task of obtaining consent and assent greatly lessened the sample size and hindered data collection, a common issue in juvenile research (Skager & Austin, 1997).

Finally, the variables and perceptions that were examined raise the issue of construct validity. All constructs in the current study were adapted from prior literature, with evidence of scale or index reliability and validity. All variables were chosen for their compatibility with the overall project, as well as ease of administration. Thus, some constructs are not identical to those in Pogarsky's study and not a true replication. In addition, one of the main goals of the research was to assess differences between active offenders and college students, and these prior measures may not be sensitive enough, nor well suited to this specific population.

Discussion

The main goal of this study was to assess whether active juvenile delinquents can be classified into the acute conformist, deterrable, and incorrigible classification scheme of Pogarsky (2002). The results here modestly support the division, indicating that juvenile offenders are not identical in their situations but have different perceptions and controls on their behavior. This finding is supportive of other research conducted on samples of high-risk youth (Foglia, 1997).

Another goal was to assess whether active juvenile delinquents perceived deterrence in the same manner as college students, in terms of the classification scheme. The results indicate that juvenile offenders do not perceive certainty and severity of punishment in the same way, and are thus not completely theoretically consistent with the classification scheme. Pogarsky showed that acute conformists refrain from offending because of high levels of internal controls, as well as high levels of fear of social disapproval. This study shows that acute conformists do have the lowest offending levels, but little else is consistent with Pogarsky's study. Acute conformists

do have significantly higher levels of guilt than the other two groups, which is expected; however, it is the deterrable group that shows the highest levels of certainty of punishment. This is inconsistent with the theoretical expectations. Overall, the regression results do not support the original study, but the samples were comprised of significantly different individuals, and were significantly different in size.² What is consistent with prior research and theory is the importance of extralegal controls on behavior. Pogarsky states that conformists are impervious to legal sanction threats because of other personal influences, such as internal controls or informal agents. While the theorized group did not always exhibit the highest levels of informal controls for this study, it is consistent in both studies that severity of formal punishment does not appear to influence anyone, not even the deterrable group. For the current study, the internal control variables are split between the conformists and deterrables and would indicate that some other extralegal factor is associated with low levels of offending for the conformists, such as parental supervision or opportunity (i.e., time spent away from home). Thus, at least for the juveniles in this sample, guilt may be the strongest weapon against delinquent activity. Parents and friends have an impact on deterrable offenders, but for acute conformists (those with the lowest offending frequencies) the controls are internal. Both the current study and Pogarsky failed to measure one of the most important variables in adolescent behavior: peers. A substantial amount of literature pinpoints the key to juvenile behavior lies in the choice of one's friends (for example, Foglia, 1997; Warr & Stafford, 1991). Thus, regardless of the sample composition, the influence of parents and friends appears to have much more influence on behavior than formal punishments (Foglia, 1997; Warr & Stafford, 1991).

It is also evident that juvenile offenders do not have the same perceptions and controls on their behavior as college students. The significant differences between the two samples may provide a possible explanation for the differences between the two studies, and the lack of theoretical support. Not only are juveniles cognitively and psychologically less developed than college students, offenders have significantly different educational backgrounds and life trajectories. It is actually intuitive that a 14-year-old from the inner city will not have the same thoughts and perceptions as a 20-year-old college student in suburbia. In this way, it is not necessarily surprising that females were significantly different than males in Pogarsky's study, but not here. A group of college ladies is much different culturally than a group of teenage offenders, not to mention that the college ladies were asked about drinking and driving, while the offenders were in secure confinement for driving stolen cars and committing serious assaults.

While the significant differences in sample composition and characteristics may be seen as a damaging weakness, it may also be seen as an incredible opportunity. The juveniles in this sample do not appear to be affected by formal social controls, nor certainty of punishment, which is again supportive of previous inner-city research (Foglia, 1997). It would be beneficial

^{2.} These analyses are based on Pogarsky's (2002) original study, but an alternate method may be more appropriate for these data. As the dependent variable is ordinal, an ordered regression model may be more suitable. The use of linear regression assumes the distance between categories is equal, and if this assumption is not correct for the data, the results may be unreliable (Long, 1997). Attempts at constructing an ordinal regression model revealed a majority of the cells contained zero frequencies, however. This indicates that the current sample is too small to obtain statistical significance using this technique. Pogarsky's (2002) original sample was much larger, and an ordinal regression may prove valuable when applied to that data set.

not only to policymakers, but to theorists to determine if non-offending juveniles conform to this pattern as well. In addition, since juveniles appear to be significantly different from other deterrence research samples, more population-specific measures of certainty and severity, as well as impulsivity and other abstract concepts may be helpful.

Some significant policy implications are raised regarding the results of this study. Quite possibly, deterrence-based programs would operate very differently if the conformists could be separated from the incorrigibles. Identifying the offending likelihood of an individual could assist in the assignment of services. Those individuals who are strongly regulated by internal controls such as guilt will require fewer official interventions than those who are classified as "incorrigible." Thus, scarce services can be focused on those individuals with the highest need. Unfortunately, a program based on the construct identified as significant for this group of juveniles may be difficult or impossible to carry out. Guilt was found to be the most significant predictor of offending likelihood, but a program that uses guilt as the primary means of reducing illegal behavior is most likely unethical and certainly unfeasible.

One of the most significant policy implications involves the perceptions of those making the policy. In most cases, policy is made by people with significantly different perceptions of punishments than those upon whom the policies will be imposed. College students and professors tend to rate a night's stay in detention as a very big problem; juveniles who have experienced this or who have different perceptions about their informal social controls and life trajectory may not find the punishment so onerous. It is important for all justice policies to be realistic and suitable for their "target" audience. There is beginning to be limited evidence that the juveniles most likely to be involved in delinquency are least likely to make decisions according to the classic deterrence model (Foglia, 1997), yet this is the model most often used to "treat" them in juvenile court.

While the results here are promising, it will take several future studies to adequately address whether juvenile offenders can be classified and whether the differences between the groups impact the strength of the certainty of punishment variable. A more sensitive measure of offending likelihood is necessary, along with multiple, larger samples of juvenile offenders.

APPENDIX A

Questions to Measure Moral View (University of Nebraska at Omaha, 1995)

How wrong do you think it is to...

- 1) Skip school without an excuse?
- 2) Lie, disobey or talk back to adults, such as parent, teacher, or others?
- 3) Break curfew?
- 4) Skip an appointment with you probation officer?
- 5) Purposely damage or destroy property that did not belong to you?
- 6) Steal something worth less than \$50?
- 7) Steal something worth more than \$50?
- 8) Steal or try to steal a motor vehicle?
- 9) Hit someone with the idea of hurting them?

APPENDIX B

Questions to Measure Self Report Delinquency (University of Nebraska at Omaha, 1995)

Have you ever done any of the following? If yes, please tell us how many times in the past two months you have done each thing.

Have you ever....

- 1) Skipped class without an excuse?
- 2) Stayed out past curfew without being with your parents?
- 3) Purposely damaged or destroyed property that did not belong to you?
- 4) Carried a hidden weapon for protection?
- 5) Illegally spray painted a wall or a building?
- 6) Stolen or tried to steal something worth less than \$50?
- 7) Stolen or tried to steal something worth more than \$50?
- 8) Stolen or tried to steal a motor vehicle?
- 9) Hit someone with the idea of hurting them?
- 10) Attacked someone with a weapon?
- 11) Sold marijuana?

REFERENCES

- Beccaria, C. (1963). Essay on crimes and punishments. Indianapolis: Bobbs Merrill.
- Bentham, J. (1962). The works of Jeremy Bentham. New York: Russell and Russell.
- Carmichael, S., Langton, L., Pendell, G., Peitzel, J. D., & Piquero, A. R. (2005). Do the experiential and deterrent effect operate differently across gender? *Journal of Criminal Justice*, 33, 267–276
- Decker, S. H., Wright, R., & Logie, R. (1993). Perceptual deterrence among active residential burglars: A research note. *Criminology*, *31*, 135–147.
- Erickson, M. L., Gibbs, J. P., & Jensen, G. F. (1977). The deterrence doctrine and the perceived certainty of legal punishments. *American Sociological Review*, 42, 305–317.
- Foglia, W. D. (1997). Perceptual deterrence and the mediating effect of internalized norms among inner-city teenagers. *Journal of Research in Crime and Delinquency*, 34, 414–442.
- Gibbs, J. P. (1975). Crime, punishment, and deterrence. New York: Elsevier.
- Grasmick, H. G., & Bryjak, G. J. (1980). The deterrent effect of perceived severity of punishment. *Social Forces*, *59*, 471–491.
- Grasmick, H. G., & Bursik, R. J., Jr. (1990). Conscience, significant others, and rational choice: Extending the deterrence model. *Law and Society Review, 24*, 837–861.
- Grasmick, H. G., Bursik, R. J., Jr., & Arneklev, B. J. (1993). Reduction in drunk driving as a response to increased threats of shame, embarrassment, and legal sanctions. *Criminology*, *31*, 41–65.
- Harris, P. (1998). Attrition revisited. American Journal of Evaluation, 19, 292–306.
- Horney, J., & Marshall, I. H. (1992). Risk perceptions among serious offenders: The role of crime and punishment. *Criminology*, 30, 575–594.
- Jensen, G. F. (1969). Crime doesn't pay: Correlates of a shared misunderstanding. *Social Problems*, 17, 189–201.
- Keane, C., Gillis, A. R., & Hagan, J. (1989). Deterrence and amplification of juvenile delinquency by police contact: The importance of gender and risk-orientation. *British Journal of Criminology*, 29, 336–352.
- Klepper, S., & Nagin, D. (1989). Certainty and severity of punishment revisited. *Criminology*, 27, 721–746.
- Long, J. S. (1997). Regression models for categorical and limited dependent variables. Thousand Oaks, CA: Sage.
- Meier, R. F., & Johnson, W. T. (1977). Deterrence as social control: Legal and extralegal production of conformity. *American Sociological Review*, 42, 292–304.
- Nagin, D. S. (1998). *Criminal deterrence research at the outset of the twenty-first century*. Chicago: University of Chicago Press.
- Paternoster, R. (1987). The deterrent effect of the perceived certainty and severity of punishment: A review of the evidence and issues. *Justice Quarterly*, 4, 173–217.
- Paternoster, R., & Iovanni, L. (1986). The deterrent effect of perceived severity: A reexamination. *Social Forces*, 64, 751–777.

- Paternoster, R., & Iovanni, L. (1989). The labeling perspective and delinquency: An elaboration of the theory and an assessment of the evidence. *Justice Quarterly*, 6, 359–394.
- Phillips, D. P. (1980). The deterrent effect of capital punishment: New evidence on an old controversy. *American Journal of Sociology*, *86*, 139–148.
- Pogarsky, G. (2002). Identifying "deterrable" offenders: Implications for research on deterrence. *Justice Quarterly*, 19, 431–452.
- Saltzman, L., Paternoster, R., Waldo, G. P., & Chiricos, T. G. (1982). Deterrent and experiential effects: The problem of causal order in perceptual deterrence research. *Journal of Research in Crime and Delinquency*, 192, 172–189.
- Savitz, L. D. (1958). A study in capital punishment. *Journal of Criminal Law, Criminology and Police Science*, 49, 338–341.
- Schuessler, K. (1952, November). The deterrent influence of the death penalty. *The Annals*, 284, 54–62.
- Schumacher, M., & Kurz, G. A. (2000). The 8% solution: Preventing serious, repeat juvenile crime. Thousand Oaks, CA: Sage.
- Sherman, L. W. (1993). Defiance, deterrence, and irrelevance: A theory of the criminal sanction. *Journal of Research in Crime and Delinquency*, 30, 445–473.
- Silberman, M. (1976). Toward a theory of criminal deterrence. *American Sociological Review*, 41, 442–461.
- Skager, R., & Austin, G. (1997). Effects of active parental consent on response rates for a state-wide secondary school substance use survey and relationships with school level measures of student ethnicity, poverty, and educational advancement. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, Illinois, March 1997.
- Stafford, M. C., & Warr, M. (1993). A reconceptualization of general and specific deterrence. *Journal of Research in Crime and Delinquency, 30*, 123–135.
- Tittle, C. (1969). Crime rates and legal sanctions. Social Problems, 16, 409–423.
- University of Nebraska at Omaha. (1995). National evaluation of G.R.E.A.T., student questionnaire. Department of Criminal Justice: Lincoln, NE.
- Urban, L. S. (2007). *The deterrent effect of curfews: An evaluation of juvenile probationers*. New York: LFB Scholarly Publishing LLC.
- Waldo, G. P., & Chiricos, T. G. (1972). Perceived penal sanction and self reported criminality: A neglected approach to deterrence research. *Social Problems*, 19, 522–540.
- Warr, M., & Stafford, M. C. (1991). The influence of delinquent peers: What they think or what they do? *Criminology*, 29, 851–865.
- Zimring, F., & Hawkins, G. (1973). *Deterrence: The legal threat in crime control*. Chicago: University of Chicago Press.

BIOGRAPHICAL SKETCH

Lynn S. Urban is an assistant professor of criminal justice at the University of Central Missouri. She earned Ph.D. and M.A. degrees in Criminology/Criminal Justice from the University of Missouri at St. Louis, and spent three years as an intern for the St. Louis City Family Court—Juvenile Division. Dr. Urban has written articles about juvenile sentencing practices and evaluations regarding the effectiveness of juvenile court programs, and current research interests include juvenile justice and policy, program evaluation, and juvenile perceptions and cognition of the legal process.

BOOK REVIEW

Linn, E. (2009). Arrest Decisions: What Works for the Officer? New York: Peter Lang Publishing, Inc.

Robert M. Worley, Penn State Altoona

In this book, Professor Edith Linn, a 21-year veteran of the New York City Police Department (NYPD), examines what she refers to as adaptive arrest behavior. According to Linn, this phenomenon occurs whenever police officers rationally calculate both the personal benefits and consequences that are associated with the process of making an arrest. Currently, the 37,000-member New York City Police Department has the dubious distinction of having perhaps the longest and most complex arrest processing procedures in the country. As a former NYPD lieutenant, Linn is intimately familiar with the problems associated with the City's arrest processing and incorporates insider knowledge into her book. Based on her past experiences, the author contends that some officers may engage in arrest-sharing arrangements. This entails behavior where officers pass off their arrests to one another in order to either accrue overtime or go home early. For example, Linn contends that during the pre-Christmas shopping season, an officer can almost always find a heavy hitter—a cop who is hungry for overtime money and willing to process a fellow officer's arrests. There are also empty suits, who are officers that prefer to leave work on time and will often avoid making an arrest at all costs—especially, towards the end of their tour. Clearly, the author has tremendous insights into the types of opportunistic behaviors that police officers engage in during the course of their eight-hour shifts.

While police officers in all agencies may be motivated by personal concerns to either make or avoid an arrest, Linn argues that departments with especially long processing times will be the most likely to have officers who engage in adaptive arrest behaviors. Of all the police departments in the country, the NYPD may very well impose the longest and most stressful processing time on its officers. For example, the author writes that as of 2007, it took approximately 10.45 hours for a New York City police officer to make and process an arrest. She contends that this is in spite of the installation of a new computer program which was designed to make arrest processing more efficient. Given the enormously long time commitment associated with making an arrest in New York City, Linn suggests that some officers are predisposed to either making or avoiding an arrest before they even begin their tour. This book seeks to ascertain the extent to which the personal motivations of police officers correlate with making (or not making) an arrest.

Prior to conducting her study of adaptive arrest behavior, Linn had to obtain the blessings of eight high-ranking officials within the New York City Police Department. She also had to secure the standard university IRB approval, which is a necessity of virtually any academic study. Once the permission was granted, Linn administered a questionnaire to 674 NYPD police officers during in-service training classes. Although she was able to obtain an excellent response rate of 97.2%, the author examined only those subjects who performed uniform patrol at least three days out of a five-day workweek. This left her with a total of 506 respondents, which is a respectable sample size, given the nature of the topic. The data was collected on 27 different occasions over a two and one-half month period. To help preserve the subjects' confidentially,

Linn avoided administering surveys to training classes that were particularly small. Also, prior to handing out the surveys, Linn was formally introduced as a fellow officer (a supervisor at that) and given an opportunity to ask the subjects for their cooperation in completing the questionnaires. Although her rank was disclosed, it does not appear from reading the book that any of the respondents felt compelled to complete the survey. Linn also offered a symbolic token of remuneration to all of her potential subjects by supplying each class with coffee, bagels, and other treats. This, no doubt, may account for the study's unusually high response rate.

While there is always the possibility that some of the respondents may have been deceptive, Linn contends that her study is likely to be valid, since many of the findings were consistent with her past experiences as an NYPD police lieutenant. One significant finding is that officers reported that they make 25.1% of their arrests during the last hour of their patrol. Given that the above percentage is more than double of what would be expected, Linn suggests that some officers may deliberately postpone making an arrest until the end of their tour in order to accumulate overtime. In this same study, the author also found that almost two-thirds of her sample reported that they were highly reluctant to extend their eight-hour shift. This illustrates that, while some subjects were perfectly happy pursuing collars for dollars, the majority of the respondents were not motivated simply by monetary concerns. Instead of scrambling for overtime, Linn's study suggests that police officers may be desperately concerned with leaving their shifts on time. Respondents cited carpooling as being the most important reason why they needed to end their shift. Some officers also stated that they needed to end their tours on time in order to catch a train or beat rush hour traffic. There were even officers who were afraid that they might fall asleep behind the wheel if they worked too many hours beyond their eight-hour shift.

In addition to the above findings, Linn also finds that other respondents claimed they had familial duties, such as caring for children, which discouraged them from making arrests near the end of their shift. In her sample, 32% of female respondents, compared with 4% of males, were single parents. In spite of this discrepancy, however, both male and female officers had a comparable number of arrests. Regardless of an officer's gender, Linn suggests that NYPD officers seldom make arrests. Even though the overwhelming majority of respondents stated that there were ample opportunities to make arrests, almost one-third of the subjects reported making no arrests on any given month. Also, the overall arrest average for the officers was found to be only 1.6 arrests per month. The author attributes these low arrest rates to both the subjects' post-work commitments and the perceived burdens associated with arrest-processing, such as dealing with assaultive or verbally abusive prisoners.

Besides identifying the problems associated with long arrest processing procedures, Linn also provides recommendations that are designed to make police agencies, such as the NYPD, more efficient. These are very informative and may alone be worth the price of the book to many law enforcement executives. First, the author suggests that patrol cars should be equipped with laptop computers that allow officers to send documents to the station house electronically from the comfort of their vehicles. Also, Linn contends that police agencies must rely on civilian correctional employees to handle the majority of the processing. According to the author, tasks, such as photographing, fingerprinting, and medical screening are time-consuming and should be turned over to jail personnel, rather than patrol officers. In many agencies this practice already exists; however, NYPD officers currently are responsible for performing all of these duties upon making an arrest. Linn contends that if these tasks are delegated to other employ-

ees, police officers can spend more time patrolling and less time engaging in adaptive arrest behavior. Finally, the author writes that it would be beneficial to implement round-the-clock processing. She argues that this would reduce the incentive for officers to alter their arrest-making behavior. For example, Linn writes that this practice might prevent an officer working the graveyard shift from arresting a suspect the Saturday night before the Super Bowl, just so he or she can be rescheduled and finish the processing well before Sunday's big game.

This was truly a remarkable book. One of the book's primary strengths is that it challenges readers to view police officers as everyday people who have largely the same concerns and fragilities as everyone else. Linn shows us that arrest decisions may be calculated and carefully planned by police officers prior to the beginning of their tour. Arrest decisions are also likely to be influenced by factors such as overtime and post-work commitments. The author makes a very convincing argument that police officers are motivated by personal incentives that might be common to any worker. Throughout her book, she illustrates that, as in virtually every other occupation, police officers are more likely to subordinate their jobs to their personal lives, rather than vice versa. This book would be an excellent tool to facilitate discussion in any graduate class related to police and society or ethics. It might also be of interest to anyone interested in becoming a police officer, especially at the supervisory level. It provides a fresh and insightful perspective into a classic topic. For these reasons, I highly recommend this book.

BOOK REVIEW

Forst, B. (2009). Terrorism, Crime, and Public Policy. New York: Cambridge University Press.

Claudia San Miguel, Texas A&M International University

Since the terror attacks of September 11, 2001, discourse on terrorism has increased exponentially. Admittedly, scholarly discussion on terrorism is much needed given the events that transpired and in light of continued national concern over future domestic terror attacks. Such discussion, however, often lacks academic rigor and seldom attempts to unearth underlying reasons and/or explanations for acts of terrorism. In *Terrorism, Crime, and Public Policy*, Brian Forst presents readers with viable underlying explanations as to why terror attacks occur around the globe and further provides a framework to analyze some of the most historical and recent terror attacks in history. He also presents short-term and long-term strategies to preventing terrorism along with a convincing discussion on the need to balance homeland security with constitutional provisions to individual liberty and privacy.

Forst's introductory chapter introduces readers to a multitude of prevailing definitions of terrorism. Although he notes that the term was first used to describe a strategy during the French Revolution that eliminated tens of thousands of individuals at the guillotine, modern usage of the word, according to Forst, should be applied to describe events that involve the "premeditated and unlawful use or threatened use of violence against a noncombatant population or target having symbolic significance, with the aim of either inducing political change through intimidation and destabilization or destroying a population identified as an enemy" (p. 5). He warns, however, that there is a definite distinction between terrorism and wartime acts of violence and/or aggression between nations. The latter is governed by rules of military engagement whereas the former is devoid of any such rules.

Chapter 2 considers the theoretical framework of terrorism, although it also compares and contrasts theories that can be used to explain terrorism with those that can be applied to explain any acts of aggression. From the nature versus nurture debate to anomie to strain, routine activities theory and even psychological and biological reasons, Forst takes readers through a mixture of theoretical paradigms that can be helpful in understanding why acts of terror occur worldwide. Since terror acts manifest in a variety of ways, Forst is quick to postulate that no one theory can wholly explain such acts but encourages readers to consider micro-level theories of terrorism together with macro-level theories that include factors such as religion, culture, and globalization.

Chapters 3 and 4 present historical accounts of terrorism around the world starting from the earliest recorded acts of terrorism in the sixth century B.C. to acts committed in the twenty-first century. Chapter 4, in particular, explains how terrorism throughout the ages has changed due to globalization. Chapters 5 and 6 examine factors such as religion, extremism, and non-religious extremism as well as various terror groups that have launched attacks over specific ideologies and/or issues. In totality, these chapters force readers to evaluate historical and contemporary incidences of terrorism and whether factors such as religious ideology serves to justify acts of

violence, including terrorism, or whether hatred for a government serves as the driving force for some acts of terrorism around the globe.

The remaining chapters of Forst's book gradually explore counterterrorism measures. Chapter 7 tackles the use of technology as a prime means to disarm terror groups, including the use of sophisticated surveillance systems and intelligence-gathering software. While Chapter 8 once again traces known contemporary terror groups such as al Qaeda, readers are provided with information with which to then evaluate counterterrorism policies in the next few chapters. For instance, subsequent chapters explore diplomatic responses and short-term as well as long-term strategies to prevent terrorism. Forst allows readers to contemplate the contentious role of law enforcement agencies and their use of intelligence-gathering measures in addition to the lofty goal of building cooperation among nations. He then allows readers to weigh the prevailing need to protect citizens from future terror attacks with the need to preserve individual constitutional rights to privacy and liberty.

All in all, *Terrorism, Crime, and Public Policy*, by Brian Forst, is a well-written and well-researched book that can be used at both the undergraduate and graduate levels. The book presents readers with multidisciplinary and scholarly information to understand the root issues of terror attacks, while at the same time presenting readers with several viable strategies to prevent terrorism. It further presents readers with historical and contemporary manifestations of terror attacks around the globe and details various historical and contemporary terror groups. Moreover, the criminological analysis of terrorism is practical to readers as it provides a framework with which to comprehend this crime. Forst also does not forget to present readers with arguments and counterarguments for government curtailment of privacy rights in a time of heightened concern over terrorism. However, the information presented by Forst can be overwhelming, and the organization of some of the book chapters may confuse readers as the author tends to jump back and forth from topic to topic. Nevertheless, this 449-page book is perhaps the most comprehensive manuscript on terrorism.