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Fugitive Safe Surrender

An Important Beginning

John S. Goldkamp
Temple University

Flannery and Kretschmar (2012, this issue) do not present a formal evaluation of the large federal program dealing with an effort to reclaim fugitives who have absconded from the justice system (Cahill, 2012, this issue, refers to the work rather as a "quasi-process evaluation"). Instead, they share preliminary findings from their study of fugitives from justice and a special effort to reclaim them. By using an "availability approach" to gather data from an inherently elusive population, Flannery and Kretschmar question assumptions about fugitives or at least raise questions that have both theoretical and policy implications. In their policy essays, Cahill (2012) and Tabarrok (2012, this issue) each raise questions about method difficulties associated with the Flannery and Kretschmar research. The contribution of Fugitive Safe Surrender is not at this stage methodological, but rather it is in the authors' discussion of emerging policy themes as they surface in their analysis of the (nonprobability) sample of more than 20,000 survey respondents.

A principal feature of the fugitive "problem" is that it is relatively uncharted, multifaceted, and overlooked. Fugitives include the active flaunters as well as inadvertent absconders who did not miss their court requirements through intentional actions—rather, they may have been confused or lost in the courts (Goldkamp and White, 2006). Flannery and Kretschmar (2012) open the doors to many key problems associated with the fugitive phenomenon, several of which are logistical or financial. Of particular interest, however, is the criminogenic impact on the community through a sort of cyclical regeneration of noncompliant individuals at the core of a criminal culture of resistance and disrespect (Goldkamp and Vîlcică, 2008; Goldkamp and White, 2006). These norms teach disregard for law enforcement, undermine the deterrent power of the courts and other key justice functions, and make disrespect for justice agencies the norm in certain areas of the city. In

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fact, in some aspects, the justice system itself contributes to the generation and regeneration of fugitives (Goldkamp and Vîlcică, 2008).

Although the fugitive problem, its "causes and cure," is relevant to several theoretical perspectives, it has great significance for deterrence and the courts. The numbers of those intentionally avoiding court demonstrate the weakness in any intended deterrent message from the courts. The consequences of missing court simply do not generate the fear of sanctions generally expected. However, the cases of inadvertent fugitives also carry lessons for deterrence in that it might represent a form of deterrence "backfire." Having missed court or other justice system requirements (probation or parole), the "inadvertent" fugitives may be reluctant or even afraid to turn themselves in, fearing the reaction of the system once "the sin has been committed" (see, for example, Goffman, 2009). Some fugitives feel that they simply cannot afford financially to turn themselves in with fees and fines (and bail) awaiting them and thus put off dealing with the court system.

Essayists Cahill (2012) and Tabarrok (2012) express doubts about the effectiveness of Fugitive Safe Surrender, arguing, for example, that its impact is unmeasurable and that the focus should be on the individual and his or her problems, not on force, deception, or arresting everyone with a warrant outstanding (Cahill). They also question the lack of seriousness of the cases involved by fugitives who turn themselves in (i.e., they would be unlikely to affect "risk" or "danger" to police or the community in the first place). Tabarrok asks pointedly whether the cost to the system of such a large program is worth the minor results it might produce. Cahill and Tabarrok also both point out that the preliminary findings of Flannery and Kretschmar's (2012) analysis seem to be based on a disproportionately nonserious sample of fugitive offenses: If the impact could be effectively measured, then would the safe surrender approach really serve as a productive means of promoting the return of much more seriously charged fugitives, ones with less salutary criminal histories—the real "outlaws," as Tabarrok refers to them?

Nonetheless, a major finding that deserves further analysis is the apparent discovery that the constructive, community-based (even church co-sponsored) approaches of Safe Surrender have a greater impact in getting fugitives to turn themselves in than the deceptive and tricky approaches, for example, such as those announcing that the defendant has won a prize. Fugitives seem to take advantage of the help being offered to get their cases taken care of, drawing on a straightforward, direct, and honest approach. The facilitative role of the church and/or community center as settings attractive to fugitives, according to Flannery and Kretschmar (2012), strongly calls for further scrutiny.

Flannery and Kretschmar's (2012) contributions are found in the policy themes it surfaces. At its most basic, perhaps, it brings an important problem into the light demonstrating how little is known about the fugitive phenomenon—including attributes as simple as the actual volume of fugitives either per year or currently active in all justice systems in the United States. Thus, the first tasks are necessarily descriptive. The large number of

fugitives calls into question other court and justice functions, including the accuracy of data produced at stages subsequent to the fugitive's decision to abscond. One might like to compare the effectiveness of courts in minimizing fugitives captured as a simple percentage of all court cases. However, given the elusiveness of complete and accurate data relating to fugitives, just the task of counting fugitives to define the numerators and denominators of potential effectiveness measures presents difficult challenges.

Developing accurate and relevant descriptive data is more important than might be assumed when considering policy strategies. If the fugitive caseload could be assessed and characterized, then policy initiatives could work on preventive *and* reactive strategies to reduce the problem and to address its negative ramifications. In developing preventive strategies, efforts would need to address the structural system features that greatly enable the generation of fugitive cases (Goldkamp and Vîlcică, 2008). In developing reactive responses—for example, how does the court reclaim cases that have gone AWOL?—at this descriptive stage, it would be critical to understand the nature of the problem and the various explanations for fugitivity. Flannery and Kretschmar (2012) imply that there are different motivations driving fugitives (e.g., the intentional vs. the inadvertent fugitive) and that sanctioning and threat may not serve effectively as the all-purpose response relevant in all cases.

As better descriptive data are developed relating to fugitives, measures of impact (including individually based and considering overall costs and benefits) can be examined more specifically and contrasted with consistency across court systems. Inferences about the nature of the overall problem and its impact on the operation of the courts and on the courts' ability to deliver justice can be more productively drawn. Types of fugitives can be identified that call possibly for a range of different responses, both preventive and reactive, that target specifically the different problems associated with each type. For certain types of fugitives, the constructive, nonpunitive, nondeceptive approaches employed in the church and community center settings as in Flannery and Kretschmar's (2012) study would be appropriate. Other types may be addressed more effectively by the imposition of strong sanctions to bring better results by sending the deterrent message that such noncompliance with a judicial order is taken seriously. The article hopefully goes a long way to stimulate a deeper look into what has traditionally been the overlooked fugitive problem and begins to explore more fully its causes and cures.

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EXECUTIVE SUMMARY

FUGITIVE SAFE SURRENDER PROGRAM

Overview of: "Fugitive Safe Surrender: Program Description, Initial Findings, and Policy Implications"

Daniel J. Flannery

Jeff M. Kretschmar

Case Western Reserve University

Research Summary

This study describes the implementation and initial descriptive findings from the Fugitive Safe Surrender (FSS) program, conducted in 20 cities, where 35,103 individuals who believed they had a warrant for their arrest surrendered voluntarily at a local church. A total of 3,501 felony persons had 4,238 felony warrants, and 18,400 misdemeanants accounted for 44,971 misdemeanor warrants. Nearly 1 in 5 had no warrant located, and less than 2% were arrested. For those with a new court date, 94% appeared as scheduled. An anonymous self-report survey showed 73% of respondents indicated it was important or very important that the surrender location was a church. The most common reasons cited for surrendering were to obtain a driver's license (47%), wanting to start over (42%), and fear of arrest (40%); many participants did not surrender previously because they did not have money to pay bail or fines.

Policy Implications

The Fugitive Safe Surrender program illustrates that collaborations between law enforcement and faith-based organizations can result in a significant number of open warrants being cleared in a nonconflict setting. This can be done without appreciably increasing the local jail population. Although our data do not provide for detailed cost–benefit analysis, communities cleared a significant number of outstanding warrants at a reduced cost relative to the typical resources required to serve open warrants, track down felony offenders, process bench warrants for failure to appear, or incarcerate wanted fugitives picked up during routine policing activities. In addition, FSS provides a safe

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environment for surrender, which reduces potentially dangerous interactions between law enforcement and fugitives on the street.

Implementing a program like Fugitive Safe Surrender is fraught with many significant challenges, not the least of which is that most jurisdictions cannot provide an accurate count of the number of open local or state warrants in their community. This challenge makes an assessment of how effective FSS is in reducing the volume of known fugitives or warrants difficult to calculate. Most fugitives with active warrants had more than one and sometimes multiple types of warrants across multiple jurisdictions. A related issue is the number of persons who appeared thinking they had an active warrant but none could be located. These issues illustrate the need for consistency in how law enforcement agencies gather information on warrant and charge information, and the need for making this information available to persons in an accessible, flexible format. Persons who suspect they have a warrant could check the system to confirm their status, which also might provide them the impetus to surrender to authorities before their cases are embedded in the legal system.

Persons with open warrants reported a major reason they did not resolve their case was the cost of obtaining a hearing. If we make the ability to post bond or pay a fine a prerequisite to have one's open warrant status resolved, then many persons will remain fugitives simply because of the economic cost of surrendering. Persons with open warrants already report high rates of unemployment and low rates of legitimate employment. Many persons appeared in large urban cities in part because there was no requirement to pay to receive a hearing of one's case. If the purpose of programs like FSS is to reintegrate persons as productive members of their community and provide them opportunities for legitimate employment, education, and the chance to get their driver's license back, then we need to examine the role of fiscal burden in the way our criminal justice system processes persons with outstanding warrants; in particular, those with traffic warrants, bench warrants for failure to appear, and child support warrants.

On average, persons had open warrants that were more than 2 years old. Therefore, persons with warrants are either very good at evading capture if they want to, or our law enforcement systems are overwhelmed with the number of outstanding warrants and cannot possibly find, process, prosecute, and incarcerate the number of persons with open warrants for their arrest. FSS showed that it is not necessary to arrest and incarcerate everybody with an open warrant to resolve their case and reengage them in the justice system. Only 2.2% of persons with warrants were arrested, and for all those who received a new court date, often months later, more than 9 of 10 seemed to continue with the resolution of their case.

At the core of the FSS program was the role of faith-based organizations and the importance of the church as the place where persons could surrender. This approach is different than the typically adversarial role of law enforcement interactions with

citizens as they search actively for persons with open warrants, particularly those with felony or violent offense histories. In addition, FSS is contrary to the strategy of using deception to lure felony offenders to events so that they can be taken into custody. The role of police legitimacy and community trust of law enforcement and the role of the church in providing a setting for safe surrender deserves further exploration.

This descriptive study does not provide specific information about the motivation of persons who surrender at a church because they believe they have an outstanding warrant for their arrest, nor does it specifically assess particular questions about why a person would choose to surrender versus continue to evade capture. These theoretical questions require additional investigation, particularly if we will learn more about the process individuals go through in making the choice to turn themselves in voluntarily or the perceptions about the role of the church in their decision to surrender voluntarily.

Last, a major policy question is whether a program like FSS should be offered on a regular basis. Aside from cost and safety benefits to the justice system, what would keep individuals with open warrants from waiting for the next FSS program to resolve their cases? Providing a program like FSS too frequently may be counterproductive by inadvertently encouraging persons to evade capture until the next program comes along offering them favorable consideration, the chance to resolve their case without paying a fine or bond, and the chance to start again with a clean slate. It remains an open question whether this strategy is truly a chance to start over and "get their lives back together" or a chance to take advantage of the system and reoffend.

Keywords

fugitives, *surrender*, *faith-based*, *warrants*, *law enforcement*

Fugitive Safe Surrender

Program Description, Initial Findings, and Policy Implications

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By some estimates, more than 1 million active felony warrants exist in the United States, with each warrant increasing the potential for a dangerous confrontation between law enforcement and individuals in the community (Helland and Tabarrok, 2004). Even more misdemeanor warrants are outstanding. The exact number of outstanding felony and misdemeanor warrants in local jurisdictions is unknown; however, estimates suggest that in most states, the number of unserved warrants reaches into the

Disclaimer: The information and views expressed here reflect those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice or the U.S. Marshals Service (USMS). The FSS program has been supported by a variety of funding sources, including the U.S. Department of Justice (via the USMS and the Bureau of Justice Assistance). Local municipalities have also provided support for specific FSS programs via such funding mechanisms as the Project Safe Neighborhoods (PSN) Initiative, Byrne Memorial Law Enforcement funds, and the Weed and Seed program. In some locations, state attorneys general have provided support. In every FSS city, some in-kind support was provided for program implementation via local law enforcement agencies, justice systems, community-based agencies, media partners, and members of the faith-based community. The authors would like to recognize the countless volunteers who contributed to the implementation and success of the program. The support and participation of all formal and informal partners is also acknowledged and greatly appreciated. Local programs could not have been implemented without significant support from judges, local law enforcement, community, and faith-based partners. We acknowledge the U.S. Marshal for the Northern District of Ohio, Peter Elliott, as the originator of the FSS initiative. Douglas Weiner and the Reverend C. J. Mathews were essential partners in the development of the initiative. Staff from the U.S. Marshals Service have assisted in coordinating the program since 2005, and in particular, we would like to acknowledge the support and participation of Thomas Mertz, Karen Hughes, and SharonBeth Kristal. We would also like to thank Megan Seaman, Marie-Jose Tayah, Jeffrey Oleksiak, Eric Jefferis, Mark Fleisher, Fred Butcher, and Thomas Brewer for their assistance with data collection and analysis and program development over the course of the initiative. Direct correspondence to Daniel J. Flannery, Mandel School of Applied Social Sciences, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44103-7164 (e-mail: daniel.flannery@case.edu).

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hundreds of thousands (Hager, Daniel, Graycarek, and Knowles, 2005). The Fugitive Safe Surrender (FSS) program was established in 2005 by the U.S. Marshals Service (USMS) to provide a neutral place for fugitives with outstanding nonviolent felony or misdemeanor warrants to surrender in a nonconfrontational, safe setting.[1,2]

Historically, serving warrants has resulted in a substantial number of officer fatalities.[3] The National Law Enforcement Officers Memorial Fund (NLEOMF) maintains a comprehensive database of officers killed feloniously or accidentally in the United States. During the 10-year period 1998 to 2007, 53 police officers were killed while serving warrants (NLEOMF, 2009). The felonious killing of officers serving warrants accounted for 7% of the 738 total officers killed during the same period. In all, the NLEOMF has records of 459 officers killed while serving warrants since 1792. A significant number of violent conflicts, assaults, and deaths result from officers serving warrants on individuals who attempt to flee or on those who have a significant mental health problem that may impair their judgment, or serving individuals who will take whatever action necessary to avoid returning to prison.

In 2003, Cleveland police officer Wayne Leon was shot and killed during a traffic stop by a person who had an open warrant for his arrest. This event prompted the local U.S. Marshal to seek out collaborators to develop a program to provide a way for fugitives to surrender to law enforcement peacefully and voluntarily. As it was conceived initially, the goal of the FSS program was to reduce the risk of dangerous arrest situations, make neighborhoods safer, and build trust between law enforcement officers and the community (Flannery, Jefferis, Kretschmar, Mertz, and Elliott, 2008).

The primary collaborator for implementing FSS was the church, which historically is a place where individuals seek out sanctuary and refuge. People are more likely to trust that when they show up at their church, they will be cared for and treated with respect; it is a place where they can go to receive counsel and guidance without being judged (Stone, Cross, Purvis, and Young, 2003). As it was conceived, trust was at the core of the FSS program's potential success, particularly the trust that community members have in their minister, clergy, or religious leader. Many people grow up with clergy being present at their most important life events—births, baptisms, marriage, and funerals. Historically, clergy are invested in making a difference and in being part of the solution to address crime in

1. The USMS is the primary agency designated by the U.S. Department of Justice (DOJ) to apprehend fugitives. The USMS arrests thousands annually, and captures more than all other federal agencies combined. In FY 2010, the USMS arrested more than 118,000 felony fugitives, including 81,900 state and local fugitives with felony warrants, clearing more than 147,000 felony warrants (USMS, 2011). Most individuals arrested averaged more than four prior arrests (*Exploring Federal Solutions*, 2010).

2. FSS was authorized formally by Congress via the Adam Walsh Child Protection and Safety Act (2006).

3. In fact, the first recorded law enforcement officer to be killed in the line of duty was New York City Deputy Sheriff Isaac Smith, who was killed on May 17, 1792, while attempting to serve a warrant on a suspect wanted for disturbing the peace (NLEOMF, 2009).

their communities (McGarrell, Brinker, and Etindi, 1999; Mears, Roman, Wolff, and Buck, 2006).

Although there have long been disagreements about the role of government with faith-based organizations (FBOs; see Dionne and Chen, 2001), during the past two decades, the role of FBOs in law enforcement and crime reduction initiatives has increased. The importance of law enforcement and clergy partnerships has been recognized formally in recent years with the formation of The President's White House Office of Faith-Based and Neighborhood Partnerships (2008) and with federal support for several collaborative efforts that seek to reduce crime or facilitate offender reentry in the community.[4] Examples include Boston's Ten Point Coalition and Ministers Against Crime, two of several programs that were included in the Department of Justice's Community-Oriented Policing Services Value-Based Initiative (Winship, 1999), the Cops and Clergy Network, and Faith Leaders Ministerial Academies that provide police-sponsored trainings for clergy and other FBO leaders (Gordon, 2003). More recently, the Project Safe Neighborhoods Initiative of the DOJ has funded many collaborative law enforcement and FBO projects including the FSS program (McGarrell et al., 2009; Tita, Riley, Ridgeway, and Greenwood, 2005). The massive burden of unserved arrest warrants has led many communities to offer various programs like amnesty periods or hotlines so fugitives can schedule their own arrests (see Helland and Tabarrok, 2004).

Individuals are fugitives for a variety of reasons, including, for example, whether they violated conditions of a sentence, probation, and/or parole; did not appear at an assigned court date; jumped bail; or failed to pay a fine. Whatever the circumstances that led to issuing a warrant for arrest, fugitives have decided to avoid capture and responsibility. Commonly, they report being afraid of law enforcement and of what might happen to them if they are arrested and have to go to jail. The threat of going to jail can affect their close relationships and weaken already tenuous attachments to family, work, and community (Goffman, 2009). At the very least, individuals with active warrants have difficulty obtaining a driver's license, cannot legally obtain public benefits, and have trouble gaining legitimate employment. Offering any kind of program where a person could surrender voluntarily and be treated fairly and with respect comes with a significant amount of uncertainty. Law enforcement personnel are often skeptical about whether a person with an open warrant, sometimes for many years, would actually show up to have their case processed. Doubt exists on the part of law enforcement about being taken advantage of by setting up a program that lets offenders off the hook too easily. The justice system is skeptical about whether individuals will take their second chance seriously or whether they will use their newfound circumstance as an opportunity to reoffend. Some are concerned that a program such as FSS could result in

4. Executive Order 13279: Equal Protection of the Laws for Faith Based and Community Organizations, signed February 5, 2009; also see fbci.gov.

increased arrests of persons who appear, worsening conditions in already overcrowded jails (Goldkamp and Vilcica, 2008).

The purpose of this descriptive study was to gather information on a convenience sample of fugitives who surrendered at a church voluntarily because they believed they had an open misdemeanor or felony warrant for their arrest. We were not attempting to replicate specifically a rigorous program model across cities or to conduct theory testing research. Rather, we were interested in finding out from this difficult-to-reach population who they were, how they had heard about the program, why they were surrendering, and what they thought might happen to them. We were particularly interested in asking participants about the importance of the program being held at a church, given that individuals with active warrants rarely surrender voluntarily to authorities.

Because not all cases could be resolved to completion at the church, at most sites, certain people were given new court dates for further disposition of their case (this also occurred at times because of high volume). So when we could, we tracked the appearance rate for individuals who received a new court date. Persons who do not show up for a scheduled court date are usually issued bench warrants for failure to appear (FTA), which are a tremendous financial and social burden to the justice system (American Legislative Exchange Council, 1997; Helland and Tabarrok, 2004). Finally, we were interested in whether individuals who took advantage of the FSS program would appear at the church only on that day or also would follow through with their commitments to appear at court at a later date.

Program Description

Planning

Implementing the FSS program requires collaboration among federal and local law enforcement, the local faith-based community, media and community partners, volunteers, and all facets and principals of the local justice system. This process takes months of planning and coordination. The program essentially sets up a fully functioning justice system in a church, complete with pretrial services, warrant checks, fingerprinting, probation/parole, courtrooms, prosecutors, judges, and public defenders. Every city that formally implemented the program as described in this article was provided technical assistance and support via the USMS, which developed a manual for training and implementation based on experiences gleaned over the course of the first 10 to 12 cities. Although the specifics of program implementation varied by site, following such a manual helped ensure communities followed the core principles and elements necessary for implementing FSS (Flannery et al., 2008).

The local community was charged with selecting the participating faith-based venue based on location, size, pragmatic issues such as parking, and the reputation of the minister or church in the community. For the sites described in this article, in every city but one, the community decided to hold the FSS program in a Baptist church (Las Cruces, NM,

chose to hold the program in a Catholic church). In New Jersey, given local concerns about the separation of church and state (see Gruen, 2008), cities generally decided to locate courtrooms in community centers or buildings contiguous to the church.

Judges from the participating community had to agree to set up their courtrooms at a church location for several days and to abide by the spirit of the program by offering "favorable consideration" to individuals who surrendered voluntarily. All media materials disseminated prior to the program's start made clear that FSS did not offer amnesty and was targeted toward nonviolent offenders. Every community also established its own criteria for mandatory arrest. If a person attempting to surrender was wanted for a violent felony, a high-level drug crime, or for certain other offenses determined by that community (e.g., domestic violence and sexual offenses), then that person would be taken into custody. However, the goal of the program was not to arrest but to help fugitives with warrants take care of their responsibility to the legal system and to the community.

In most FSS cities, hundreds of volunteers were recruited to provide support to the program, and many of them were recruited through their churches. These volunteer activities could include greeting individuals seeking to surrender in the parking lot, helping people complete paperwork, ushering persons through various stages of the criminal justice system process at the church, and providing childcare and meals to participants and staff. As one of the first persons with whom a fugitive comes into contact at the FSS site, the community volunteers could answer questions and offer reassurance that a person would be treated fairly. Volunteers also were on hand to help fugitives sign up for additional support and services, such as help with getting a driver's license restored, assistance with job training, or treatment services for a substance abuse problem. Often, these services and agencies were present at the church location to provide needed assistance.

Procedures

As the technological capacity and function of the program and number of partners grew, the actual process of having individuals enter the church and participate in the program also changed. Site-specific differences occurred as a result of physical space, security concerns, and how cases were processed, but the components described in this article capture the typical procedures employed by an FSS program (Flannery et al., 2008). All cities that have conducted FSS to date have implemented the program over a 4-day period, from Wednesday through Saturday (with the exception of Washington, DC, which held the program over 3 days).

After arriving at the facility, individuals who chose to surrender voluntarily first passed through a metal detector. After showing identification, they were assigned a unique FSS ID number, which was used to track the individual and their file through the process at the church that day, and provided confidentiality so persons could be called by number rather than by name.

Participants first completed a Warrant Information Sheet (WIS) used to check their warrant status. While waiting for their status to be confirmed, they completed a consent form and a self-report survey. Participant names did not appear on the survey, and signed consent forms were separated from the surveys. Completing surveys was always voluntary and anonymous, and choosing not to complete the survey had no bearing on the further processing of their case. If they needed assistance, then interpreters or volunteers were available to read the items to them as they completed the survey. The consent and survey procedures used to gather information about the FSS program were reviewed and approved by a university Institutional Review Board for Research with Human Subjects.

Usually, persons were permitted to wait with whomever they came or to talk with others who were waiting with them. Once the warrant check was completed, (a) typically the participant was free to go because no warrant was identified, (b) a judge and courtroom was assigned for a hearing of their case (usually all felony and major misdemeanor cases), (c) the participant was remanded into custody because he or she met the criteria for arrest, or (d) the participant was "vouchered" to appear in court at a later date. Usually, a person received a voucher for later processing for two main reasons: (a) He or she had a warrant in another jurisdiction and the case could not be handled by on-site judges or (b) a large volume required that individuals who could not be processed at the church (i.e., most typically on Saturdays) were scheduled to appear at a later, prearranged court date. In most cities, if an individual appeared at the church before the end of the day, they were processed through the system that day, even if processing lasted late into the evening. Typically, a local staff person facilitated data collection by creating a spreadsheet of data elements for every individual who surrendered except final disposition. This procedure and staffing plan allowed for an accurate and timely count each day of individuals and by felony or misdemeanor charges.

Challenges to Implementation and Evaluation

Significant challenges were met in implementing and evaluating the effectiveness of a large collaborative effort such as FSS. A pragmatic limitation was the availability of accurate and reliable data on warrant status and criminal history. Most cities only could provide rough estimates of the number of outstanding warrants or the number of persons with warrants in their community, which was often attributed to a lack of resources necessary to track warrants in the system or to technology or policy limitations in sharing this information across law enforcement jurisdictions. Accurate counts were difficult also because many individuals had more than one type of open warrant across multiple municipalities, and jurisdictions varied in how they tracked warrant and charge information.

At times, our capacity to gather survey data from every participant was limited by volume. In some cities, several thousand persons appeared to surrender on Saturdays, which exceeded the system's capacity to process cases at the church. In most of those instances, the site decision was only to gather warrant information and to suspend survey data collection. Therefore, large numbers of persons could be handled efficiently in a small physical area

rather than because of any intent to exclude individuals from the opportunity to respond to the survey. Volume dictated that our available convenience sample of survey participants was significantly lower than the total number of persons who appeared to surrender across all FSS cities.

While the core components and principles of the program were maintained, FSS was implemented differently across cities depending on the maturation of the model, the size of the city, the physical facility, site-specific decisions to modify specific survey items, or decisions by the judiciary about how to handle specific types of cases (e.g., domestic violence and child support). This mediated our ability to evaluate a standardized model of the intervention across all 20 cities.

Several program factors were beyond our control in each site. For example, the existing technology dictated the ease and efficiency of information gathering. The few sites that had linked regional law enforcement–justice data systems were more efficient and reliable with respect to warrant status, charge, and criminal history compared with the majority that depended on paper and manual processing of forms and cases. Sites varied also on their local codes for what offenses constituted misdemeanors or felonies. These factors limited our ability to make specific comparisons of cases, costs, and outcomes across different FSS sites.

In addition to program factors, several community factors that were beyond our control influenced implementation. For example, cities varied in the amount of media coverage provided for FSS (paid or donated, prior to the event or during the event) that, according to our survey responses, affected whether and how a person heard about the program and whether a person decided to surrender. Sometimes local events were reported to affect (a) possible participation including whether a homicide occurred that week in the community or (b) recent events between law enforcement and community members that affected trust or reputation. In some cities, political differences between participating agencies and systems affected decisions about implementation or processing of cases. On some days, it was the weather (heavy rain or cold) that limited the number of persons who may have appeared to surrender.

Method

Sample

From 2005 through 2010, the FSS program was formally implemented 22 times in 20 ethnically and geographically diverse communities from across the United States. Cleveland and Akron, OH, conducted the program twice. Survey and warrant/charge information was not gathered in the original Cleveland implementation site in 2005 but was gathered in every subsequent city. In the 22 sites, a total of 35,103 individuals who believed they had a warrant for their arrest surrendered to authorities voluntarily at a local church. Warrant, charge, and arrest data are provided for the entire sample. Demographic information is presented for the group of individuals who completed the anonymous survey as they entered the church.

TABLE 1

Demographic Characteristics of Individuals Who Surrendered during FSS

Demographic Variable	Frequency
Gender	62.8% male
Age	Average age = 35.39 years (SD = 11.50)
	Range from 15 to 87
Ethnicity	74.9% African American
	12.8% Caucasian
	7.9% Hispanic
	2.5% Multiracial
	0.9% Native American
	0.9% Other
Highest level of education achieved	51.7% High school
	15.5% College
	14.2% GED
	8.7% Vocational/technical school
	8.6% Less than high school
	1.3% Post college
Do you work at a job where you get a paycheck?	36.2% Yes
If you do not work at a job where you get a paycheck, where do you get your money (can select more than one response)?	22.2% Other family members
	20.6% Public assistance
	14.8% Work under the table
	14.3% Boyfriend/girlfriend
	14.1% Social Security
	5.8% Spouse
	22.0% Other
Are you legally married?	19.4% Yes
Do you have any children?	77.8% Yes

Notes. Percentages are based on the number of persons who responded to the individual item. SD, standard deviation.

The self-report survey was gathered from a convenience sample of those who decided to surrender at a church as part of FSS. On many high-volume Saturdays, survey completion was discontinued, so only a subsample of total persons was offered the chance to complete a survey. Across all FSS sites, 21,534 persons in total were offered a chance to complete the survey voluntarily, and 20,112 persons did so, representing an effective response rate of 93.4% of all eligible individuals. Data were included if the individual completed any of the items on the survey and discarded if responses were not legible, so the sample sizes for individual item responses varied. Data were scanned using Teleform software (Cardiff, Vista, CA) and entered into an SPSS database for analysis (SPSS Corporation, Chicago, IL).

Demographics

Individuals who surrendered voluntarily at an FSS program were diverse (Table 1). More males than females surrendered (62.8% vs. 37.2%), and participants self-reported ethnicity

as predominantly African American (74.9%), Caucasian (12.8%), and Hispanic (7.9%). The average age of participants was slightly more than 35 years old and ranged from 15 to 87 years (the few juveniles who appeared were referred to the juvenile court system and were not processed via FSS). Although only one in five said they were legally married, more than 75% indicated they had children. Nearly two thirds of FSS participants said they had completed high school or obtained a GED (65.9%). Slightly more than one third of survey respondents said they worked at a job where they received a paycheck (36.2%), and of those who did not, approximately one in five said they received public assistance, received money from other family members, or reported "other" sources of income.

Measures

Warrant information sheet. Most FSS cities used a version of a warrant information check sheet provided by the FSS team. The WIS contained identifying and demographic information about the person surrendering, as well as space for law enforcement to record the nature and type of warrants and charges found in record checks typically done in three places: (a) for the local municipality that captured most misdemeanor, summary, and traffic offenses; (b) for the local common pleas or criminal court that captured any felony warrants; and (c) in the federal system that captured federal warrants as well as any out-of-state felony warrants.

In some cities, only the main type of warrant was recorded (felony or misdemeanor) with related multiple charges, whereas in other jurisdictions, separate charges were recorded as separate warrants. In one state, summary warrants were separate from felony or misdemeanor charges. Yet another state recorded the most recent charge as the warrant status, so if the original charge were a felony but the person failed to appear for a court date, the bench warrant was the warrant recorded on surrender not the original criminal charge. The information captured, recorded, and presented in this article was based on the criteria and availability of data provided by the local jurisdiction/law enforcement system.

Participant survey. The self-report survey (which typically ranged from 17 to 22 items) was modified over time and included demographic information as well as items that asked participants how they heard about the program, why they chose to surrender, what other services they needed help with, and their previous experiences related to being arrested and time spent in prison or jail. In every city, local jurisdictions were offered the chance to add or delete specific items based on local interest or restrictions. The survey was developed initially via a process of input from law enforcement, prosecutors, defense attorneys, and community partners. As we gathered information from initial cities about how individuals heard about the program (which was used to inform media and communication strategies),

the survey was modified in later cities to ask more about criminal histories and less about program-specific process issues.

The paper-and-pencil survey was a mixture of fixed-choice items and text boxes where individuals could write in responses or comments. On some items, respondents were asked to select only one option, whereas other items allowed for individuals to select more than one choice. Table 2 contains examples of the core survey questions that were gathered across most cities.

Results

Warrant, Charge, and Arrest Information

The number of persons who surrendered in each city varied widely, ranging from lows of 163 over 4 days in Tallahassee, FL, and 209 in Rochester, NY, to highs of 6,578 in Detroit, MI, and 7,431 in Cleveland, OH, in 2010 (see Table 3). Of those persons who surrendered, an average of 18% of all individuals had no warrant located, which was determined after local, state, and federal systems were checked (4,790 of 26,691 persons with known warrant status). A total of 3,501 persons with felonies had at least 4,238 felony warrants (a ratio of 1.21 warrants per person), whereas 18,400 misdemeanants accounted for 44,971 misdemeanor warrants (a ratio of 2.44 warrants per person).[5] When examining the number of persons with warrants relative to the number of persons with known warrant status, 16% of individuals had felony warrants and 84% were misdemeanants. Across all FSS cites and over 35,000 participants, 488 individuals were arrested and taken into custody, less than 2% of all persons who participated in FSS, and 2.2% of those with an active warrant.

How Did You Hear about FSS?

In the first ten cities, we asked participants how they heard about the program, as media and community outreach were important components of the program's implementation. Most participants heard about the program via local media, primarily television (45%, including public service announcements) and radio (15.8%). A few early cities used billboards effectively in targeted neighborhoods or letters sent directly to individuals with active warrants, but overall, these methods of advertising the program were less effective. More heard about the program via a flyer or poster (7.2%, often posted in markets, bars, and gas stations) or read about it in the newspaper (14.5%) than heard about it on the Internet (1.1%). Often, news stories were written to announce the program in the days leading up to implementation or to convey stories about participants while FSS was taking place (see Flannery, in press).

Another important vehicle for informing individuals about FSS was by word of mouth (18.4%) or by family or friends (33%). Across all sites, 40% of participants responded

5. Any persons with both felony and misdemeanor warrants were counted as felony persons, and their misdemeanor warrants were counted in the warrant total only.

TABLE 2

Sample FSS Self-Report Survey Items

Sample Survey Item	Response Options
How did you hear about the program (select all that apply)?	TV Radio Family/friend Billboard Word of mouth Internet Newspaper Flyer or poster In church/mosque or other place of worship Other (with text box for additional answers)
Why did you decide to surrender today (select all that apply)?	Tired of running Fear of arrest Want to get a job Religious reasons For my kids Pressure from loved ones Need alcohol/drug treatment Want to start over Needed to get my driver's license Other (with text box for additional answers)
Why have you not surrendered before today? (select all that apply)	There was no program around to help me I was afraid of what would happen to me I didn't want to go directly to the police I didn't have money to pay fines/bail/bonds I don't want to get arrested I didn't want to go to jail I had no reason to surrender
In making your decision to surrender today, how important was it to you that you surrendered at a church? (select only one)	Very important, I would only have surrendered in a church Important, I strongly preferred to surrender in a church Not important, I'd have surrendered anywhere I did not like surrendering in a church

on the survey that they knew others who would surrender at FSS that week. All of these suggest a strong social network effect, which can be illustrated by the steady rise in the percentage of individuals who heard about the program via word of mouth that increased from Wednesday (16.7%) through Saturday (20.6%). A similar pattern occurred for hearing

TABLE 3

Warrant and Arrest Information for Known FSS Participants

City	*N*	Person with Warrants	Persons without Warrants	Vouchered for Later Processing	Felony Persons[a]	Felony Warrants	Misdemeanor Persons	Misdemeanor Warrants	Arrested (% of Those with Warrants)
Cleveland, OH (2005)	838	266	—	572	266	266	—	—	6
Phoenix, AZ	1,320	767 (58.1%)	553 (41.9%)	0	311 (40.5%)	401	456 (59.5%)	578	45 (5.9%)
Indianapolis, IN[b]	531	412 (78.3%)	114 (21.7%)	5	165 (40.0%)	209	247 (60.0%)	370	42 (10.2%)
Akron, OH (2007)	1,125	912 (81.1%)	213 (18.9%)	0	96 (10.5%)	107	816 (89.5%)	2,069	5 (0.5%)
Nashville, TN	561	366 (65.2%)	195 (34.8%)	0	116 (31.7%)	160	250 (68.3%)	378	38 (10.4%)
Memphis, TN[c]	1,570	1,224 (87.4%)	177 (12.6%)	169	183 (15.0%)	211	1,041 (85.0%)	1,506	45 (3.7%)
Washington, DC	530	466 (87.9%)	64 (12.1%)	0	50 (10.7%)	53	416 (89.3%)	487	15(3.2%)
Rochester, NY	209	170 (81.3%)	39 (18.7%)	0	13 (7.6%)	13	157 (92.4%)	190	4 (2.4%)
Detroit, MI[c]	6,578	5,009 (86.9%)	752 (13.1%)	817	663 (13.2%)	663	4,346 (86.8%)	12,834	3 (0.1%)
Columbia, SC[b]	382	282 (74.2%)	98 (25.8%)	2	30 (10.6%)	38	252 (89.4%)	686	15 (5.3%)
Philadelphia, PA[bc]	1,248	1,040 (84.3%)	194 (15.7%)	14	424 (40.8%)	541	616 (59.2%)	970	35 (3.4%)
Camden, NJ[c]	2,245	793 (80.5%)	192 (19.5%)	1,260	164 (20.7%)	164	629 (79.3%)	629	9 (1.1%)
Wilmington, DE[c]	1,073	869 (90.1%)	96 (9.9%)	108	91 (10.5%)	217	778 (89.5%)	1,096	6 (0.7%)
Harrisburg, PA[c]	1,282	850 (91.9%)	75 (8.1%)	357	33 (3.9%)	52	817 (96.1%)	4,181	2 (0.2%)
Akron, OH (2009)[c]	1,321	1,056 (80.8%)	251 (19.2%)	14	69 (6.5%)	108	987 (93.5%)	2,749	20 (1.9%)
Chester, PA[c]	447	342 (87.0%)	51 (13.0%)	54	13 (3.8%)	15	329 (96.2%)	1,296	14 (4.1%)
Newark, NJ[c]	3,956	1,459 (79.8%)	369 (20.2%)	2,128	276 (18.9%)	365	1,183 (81.1%)	4,028	9 (0.6%)
Baltimore, MD	986	827 (83.9%)	159 (16.1%)	0	46 (5.6%)	50	781 (94.4%)	320	129 (15.6%)
Las Cruces, MN	1,071	786 (73.4%)	285 (26.6%)	0	18 (2.3%)	28	768 (97.7%)	1,279	7 (0.8%)
Cleveland, OH (2010)[c]	7,431	3,683 (81.5%)	836 (18.5%)	2,912	409 (11.1%)	482	3274 (88.9%)	8,802	24 (0.6%)
Boston, MA	236	199 (84.3%)	37 (15.7%)	0	48 (24.1%)	70	151 (75.9%)	307	0
Tallahassee, FL	163	123 (75.5%)	40 (24.5%)	0	17 (13.8%)	25	106 (86.2%)	216	15 (12.2%)
Total	35,103	21,901 (82.1%)	4,790 (17.9%)	8,412	3501 (16.0%)	4,238	18,400 (84.0%)	44,971	488 (2.2%)

Notes. *N* = number of persons who voluntarily appeared at the church to surrender. [a]Percentage of felonies and misdemeanors is calculated with the denominator as the total number of persons with warrants. [b]Juveniles were removed from analyses. The few juveniles who appeared are included in the *N* reported, but no charge information for these juveniles was included in the table. [c]Because of volume, vouchers were given to some individuals who surrendered. These individuals are included in the total number of surrenderees, but no charge information for these individuals was included in the table.

about the program via the newspaper, reported by 11.5% of participants on Wednesdays, increasing to 19.4% of respondents on Saturdays.

Why Are You Here and What Will Happen to You?

The most common reason cited for why individuals surrendered voluntarily was because they "want to get their driver's license," as noted by nearly half of all respondents (47.1%), followed by "want to start over" (41.8%) and "fear of arrest" (39.4%). The next most common reasons for surrendering were "for my kids" (33.6%), "want to get a job" (33%), and "tired of running" (29.1%). Asked why they had not surrendered before today, nearly 60% said they did not have money to pay bail or fines, but others noted being afraid: "I was afraid of what would happen to me" (36.5%) and "I didn't want to go to jail" (37.2%) or "I didn't want to get arrested" (28%). About one in four individuals noted that, "There was no program around to help me." Six percent said they had no reason to surrender.

In every site, most participants came to the church with a family member or friend (59%), but only 14% said they surrendered because of pressure from loved ones and even fewer said they surrendered for "religious reasons" (8.7%). When asked on entering the church, "What do you think will happen to you today?" most individuals responded they did not know, but 16% said they hoped for amnesty, 14% said they hoped to get a new court date, and slightly more than 7% said they hoped to plead guilty and go home. About one of every eight participants reported they believed they would be arrested and go to jail (12%).

Getting Help

Across FSS sites, survey respondents reported a strong desire to receive help mostly with job training (40.7%) and housing (29.5%), followed by education services (21.9%). Whereas approximately one in five reported they had previously received counseling or medication for mental health problems and 13% admitted they had used an illegal substance in the last 30 days, less than one in ten indicated they wanted additional help for mental health problems (6.2%) or help with substance use treatment (5.5%). In the first 11 cities, we asked participants also whether they were interested in talking to a minister or counselor at FSS, and 30% reported they were interested in doing so.

Criminal History

Through the first 11 cities, we asked participants to tell us what kind of warrant they were wanted on (they could select more than one type). Approximately one in three said they were not sure what type of warrant(s) they had, nearly two thirds reported they were wanted on a misdemeanor, and the remainder (8.7%) reported they were wanted on a felony charge. Asked why they thought there was a warrant out on them, slightly more than half of the respondents identified "couldn't pay a fine" (50.9%), followed closely by "didn't show up in court" (47%). No other response was selected by more than 10% of respondents.

In the last eight FSS cities, we asked participants directly about their own criminal history. Eight of ten persons admitted they had been arrested previously, for the first time on average at 21.79 years of age (standard deviation [SD] = 7.66) but ranging from 7 to 72 years of age. More than 60% of respondents admitted they had been in jail or prison an average of nearly four times (3.59, SD = 4.86), with their first time in prison at an average age of slightly younger than 23 years (22.75, SD = 7.90). Nearly 15% of persons who had been in jail or prison reported they had joined a religious group while locked up. Two percent of respondents said they had previously been in a gang.

Time Since Warrant Information

For eight cities, we gathered information on the issue date of the open warrant and calculated the time from the open warrant to the date where a person surrendered at FSS. On average, persons who appeared at FSS had an open warrant for 734.19 days, or slightly more than 2 years. Based on 10,136 warrants, the number of days for an open warrant ranged from 0 (the warrant was issued that day) to 10,418 days (28.54 years).

Return to Court Appearance Rates

One outcome for the FSS program was to assess whether individuals who surrendered on site and who were scheduled for a subsequent court date (mostly felonies and probationers as a result of substantive issues, but also those with misdemeanors based on volume) actually appeared on their return-to-court date. When FSS was implemented initially in Cleveland, OH, approximately 88% of individuals who received a follow-up court date (all felony offenders) appeared as scheduled. In subsequent cities (data available on seven cities), the appearance rate in court for FSS participants ranged from 82% (Phoenix, AZ) to 99% (Baltimore, MD), with an overall average appearance rate of slightly less than 94%.

The Importance of the Church

A central tenet of the FSS program was the importance of holding the event at a church and that it would not be as successful if persons were asked to surrender voluntarily at the local jail or in a community center. Across all FSS sites, of all those who surrendered voluntarily and responded to a survey, 43% said they would have only surrendered at a church, and 30.5% preferred strongly to surrender at a church, so overall 73.5% indicated that it was either important or very important that the location was a church. Only one in four said that it was not important, that "I would have surrendered anywhere." Less than 1% of individuals indicated that they did not like surrendering at a church (149 of 20,112 respondents). At each of the FSS sites, an alternative secular location was set up to accommodate persons who did not want to participate in the program by surrendering at the designated church. No persons were reported to have used the secular site to surrender during the days the FSS program was being implemented.

Discussion

The Fugitive Safe Surrender program is a collaborative effort among federal and local law enforcement, the justice system, the faith-based community, local service providers, and volunteers. FSS is a way to get open warrants cleared and for fugitives to receive favorable consideration (not amnesty) for taking responsibility and voluntarily surrendering to law enforcement in a safe, nonconfrontational way. Fewer than 2% of individuals were taken into custody, which is far fewer than if they were stopped on the street for a traffic violation. At most FSS sites, multiple community agencies were present to provide assistance with employment, job training, mental health treatment, substance abuse services, and education.

FSS is a nonconfrontational way to facilitate the reentry of fugitives into mainstream society. Individuals who have an active warrant experience significant trouble securing legitimate employment and are constantly "on the run," always looking over their shoulder and afraid of what will happen to them if they get caught and go to jail. These themes are consistent with Goffman's (2009) ethnographic study of the daily life of young Black men wanted on warrants in Philadelphia. In pragmatic terms, a significant number of persons voluntarily surrender because they want to get their driver's license back, they want to get a job, or they want to go back to school. These things may help them become contributing, productive members of their community, which is difficult to do with an open warrant.

Our initial descriptive findings of FSS show that people with open warrants may surrender voluntarily when given the chance, especially if they trust the place and the program, although it is certainly not a given that thousands will take advantage of the opportunity. One main reason that individuals said they showed up at FSS was because the event was held at a church. Three of four persons reported that it was important or very important that the event was held at a church, with most reporting that they would not have surrendered otherwise. The historical sanctity of the church as a place of refuge, where persons in distress can seek comfort and guidance, seems to be an important factor in the success of FSS.

The alternative to asking people why they appeared at FSS was to ask also why fugitives did not surrender previously to authorities if they knew they had an outstanding warrant. The most common reason given for not surrendering to authorities was financial, not having money to pay fines or bail. This reason suggests a strong economic motivation for staying on the run. Most persons who appeared at FSS also cited fear of arrest, fear of what would happen to them if they were caught, and not wanting to go to jail as reasons for not turning themselves in to authorities. It is certainly rare for someone simply to show up at a justice center or police station and report that they were on the run and wanted for a crime. Fugitives rarely surrender voluntarily out of guilt, personal responsibility, or moral integrity, and often, they fail to appear at scheduled court dates. Some evidence suggests that fugitives may just not have the capacity or competence to show up at court hearings at the required

place and time (Goldkamp and White, 2006). These persons are not all naïve victims of the system who received a single misdemeanor ticket for a minor violation and just failed to show up in court one time leading to a bench warrant for their arrest. In fact, more than 80% of persons in this study had been arrested previously, and six of ten had been in jail. On average, persons had multiple warrants, suggesting they were multiple offenders.

Another reason fugitives with open warrants do not surrender voluntarily to authorities is that they do not trust them. Part of the distrust of law enforcement by community members may be generated by sting operations designed to deceive offenders or to trick them into showing up for various reasons like winning a lottery, a new television set, or free tickets to a major sporting event. In most of these operations, when fugitives appear for their prize, they are immediately arrested and taken to jail (Newman, 2007). Allaying the fugitive's fears of arrest and of being tricked are other reasons why holding FSS at a prominent religious location was thought to be a key to the program's success.

Although eight of ten individuals who surrendered had at least one active warrant, on average, almost 20% of individuals who appeared at FSS had no warrant located. Some percentage of these cases may have been warrants lifted or quashed from the system because they were old, were for minor offenses, or were misdemeanor warrants in other jurisdictions; however, most persons believed sincerely (and sometimes adamantly) they had a warrant. For some, all they could tell us was that somebody else told them they were going to "take out a warrant on them," often related to a domestic dispute. For others, they were sure they had a warrant, but one could not be located in the system. Living one's life as if they have a warrant is no different from actually having a warrant. They report the same dilemma of living on the run and in fear, avoiding legitimate enterprises and systems. Wanted individuals view law enforcement and the criminal justice system as a threat to their safety and to their freedom. This view means that they are less likely to go to police if they are victims of crime, and others know this, so they are also at increased risk for victimization. This belief increases the chance that once victimized, they will take matters of justice and revenge into their own hands (Goffman, 2009).

From a law enforcement perspective, FSS is a program that can make potential arrest situations safer, particularly those that involve stopping suspected offenders who have an active warrant. In addition, FSS provides law enforcement and justice systems a venue to process a significant number of individuals with active warrants, many several years old, without encumbering the costs related to incarceration or the significant fiscal and social costs related to failure-to-appear bench warrants (ALEC, 1997). Concerns about jailing a significant number of offenders and contributing cost and burden to an already overcrowded system were not realized, as only 2.2% of individuals who surrendered with warrants were taken into custody. As a matter of routine policing, virtually any individual with an open warrant would be incarcerated if stopped on the street or pulled over for a traffic violation.

In the cities with available data, the appearance rate for offenders at their next scheduled court date averaged 94%. This result represents a dramatic improvement over usual court

practices, where an FTA usually results in the issuance of an additional warrant for arrest and requires significant time and resource commitments from the court system. For example, Siddiqi (1999) reported in a study of New York City judicial processing that bench warrants for FTAs were issued in approximately 30.5% and 33.1% of criminal and Supreme Court cases, respectively. A study by researchers at the Public Policy Center at the University of Nebraska found FTA rates between 25% and 30% nationally, and those rates can be higher depending on jurisdiction, offense type, and offender characteristics (Herian and Bornstein, 2010).

Implications for Policy and Future Research

Regarding policy and practice, FSS raises questions about how our justice system typically seeks out persons with active warrants, how we process cases, and the burdens placed on individuals to resolve a case once they have a charge or warrant. For example, at FSS, fugitives were offered essentially one-stop shopping, where they could potentially resolve their case in 1 day, contrary to the many days and many different places individuals need to go to handle different aspects of their case in the typical way most justice systems do business. Could a variation of this model be adopted in everyday practice? It was common also for prosecutors and defense attorneys to negotiate reduced charges, waive or reduce fees, or reinstate probation to clear an old warrant from the system, and the bias was to set up a new court date rather than to remand into custody. Monetary issues were significant, as many fugitives reported that a major reason they had stayed on the run and had not attempted to resolve their case was their inability to pay a fine or a portion of court costs to obtain a hearing.

In every city, a primary motivation for FSS was to clear outstanding warrants. Is the value of clearing warrants merely one of cost effectiveness and efficiency of law enforcement resources, or are there also benefits to the justice system if this can be done without increasing the jail population significantly? In addition, the community might benefit from clearing warrants especially for individuals who have been living with the knowledge that they have a warrant out for their arrest, as well as for individuals who do not but who believe for some reason that they do.

Fugitive Safe Surrender raises questions also of the utility of law enforcement–faith-based collaborative efforts to address community crime and safety. Should these programs be implemented more frequently in local jurisdictions? If yes, then how often should an FSS program occur? If a program is implemented with too much regularity, will fugitives simply wait until another program occurs where they may catch a major break with their active warrants? Is the cost and effort to coordinate such an event worth it compared with business as usual?

In addition to benefits to the individual who surrenders voluntarily at FSS, there are many secondary benefits to the community that successfully completes a program where fugitives are treated with dignity and respect by law enforcement. FSS sought to increase trust

among law enforcement, the justice system, and the community. This trust is important to the potential success of other collaborative FBO-law enforcement efforts, and it is beneficial to law enforcement when they seek information on the streets as they investigate crime and illegal activity (Goffman, 2009). A person with an open warrant may be far less likely to share information with law enforcement about a crime than a person who has no reason to fear interaction with law enforcement or detection of their identity. FSS is a different atmosphere and setting compared with when a law enforcement officer has to arrest a person in his or her home or on the street and take him or her to jail. Individuals bring their family members (including their children) to a church to surrender and take responsibility for their actions and are offered help by many people. Often, participants took advantage of the presence of social service agencies to obtain information or services related to health care, employment or training opportunities, or treatment options for mental health, drug, and alcohol problems.

Not every community has been quick to embrace the church's role in the FSS program, however, citing a potential conflict between church and state (Gruen, 2008). In New Jersey, authorities initially refused to implement FSS based on concerns over separation of church and state. The legal discussion continues, but to date, New Jersey is the only state that has refused to allow courtrooms to be located in a church. Several cities have since conducted FSS programs by allowing courtrooms to be set up in contiguous buildings such as community centers, and although this location has presented some security and logistical challenges, it has not seemed to affect significantly the number of persons who surrender in New Jersey cities compared with other FSS program cities.

Also yet to be determined is the role of threatened or actual follow-up sweeps conducted in FSS cities. Not every FSS city performed an actual law enforcement sweep or task force operation in the weeks after an FSS program, but most advertised the possibility or probability that a sweep would occur, with law enforcement seeking out fugitives with open warrants. The possibility or certainty of legal sanctions is only one factor that influences deterrence of crime. Alternative sources of conformance affect deterrence also (Meier and Johnson, 1977), so it remains unclear whether compliance with a program like FSS is the result of legal threats or the result of other factors. For example, Grasmick and Bursik (1990) suggested that factors like embarrassment and shame can lead to conformity as well.

With respect to sustainability, it remains to be determined how many communities may adapt the program and implement it on their own, without the benefit of outside resources.[6] To date, only two cities have formally conducted the program twice in the past 5 years, but other communities have implemented variations of the program on their own, without USMS or Justice Department support (e.g., Brooklyn, NY, and Somerset, NJ).

6. In January 2011, the USMS issued a statement that as a result of budget constraints and because the program was not consistent with their core mission, they were discontinuing their fiscal support for the FSS program.

Several cities in New Jersey are planning to implement a variation of the FSS program in the near future, and in Ohio, the program persists with support from private foundations and the state Attorney General's office.

Future Research

This descriptive study of more than 35,000 individuals who surrendered voluntarily at a church, which included responses on surveys from more than 20,000 persons, raises several questions that need to be addressed in future research, some of them pragmatic, some related to theories about why persons surrender, and some relative to the role of faith-based organizations with law enforcement in reducing crime and improving public safety.

Pragmatically, it is important to obtain better estimates of the number of open and active warrants in local and state jurisdictions. Few communities where FSS was held could provide reliable counts on persons with warrants or on the total number of outstanding warrants, which makes estimates of program efficiency and cost difficult to calculate. The benefits of a program like FSS could more easily be quantified as removing a certain number or percentage of open warrants from the system if the number of outstanding warrants or persons with warrants were tracked more reliably. In addition, the costs of implementing the program were difficult to capture in this initial descriptive study, mostly because we did not have the resources to gather this information but also because law enforcement agencies and judicial systems are reluctant to share this information with outside entities, and because every FSS site varied substantially in the amount of services, personnel, and other costs that were paid for with additional dollars versus donated items, food, overtime, volunteer time, donated media, and so on. An assessment of programs like FSS should focus on specific cost–benefit analyses that measure the financial cost of closing out a specific number of open warrants without placing additional persons in jail relative to the typical cost of arresting and processing or searching for fugitives.

A major test of the impact of the FSS program is whether it results in sustainable benefits to offenders and to the local community. In essence, do individuals take advantage of their second chance? Will a community conduct an additional FSS program in the future? Will fugitives reoffend? Tracking the number of individuals who appear for their next scheduled court date is one important indicator of program effectiveness because of the significant system costs associated with individuals who fail to appear for scheduled court hearings (Goldkamp and Vilcica, 2008; Helland and Tabarrok, 2004). In addition to cost, having officers available for hearings where offenders fail to appear removes a significant number of law enforcement personnel from the streets. Tracking participants over time to determine final case disposition would also yield information about compliance with probation/parole and recidivism. Finally, assessing the cost–benefit of the number of warrants served, offender use of services offered, and post–FSS cost to the system to follow-up cases (versus those who achieve final resolution of their case) could provide a valuable economic motivation to the local law enforcement and justice systems and to the community. Although the initial

assessment of the FSS program seems promising, these additional questions are areas of future research that need to be explored to reach a thorough understanding of the FSS program's promise as a collaborative law enforcement and FBO strategy (Gordon, 2003; McGarrell et al., 1999).

The self-report survey employed in this descriptive study focused on demographics of participants, how they heard about the program, self-reported reasons for surrendering or not surrendering, criminal history, and the importance of the church in the process. Future research on this population could focus on more open-ended responses to motivations to surrender and surveys could ask more theory-driven questions about reasons for surrender or reasons for staying on the run. For example, questions could address specifically a person's rationale for surrendering in the context of the costs versus benefits of continuing to live with open warrants versus the possibility of sanction brought on by voluntary surrender. Questions could be directed at whether offenders make specific, rational choices to surrender (Cornish and Clarke, 1987; Goldkamp and Vilcica, 2008; Nagin and Pogarsky, 2001) or whether they even assess the potential benefits of surrender at a church (being treated fairly, getting an outstanding warrant resolved, or receiving favorable consideration in the disposition of a case) compared with the potential costs of deciding to surrender or not (getting arrested and going to jail, staying on the run, being picked up with an active warrant in a sweep or after a traffic violation). At what point do the potential costs of surrendering outweigh the possible benefits of staying on the run? Is the emotional and economic cost of living with an open warrant (or thinking that you have an open warrant) worth the potential long-term consequences? As a matter of procedural justice, questions could be directed also at perceptions of fair process versus fear of being tricked and the process individuals may go through when making a decision to surrender (Lind and Tyler, 1988; Tyler, 1988).

FSS seems also to generate a certain social network effect. Most people who surrender come with family members or friends, and 40% said that they knew others who would surrender also. The percentage of persons who said they heard about the program from others via word of mouth increased each day of the program. At the church, we were often told directly by participants that they had called others they knew in similar circumstances and had told them to surrender, reassuring them that the program was not a trick and that they could have their problems taken care of all in the same day; this benefit was not available in most local justice systems. Sometimes, individuals who left the church after being processed were asked to take fliers into the community or to give them to friends or family members. The potential social network effects of staying on the run versus deciding to surrender deserve further inquiry.

FSS provides individuals with an open warrant a chance to surrender voluntarily at a church and receive favorable consideration in the disposition of their case. Taking responsibility for one's past offending gives people a chance to clear their warrants, reduces the likelihood of going to jail, and avoids a potentially violent altercation with law enforcement. The data show that persons will turn themselves in if given the chance

and in the right setting. Whether FSS continues in some form or other will not change the fact that to date, more than 35,000 individuals in 20 different cities took advantage of the program and many outstanding warrants were cleared from the justice system.

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Fugitives, Outlaws, and the Lessons of Safe Surrender

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For a period of 5 years, the Fugitive Safe Surrender (FSS) program, a project of the U.S. Marshals Service in cooperation with local authorities, arranged for the voluntary surrender of 35,000 individuals who had, or in some cases thought they had, outstanding warrants against them. The program operated 22 times during the 5-year period. The program is notable for using churches or other neutral ground for the surrender and for including on-site courts and other social services to speed the resolution process.

Flannery and Kretschmar (2012, this issue) interviewed 20,000 people who responded to the safe surrender opportunity. The demographic and other information that they collected provides a fascinating and important look at fugitives and some of the factors that encourage fugitives to surrender.

In what follows, I will draw on Flannery and Kretschmar's (2012) study to examine briefly whether the FSS program was successful. The Fugitive Safe Surrender program, however, raises many issues beyond the program itself. Using Flannery and Krestchmar's study and the FSS as a jumping off point, I will discuss how fugitives become outlaws, how people "on the lam" adjust their behavior to avoid capture, and how these adjustments influence crime. Most importantly, I will examine how we can better reintegrate criminals with civil society.

Was the program successful? One initial goal of the FSS was "to reduce the risk of dangerous arrest situations" (Flannery and Kretschmar, 2012). In this goal, the FSS surely failed. The FSS is both too small and too selective to influence dangerous arrest situations. In 2011, the U.S. Marshals Service cleared 152,600 felony warrants, composed of 113,300 state and local felony warrants and 39,400 federal felony warrants (U.S. Marshals Service, 2011). In contrast, the FSS program cleared just 4,328 felony warrants over

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5 years (865 per year).[1] Even if the program were scaled up, the bulk of the warrants cleared by the FSS were not felonies but misdemeanors (44,971 in total from 18,400 misdemeanants with an average of 2.44 misdemeanor warrants each). The FSS program was designed to attract nonviolent offenders so the focus on misdemeanor warrants was to be expected. Nevertheless, the relatively small size of the program and the focus on nonviolent offenders means that we should not expect a significant reduction in dangerous arrests.

What about the goals to "make neighborhoods safer" and to "build trust between law enforcement officers and the community?" Here, putting aside issues of scale, there are more possibilities once we understand how fugitives become outlaws.

Fugitives Are Outlaws

In the English common law, an outlaw was not another name for a criminal but for someone who had been *outlawed*; i.e., put outside the sphere of legal protection.[2] An outlaw could not call on the legal system to protect him, and as far as other people were concerned, an outlaw was like a wolf, an animal that could be killed with impunity.

Outlawing was a harsh penalty, and it was used only as a last resort when a defendant could not be found, brought to court, and tried.[3] Note, however, that a person could be outlawed without having been judged guilty of the original crime. Outlawing faded in England as a legal concept when police forces increased in size and capability and it became less necessary to rely on extralegal punishment. In the United States, outlawing was never used. Today, we recognize *in principle* that no one is "above the law" and also that no one is "outside of the law."[4] Nevertheless, although outlawing has faded as a legal concept, it remains a descriptive reality.

Sociologist Alice Goffman spent 6 years living in a Philadelphia, Pennsylvania, slum compiling an ethnography of wanted men (Goffman, 2009). Although she does not use the term, it is clear that fugitives have also been made into outlaws. Goffman (2009: 347) wrote:

> [S]teering clear of the police means that wanted men tend not to use the ordinary resources of the law to protect themselves from crimes perpetrated against them. This can lead a person to become the target of those who are looking for someone to rob.

1. The U.S. Marshals Service itself clears only a small portion of the millions of outstanding state and federal arrest warrants.
2. The Wikipedia entry "Outlaw" is a useful resource ("Outlaw," n.d.).
3. A person was declared an outlaw only after two to three writs of capias, a writ of exigent, and five proclamations had been issued (see Blackstone et al., 1832, and National Archives, 2004).
4. In recent years, however, the idea of being outside the law is making a comeback with respect to the war on terror.

> . . . Ned and Jean discovered they might be kicked out of their house because they owed property taxes to the city. Jean called Jason, telling him to come to the house because she had some gossip concerning his longtime love interest. According to Jason, when he arrived on the porch steps, Jean's nephew robbed him at gunpoint. That night, Jean acknowledged to me that she would take this money and pay some of their bills owed to the city. Reggie later remarked that Jason should have known not to go to Ned and Jean's house: as the only man on the block with a warrant out for his arrest at the time, he was vulnerable to violence or robbery because he could not call the police.

Goffman also detailed many more prosaic examples in which an outlaw's status results in a kind of targeted victimization, as when a girlfriend, for example, threatens to call the police unless the boyfriend does as instructed.

When outlawing a person, the English courts issued a decree *Caput gerat lupinum* ("Let him bear the wolf's head"). The phrase is apt because an outlaw could be put down like a wolf but was also dangerous like a wolf. Outlawing returns a person to the state of nature, a state of war of all against all where each person can be both victim and victimizer. Goffman (2009: 348) gave an example. Chuck's car has been firebombed because Chuck has not paid a debt. She reported his reasoning and actions:

> "This shit is nutty, man. What the fuck I'm supposed to do, go to the cops? 'Um, excuse me officer, I think boy done blown up my whip [car].' He going to run my name and shit, now he see I got a warrant on me; next thing you know my Black ass locked the fuck up, you feel me? I'm locked up because a nigga firebombed my whip. What the fuck, I'm supposed to let niggas take advantage?"
>
> Chuck and Mike discussed whether it was better for Chuck to take matters into his own hands or to do nothing (referred to as "letting it ride" or "taking an L" [loss]). Doing nothing had the benefit of not placing him in more legal trouble, but as they both noted, "letting it ride" set Chuck up to be taken advantage of by people who understood him to be "sweet." A few days later, Chuck drove over to 8th Street with Mike and Steve, and he shot at the young man whom he believed was responsible for blowing up his car.

In short, without resort to the police and the courts, outlaws take the law into their own hands. Outlaws, even more than (unwanted) criminals, can neither use the law nor find stable work in noncriminal enterprises. As a result, crime becomes a natural source of income. Moreover, the costs of using violence to solve disputes decrease for people who are already outside the law (Miron and Zwiebel, 1995).

Outlaws also become divorced from the ordinary institutions of civil society. Goffman (2009: 351) again gave many trenchant examples:

> Once a man finds that he may be stopped by the police and taken into custody, he discovers that people, places, and relations he formerly relied on, and that are integral to maintaining a respectable identity, get redefined as paths to confinement.
>
> . . . Alex and his girlfriend, Donna, both age 22, drove to the hospital for the birth of their son. I got there a few hours after the baby was born, in time to see two police officers come into the room and arrest Alex. He had violated his parole a few months before by drinking alcohol and had a warrant out for his arrest.
>
> . . . After Alex was arrested, other young men expressed hesitation to go to the hospital when their babies were born.

An outlaw cannot rely on friends or family, any of whom can be potential victimizers or informants. Similarly, routines of time and place such as a job or schooling increase the probability of arrest. Asociality, secrecy, and unpredictability become strategies to maintain liberty. Even when justice is on his side, an outlaw does not call on the police or the courts. As a result, the justice system comes to be understood not as the protector of a sphere of liberty but solely as a producer of confinement. An outlaw does not even call on the department of motor vehicles, the bank, or the electricity utility.

In short, fugitives who are outlawed are pushed outside the law and outside the institutions of civil society. Thus, we may say that fugitives are made *uncivilized*.[5]

To be sure, we need not excuse the outlaw. As Goffman (2009: 353) observed astutely, preferences in addition to circumstances explain outlaw behavior:

> Reggie explained how his wanted status blocks him from getting jobs, using banks, obtaining a driver's license, and renting an apartment. Yet the things that Reggie thought a "clean" person should do were not things that Reggie himself did when he was in good standing with the authorities . . .

Nevertheless, we should recognize that the logic of the outlaw—the logic that encourages asociality and discourages work, school, routine, and any interaction with the justice system—pushes outlaws away from civil society when we most want logic to push them toward civil society. As much as possible, we want to avoid the tipping point—the point at which logic begins to push away from and not toward civil society. This does not necessarily mean reducing punishment; it can mean making punishment more swift and sure but also with an end point. In the same way that bankruptcy law is structured to allow a clean break, criminal justice should endeavor not only to punish but also to reintegrate.

5. A fugitive who leaves the city is literally uncivilized.

It's important to understand that a person can become a fugitive for relatively minor crimes, misdemeanors, or even for no original crime at all. As Flannery and Krestschmar (2012) note:

> [M]any fugitives reported that a major reason they had stayed on the run and had not previously attempted to resolve their case was their inability to pay a fine or a portion of court costs to obtain a hearing.

Debtor's prisons are supposed to be illegal in the United States, but today, poor people who fail to pay even small criminal justice fees are routinely being imprisoned (ACLU, 2010; Bannon, Nagrecha, and Diller, 2010). The problem has gotten worse recently because strapped states have dramatically increased the number of criminal justice fees. In Pennsylvania, for example, the criminal court charges for police transport, sheriff costs, state court costs, postage, and "judgment." Many of these charges are not for any direct costs imposed by the criminal but have been added as revenue enhancers. A $5 fee, for example, supports the County Probation Officers' Firearms Training Fund, an $8 fee supports the Judicial Computer Project, and a $250 fee goes to the DNA Detection Fund. Convicted criminals may face dozens of fees (not including fines and restitution) totaling a substantial burden for people of limited means. Fees do not end outside the courtroom. Jailed criminals can be charged for room and board and for telephone use, haircuts, drug tests, transportation, booking, and medical co-pays. In Arizona, visitors to a prison are now charged a $25 maintenance fee (Goode, 2011). To get parole in Pennsylvania, there is a mandatory charge of $60. While on parole, defendants may be assessed counseling, testing, and other fees. Interest builds unpaid fees larger and larger. In Washington State, unpaid legal debt accrues at an interest rate of 12%. As a result, the median person convicted in Washington sees his or her criminal justice debt grow larger over time (Beckett, Harris, and Evans, 2008).

Many states are now even charging the accused to apply for and use a public defender. As a result, some defendants are discouraged from exercising their rights to an attorney.

Most outrageously, in some states, public defender, pre-trial jail, and other court fees can be assessed on individuals even when they are *not convicted of any crime*. The failure to pay criminal justice fees can result in revocation of an individual's driver's license, arrest, and imprisonment. Individuals with revoked licenses who drive (for example, to work to earn money to pay their fees) and are apprehended can be further fined and imprisoned. Unpaid criminal justice debt also results in damaged credit reports as well as in fewer housing and employment prospects. Furthermore, the failure to pay fees can mean a violation of probation and parole terms, which makes an individual ineligible for federal programs such as food stamps, Temporary Assistance to Needy Family funds, and social security income for the elderly and disabled (Bannon et al., 2010; Social Security Handbook, 2011, §S. 2119–2120).

It is difficult to argue against criminal justice fees for those who can pay, but for those who cannot—and most criminal defendants are poor—such fees can be a personal and public policy disaster. Criminal justice debt drags people further away from reintegration with civil society. A person's life can spiral out of control when interest accrues, late fees are incurred, a driver's license is revoked, and persons are ineligible for public assistance, which means that unpaid criminal justice debt snowballs. You cannot get blood from a stone, but if you try, you can break the stone.

Optimal punishment is swift and sure, but it has a defined endpoint. As with bankruptcy, punishment must end, leaving both hope and opportunity. It is doubtful that incarceration for criminal justice debt or its threat could increase deterrence enough to be worth the extra costs of imprisonment to the state. Releasing people with little hope or opportunity for reintegration with civil society, however, is good neither for the releasees nor for society.

The best aspect of a program like Fugitive Safe Surrender is that it can help to clear enough warrants and associated criminal justice debt to restore an individual to the point where reintegration with civil society is a realistic possibility. The Fugitive Safe Surrender program helps to lift some of the criminal justice debt, albeit debt that should never have been imposed in the first place.

Avoiding Fugitives

An astonishing one quarter to one third of felony defendants simply fail to show up in court on the day of their trial (Flannery and Kretschmar, 2012; Helland and Tabarrok, 2004). Why are there so many fugitives, and why are there so many criminals? It is useful to draw on the behavioral approach to law and economics (Jolls, Sunstein, and Thaler, 1998, and more generally, Kahneman, 2011).

Individuals prone to crime often have low conscientiousness and high time preference (Beaulier and Caplan, 2007; Gottfredson and Hirschi, 1990; Pratt and Cullen, 2000). As a result, "swift and sure" is likely to be the most effective form of punishment. Yet, rather than swift and sure, our punishment system is better characterized as random and draconian. Often, we fail to catch criminals and then we try to make up for our failure to apprehend with draconian punishments. In a rational actor model, random and draconian works because criminals foresee the eventual results of their actions. In a model with the types of behavioral biases that we observe in people and especially in criminogenic types, the result of random and draconian crime policy is likely to be the worst of all worlds: lots of crime and lots of punishment.

The usual perspective is to imagine that criminals are rational actors, and on that foundation, to think about the most effective means of fighting crime (Becker, 1968). A behavioral perspective, however, views crime control as less about punishing rational actors and more about helping criminogenic people to overcome their behavioral biases, thereby

avoiding crime and the sequence of choices and events that inexorably leads to imprisonment and downfall.

Consider, for example, the role of the police. Deterrence is an important factor in any theory of crime, but in a behavioral model, the police deter not simply through a rational calculus but by making their presence clear enough so that even those of low conscientiousness and high time preference recognize that crime does not pay. Klick and Tabarrok (2005), for example, found that putting more police on the street significantly reduces street crime. Using these and other estimates of the deterrent effect of police in the literature, Klick and Tabarrok (2010) estimated that it would not be unreasonable to double the number of police in the United States. Doubling the number of police might at first seem draconian, but by deterring crime before it occurs, we could reduce the length of prison terms and the severity of prison. California's draconian three strikes law deters, for example; but because it increases punishment only in the distant future—an especially poor deterrent for hyperbolic discounters—it does not deter criminal types enough to pass the benefit/cost test (Helland and Tabarrok, 2007). As a result, we get lots of crime and lots of punishment. Police offer better deterrence "bang for the buck" because the influence of police is felt and observed in the here and now rather than in the difficult-to-imagine, far-off future.

The bail bond system can also be viewed through the lens of behavioral deterrence. As noted, a quarter to one third of felony defendants fail to show up in court on the day of their trial (Flannery and Kretschmar, 2012; Helland and Tabarrok, 2004). Helland and Tabarrok (2004), however, found that defendants released on commercial bail are significantly less likely to fail to appear than those released on their own recognizance or on deposit bond. In part, this finding might represent forward-looking behavior. Defendants released on commercial bail know that if they do fail to appear, then the bondsperson must forfeit their bail to the court unless they are quickly recaptured. Thus, bail bondsmen and their bail enforcement agents (bounty hunters) have significant financial incentive to pursue fugitives. Indeed, Helland and Tabarrok (2004) showed that defendants who flee when released on commercial bail are 50% to 65% more likely to be recaptured than similar defendants released using alternative systems.

The decrease in the failure to appear rate of defendants released on commercial bail is not solely caused by the effectiveness of bounty hunters and a defendant's rational expectations of recapture. As Flannery and Kretschmar (2012) note, "Some evidence suggests that fugitives may just not have the capacity or competence to show up at court hearings at the required place and time (Goldkamp and White, 2006)." Bail bondspersons understand these issues, and thus, they monitor defendants, remind them of their trial dates, and help guide them through the criminal justice process (Toborg, 1983). Bail bondspersons also encourage defendants to show up for trial by getting cosigners on the loan (typically family members), which adds family pressure (and reminders) to the incentive to show up for trial (Tabarrok, 2011). By helping defendants to show up for trial, the bail bondsperson is serving

his or her own interest but also helping defendants to avoid the downward spiral of fines and further charges that can push defendants further away from reintegration with civil society.[6]

Hawaii's Opportunity Probation with Enforcement (HOPE) program also takes a behavioral approach to deterrence. Before HOPE, violation of a probation condition such as failing a drug test was so common that it seemed that not everyone could be written up, let alone punished. When someone was punished, the punishment, returning the probationer to prison for the remainder of the sentence term, was draconian. HOPE instituted a new program of swift and certain punishment; probationers who failed a drug test were sentenced within 24 hours. The punishment, however, was days not years of jail time. Had all else remained equal, recidivism would have overwhelmed HOPE, but swift and sure reduced drug use by 72% and new criminal arrests by 55% (Kleiman, 2009). Swift and sure punishment reduced total crime and total punishment.

Flannery and Kretschmar (2012) also point to another behavioral advantage of the Fugitive Safe Surrender program:

> FSS fugitives were offered essentially one-stop shopping, where they could potentially resolve their case in 1 day, contrary to the many days and many different places individuals need to go to handle different aspects of their case in the typical way most justice systems do business. Could a variation of this model be adopted in everyday practice?

The criminal justice system is complex, and navigating it is difficult, especially for criminal defendants who tend to have markedly lower levels of education and IQ than the general population (Ellis and Walsh, 2003; Herrnstein and Murray, 1994). Despite the difficulty of navigation, the criminal justice system can be unforgiving to those who fail to meet its dictates. Simplifying the process and offering one-stop shopping is not only more just, but it also means that punishment is more swift and certain, a benefit both for the defendants and for society.

One of the most surprising findings from the FSS was that nearly 20% of the people who surrendered had no outstanding warrant against them. How many people think they are outlaws and thus behave like outlaws even when they are not in fact outlaws? Bearing in mind our previous warning that preferences and not just situation determine behavior, in this area, counterproductive behavior could be reduced at a low cost. A person should be able to check whether a warrant has been issued against them (recall, however, that some safeguards will be necessary as other people may wish to use such a system to find outlaws whom they can victimize).

6. Of course, it is also true that people who cannot afford bail can end up being incarcerated for significant periods of time before trial. A bail system should, therefore, be matched with a system for pretrial release and monitoring of truly indigent defendants. Trade-offs are inevitable.

In another telling aside, Flannery and Kretschmar (2012) mention that the FSS program sometimes became overwhelmed with thousands of people on Saturdays. The popularity of Saturday surrender indicates that many fugitives have jobs that they do not want to lose—this is a good sign. Once again, we see how a more flexible criminal justice system could better help individuals to reintegrate with civil society. An experiment in the early 1990s of a night court in Cook County, Illinois, was very successful (Smith, Davis, Goretsky, Luriglo, and Popkin, 1993); disposition time fell from 245 days to 86 days, and the number of court dates per case fell from 11 to just over 6. Although some districts have night courts, they do not seem to be widespread. Whether through night courts, weekend courts, or otherwise, simplifying and speeding up the criminal justice system could improve both justice and efficiency.

Conclusion

The Fugitive Safe Surrender program was successful in getting nonviolent offenders with outstanding warrants to surrender. We do not know the costs of the program, so it is unclear whether other programs might have achieved the same goals at a lower cost. The larger lessons, however, are more important than the details of any particular program. Fugitives impose costs on the legal system and reduce its effectiveness. Fugitives, even more than criminals, are outlaws: people outside the law. Outlaws do not resort to the law for their protection and, thus, can be both victims and producers of crime. For an outlaw, family, work, education, and home become nexuses to confinement. The logic of the outlaw pushes away from reintegration with civil society.

The use of churches and other safe surrender locations helped to bring the outlaws in and make the Fugitive Safe Surrender program successful. Even more important than the location was the speed and simplification of the trial process. Instead of numerous trial dates, the FSS provided same-day access to a judge on an evening or a Saturday. The FSS program also lifted some criminal justice debt. The complexity of the criminal justice system and criminal justice debt pushes defendants away from reintegration with civil society. The success of the Fugitive Safe Surrender program suggests how to reform the criminal justice system in ways that will decrease the number of fugitives, making the FSS program less necessary.

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FUGITIVE SAFE SURRENDER PROGRAM

Focusing on the Individual in Warrant-Clearing Efforts

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Introduction

The Fugitive Safe Surrender (FSS) program is a multi-day event developed by the U.S. Marshals Service in coordination with local jurisdictions where individuals who believe they have an open warrant can turn themselves in. Federal Safe Surrender is held at a location that is not police affiliated—typically at a local church—where those with nonviolent felony or misdemeanor warrants can pay fines, set up a new court date, or clear the warrant issue with a judge on site. Arrests of fugitives at these events are rare. Created in part to address the violence officers can encounter while serving warrants, the event is billed as a "second chance" where most fugitives will not be arrested but instead will be given an opportunity to clear their warrant on the spot.

Flannery and Kretschmar (2012, this issue) present a quasi-process evaluation of 22 FSS events and the results of a survey of participants, including their demographics and motivations for participating in FSS. The work is limited to an outline of basic program operations and a descriptive analysis of participants and their perspectives on the program. Little rigorous research, however, has been done on the impact of large warrant backlogs on the justice system, the safety risks of serving warrants to both officers and neighborhoods, or FSS itself, making Flannery and Kretschmar's current contribution valuable.

Flannery and Kretschmar's (2012) review and descriptive assessment of FSS combined with the timing of the U.S. Marshals Service's defunding of the effort in 2011 represent an opportunity for jurisdictions and researchers alike to step back and take stock of the program's outcomes thus far, as well as to consider from a policy perspective whether, and in what form, the program should continue.[1] As one of the only existing efforts to review FSS,

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1. Since the U.S. Marshals Service defunded FSS, several jurisdictions have secured alternative funding sources or have explored the possibility of conducting FSS programs on their own; New Jersey, for

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Flannery and Kretschmar's (2012) work is an important first step on the road to evaluating the program more fully.

The Main Policy Questions for FSS

Although Flannery and Kretschmar's (2012) article does not purport to present a full program evaluation or offer a complete answer to the question of program continuation, some key policy lessons and implications can be drawn from the program review in this issue. These lessons can inform future jurisdictions considering this type of program or policy to clear warrant backlogs from their system, and create realistic expectations of the outcomes FSS can achieve.

The main policy question raised by Flannery and Kretschmar's (2012) work is whether the outcomes or benefits of the FSS program—noted by the authors to be lower risk for officers, safer neighborhoods, and improved law enforcement–community relations—outweigh the resources (financial and otherwise) that are expended to conduct the program. This question is especially relevant in today's atmosphere of tightened budgets and waning resource availability for anything over and above necessary police work. The answer cannot be known without conducting a thorough cost-effectiveness analysis. However, as Flannery and Kretschmar note, such an analysis is difficult because of the challenges in collecting complete information on all outstanding warrants and accurately estimating both the costs of business-as-usual warrant serving and case processing as well as the costs of effectively running the FSS program.

Despite that difficulty, however, attention to the FSS program model—including goals and expected outcomes—may help policy makers to consider FSS along with alternative approaches to reducing warrant backlogs, weigh the programs' expected costs and benefits, and select the most appropriate option for their jurisdiction. The lessons learned from FSS may also provide insight into the development of related, alternative approaches that could avoid some of the challenges associated with FSS, including the burden of planning the event.

Identifying FSS Program Goals

Before launching a full evaluation and cost–benefit analysis of the program, it is necessary to identify more clearly the goals of the program. The U.S. Marshals Service (2011) asserted that the main goals of the program are risk prevention and reduction: "The goal of [FSS] is to reduce the risk to law enforcement officers who pursue fugitives, to the neighborhoods in which they hide, and to the fugitives themselves." Flannery and Kretschmar (2012) further specify the main goals of the FSS program to focus on broader public safety and community

instance, received assistance from the U.S. Attorney's Office and U.S. Department of Justice to conduct FSS programs, with the latest FSS event occurring in April 2012.

relations: "[T]he goal of the FSS program was to . . . reduce the risk of dangerous arrest situations, make neighborhoods safer, and build trust between law enforcement officers and the community." In addition, Flannery and Kretschmar's (2012) work identifies other positive outcomes of the program, including reducing warrant backlogs, reducing costs associated with fugitives who fail to appear in court (which can be extremely high [Helland and Tabarrok, 2004]), and preventing an increase in the local jail population.

The overriding goals, however, as described by Flannery and Kretschmar (2012) and the U.S. Marshals Service (2011), are unlikely to be achieved. Success in terms of reduced risk and increased public safety are both difficult to achieve and difficult to measure; success in terms of increased police–community trust is probably more likely to be achieved but is equally difficult to measure. A reconsideration of these goals and a reframing of the program to focus on individual outcomes may be a worthwhile undertaking and may lead to greater success in improving the lives of individuals and—further downstream, of course—improved neighborhood safety and reduced risk to officers and communities.

Achievability of the FSS Program's Current Goals

Although risk reduction goals are honorable, the U.S. Marshals Service itself states that most offenders who appear at FSS events have warrants for nonviolent offenses and have no history of violence. Even though the possibility always exists that even a previously nonviolent offender will become violent or try to evade arrest and, in the process, will create risk for a neighborhood and the individuals around them (e.g., via a high-speed chase or fleeing through a heavily populated area), that situation is the exception, not the rule.

Because most fugitives who turn themselves in at FSS events have no history of violence, there is no way to assess the counterfactual in this case: With no prior evidence of violence, information is limited on which to base a prediction regarding future violence. It is therefore nearly impossible to make a prediction about which individuals will become violent when served warrants. This uncertainty is part of what makes serving warrants a potentially dangerous situation for law officers. But it also makes it virtually impossible to assess the extent to which FSS reduced risk for officers.

Most individuals who appear at FSS events would probably not have caused any risk or danger to officers in the field; in this way, the program creates a net-widening effect with regard to clearing warrants for those who would have caused violence. Far more individuals participate in the FSS event than would have ever been served a warrant in the field, or than would have become violent. The level of avoided risk achieved by FSS, then, is likely to be small. It may be that a small improvement in risk is deemed worth the resources expended for the program; this essay simply makes the point that program designers should be aware of the actual level of risk they are likely to avert via FSS.

The second goal, to make neighborhoods safer, is also honorable, but it is just as unlikely to be realized via FSS in its current state, and for much the same reason, that risk

reduction is unlikely. Most fugitives who turn themselves in have no history of violence, and very few would turn violent during an attempted arrest. Simply having a warrant for arrest does not make an individual inherently more dangerous. In fact, many anecdotal stories about fugitives who turned themselves in at FSS events feature individuals with warrants for unpaid court fines or failure to appear in court for minor offenses.[2] Individuals with these types of warrants are unlikely to be the same individuals who attempt to flee police officers or violently evade arrest. So, simply clearing warrants for nonviolent felons and misdemeanants is unlikely to make neighborhoods measurably safer.

Focusing on the Individual

Midway through the article, Flannery and Kretschmar (2012) note that the "goal of the program was not to arrest but to help fugitives with warrants take care of their responsibility to the legal system and to the community." This statement is particularly telling: It highlights the fact that in many ways, an FSS event actually can be seen as already focused on individuals and the community first—these are intermediate goals—and that risk reduction and improved neighborhood safety can be thought of as secondary goals, achieved further down the line. Improving the quality of life for individuals with outstanding nonviolent felony or misdemeanor warrants should instead be counted as a main goal of any jurisdiction's efforts to clear their warrant backlog, via an FSS-style event or other methods. To make this argument, I first outline some of the negative impacts of having an outstanding warrant and then turn to some of the policy suggestions for addressing individual needs via warrant clearing.

The Impact of Warrants on Individuals

Having outstanding warrants can affect not only an individual's own physical and mental well-being but also that of those around him or her—in his or her family and in the larger community. Having an outstanding warrant (or even simply believing that one has a warrant) can cause significant levels of individual- and family-level stress and can impact one's earning potential by causing fear of immediate arrest or making it hard to secure legitimate and stable employment. Court fees and other fines required to clear a warrant can also represent a financial hardship on some individuals and families, and it could be the root cause of leaving a warrant outstanding.

Outstanding warrants have been hypothesized to lead to additional illegal actions by cutting off individuals from legitimate sources of income or activity or by making them potential victims who are less likely to report their victimization to authorities for fear of the risk to themselves (Goffman, 2009). Participation in illegal activities can happen almost by

2. For example, see Office of the Attorney General (2012) and Hernandez (2008) for stories about fugitives who participated in FSS events.

default when one has an outstanding warrant, such as driving without a current license if one cannot get or renew a license while carrying an outstanding warrant. If caught, the penalty for this minor offense would be steeper than having simply taken care of the warrant and having maintained a current license in the first place. Thus, having an outstanding warrant can lead to a range of negative consequences for individuals and can compound many issues that would otherwise be relatively minor (e.g., renewing a driver's license).

Efforts to reduce the overall negative impact of the warrants on individuals, while ensuring that they meet their legal and financial obligations and take responsibility for their actions, can help not only to reduce warrant backlogs but also to keep backlogs from growing by encouraging individuals to take care of their warrants in a more timely manner in the future.

Reconciling Focus on the Individual with the FSS Program

The reframing of the program goals outlined previously are not necessarily incompatible with the current FSS model; the FSS model in fact already works to achieve improvements for individuals by offering individuals an amnesty from immediate arrest with new court dates, payment plans, or even immediate warrant clearing. FSS also attempts to connect attendees with services by inviting providers to be present at events as well. In this way, FSS can be recognized as providing not only a legal service but also additional help in improving individual lives and, subsequently, those of families and communities. The issue, then, is not whether FSS aims to improve the quality of life for individuals but whether FSS makes that a main goal and whether, given that goal, FSS is the most appropriate and cost-effective vehicle to achieving that goal.

Reframing the Perspective, Redesigning the Effort

Applied to FSS, a reframing of the program to focus on an overall goal of improving individual outcomes should lead policy makers also to consider alternative methods to clearing warrant backlogs. From the perspective of improving individuals' lives, the focus becomes a consideration of the barriers that prevent individuals from dealing with a warrant, such as fear of arrest or financial limitations, and the barriers to being a law-abiding and productive member of society that have been created by virtue of having an outstanding warrant, such as securing legitimate employment.

Some opportunities for clearing warrant backlogs discussed in the next section could be implemented within the FSS framework. Other broader policy suggestions are not quick fixes and would likely require real effort to restructure the business of warrant serving. But such alternatives to FSS could represent opportunities to save resources and observe gains in overall community-level safety in the long run. It should be noted that the goal is not to say whether FSS is the right vehicle for these goals but instead to push program designers and policy makers to consider these questions regarding goals before deciding

on the right approach for their jurisdiction. The next sections highlight some avenues for clearing warrants that jurisdictions may consider.

Easing Immediate Consequences of Outstanding Warrants

The main impact of FSS on individuals is that for most, warrants are cleared the same day via payment of fines or an immediate hearing before a judge, typically with no further court involvement necessary. These steps are all accomplished without requiring that an individual be immediately arrested and taken into custody; for many, removing the threat of immediate arrest is the biggest payoff of an FSS event (Flannery and Kretschmar, 2012). In general, however, policies that alleviate requirements to arrest *any* individual with outstanding warrants immediately might ease the warrant backlog. This observation was supported by Flannery and Kretschmar's review of FSS: "FSS showed that it is not necessary to arrest and incarcerate everybody with an open warrant to resolve their case and reengage them in the justice system." Alternative approaches, such as receiving a citation or being assigned a new court date, might be more appropriate for a certain segment of fugitives—for example, minor offenders with no criminal history.

Financial burdens create another barrier that is closely linked to immediate arrest. Clearing a warrant in many cases requires a financial payment—stemming from court fees or unpaid fines that may be the source of the warrant. Flannery and Kretschmar (2012) identify this problem: "If we make the ability to post bond or pay a fine a prerequisite to have one's open warrant status resolved, many persons will remain fugitives simply because of the economic cost of surrendering." The solution to financial burden should not necessarily be to arrest fugitives immediately on warrants requiring payment—this creates additional costs for individuals and families via lost wages; for jails in housing indigent defendants; and for justice agencies who carry the administrative burden of arresting, housing, processing, and collecting fees from these fugitives (Diller, 2010). Providing installment programs for individuals, creating a system of graduated court fees based on income, or finding other ways to work with fugitives to help them pay off their fines can alleviate some of the costs to both individuals and the justice system that are associated with warrants.

Addressing the Failure-to-Appear Problem

Bench warrants issued for defendants who failed to appear for a scheduled court date often represent a large proportion of a jurisdiction's open warrants, and the risk of absconding varies given a defendant's criminal history and current offense. One fifth of felony defendants fail to appear (Cohen and Kyckelhahn, 2010), and the number is higher for low-level felons and misdemeanants (Bornstein, Tomkins, Neeley, Herian, and Hamm, 2012). The failure-to-appear problem cannot be overlooked in any effort to address a jurisdiction's warrant backlog. Simple approaches to this problem that focus on the individual—including, for instance, a postcard reminder that emphasizes negative consequences of not appearing—can

be useful in addressing failure-to-appear warrants (Bornstein et al., 2012; McElroy, 2011). In addition, developing better instruments to predict defendants' likelihood of failing to appear (Bhati, 2010; Wool, 2011) and improving pretrial services, including, for example, substance abuse treatment and closer supervision of releasees, can help to reduce the failure-to-appear problem.

Enhancing Social Service Provisions

Although most FSS events have made efforts to have services available at the site during the event, it is not clear how many providers are in attendance, what their capacity is to serve the often hundreds or thousands of individuals who appear at FSS events, or even the likelihood of fugitives to take advantage of social services while at an FSS event. The impact of the social services present at the event, then, is unknown, and this avenue warrants (no pun intended) additional investigation. Simply clearing a warrant from one's record is unlikely to provide motivation suddenly to, for instance, seek legitimate employment, secure a current driver's license, or seek mental health care if needed.

Removing legal barriers without providing assistance in other aspects of the lives of former fugitives represents a missed opportunity to improve lives and neighborhoods. Although courts and law enforcement agencies are limited in the extent to which they can require individuals to accept assistance from social service providers, finding creative ways to encourage individuals to do so, for instance, by offering reduced court fines if individuals attend certain programs or actively seek employment, can have payoffs in the future.

Addressing barriers for individuals through connections with social services also highlights the importance of strengthening partnerships among law enforcement, service providers, and other agencies, such as those that have restrictions for individuals based on warrant status (e.g., the motor vehicle department, rental housing agencies, etc.). Law enforcement agencies can be observed as one element of an integrated service delivery model. If law enforcement agencies can work with others to connect individuals to needed services after they take care of outstanding warrants, then their efforts will likely go further in improving neighborhood safety, improving law enforcement–community relations, and keeping the warrant backlog from growing.

Considering the Physical Location of the Surrender

Even though FSS has been used as a warrant-clearing approach in several cities, other jurisdictions have taken different approaches, with the key difference in these alternative approaches being the location of surrender. Santa Clara County, California, has created amnesty periods where fugitives can call in to determine whether they have a warrant for their arrest. During amnesty periods, felons can schedule an arrest while misdemeanants can visit the police department to clear a warrant in a very similar manner to attendees at FSS events (Lee and Howe, 2011).

Houston, Texas, and Phoenix, Arizona, have recently run similar programs out of police department facilities. It is unclear, then, that involvement by the church in the FSS events significantly improves law enforcement–community relations over and above the gains that can be achieved if the surrender location is a police facility. Based on Flannery and Kretschmar's (2012) description of the program, the church itself does not seem to have much of a role in the program other than providing a safe place where fugitives can turn themselves in. In addition, providing for the "second chance" opportunity to clear a warrant through police facilities with existing personnel may represent a possible avenue of cost savings over an FSS event that requires not only the time of court and law enforcement personnel but also dozens of volunteers and an extensive planning effort.

Improving Coordination and Information Sharing

Coordinating and sharing information across law-enforcement agencies in a region can create efficiencies in the effort to clear warrant backlogs. If individuals can take care of multiple warrants from different agencies, then both the individual and involved agencies benefit, which was the case at FSS events where sites had "linked regional law enforcement–justice data systems" (Flannery and Kretschmar, 2012). Those sites were noted to have increased efficiency and reliability. Goldkamp and Vilcica's (2008) investigation of fugitives in Philadelphia also pointed to the benefits of system-wide collaboration in addressing crime and open warrant or fugitive issues. That this topic is addressed in the original research demonstrates both the importance of cross-jurisdictional cooperation for efficient warrant clearing and the ability to accomplish this via an FSS event. Achieving this level of coordination and information sharing across agencies is a notoriously difficult task, but it is one that would nonetheless improve warrant backlogs across multiple agencies.

Conclusion

Although many other creative ideas can be employed to address warrant backlogs, the purpose of this policy essay was to outline the goals of the FSS program and assess the degree to which these goals are appropriate, attainable, and measurable. In doing so, it becomes evident that law enforcement and other justice agencies should refocus their efforts on the individual-level, quality-of-life improvements as key outcomes. Doing so will bring to light several promising approaches—of which FSS is just one—to clearing warrant backlogs and ultimately improving the well-being of the community.

Policy makers looking for immediate approaches to clearing warrant backlogs and considering FSS-style events could benefit from some small but important changes to the program's original design. These changes, of course, keep the individual as the main focus. For example, creating more synergy between law-enforcement and social-service providers in the community—before, during, and after an FSS event—can improve the frequency and consistency with which individuals actually participate in available services. By working

to build a relationship with providers that is more than simply providing space at an FSS event, law-enforcement agencies can help create an atmosphere where individuals can improve their situations. This can also reduce the likelihood that someone who appears at an FSS event will find themselves with an outstanding warrant again in the future.

Law-enforcement agencies can also extend the FSS effort to include complementary events that occur at police stations, allowing them to serve additional individuals. These smaller FSS-style events could be held to accommodate those who cannot appear during the main FSS event period and would take advantage of existing infrastructure and personnel already in place at police stations, helping to decrease the costs of the overall effort.

FSS events are also designed to enable individuals who are unsure about their warrant status to find out whether they have an outstanding warrant. Law-enforcement agencies could extend the ability to do this easily outside of an FSS event, with an automated telephone or web-based system allowing individuals to determine their warrant status. For those who find that they do have outstanding warrants, the system could indicate what the warrant is for and the available options for clearing the warrant (appearing at a police station or immediately paying a fine, for instance). This would reduce the number of individuals who need to be processed at FSS events and would prevent further stress among individuals who do not actually have an outstanding warrant.

Finally, Flannery and Kretschmar (2012) discussed whether holding FSS events regularly would be a perverse incentive for individuals to wait longer to address a warrant: A fugitive might bank on a future event being held and put off handling such a negative matter until a later date. The goal, however, of the policy suggestions in this essay is to push policy makers, including law-enforcement agencies, to think clearly about addressing warrant backlogs in efficient ways that at the same time improves communities. If, in implementing FSS-style approaches and other short-term or one-off programs, law-enforcement agencies consider ways to make those efforts more permanent (such as formalizing partnerships or referral streams with social service providers), then such concerns become irrelevant. In these very actionable ways, police agencies can address the warrant backlog issue and improve the well-being of the communities they serve.

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EDITORIAL INTRODUCTION

DELINQUENY PREVENTION

Evidence-Based Practice and Juvenile Justice

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During the latter third of the twentieth century, a get-tough movement took hold that dominated the debate on juvenile justice policy. The U.S. Supreme Court's decisions in *In re Gault* (1967) and *In re Winship* (1970) inadvertently paved the way, as they shifted the focus of juvenile court proceedings from youths' backgrounds and needs to proof of their offenses (Feld, 1988). Shortly thereafter, widely publicized reviews of treatment programs (e.g., Martinson, 1974) concluded that "nothing works," casting a shadow over the rehabilitative mission of the juvenile system and furthering the shift toward a more punitive juvenile justice. During the 1980s, sharp increases in urban youth violence evoked menacing imagery of remorseless "superpredators" (Dilulio, 1995) and provided the immediate impetus for a rash of ill-conceived policy reforms—reforms based on anecdote, ideology, and intuition about the efficacy of deterrence-based and incapacitative approaches to delinquency prevention and control.

In the wake of these developments, legislatures throughout the country revised their juvenile codes to introduce unprecedented changes: They endorsed punishment as a legitimate purpose of the juvenile justice system; instituted determinate, mandatory minimum, and blended sentencing in juvenile courts; made juvenile sex offenders subject to potentially lifelong registration; and expedited the transfer to criminal court of a greater number and broader range of juvenile defendants, who became eligible for even the most severe adult punishments, including the death penalty and life without possibility of parole (LWOP). In juvenile corrections, electronic monitoring, house arrest, extended stays in detention, and commitment to military-style boot camps and large, secure correctional facilities became increasingly common. By the turn of the century, the survival of a separate juvenile justice system seemed, at least to some of us, to be highly uncertain.

These "front-stage" developments overshadowed several countervailing influences that initially received little fanfare. Basic research in psychology and neuroscience contributed

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significant new insights into adolescent development and verified important differences between juveniles and adults in maturity and capacity for change. These findings not only reaffirmed the central foundational rationale for the juvenile court but also became linchpins of Supreme Court decisions (*Roper v. Simmons* in 2005 and *Graham v. Florida* in 2010) that blunted the punitive momentum by outlawing both the death penalty and LWOP for juvenile homicide offenders.

In the 1990s, there was a push within criminology for experimental and rigorous quasi-experimental evaluation methodologies, which generated increasing numbers of empirically sound program evaluations. The advent of meta-analysis allowed for the distillation of large numbers of studies and for more precise determinations of the magnitude and sources of program effects. What emerged was solid evidence of the effectiveness of some therapeutic approaches and of the considerable failure of deterrence-based programs like Scared Straight and boot camps (Sherman et al., 1997). Groups like the Center for the Prevention of Violence (Elliott, 1997) began generating lists of proven and promising programs that policy makers and practitioners might use to make more informed decisions about delinquency prevention and intervention programming. When a "window of opportunity" (Tonry, 2004) opened in the policy arena, the knowledge base would be there from which to build a bridge between science and practice.

That window of opportunity seems now to have arrived. The late 1990s' drop in juvenile crime moderated the moral panic that had provided so much impetus to the punitive reforms. Recently, state legislators have shown considerable interest in therapeutic programming, spurred by evidence of strong public support for rehabilitation and by looming budget deficits that make more cost-effective treatment approaches attractive. The Obama administration has encouraged evidence-based approaches to crime prevention and control and has placed leading criminologists at the helms of both the Bureau of Justice Statistics (BJS) and the National Institute of Justice (NIJ). The federal government is increasingly funding experimental evaluation research and has created websites and other vehicles to make evidence of program effectiveness readily accessible to state and local planners and practitioners (e.g., http://www.crimesolutions.gov, http://ojjdp.gov/mpg, and http://www.findyouthinfo.org). There is still a long way to go, in basic research, in evaluative research, and in implementation and dissemination science, but that criminological scholarship today is poised to play a critical role in informing juvenile justice policy and practice is historic and unparalleled.

The article and policy essays that follow take stock of the current status of evidence-based practice in the states: They assess progress toward implementing and disseminating treatment programs of proven effectiveness and speak to the challenges of bringing effective programs to scale. The series begins with Greenwood and Welsh's (p. 8) (2012, this issue) account of efforts being made at the state level to promote evidence-based practice. Although several states have made substantial progress in facilitating the dissemination of proven programs, many have only just begun. Greenwood and Welsh provide an instructive account

of the challenges that must be overcome—acquiring the funds to launch new programs; developing strategies to redistribute to the local level cost savings that generally accrue to the state; overcoming political and community support for existing (and sometimes demonstrably ineffective) non–evidence-based programming; overcoming provider staff resistance to change; and coordinating key stakeholders to support the complex and lengthy process of implementing new programs with fidelity.

Greenwood and Welsh (2012) also discuss new program development in states that make a commitment to evidence-based practice, a matter which, in my view, raises critical and unresolved issues. Will the endorsement of evidence-based practice stymie efforts to pilot new approaches? If not, what criteria should be used in making the determination that new programming is needed? Greenwood and Welsh (p. 500) do not address these issues head on, although they allude to both. They recommend that where proven programs do not exist for particular "types of clients . . . (e.g., youth in residential placement and youth transitioning out of intensive programs"), states should adopt and evaluate programs that have been identified as "promising." I am concerned that if the options are limited to proven and promising programs, then we may end up with what Clear (2010: 6) calls "a kind of slavery to the present" where all that can be implemented are programs that already exist. Clearly, we would not want to inhibit new program development in this way. Furthermore, Greenwood and Welsh's "type of client" approach to the determination that an alternative to a "proven" program is needed seems to rest that determination on the supervision contexts in which proven programs were tested. Meta-analyses show, however, that neither supervision context nor other "type of client" criteria (e.g., offender age, gender, and ethnicity) predict intervention effectiveness (e.g., Lipsey, 2009). We need more sophisticated methodologies to guide decisions to fund and implement novel programming.

One of the most interesting features of Greenwood and Welsh's (2012) article is their attempt to measure state progress in taking evidence-based practice to scale. Using as a benchmark the number of treatment teams trained in three model proprietary programs (Multisystemic Therapy, Functional Family Therapy, and Multidimensional Treatment Foster Care), they identify seven states as leaders. They then use these states as case examples to highlight the infrastructure in place and the strategies used to increase the availability of model programs. They also trace the development of evidence-based practice in two leading states. Although these states' paths were quite different, they had some approaches in common (e.g., involving key stakeholders in the identification of needs and selection of programs; establishing evidence-based resource centers to provide training and technical assistance to localities; evaluating programs and reporting impacts to stakeholders). The experience of states that have succeeded in implementing a large number of evidence-based programs with careful attention to fidelity and sustainability will no doubt be helpful to policy makers and practitioners in other jurisdictions.

Lipsey and Howell (2012, this issue) express concern that discussions of evidence-based programming too often focus on proprietary programs that appear on lists of effective

programs reported by groups like Blueprints for Violence Prevention and CrimeSolutions.gov. (Indeed, although Greenwood and Welsh [2012] acknowledge that meta-analyses have identified effective generic strategies as well as principles-based approaches, they use the adoption of brand-name programs as the sole criterion of progress in moving evidence-based practice to scale.) As state and federal agencies increasingly require evidenced-based programming as a condition for receipt of program funding (six states now do), Lipsey and Howell argue that it is essential that "evidence-based" be defined broadly to include not only proven proprietary programs—which are few in number—but also programs that incorporate those features of effective intervention that meta-analyses have shown to produce the most positive effects. Otherwise, states will be placed in the untenable position of having to replace non–brand-name programs—some of which may be quite effective—with brand-name ones.

Instead of taking a model programs approach, Lipsey and Howell (2012) focus on generic program types and on identifying the program characteristics associated with the most positive effects. Reviewing the findings of Lipsey's (2009) meta-analysis of 548 independent study samples from research on interventions that incorporated high quality designs, they report that (a) effective programs adopted one of several broad therapeutic approaches; (b) longer duration of treatment and more contact hours predicted positive outcomes; (c) high-quality implementation was essential to positive effects; and (d) interventions were especially effective when applied to high-risk youths.

Lipsey and Howell (2012) reformulated the results of that analysis into criteria that they operationalize in a program rating scheme (Standardized Program Evaluation Protocol [SPEP]) that can be used by service providers to assess existing programs with only modest adaptations to their data collection and management information systems. Points for each of the four rated aspects are allotted proportional to the strength of each factor in predicting recidivism in the meta-analysis. Studies recently conducted in two states provide promising indications of the validity of the SPEP both for identifying effective programs and for guiding modifications of ineffective ones. Importantly, demonstration projects with the SPEP indicate the effectiveness of many existing programs that do not appear on model program lists. Thus, it is likely that considerably more progress has been made in taking evidence-based programming to scale than is suggested by Greenwood and Welsh's (2012) assessment.

Dodge and Mandel (2012, this issue) offer a very different perspective on the subject of bringing model programs to scale. They are not optimistic that delinquency rates can be reduced through efforts to replicate broadly programs shown to be effective in experimental or quasi-experimental field trials, and they take issue with Greenwood and Welsh's (2012) use of penetration rates as measures of progress. "We cannot think of a single demonstration in which the scaling up of an evidence-based social program for youths has led to a demonstrated change in the population rate of an important child outcome." They point out that when programs are brought to scale, they commonly degrade because of lower

per-case funding levels, less highly credentialed treatment providers, lower levels of supervision, lower fidelity of implementation, and difficulties in accommodating new populations and contexts.

Randomized trials place minimal strain on community resources because they are delivered to small numbers of youth and—because institutional review boards require consent of both youth and their parents—youths' amenability to program participation is assured. The same cannot be said when programs are brought to scale. Programs are likely to be implemented in communities whose resources are already strained and delivered to youth whose participation is mandatory and reluctant.

Dodge and Mandel (2012) are also not at all sanguine about the prospect that local communities will support the adoption of programs developed by university researchers in distant contexts with different populations. They express concern that when a model program is thrust on a new community, it runs the risk—depending on how it is framed—of being met by negative expectations from participants and service providers, resulting in much less positive outcomes.

They propose an approach to evidence-based program implementation and dissemination that departs from the traditionally adopted, Institute of Medicine model: basic science → randomized control trials → field demonstrations → community dissemination. In their alternative paradigm, one begins by considering the community, its resource constraints, and its framing of the problem. Then one works backward from that assessment to propose solutions that represent an integration of community circumstances and science. They suggest that modifications in evidence-based programs can be made to suit a particular community context without losing efficacy by using a principles-based approach to program development, rather than by trying to impose proprietary programs on unwilling communities.

Dodge and Mandel (2012) emphasize communications strategies to engage and obtain support from community stakeholders, practitioners, and potential service consumers. They recommend that intervention scholars team with communications experts to engage in "translational advocacy": In partnership, they can formulate strategies to identify the "core story" that they want to communicate to their audiences, and then identify "frames" that will communicate the story accurately and in ways that are most likely to resonate with those audiences. They also recommend that interventionists partner with economists to establish a set of best practices for analyses of intervention impacts that examine outcomes at both the individual and community levels and that calculate the value of evidence-based programming in ways that are meaningful for diverse stakeholders.

In closing, I think we would do well to remember that the field of juvenile justice is at an important crossroad. The legacy of the get-tough movement remains with us at the same time that there is good reason for optimism that the traditional focus on rehabilitative policy and practice can retake center stage and begin, as never before, to match rhetoric and reality. If legislatures move too precipitously (e.g., by requiring that states bring a few proven

model programs to scale, by imposing programs on communities that are ill-prepared to receive them), state resources will be terribly constrained, the development of new (and better) evidence-based approaches will be stymied, and the revitalization of rehabilitation will likely fail. More than ever, we need rigorous evaluations of programs that have not yet achieved "model" status, more randomized field trials of model programs whose evidentiary base is somewhat weak, and commitment to a "science of dissemination" that takes account of community-level problems, resources, and receptivity to new programming. The steps we take in this window of opportunity are likely to be critical to the future course of juvenile justice.

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EXECUTIVE SUMMARY

DELINQUENCY PREVENTION

Overview of: "Promoting Evidence-Based Practice in Delinquency Prevention at the State Level: Principles, Progress, and Policy Directions"

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Association for the Advancement of Evidence Based Practice

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Research Summary

Evidence-based practice in the field of delinquency prevention has come a long way in the last 15 years in the United States. This progress has been aided by several leading organizations and researchers providing authoritative and up-to-date lists of what works, the application of cost–benefit models, and some political leaders championing this movement over "get tough" practices. State governments are on the cutting edge of this movement, providing leadership, infrastructure, and funding for local efforts. This article reports on the first study to examine the ways that state governments are promoting and supporting the use of evidence-based practice. Case studies of seven early adopter states show a modest yet growing investment in several brand name evidence-based programs, including Functional Family Therapy (FFT), Multisystemic Therapy (MST), and Multidimensional Treatment Foster Care (MTFC). To support these programs, numerous efforts stand out across the seven states, including special funding, risk assessment guidance and support, assistance in needs assessment and program selection, and program evaluation.

Policy Implications

The experiences of the two most progressive states—Connecticut and Pennsylvania—offer many lessons for policy makers and practitioners in other states. Evidence-based practice should begin with bringing together a collaborative group, representing all key

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stakeholders, for the purpose of identifying needs and selecting programs to support. States also should consider establishing evidence-based centers, which can provide training and technical assistance to county agencies, and report to stakeholders on the performance of programs along with their impacts on crime and correctional costs within the state. At some point, many states will find it necessary to design and evaluate programs tailored to their own special needs, or to evaluate the application of proven programs to populations different from those covered in the original research.

The positive experiences and reaction to the rollout of evidence-based programs in early adopter states suggests that state and county agencies can develop the expertise to make effective use of such programs by adopting the strategies and methods that have already been developed for that purpose. With a growing knowledge base and much promise on the horizon, state and local governments and practitioners should be cautiously optimistic about the potential of evidence-based practice in delinquency prevention.

Keywords

evidence-based practice, *delinquency prevention*, *Blueprints for Violence Prevention*, *randomized controlled experiment*, *state government*

RESEARCH ARTICLE

DELINQUENCY PREVENTION

Promoting Evidence-Based Practice in Delinquency Prevention at the State Level

Principles, Progress, and Policy Directions

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It has been 15 years since the Blueprints for Violence Prevention program at the University of Colorado first identified 10 programs that met their fairly rigorous standards for being called a proven model program (Elliott, 1997). At about that same time, economists refined the tools and developed access to the kind of data that allowed them to estimate, with a fair degree of accuracy, the likely costs and benefits that would accrue if these programs were adopted, in particular settings. These cost–benefit studies suggested that in most states, every dollar invested in one of the more effective programs would result in $7 to $10 in benefits to taxpayers, mostly in the form of reduced spending on prison construction and operations (Drake, Aos, and Miller, 2009; Greenwood, 2006).

If these facts are indeed accurate, then one might think that every state would be in the process of revising their service delivery and case disposition processes to take advantage of the opportunity. In fact, several states have responded to this knowledge by taking explicit steps to facilitate the implementation of these proven programs, often as alternatives or replacements for their more traditional programming. They have screened the lists of evidence-based programs put forward by various groups and have adopted their own

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list of proven programs they will support. They have established special funding streams to support the launch of new evidence-based programs. They have adopted common assessment instruments so that different localities can compare results.

Some of these states have set up resource centers to provide technical assistance to local providers and to monitor their progress in implementing these programs. Some have established local "compacts" for sharing the expected savings in state prison costs with counties who cut their admission rates through the use of evidence-based programs. Yet, many others have not taken any but the most rudimentary steps toward embracing this new opportunity in the field of delinquency prevention.

Although the arguments in favor of shifting resources to evidence-based practice may sound compelling, the obstacles can be substantial. One obstacle is financial. Prevention programs require coordinated local investment and action involving juvenile courts, probation, mental health, public health, child welfare, education, and other stakeholders. Most of the direct financial benefits accrue to the state in the form of reduced future prison commitments. In states where the juvenile court and probation are run by the state, this may not be a problem. But in most states where juvenile courts, probation, and other social services are funded on a county basis, this will be a big problem until states devise some method of sharing the estimated savings with counties.

A second obstacle is that the funding streams for evidence-based programs may currently be claimed by other, non–evidence-based programs, which have developed political or local community support. In fact, allocating contracts among social service, drug treatment, and mental health providers is one of the biggest perks of local political office, especially in lower income areas (Greenwood, 2006). The continued funding of these programs is especially problematic because some of them have been shown to be ineffective or even harmful. The history of the program Scared Straight provides such an example (Petrosino, Turpin-Petrosino, and Buehler, 2006).

Another obstacle is the complexity of the coordination and implementation process that is required, which can take up to 2 years or more, and necessitates the active involvement of many key stakeholders. Some communities get steered away from adopting some of the more complex models because the trainers of these models do not believe there is sufficient support or understanding of the tasks involved among key stakeholders (Glisson, 2007). Here, academic–practitioner partnerships may prove particularly helpful (see Braga, 2010; Braga and Hinkle, 2010).

Staff resistance to change also can complicate a shift in agencies supporting evidence-based programs. It is one matter to sell the director of an agency on the value of evidence-based programs. It is quite another to convince the staff who must adapt to a new regime because they have spent their whole careers developing their own intuitive approaches (Greenwood and Turner, 2011). Even access to the research on evidence-based programs can be an obstacle. Despite the growing number of sources on evidence-based programs (see the following discussion), not all communities and

practitioners have easy access to this information; knowing which government (state or federal) or nongovernment agency produces and distributes the information is not always clear.

Fortunately, these are all problems for which there are solutions. This article examines the many ways in which state governments can promote and support the use of evidence-based delinquency prevention programs. It also compares several states on the basis of the efforts they are making and on the amount of evidence-based programming they are providing. This article is part of a longer term study to assess state efforts in supporting and implementing evidence-based programs. The goal of the study is to help state policy makers and practitioners identify strategies and techniques that can help expand the quality and availability of evidence-based programs in their jurisdictions.

Evidence-Based Practice in Delinquency Prevention

Evidence-based practice involves the use of scientific principles to assess the available evidence on program effectiveness and to develop principles for best practice in any particular field. In delinquency prevention, this process includes the assessment of community and individual client needs, the selection of programs to support, the development or implementation of new programs, and the assignment of children and youth to particular programs (Greenwood, 2006). We use the term "delinquency prevention" to capture the wider universe of programs and services that seek to reduce the likelihood that youth will become delinquent or adult criminals. Here, programs that engage youth and families voluntarily in their homes or other community settings for the purpose of reducing risk factors associated with delinquency are referred to as delinquency prevention, no matter what the prior record of the participant. In contrast, a youth placed in a close-custody institution in response to criminal acts may be receiving preventive services and treatment, but their effectiveness is usually secondary to that of the institution's need to maintain control.

Assessment of Needs

Evidence-based practice can guide the assessment of community as well as individual needs. At the community level, it involves determining the characteristics, strengths, and needs of the population to be served, as well as the resources and programs currently in place, using quantitative data and the opinions and knowledge of key stakeholders (Billings and Cowley, 1995). At the individual level, it should involve the use of one of the many standardized assessment instruments currently available to serve that purpose (Schwalbe, 2007). A systematic assessment, at intake, of overall risk and individual risk factors provides a clear basis for programming and placement decisions as well as a basis for comparing trends in effectiveness for specific population groups over time.

Program Selection

For anyone in a position to decide which programs should be continued or enhanced, which should be discontinued, and which new programs should be adopted, the issue should eventually come down to cost and effectiveness (Howell, 2009; Mears, 2007, 2010).[1] Key questions are as follows: What will specific programs cost to implement or continue in this specific setting? How effective will they be with the population we have in mind? Answers to these questions now come in three distinct categories: brand name, generic, and principles.

Brand name programs include models such as Functional Family Therapy (FFT; Alexander and Sexton, 2002), Multisystemic Therapy (MST; Henggeler, Schoenwald, Borduin, Rowland, and Cunningham, 1998), Multidimensional Treatment Foster Care (MTFC; Chamberlain and Reid, 1998), and Nurse-Family Partnership (NFP; Olds, 2007). These programs were developed by a single investigator or team over several years and have been proven effective through careful replications, often supported by millions of dollars in federal grants. Brand name programs have met the selection criteria established by various review groups for identifying proven programs.

The generics are generalized strategies that have been tried by various investigators in different settings. Counseling, behavior modification, and group therapy all fall into this category. The generic methods are identified by meta-analysis and represent the efforts of independent researchers, each testing particular versions of the method.

The third category of what works includes several principles that have been found to be true across a variety of strategies. Principles are not programs, per se, but techniques or approaches that have proven successful in reducing delinquency. For example, research has shown that focusing on the higher risk offenders has the most impact on recidivism (Andrews and Dowden, 2006) and that increasing fidelity to exemplary models advances positive outcomes (Landenberger and Lipsey, 2005).

So many lists of what works are currently in circulation that one cannot avoid a decision about which to use. There are four well-known and reliable sources of information regarding effectiveness of delinquency prevention programs, which can be combined to provide all the relevant information needed to make intelligent programming choices: (a) Blueprints for Violence Prevention; (b) meta-analyses conducted by Mark Lipsey; (c) publications by the Washington State Institute for Public Policy (WSIPP); and (d) the international Campbell Collaboration and its Crime and Justice Group's electronic library of systematic reviews, which covers a broader range of topics on crime and justice. These sources stand out because they employ a rigorous scientific standard of evaluation, are comprehensive, and are updated periodically.

1. Mears (2010) reminds us that when viewed from an evaluation research perspective, evidence-based policy includes much more than the use of effective programs; it also includes "whether a policy is *needed*, whether it rests on solid *theory*, whether it is *implemented* well, and whether it is *cost efficient*" (p. 43, emphasis in original).

Blueprints for Violence Prevention. The Blueprints list was developed by a research team headed by Delbert Elliott at the Center for the Study and Prevention of Violence at the University of Colorado (Elliott, 1997). For Blueprints to certify a brand name program as proven ("model"), the program must demonstrate its effects on problem behaviors with a rigorous experimental design, show that its effects persist after youths leave the program, and be successfully replicated at least once. For a brand name program to be certified as "promising," the program must only demonstrate effects using a rigorous experimental design at one site. The current Blueprints website (colorado.edu/cspv/blueprints) lists 11 "model" programs and 19 promising programs that were identified from a review of more than 800 programs. These 11 proven programs include the Midwestern Prevention Project; Big Brothers Big Sisters of America; FFT; Life Skills Training; MST; NFP; MTFC; Bullying Prevention Program; Promoting Alternative Thinking Strategies; the Incredible Years: Parent, Teacher, and Child Training Series; and Project Towards No Drug Abuse. Many of these programs target school-aged youths before they are involved in the juvenile justice system.

Meta-analyses by Mark Lipsey. Lipsey (1992) carried out the first meta-analysis that focused specifically on juvenile justice. In the most basic terms, a meta-analysis combines the results of independent studies with a shared research focus to analyze an overall effect, specifically called an effect size. Accordingly, Lipsey's analysis did not identify specific programs but did begin to identify specific strategies and methods that were more likely to be effective than others. Lipsey continued to expand and refine this work to include additional studies and many additional characteristics of each study (see Lipsey, 2006, 2009; Lipsey and Cullen, 2007). Based on the research, he found that effective programs and strategies were those implemented well and targeted on high-risk offenders. He also found that strategies with a therapeutic component, such as counseling and skill building, are more effective than those with a control component, such as surveillance and discipline (Lipsey, 2009).

Washington State Institute for Public Policy. The Institute uses the meta-analysis methodology to conduct evaluations of programs, but also it considers the cost of such programs and strategies to taxpayers and crime victims and weighs these costs against plausible benefits. Programs and strategies are not ranked, but effects on recidivism are measured and the number of evaluations is reported. Recidivism, cost to taxpayers and crime victims, and benefits are estimated by using data specific to Washington State. In this article, all cost and benefit information refers to analyses conducted by WSIPP for the State of Washington (Drake et al., 2009). Accordingly, the information can be considered an estimate for the potential dollar costs and benefits for other states.

Campbell Collaboration. Established in 2000, the Campbell Collaboration is named after the influential experimental psychologist Donald Campbell (see Campbell, 1969). Following the example of the international Cochrane Collaboration in medicine, the

Campbell Collaboration aims to prepare systematic reviews (incorporating meta-analyses) of high-quality research evidence about what works in education, social work and welfare, and crime and justice. The Crime and Justice Group, consisting of 18 members from 11 countries, oversees the preparation and maintenance of systematic reviews of the highest quality research on the effects of criminological interventions and makes them accessible electronically to practitioners, policy makers, scholars, and the general public. As of this writing, the Crime and Justice Group had 28 published systematic reviews, and a number of these have already been updated. Many concern child development and juvenile justice, including parent training, school-based bullying prevention, mentoring, and cognitive behavioral therapy for offenders (Welsh and Farrington, 2011). All published reviews are available at the Crime and Justice Group website (campbellcollaboration.org/reviews_crime_justice/index.php).

The programs and strategies identified by these four sources represent different types of challenges for jurisdictions when selecting programs. The proven Blueprints programs are all supported by developers with a wealth of experience, training, and technical assistance in implementation and sustainability. FFT and MST have been implemented in greater than 200 and 400 sites, respectively (fftinc.com; mstservices.com). Well-coordinated systems of program monitoring and oversight help ensure that client communities are receiving the outcomes they expect. In fact, it would be inappropriate for a provider to claim it was offering these programs without a direct and sustained linkage to the program developer.

Three other rigorous sources of evidence-based programs include the Office of Justice Programs' Crime Solutions (crimesolutions.gov), the Office of Juvenile Justice and Delinquency Prevention's Model Programs Guide (ojjdp.gov/mpg), and the federal government Interagency Working Group on Youth Programs' Find Youth Info (findyouthinfo.org). Crime Solutions provides information on what works for a wide range of programs in criminal justice, juvenile justice, and crime victim services. It employs a group of experts to identify, collect, analyze, and rate the effectiveness of programs. The Model Programs Guide maintains a large database of evidence-based programs, covering the full continuum of youth services and reporting on a wide array of outcomes, including delinquency, substance abuse, mental health, and education. Supported by 12 federal agencies, Find Youth Info promotes positive, healthy outcomes for youth through several different ways, including maintaining a directory on evidence-based programs.

Implementation

The process of implementing evidence-based programs is on the way to becoming a science itself (Fixsen, Blase, Naoom, and Wallace, 2009). The literature is clear that implementation is a process that takes 2–4 years to complete in most provider organizations. It is a recursive process with steps that are focused on achieving benefits for children, families, provider organizations, human service systems, and communities. There are at least six functional stages of implementation: exploration, installation, initial implementation, full

implementation, innovation, and sustainability (Fixsen et al., 2009). The stages are not linear as each impacts the other in complex ways. For example, sustainability factors are very much a part of exploration and full implementation directly impacts sustainability.

Based on the commonalities among successfully implemented programs across many fields, core implementation components have been identified (Fixsen et al., 2009). The goal of implementation is to have practitioners (e.g., foster parents, caseworkers, therapists, teachers, and physicians) use innovations effectively. To accomplish this goal, high-fidelity practitioner behavior is created and supported by core implementation components, also called "implementation drivers." These components are staff selection, pre-service and in-service training, ongoing coaching and consultation, staff performance evaluation, decision support data systems, facilitative administrative supports, and system interventions. These interactive processes are integrated to maximize their influence on staff behavior and organizational functioning. The interactive core implementation components also compensate for one another in that a weakness in one component can be overcome by strengths in other components.

In the early days, jurisdictions that were not fully prepared for the challenges that come along with the implementation of evidence-based programs would find themselves overwhelmed by staff turnover, complaints, and competition from other parts of the agency. By now, most of the developers of these proven programs, and the state level resource centers that work with them, have developed a much better sense of the infrastructure support that has to be in place before implementation can be successful. They also have become much better at coaching jurisdictions through the implementation process (Greenwood, 2010).

Program Assignment

It is important to reemphasize that no one program will be appropriate for all children and youth. The development of guidelines and criteria for deciding which individuals belong in which programs should be an evidence-based process. Prior evaluations of the program model provide evidence to determine the best fit. The risk principle identifies those who should receive priority. In cases where some types of youth could be served by more than one program, the level of rigor of evaluation design (i.e., randomized controlled experiment) can provide evidence for the best program match (Greenwood and Turner, 2011).

Brief Note on Evaluation and Evidence

The advancement of evidence-based practice consists of both promoting the use of already proven evidence-based interventions and increasing the amount and rigor of the evidence in regard to those unproven programs that seem most promising (Elliott, 1997; Sherman, Farrington, Welsh, and MacKenzie, 2006).

There are many ways to evaluate delinquency prevention programs. Whenever possible, we focus on the highest quality research study, the randomized controlled experiment or trial (RCT). The RCT is the most convincing method of evaluating crime prevention

programs (Farrington and Welsh, 2006). Randomization is the only method of assignment that controls for unknown and unmeasured confounders as well as for those that are known and measured (Weisburd, Lum, and Petrosino, 2001). However, the randomized experiment is only the most convincing method of evaluation if it is implemented with full integrity. To the extent that there are implementation problems (e.g., problems of maintaining random assignment, differential attrition, and cross-over between control and experimental conditions), internal validity could be reduced.

Several programs have had their effectiveness proven for specific populations through multiple RCTs. It is our view that when such a program is available, it should be the program of choice for the specified population, rather than other programs without this level of evidence. Expending government effort and taxpayer funds on unproven programs when more effective alternatives are available is not consistent with the government's responsibility to protect and strengthen families and conserve taxpayer dollars.

Proven programs do not currently exist for all the types of clients found within the juvenile justice and child welfare systems (e.g., youth in residential placement and youth transitioning out of intensive programs). In those cases where no proven program is available, there may be programs that seem promising on the basis of what evidence is available. Classifying programs by the rigor of their evaluations (for instance, first tier, second tier, and so on) provides guidance as to what programs should be considered for funding. It is our view that when an RCT-proven program does not exist or is not available, those programs that have demonstrated positive results with other rigorous evaluation designs should be used, and that further evaluation of these programs using an RCT should be performed. We believe in these instances that a promising program supported by an RCT is superior to one that is not.

When programs that have been proven effective through RCTs for some populations, but not for the population or need that is being targeted, it can be said that the program is being expanded beyond its research base. As in the case when using any other promising program, an RCT should be used. If neither of these approaches are an option (e.g., as a result of caseload volume or density), programs should be developed that are based on the approaches and methods found to be most effective in the best available systematic reviews and meta-analyses. Such programs also must be subjected to rigorous evaluation. Importantly, widespread community support for a program does not in and of itself establish a program as effective.

Potential Roles for State Government

As most community-based programs are run at the local level, it is possible for new evidence-based programs to spring up in several locations whether or not the state does anything to support them. The one exception is the smaller states that administer all social service and justice programs at the state level. In such cases, the state must initiate and then administer

the process of transitioning to evidence-based practice. Many early attempts to replicate the proven Blueprints models were supported by a variety of grants for which local agencies could compete directly without any support from the state (Elliott and Mihalic, 2004). However, as all forms of government and private grant funding have been on the decline—ironically taking place at the same time that evidence-based programming is rapidly expanding—funding for these programs has become a pressing issue that states must address to improve their effectiveness in preventing crime now and in the medium-to-long run.

One of the first steps a state might take toward promoting the use of more effective programs is to encourage the adoption of one of the proven Blueprints models. This could be done to meet a recently identified need or service gap on a pilot basis. If it is a recently identified need, then there is probably no program that is serving it well now. By adopting the program on a pilot basis, and closely monitoring its implementation and outcomes, the state can provide all the key stakeholders an opportunity to observe the effectiveness of the program for themselves, and can participate in decisions to expand it to other sites. As part of this process, at least one individual who works for the state will have to develop some level of expertise in evidence-based practice as well as in the specific model selected.

Another essential step is ensuring that the same financial incentives that apply to the state (the best EBPs reduce crime and correctional costs) also apply at the local level. This means that some savings in state correctional costs must be passed through to local jurisdictions.

Another step a state agency might take is to adopt its own short list of evidence-based programs that it is willing to support in some way. Most agencies have started out with just a few of the proven models, while they learn what kind of support is required and how best to provide it. A further step might be to set up a special source of funding that would only be available to agencies proposing to implement one of the proven models on the state's short list.

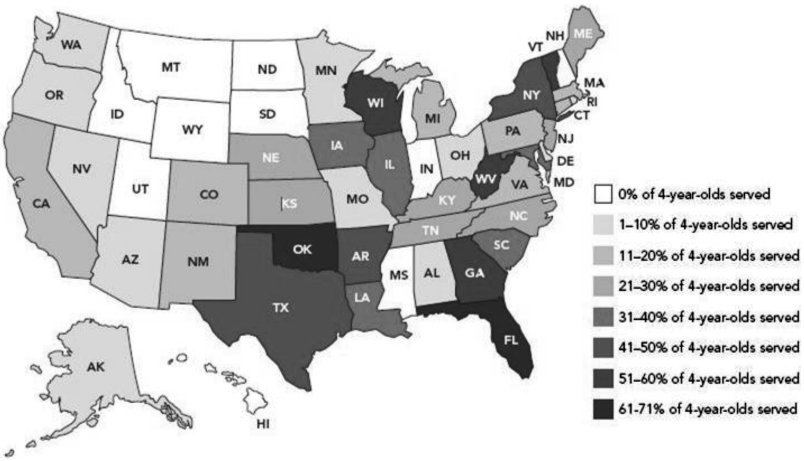
As the amount of evidence-based practice in a state expands, so will the amount being paid to out-of-state trainers for their services and expertise. Some states (Connecticut and Pennsylvania) have hired trainers or developed their own capability to provide training and technical assistance for some of their more popular models. As a focus for these activities, they are likely to start thinking about the need for some kind of evidence-based resource center or center for effective programming, which could be located within a key state agency, at a local university, a private think tank, or some other free-standing entity (Franks, 2010).

Signs of Progress in Moving Toward Evidence-Based Practice

If the use of evidence-based programs in delinquency prevention is anything like most other state activities, then we can expect considerable variability among states in the level of support they are providing and in the results they are achieving. If we are going to be helpful to others, we need to identify those states that seem to have been most successful in shifting to evidence-based practice. In the field of child welfare, this function is performed by the

FIGURE 1

State Participation in Early Education



Note. Percentage of 4-year-olds served in state pre-kindergarten in 2010.
Source. Adapted from Barnett et al. (2010: 7).

Annie E. Casey Foundation's Kids Count (datacenter.kidscount.org). In early childhood education, it is performed by the National Institute for Early Education (nieer.org).

Figure 1 illustrates a way of displaying information by state, for 4-year-olds' participation in early education. It would be extremely helpful to have something like this to allow policy makers and stakeholders to track the performance of their state when it comes to the use of evidence-based programs for children and youth. The remainder of this section sets out to illustrate how this might be done by using a sample of seven states for which we have collected the necessary data.

The seven states in our sample are California, Connecticut, Florida, Maryland, New York, Pennsylvania, and Washington. These states were selected because we identified them as the early leaders in promoting and supporting the use of evidence-based practice in delinquency prevention. This early adopter status was based on two main criteria: (a) the state's use of at least two brand name evidence-based programs from the three most widely used programs (FFT, MST, and MTFC); and (b) the number of program teams of trained therapists serving juveniles per million population in the state. Data were collected from the vendors of these three programs. Data are based on program availability up to the end of 2010.

Comparing States

The seven states vary in several important ways—even before we get to their involvement in evidence-based practice. As shown in Figure 2, the geographic size and location of our

FIGURE 2

Case Study States

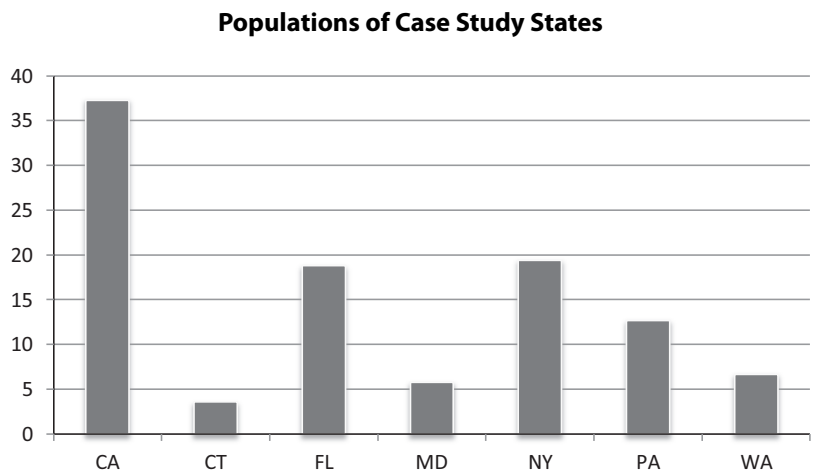
case study states is by no means representative of the country. The Western and Northeast regions are represented somewhat, but there are only two states in the South (Florida and Maryland) and not one state in the Midwest. Also, a great deal of variability exists in the population size of the seven states, ranging from a low of approximately 3.5 million in Connecticut to a high of 37.3 million in California (see Figure 3). Altogether these seven states accounted for slightly more than one third (33.7% or 104.2 million) of the nation's population in 2010.

Measuring Progress

There are two key ways of measuring the progress of states in adopting evidence-based programs. One is to take stock of their efforts. The other is to evaluate results. The difficulty with the first approach is that it is time consuming and expensive to retrace all of the efforts a state may have undertaken to promote evidence-based practice, particularly when we are not sure about the basic steps. However, we are fairly certain that adoption of evidence-based programs on a statewide basis requires, at the very least, the following key efforts:

- Development of local expertise in evidence-based program characteristics and implementation through some type of "resource center."
- Structured involvement of all key stakeholders.
- All state and local agencies that can affect program requirements, funding, supervision, and the flow of cases must be involved at the start of any significant evidence-based initiative. This is because the absence or denial of support from any one of them can cause it to fail.

FIGURE 3



Note. Populations are in millions and based on the 2010 census.
Source. Mackun and Wilson (2011).

- Recruitment of champions: The expansion of evidence-based practice requires those who are willing to champion or stand up for it at the highest political levels. This is needed to keep evidence-based practice from becoming just another political consideration. It has to be given priority over business as usual, social services, and corrections. It may even be a moral imperative.

Efforts to Designate Supported Evidence-Based Programs

Many states have chosen to support a small number of well-proven programs rather than the total list of possibilities. This focus allows them to concentrate on developing their own training and technical assistance capabilities so they are better prepared to help local providers deal with program purveyors and monitor their performance. Several efforts stand out:

Special funding for designated evidence-based programs. Some states have set aside funding for the sole purpose of implementing new evidence-based programs. This is one approach to providing the funding that local agencies need to get started.

Risk assessment guidance and support. It is virtually impossible to monitor the performance of a program without keeping track of changes in the characteristics of participants. Risk and need assessment instruments and analytical support are now widely available to agencies in the delinquency prevention and intervention field. The selection and support of a statewide assessment instrument makes it easier to compare programs across sites and is often one of the first steps a state might take in moving toward evidence-based practice.

Program assessment and evaluation. How does a jurisdiction determine how effective its current programs are? Assessment protocols are available that rate programs according to the degree they are in alignment with meta-analysis results (Howell and Lipsey, 2004).

Assistance in needs assessment and program selection. One key component of the Communities That Care (CTC) process is helping communities to assess objectively their needs and then select an appropriate program to meet those needs (Hawkins, Catalano, et al., 2008; see also Hawkins, Oesterle, et al., 2012).

Initial piloting of new evidence-based programs. When one jurisdiction in a state decides to adopt a new evidence-based model, it provides an opportunity for others within the state to get a better idea of how it might work for them. Therefore, program fidelity is particularly important in pilot tests to make sure that the lessons learned apply to the model program selected, and not to a watered down version (Welsh, Sullivan, and Olds, 2010).

Technical assistance for evidence-based practice. To help stimulate more local interest in adopting evidence-based programs, the state can provide training conferences and workshops. These are excellent opportunities to learn from the experts as well as from peers.

As we are not yet sure which of these actions is most critical in promoting evidence-based practice, it would be especially helpful for states to have an outcome measure that could more reliably measure their progress.

Availability of Proven Programs as a Measure of Progress

As the goal of every state's efforts in regard to evidence-based practice should be to increase the use of these programs, it would seem that the appropriate outcome measure for these efforts is the number of proven model teams available, or the change in their availability over time.

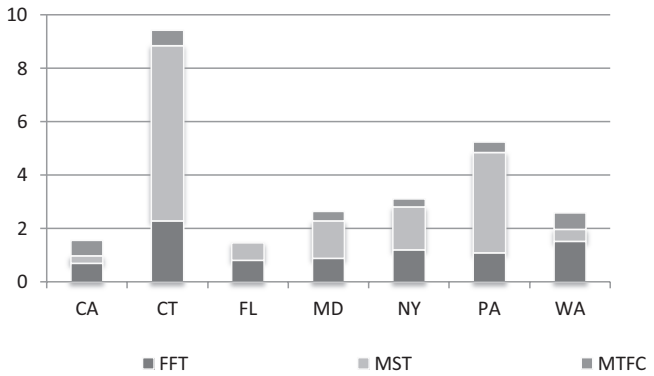
When we want to measure the prevalence of some characteristic or type of behavior within a population, such as homicide, drug use, or teen pregnancy, we usually specify the occurrences as a rate, say, per 1,000 children or 100,000 population. Similarly, when we want to measure the availability of some health care service, such as CAT scans or pediatricians, we usually state their availability in terms of CAT scan machines or pediatricians per 100,000 population. The availability of FFT, MST, or MTFC within any jurisdiction can similarly be measured in terms of the number of teams or therapists available on a per capita basis.

Figure 4 shows the number of FFT, MST, and MTFC teams per million population in each of our seven case study states. In Connecticut, with availability of these programs approaching 10 per million population, program availability is more than double that in most of the other states and four times in some cases. Figure 4 also shows that the availability of FFT is fairly constant across states and that the real difference is with the availability of MST.

The data in Figure 4 suggest that Connecticut makes greater use of family therapy programs. But with a lower than average crime rate, why is this so? Are families there more

FIGURE 4

Proven Family Therapy Programs per Million Population



Source. Authors' calculations.

in need than in other states? Do public officials in Connecticut know something about the value of these programs that is not well understood in the other states? The next phase of data collection for the longer term study will allow us to investigate these and other key questions.

How Did the Leading States Get There?[2]

Despite its small size, and the lack of any national publicity, there can be no doubt that Connecticut is the leader when it comes to adopting evidence-based programs. The availability of family-based programs is considerably more than in any of the other six states.

The first Blueprints were published in 1996. Before then, there was no widely accepted list of proven programs in delinquency prevention or juvenile justice for that matter (Greenwood, Model, Rydell, and Chiesa, 1996).[3] Those looking for an evidence-based program usually designed their own on the basis of what they knew about the many programs that were thought to be promising. In the 1990s, one of us (Greenwood) helped a private provider develop a copy of what was thought to be a promising "tracking" program that involved case management, multiple contacts per day, and other services.

In 1997, Connecticut public officials were hearing increasing complaints about the quality and appropriateness of their juvenile justice programs, particularly those in

2. This section is focused specifically on Connecticut and Pennsylvania. Among the seven leading states, these two states made the greatest use of evidence-based programs (see Figure 4). Our case studies also revealed that these two states followed different routes in the development of evidence-based programs.

3. The *Preventing Crime* report, by Sherman et al., was released in 1997.

institutions. Media attention on the issue became so intense that the legislature mandated a program review, which only added to the pressure for change. One year later, officials at the Connecticut Department of Children and Families (DCF) undertook a thorough review of the literature on evidence-based programs in an effort to help identify possible programs for consideration. At that time, the most reliable signs pointed to MST as the best choice for keeping youth out of institutions. Federal block grant funding was available to train and support the implementation and evaluation of the first MST team in the state on a pilot basis. Interim findings from the program evaluation, which were widely circulated among all stakeholders, demonstrated that the program was performing as well as had been expected. Within just a few years, the active stakeholder group in the state had expanded to include court services, several university centers, a local foundation, an alliance of youth advocacy organizations, and many others (Franks, 2010).

By 2002, based on the positive results from the pilot MST program, state agencies began to expand the availability of MST across the state, as well as to identify other areas where programming could be improved. To carry out this second mission of seeking out more effective programs, as well as providing some of the technical assistance required by the new MST teams, state agencies created several resource centers, known as "Centers for Effective Programming." The first one established was the Connecticut Center for Effective Practice, which was a partnership between an independent institute (the Child Health and Development Institute), state agencies that serve children, and the state's major academic institutions with medical schools (Yale University and the University of Connecticut). Initially, the Center worked closely with MST Services, Inc. to become a licensed systems supervisor, providing all the training, coaching, quality assurance, and outcome evaluation through collaboration with local and national partners. Over time, the Center transitioned the quality assurance and systems supervision to another Connecticut-based organization and used the experience to build its internal capacity to develop expertise in the dissemination of this evidence-based program (Franks, 2010).

In addition to facilitating communication among stakeholders regarding MST and other evidence-based programs, these centers began to produce a steady stream of reports on how Connecticut could improve its programs for delinquent youth, and then to help agencies convert those recommendations into operational programs. Some of these included a new day reporting program, 24-hour emergency response trauma teams, and the development of an evidence-based practice curriculum for local colleges.

The development of evidence-based programs in Pennsylvania, also an early starter like Connecticut, followed along a somewhat different path. Unlike most other states, juvenile justice policy in Pennsylvania is largely controlled by the powerful Juvenile Court Judges Commission, which is an agency within the Governor's Executive Offices that has experienced staff to serve its research and planning needs. Another state agency with experience in research and evaluation is the Pennsylvania Commission on Crime and Delinquency, which controls most of the block grants that come to the state for juvenile

and criminal justice purposes. Both of these groups had a long-term interest in improving outcomes in the state. Also, the state was one of the first to adopt CTC in the early 1990s, which provided the best means of selecting evidence-based programs at that time (see Feinberg, Jones, Greenberg, Osgood, and Bontempo, 2010).

Like Connecticut, Pennsylvania has focused on the support of a small number of evidence-based programs and has developed a resource center. Located at the Pennsylvania State University, this center provides technical assistance to any state agency or group seeking assistance on evidence-based practice as well as with evaluating and reporting on the benefits being achieved by these programs.

The initial funding for evidence-based programs in Pennsylvania was provided by special funding established by then Governor Tom Ridge. Over time, this special funding for evidence-based programs was expanded to help new programs get started. Today, these programs are largely supported by regular funding streams in juvenile justice, education, behavioral health, and Medicaid.

Conclusions and Directions for Policy

Evidence-based practice in delinquency prevention has come a long way in the last 15 years in this country. This has been aided by several leading organizations and researchers providing authoritative and up-to-date lists of what works. Some of this progress also can be attributed to the application of cost–benefit models with findings showing that substantial monetary benefits can accrue to the government and taxpayers. Nothing captures the attention of a politician or policy maker quite like a government program that pays for itself. Leaders in state and local government across the country—not enough, for sure—also have played some role in championing evidence-based practice, ushering in the makings of a possible new era that values "getting smart" on crime over "get tough" practices.

Make no mistake, evidence-based practice in delinquency prevention has a long way to go. There are many challenges, including financial, institutional support for pet projects, and the complexity of the coordination and implementation process. Moreover, the rhetoric surrounding evidence-based practice continues to outweigh the reality, with far too many decision makers and advocates having their own interpretation about what constitutes evidence-based. Also, there is cause for concern about the uptake of legitimate evidence-based programs. In juvenile justice, it is estimated that only approximately 5% of youth who should be eligible for evidence-based programs participate in one (Hennigan et al., 2007). One reason for this poor participation rate is the general lack of accountability for performance within the juvenile justice system, or even any ability to measure outcomes. Only rarely does a jurisdiction take delinquency prevention and intervention seriously enough to measure the outcome of its efforts.

State governments are a vital component to advancing evidence-based practice and to ensuring that efforts at the local level can flourish. Our research shows that seven states—California, Connecticut, Florida, Maryland, New York, Pennsylvania, and Washington—are the early leaders in promoting evidence-based practice in delinquency prevention. Case studies of these states show a modest yet growing investment in several brand name evidence-based programs, including FFT, MST, and MTFC.

The experiences of Connecticut and Pennsylvania in particular offer many lessons for policy makers and practitioners in other states. Both states involved key stakeholders in identifying needs and making decisions about which programs to adopt. Evidence-based centers that were established by the states ensured a steady stream of reporting to stakeholders on how the programs were performing, with a special emphasis on documenting their impact on the state. States and communities interested in evidence-based practice should begin by pulling together a collaborative group, representing all the key stakeholders.

The first order of business for these stakeholder steering groups is to arrange for an assessment of their current programs. Both of these states began with a broad consensus that there had to be change. Next, the people assigned to research options followed an evidence-based approach. They focused on programs for which there was strong evidence of effectiveness. They looked at the quality of the research and at the impact of the program, and they projected their costs and benefits. They visited sites where the program under consideration was recently implemented, and they surveyed the participants. They selected a proven Blueprints program in an effort to address the deficiencies that had been identified in their current programming. In addition to receiving training in how to provide and manage the program, they were instructed about the monitoring and quality assurance process, without which the term "evidence-based" has little meaning. Lastly, once they had established the pattern of working with stakeholders to identify ineffective programs or underserved segments of their client population, it was only natural for one of the resource centers to review the evidence regarding the most effective intervention method for working with those particular clients.

Any jurisdiction will have its hands full for at least a year or two after implementing a new evidence-based program. There is a steep learning curve. Any organization identified as a resource center for evidence-based practice has to start by identifying a fairly small list of proven programs it is prepared to support. Developing expertise with several new evidence-based programs, all at the same time, is difficult and not recommended. Additional programs can be added to the list over time as demand requires.

With a growing knowledge base and much promise on the horizon, state and local governments and practitioners should be cautiously optimistic about the potential of evidence-based practice in delinquency prevention. Drawing on the lessons learned thus far and remaining open minded to new findings of evaluation research and the needs of communities will go a long way toward addressing the need for greater accountability,

effectiveness, efficiency, and sustainability in how we deal with young people who come in conflict with the law.

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A Broader View of Evidence-Based Programs Reveals More Options for State Juvenile Justice Systems

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Greenwood and Welsh (2012, this issue) provide an informative account of the efforts and infrastructure required to implement evidence-based programs at the state level in the juvenile justice system. The seven states selected as case examples, and Connecticut and Pennsylvania in particular, have been impressively proactive and progressive in adopting evidence-based model programs from the Blueprints list (colorado.edu/cspv/blueprints/). Indeed, Greenwood and Welsh's selection of these states was based on the extent to which they had adopted at least two of the three most widely used of these model programs—Functional Family Therapy (FFT), Multisystemic Therapy (MST), and Multidimensional Treatment Foster Care (MTFC).

Implementing these model programs as alternatives or replacements for the programs already supported by a state juvenile justice system has proven to be challenging. As Greenwood and Welsh (2012) point out, states must find ways to surmount such obstacles as the financial investment required, the political and community support for existing programs, the provider staff resistance to changing their preferred practices, and the demands of the implementation process required to replicate with fidelity the program as tested in the original research. The magnitude of those challenges requires a correspondingly large effort by state-level champions to overcome them. The relative success of the states featured by Greenwood and Welsh demonstrates that these obstacles can be overcome and provides important lessons about how that can be accomplished.

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Even in those states that have gone the farthest in implementing evidence-based model programs, however, those programs constitute only a small proportion of all the programs used with juvenile offenders and a relatively small proportion of offenders receive services from those programs. We know little about the effects of taking such programs to scale on a statewide basis, or even whether they can be implemented effectively on such a broad scale. Only a limited number of programs is supported by evidence that meets the highest standards, and they may not provide appropriate services for every offender needing treatment statewide. It is not clear that the organizations that disseminate these programs have the capability to support the training, implementation, and monitoring that would be required if they were to be so extensively adopted across a state, much less multiple states. And, of course, the financial investments required and the political resistance from established programs and their advocates that Greenwood and Welsh (2012) aptly describe would be proportionately greater as the number of programs to be replaced by evidence-based model programs expanded.

When a program is needed that will necessarily have to be newly implemented to fill a gap in the existing program repertoire, selecting an evidence-based model program may well be the best choice if an appropriate one is available. And even then the best approach would be to introduce the program on a pilot basis and evaluate its effectiveness in the local context before expanding, like the Washington State experiments with Functional Family Therapy and Aggression Replacement Training (Barnoski, 2004). But what about existing programs that do not adhere to specifications that define any of the model programs? Do they need to be replaced with model programs for a state juvenile justice system to have some assurance that their interventions with offenders are effective?

One could certainly get the impression from the current discourse that the only programs supported by credible research findings are those that appear by name on one of the lists of evidence-based programs such as Blueprints, the Office of Juvenile Justice and Delinquency Prevention (OJJDP) model programs guide, CrimeSolutions.gov, and the like. In fact, the research studies conducted on all the named programs on all those lists constitute only a small portion of the total body of research investigating the effects of programs for juvenile offenders. Most of the available research has been conducted on no-name or homegrown programs that are not on any list and, in most cases, are not so different from the programs already being used by juvenile justice agencies.

Greenwood and Welsh (2012) mention the meta-analyses that were conducted to describe the findings of this larger body of research, but they do not elaborate on those findings or their implications for evidence-based programming in juvenile justice. Many meta-analyses of broader or narrower scope (see Table 1 in Lipsey and Cullen [2007] for synopses of 19 of these) have been published, and they provide a perspective on effective programs that is different from that of the model program approach. First, with few exceptions, they focus on generic program types rather than on specific named programs, for example, family therapy programs as a program type that includes brand name programs

like FFT as well as similar unbranded programs. That broader definition of what constitutes a program brings many more research studies into the evidence base than are available for any one named program. More important, however, are the findings of the positive effects for many of these generic program types and the identification of the program characteristics associated with the most positive effects. This evidence documents the effectiveness of many of the kinds of programs already in use in juvenile justice systems and justifies the claim that they too are evidence based despite their absence from the model program lists.

To illustrate these points, a brief overview follows on the findings of Lipsey's (2009) large-scale meta-analysis, with particular attention to the factors associated with variation in programs' effects on recidivism.

Meta-Analysis of the Recidivism Effects of Interventions with Juvenile Offenders

The database for this comprehensive meta-analysis includes information on 548 independent study samples located through an extensive search for published and unpublished reports of research that (a) involved juveniles 12 to 21 years of age who received an intervention intended to have positive effects on their subsequent delinquency, (b) used a random assignment or high-quality quasi-experimental design and measured at least one delinquency outcome, and (c) was conducted in an English-speaking country between 1958 and 2002.

Factors Related to the Magnitude of the Recidivism Effects

Multivariate analyses were used to identify the intervention characteristics most strongly associated with recidivism effects while statistically controlling for methodological differences across the studies. These analyses focused on the influence of the type of intervention, the amount and quality of service, the characteristics of the juveniles served, and the level of supervision applied to those juveniles.

Type of Intervention

An important difference in the effects on recidivism was found for programs that relied mainly on external control techniques for suppressing delinquency and those that used a more therapeutic approach. The control approaches included programs attempting to instill discipline (e.g., boot camps), aiming at deterrence through fear of consequences (e.g., prison visitation programs such as Scared Straight), or emphasizing surveillance (e.g., intensive probation or parole supervision). These approaches, on average, showed negative or minimally positive effects on recidivism.

The programs viewed as taking a therapeutic approach were those that attempted to bring about behavior change through improved skills, relationships, insight, and the like. This category included programs with a focus on restoration (e.g., restitution and victim–offender mediation), skill-building (cognitive, social, academic, or vocational skills),

counseling (individual, group, or family and mentoring), and multimodal or multiservice interventions designed to provide a package of multiple services tailored to the needs of individual juvenile offenders or groups of offenders. These programs overall were notably more effective than those taking a control approach and, moreover, showed average positive effects on recidivism for every generic program type nested within the broader categories listed earlier.

For example, positive average effects on recidivism were found for each of the major types of counseling, with the largest effects appearing for group counseling and mentoring programs. Specific brand-name model programs are embedded within these generic program types that show positive effects on recidivism, as we would expect, but they do not show notably better effects than no-name programs of the same type. For instance, Functional Family Therapy and Multisystemic Therapy are both included in the generic program type labeled "family counseling." The effects for those model programs, however, fell within the same range as the other family programs in this collection. Indeed, some no-name programs produced effects larger than those found for the model programs.

The implication of these findings for juvenile justice agencies is that there is evidence of effectiveness for any program they are using that is an instance of one of the many generic types that fall within the broad therapeutic category as defined in this meta-analysis. The meta-analysis findings, however, show *average* positive effects for such program types, and there is great variation around those averages. Just as model programs must be implemented with fidelity to their protocols before effectiveness can be assumed, programs of one of these generic therapeutic types must be implemented in a way that matches the characteristics of the programs in the corresponding research with average or above average effects.

Service Amount and Quality

Within a given program type, recidivism effects varied with the amount of service provided—they were generally better with longer service duration and more contact hours up to a point of diminishing returns. The recidivism effects were also related independently to the quality of the implementation. Higher quality implementation was indexed in the meta-analysis by involvement of the researcher or program developer in the monitoring and quality control of the service delivery and no mention of implementation problems in the study report. When researchers or developers are involved in service delivery, we expect them to have clear ideas about what the program is and how it should be implemented, to ensure that providers are adequately trained, and to monitor service delivery and attempt to correct any shortcomings that occur.

Consider, then, a local program of a generic type for which average positive effects were found in the corresponding research studies. To draw on that evidence as a basis for expecting such a program to be effective, it is not sufficient for it to be recognizable as an instance of that program type. The quality of the program implementation and the amount of service for that program also must be consistent with the levels the research evidence

shows are associated with at least the average effect for that program type. To the extent that a local program matches those levels, the expectation that it is effective is evidence based.

Characteristics of the Juveniles

The meta-analysis found negligible relationships between the mean age, gender mix, and ethnic mix of the juveniles and the effects of the programs on recidivism, indicating that intervention effects are relatively robust across these differences. The one characteristic of the juveniles receiving interventions that did show an overall relationship with recidivism outcomes was risk for delinquency. Interventions applied to high-risk delinquents, on average, produced larger recidivism reductions than those applied to low-risk delinquents. This finding thus also describes a program characteristic—the treated juveniles' risk for later delinquency—that must reach a certain level to justify the claim that research evidence supports its effectiveness.

Other Features of the Interventions

The meta-analysis found no other general features of the interventions that were associated with the magnitude of their effects on recidivism. Most notably, with the risk level statistically controlled, no differences were found in the recidivism effects for juveniles treated in different juvenile justice supervision contexts—in the community or in secure facilities, or under probation supervision, or diverted. Doubtless other important features were not reported sufficiently in the research studies to allow them to be coded and included in the analysis. What is evident, however, is that each factor identified previously has a relatively strong independent relationship to the recidivism effects. As such, they provide a basis for assessing the extent to which a wide range of commonly used programs is supported by evidence of effectiveness.

Assessing How Well Programs Match Evidence of Effectiveness for Their Generic Type

The analysis results summarized previously can be reformulated as criteria for assessing the extent to which a given local program matches the programs found in research to be effective for reducing the recidivism of juvenile offenders. Stated in general terms, those criteria are as follows:

- Does the primary program service fall within one of the generic therapeutic categories for which research evidence shows average positive effects?
- Does the amount of service provided at least match the average amount in the supporting research for that program type?
- Does program implementation follow a defined protocol, use providers trained in that protocol, and monitor the quality of the service delivery for adherence to that protocol?
- Do the juveniles receiving the program have sufficient risk to permit significant reductions in subsequent offending?

We have operationalized these simple evidence-based criteria in a program rating scheme called the Standardized Program Evaluation Protocol (SPEP) that can be used by service providers and juvenile justice systems to assess their programs for juvenile offenders. The SPEP applies to any therapeutic program type for which there is a sufficient body of supporting research in our large meta-analytic database. The program aspects rated include the type of services provided (primary and supplemental), the amount of service (duration and contact hours), the quality of implementation, and the risk level of the youth served. The ratings themselves are derived from data about the services the rated program actually provides, typically generated by a management information system maintained by the program provider or the juvenile justice system that uses the program.

The maximum number of points available for each rated aspect of the program is proportionate to the strength of that factor for predicting recidivism effects in the meta-analysis. The program services are classified into different types using descriptive information from the provider and a glossary of service descriptions derived from the associated research studies. They are rated according to the average effect of the respective service type that was found in the meta-analysis. The target values for treatment amount (duration and hours of contact) are set at the respective medians from the research on the service type being rated. For manualized programs supported by research specific to those programs (e.g., Blueprints programs), the amount of service targets specified by the developer are used instead. The implementation quality rating is based on information about the program protocol, provider training, and quality monitoring. The risk level of the juveniles served by the program must be determined from a risk-assessment instrument administered to each juvenile prior to treatment.

Demonstration projects with the SPEP have been conducted in the state juvenile justice agencies of North Carolina and Arizona, and another is underway in Tennessee. A validation study in Arizona (Lipsey, 2008) compared the risk-adjusted recidivism rates for juveniles served by programs with low SPEP ratings with those for juveniles served by programs with high ratings. The 6-month recidivism rate for juveniles served by the lower scoring programs was virtually the same as the rate predicted by their pretreatment risk factors. The recidivism rate for juveniles served by the higher rated programs, however, was 12 percentage points lower than expected on the basis of their risk level. The results were virtually the same for juveniles with 12-month recidivism data. A replication of this analysis with more juveniles and SPEP-rated programs was conducted by the Arizona research staff after the SPEP had been rolled out statewide and showed similar results (Redpath and Brandner, 2010).

These recidivism studies provide promising indications of the validity of the SPEP for identifying effective programs and guiding improvement for ineffective ones. Our experience with the SPEP indicates that it can be used by service providers and juvenile justice agencies with only modest adaptations to their data collection and management information systems. Moreover, the logic of its ratings as direct representations of the predictive factors from the

meta-analysis gives it credibility as a basis for judging the extent to which a program is supported by research evidence of effectiveness.

Embedding Evidence-Based Programs in a Risk-Management Model of Juvenile Justice

Greenwood and Welsh (2012) highlight the successful efforts of early adopter state juvenile justice systems to implement evidence-based model programs that were not previously part of their repertoire. These developments are certainly an important step forward for evidence-based practice and have the potential to improve outcomes for the youth served in those states. Our comments call attention to the fact that evidence is available that supports the potential effectiveness of many of the previously established programs in juvenile justice systems as well. Reaching that potential not only requires programs of a type shown by available research to be effective on average but also ensures that they provide an adequate amount of service and quality of implementation to sufficiently high-risk juveniles. Some programs may already meet these standards, and many of those that do not can reach their potential through incremental program improvement efforts. Achieving the benefits of evidence-based programming thus does not require that every program that serves juvenile offenders be replaced with a model program.

However attained, evidence-based programs are more likely to be sustainable and to produce larger system-wide payoffs if the capacity of the juvenile justice systems to manage offenders is strengthened. This means adopting a preventive risk-management model of juvenile justice (Slobogin and Fondacaro, 2011) that determines program placement and supervision levels on the basis of objective risk and needs assessments. It also means supporting individualized case-management plans focused on improving future behavior to achieve public safety goals rather than sole reliance on punishing past behavior.

The Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders (Howell, 2009; Wilson and Howell, 1993) provides scaffolding and management tools that can be used across entire juvenile justice systems for promoting effective matches between evidence-based programs and offender treatment needs on an ongoing basis. The Comprehensive Strategy is a forward-looking administrative framework organized around a statewide continuum of prevention and intervention programs and graduated sanctions options that parallel offender career trajectories. It incorporates best practice tools including validated risk and needs assessment instruments, a disposition matrix to guide placements in a manner that protects the public, protocols for developing comprehensive treatment plans, SPEP program ratings and guidelines for improvements, and program quality assurance. The prospects are good that proper use of these tools to manage a spectrum of effective programs will improve the outcomes for juveniles who come into contact with the juvenile justice system and, with that, the cost effectiveness of the system itself (Lipsey, Howell, Kelly, Chapman, and Carver, 2010).

Three states that Greenwood and Welsh (2012) feature (Connecticut, Florida, and Pennsylvania), along with Arizona and North Carolina, are implementing the SPEP currently in conjunction with the Comprehensive Strategy framework. These states are thus engaged in a pioneering effort to integrate model program implementation, identification, and improvement of established local generic programs; and effective use of decision-making tools. Their experiences with these initiatives and the success they have in optimizing the performance of their juvenile justice systems will provide valuable lessons and models of national importance in these times of diminishing public resources.

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POLICY ESSAY

DELINQUENCY PREVENTION

Building Evidence for Evidence-Based Policy Making

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With declining high-school graduation rates and comparatively high rates of adolescent violence and problem behavior in this country, we are in a moment of great need for effective federal and state policy to prevent juvenile delinquency. Leading intellectuals in the field, including Ron Haskins (Haskins and Baron, 2011), Jon Baron (Baron and Haskins, 2011), and Steve Barnett, have recently called for adoption of a technocracy: They have asked policy makers to use the *science* of prevention to guide policy making and funding. Haskins and Baron (2011) wrote persuasive essays arguing that if policy and funding decisions were made based on evidence of what works, then we would experience better population-level outcomes in education, crime, and child well-being; furthermore, we would save costs and solve the deficit crisis.

Faith in technocracy has won the day (mostly) in health care: It is virtually impossible to enter a hospital with a disease and not have both patients and physicians call up data on its prevalence, course, and treatment. Insurance providers make reimbursement decisions based (mostly) on evidence. We can point to improvements in the population-level health of our citizenry that result. One might quibble with the validity of the empirical evidence, but we cannot quibble that as public policy we have accepted the technocratic philosophy that empirical evidence *should* rule the day in medicine. The same can be said about energy, the environment, and the economy. But in matters affecting children, we are a long way from a technocratic culture. Jon Baron (2007) summed up the contrast well:

> In medicine . . . rigorous evaluations are common, and often drive policy and practice. By contrast, in education and most other areas of social policy, such

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> studies are relatively rare. In these areas, policy and practice tend to be driven more by advocacy studies and anecdote than by rigorous evidence, costing billions of dollars yet often failing to produce meaningful improvements in educational achievement, employment and earnings, or rates of substance abuse and criminal behavior. (p. 32)

Call to Disseminate Evidence-Based Programs

Greenwood and Welsh (2012, this issue) lead with the fact that evidenced-based intervention programs (EBPs) such as Multisystemic Therapy (MST), Functional Family Therapy (FFT), and Multidimensional Treatment Foster Care (MTFC) have been developed in academic settings based on developmental science and have been shown through small-sample, well-controlled, randomized trials to alter the trajectory of a child's development, and they assert that the next step is to persuade state policy makers to align their funding to saturate the population with these programs. Their call is consistent with the Institute of Medicine's (IOM's; Mrazek and Haggerty, 1994) recommendation that prevention science and policy should follow a course that (a) begins with epidemiology and basic science; (b) moves to replicated small-sample, randomized controlled trials in pristine conditions, called efficacy studies; (c) expands to field demonstrations, called effectiveness trials; and (d) culminates in population-wide dissemination.

Greenwood and Welsh (2012) review the efforts of seven states to disseminate EBPs, and they herald especially the efforts and progress of Connecticut and Pennsylvania. Their case stories communicate much wisdom that will be of use to state-level stakeholders. They propose that the benchmark of "success" for a state should become the number of these proprietary brand-name programs per million residents, which we call the penetration rate. Unfortunately, EBP penetration rates are often low.[1] Even if the penetration rate improves substantially, however, we are not satisfied that this outcome should suffice. What evidence supports the contention that increasing the EBP penetration rate will bring improved population-level impact on youth outcomes?

Application of the IOM Model to Behavioral Interventions

Evidence suggests that the impact of EBPs on population rates of disorder might be less than what policy makers are led to expect. We cannot think of a single demonstration in which the scaling up of an evidence-based social program for youths has led to a demonstrated change in the population rate of an important child outcome. Why has the IOM plan not yet succeeded? We suggest that two complementary factors operate, and together they suggest a new and different approach.

1. In juvenile justice, only 5% of Californian youths who should receive an EBP actually receive one (Hennigan et al., 2007), and the rate is surely lower in some other states.

Program Implementation in Community Settings

When university-inspired social programs are disseminated in communities, not only do they yield low penetration rates (in terms of the percentage of eligible individuals who utilize services), but they also tend to degrade as a result of lower per-case funding levels, lower credentialing of interventionists, lower supervision, and lower fidelity of implementation. Welsh, Sullivan, and Olds (2010) called this effect the "scale-up penalty" and estimated it at 50%. Some changes in implementation are not merely degradation but are planned adaptations to accommodate a new population or context. The impact of these planned variations is not always positive, and the general impact of disseminated programs (called "clinic therapy" by Weisz and Jensen, 1999) on child outcomes tends to be lower than that reported in the original randomized trials (called "lab therapy" by Weisz and Jensen, 1999). We suggest that this slippage is not only a result of degradation but also of mismatching of the program with the population and context. MST, FFT, and MTFC were all developed with "volunteer" families that had some degree of motivation, and they were implemented with small numbers of families in a context in which the marginal demand on community resources was low. These interventions depend on cooperation from school teachers, ancillary after-school programs, and professional community service providers to maximize impact on the individual family. When the number of families involved is low, as in most randomized trials, there is little net strain on community resources, and the intervention families might have a comparative advantage. When a program is implemented at scale, however, the strain could become greater than the community's ability to respond. The result could be a decreased net impact on child outcomes. All of these factors may contribute to a community's sense that the program is not working.

Program Framing in Community Settings

A second factor in scaling up programs is how they are framed. To the university researcher, the framing and goal of the intervention program might well have been to test a theory about how problem behaviors develop rather than to change a community. To community members, this framing, oriented toward community, family, and individual "deficiency," is disconcerting, to say the least. The framing of a problem and its solution determines the willingness of community members to participate, alters stereotypes, and shapes outcomes (Dodge, 2008). A program that has been developed by university researchers in a distant context with a different population might not be well received when thrust on a new community, and it could result in less compliance, fewer resources, and negative expectations.

Utility of the IOM Model for Behavioral Interventions

We suggest that the IOM model, while fitting for pharmacotherapies, is not well suited to psychosocial programs for youths whose problem behaviors are contextually bound. Instead, we propose starting not at the basic-science end of the continuum but rather at

the community-impact end. Program developers should imagine the community's problem and possible population impact, and then they should work backward to envision how to achieve that impact. By doing so, program developers will take into account the overall community resource constraints and the framing of the problem and its solution, and they will be able to integrate those circumstances with the developmental science that will still undergird a program's rationale. This new approach does not imply ignoring basic science, of course, but rather, it suggests integrating that science with an understanding of community context. The difference is between laboratory science and engineering, where the engineer takes the actual circumstances as a given in designing a solution. Program development and implementation might take longer, but it will come with greater stakeholder participation and fewer problems in future disseminations. The "transportation penalty" of disseminating a program from one community to another might well be less than the "scale-up penalty" that plagues current EBPs.

Whether a program is developed as wholly new within a community context or is adapted from an existing program, this discussion suggests the need for continued measurement of child outcomes and evaluation of impact, *even, or especially,* during dissemination. We fear that an exclusive emphasis on penetration rates could lead to apparently successful efforts that genuinely have little impact on public health. So we call for an effort to build evidence regarding the impact of strategies for implementing EBPs.

Policy Implications for Intervention Psychologists

An approach to program development that originates in the community has implications for program developers, researchers, and evaluators. First, we suggest that social behavioral interventionists should take control of their policy agenda. Second, in defining and promoting this agenda, interventionists should deploy the same scientific methods used in designing and evaluating EBPs. To these ends, the following section outlines recommendations to supplement Greenwood and Welsh's (2012) proposals.

Generate Consensus on What "Evidence-Based" Means

Although psychologists have progressed in evaluating the evidence base for treatments, various competing standards have emerged. Intervention evaluators differ in terms of (a) the type and quantity of evidence they require to designate a program "evidence-based" and (b) the type and meaning of "evidence-based" labels they assign (Chambless and Ollendick, 2001). To write a persuasive core story about EBPs, the intervention community must generate consensus and endow the label "evidence based" with reliable and valid meaning. A failure in this regard would place politicians in a position similar to consumers when shopping for "natural" foods; they would be forced to study a program's jargonistic packaging to understand how and to what degree it is "evidenced based."

One problem emerges when considering a disseminated program's fidelity to an original model. Adaptations are often needed and may be inevitable, but less clear is whether they are meaningful. To clarify how programs may be adjusted during implementation, interventionists should consider emphasizing evidenced-based principles of change (EBPC) instead of, or as the foundation of, specific EBPs (Rosen and Davison, 2003). To illustrate the value of EBPCs, consider how physicians treat heart disease by managing a set of risk factors. Physicians, knowing that high blood pressure is associated with cardiac disease, use tools that reduce blood pressure (e.g., medication, exercise, weight loss, and low-sodium diets). The precise combination of methods employed is less important than reaching the theoretically sensible and empirically validated proximal and distal goals—decreasing distal heart disease by lowering proximal blood pressure. Moreover, in prescribing blood pressure medication, a physician does not prescribe a fixed dosage previously found to be effective in a randomized clinical trial; rather, best practice is to titrate the dosage until the specific patient's blood pressure is lowered to a range associated with reduced risk. With this model in mind, it is time to extend Lipsey's (2009) meta-analytic work to examine the precise mechanisms of change within treatment modalities. For example, change in which beliefs predicts effectiveness in cognitive-behavioral therapy for adolescents?

A shift in focus to EBPCs may provide three benefits. First, it will direct interventionists' attention toward the basic science of change and away from proprietary programs that constrain access to treatment (Rosen and Davison, 2003). We have concerns that well-intended advocates for children might be channeling public funds toward proprietary corporations in a way that limits rather than improves the public's options in the long run. The developers of MST, FFT, and MTFC have the loftiest of goals, no doubt, but public policy needs to be open to equally, or even more, effective options. Second, EBPCs will ultimately lead to greater effectiveness than high-fidelity EBPs because EBPCs allow for greater contextual specificity and sensitivity to individual differences. Third, EBPCs may promote greater cost effectiveness by allowing interventionists to streamline existing EBPs. Moreover, despite the research highlighting the importance of treatment fidelity, researchers may find that chasing higher levels of fidelity does not decrease scale-up penalties enough to justify increased implementation costs.

Examining Institutional Structures and Political Mechanisms of Change

Greenwood and Welsh (2012) examine how the decentralized administration of social services at the county level may serve as a barrier to change. Taking the issue a step further, behavioral interventionists should team with other social scientists to examine whether and how EBPs can effect population-level change when selected, implemented, and evaluated at the community and county level. For example, meta-analyses might be conducted to consider whether states with centralized control over the administration of social services observe different scale-up penalties than states with decentralized control. Regression discontinuity designs could be used to examine (a) how state-level legislation

(or the establishment of centers to promote evidenced-based policies) affects the rate at which EBPs are adopted at the county and community level and (b) the impact that higher EBP penetration rates have on the rate of change for population-level child outcomes.

Translational Advocacy

Intervention scholars should replicate the efforts of developmental scholars and team with communications experts to formulate strategies to promote and evaluate evidenced-based practices. The first step in the communications process is to identify the "core story" interventionists want to share with their audience (Shonkoff and Bales, 2011). Second, interventionists need to identify frames that communicate such a story accurately and in a manner that promotes action (Dodge, 2008). Work at both stages should be informed by empirical research (see Shonkoff and Bales, 2011).

The advocacy goal could be the enactment of state-level legislation that is consistent with, but even more ambitious than, that outlined by Greenwood and Welsh (2012).[2] Two related mandates may be instrumental in effecting change. First, when selecting from competing programs addressing overlapping social problems, publicly funded providers should be obligated to fund an EBP first, if one is available. Second, whenever a publicly funded provider funds a non-EBP, it should be obligated to provide rigorous evaluations to its state governing body (thus promoting science and "policy learning") (Weissert and Scheller, 2008). Although these legislative proposals require substantial clarification (e.g., when to treat programs as addressing the same or distinct social problems and whether to permit jurisdictions to fund low-cost non-EBPs when competing EBPs are unaffordable), requiring publicly funded social service providers to preference programs proven to work is on its face a relatively uncontroversial proposition.

Establish Best Practices for Economic Analyses

Interventionists should partner with economists to establish a set of best practices to employ when conducting economic analyses of intervention impacts. The first question to ask is what analytical method is most appropriate (see Adler, 2010). The second and related question is what variables should be included in economic analyses, as the selection of variables substantively defines intervention results and, therefore, the core story that is told. At least three factors should be considered.

*1. **Well-being.*** The type of cost–benefit variables included in economic analyses can alter results dramatically. More narrowly, there is a long-standing debate about the role of (see Bok, 2010; Diener, 2009) and methods used to calculate (e.g., Adler, 2010; Adler and Posner, 2008; Klose, 1999; Smith and Sach, 2010) nonmonetary factors such as well-being

2. Some have argued that legislative intervention should occur at the federal level (Greer and Jacobson, 2010); however, the historic inability of Washington to generate consensus on health-care policy suggests that state level action may be the only politically feasible path in the near term (Greer, 2010).

in health policy analyses (economists' effort to monetize well-being notwithstanding). For example, the Pew Center for the States (Weiss, 2011) released a brief citing the cost of child abuse as $30,000 per child abused when based on tangible costs alone and $200,000 when intangible costs are included (U.S., price years not reported).

2. Scope of analysis. The scope of cost–benefit variables raises important theoretical questions to consider during intervention design and evaluation. The first issue of scope deals with the unit of analysis. When conducting economic analyses, should one constrain results by an "intent-to-treat" model, considering only those individuals directly and intentionally affected by the intervention, or should value be analyzed according to the treatment's impact on the population (e.g., at a community level)? This question is particularly important when there is a distributive component to an intervention, as in the Moving to Opportunity trial (MTO), where certain families received lottery-granted vouchers enabling them to move from low-income housing developments to private residences in less economically depressed communities (Kling, Liebman, and Katz, with the Joint Center for Poverty Research, 2001). Moreover, if valuing the MTO at the community level, should both the community of origin and the community of destination be considered? The second issue of scope relates to temporal constraints. For example, one trial of the Nurse Family Partnership yielded fewer pregnancies in nurse-visited mothers than among controls (Olds et al., 2009), a result that undoubtedly ripples across generations. Should one attempt to model the impact of such long-lasting results? If so, how?

3. Specificity of calculation. One can perform an economic analysis of an intervention's value based on how it was implemented in a single trial or how it might be implemented prospectively in other cultural, geographical, temporal, and political contexts. For example, an effort to quantify the value of decreased visits to emergency rooms prompts the question of whether to report net savings based on local hospitals' cost of services, the average cost of such services in the county, state, or nation, or some combination thereof. Moreover, one can perform economic analyses targeting a specific outcome or calculate costs and benefits holistically. For example, Greenwood, Model, Rydell, and Chiesa (1996) compared the relative cost effectiveness of implementing (a) four delinquency prevention programs (home visits/day care, parent training, graduation incentives, and delinquent supervision) and (b) a "three-strikes" law in California, as a function of (i) nominal costs, (ii) total crimes prevented, and (iii) costs-per-crime prevented, without regard to outcomes outside the realm of law enforcement, such as changes in expected lifetime earnings and social service utilization. Finally, by revisiting an issue raised earlier in the context of scope, an evaluator might select one or more perspectives when valuing a program, including taxpayers, victims, offenders, and implementing agencies, as costs and benefits are not uniformly distributed (Welsh and Farrington, 2000).

Additional considerations. Ultimately, best practices should be designed to make the core story valuable for the intended audience (service consumers, service providers, voters, and policy makers). A key feature of such value is consistency across studies.

Without consistency, policy makers cannot use economic analyses to compare and prioritize competing programs and funding priorities.

Whenever possible, interventionists should employ experimental designs, particularly population-level experimental designs, that allow evaluators to use administrative and public records to measure effectiveness (Dodge, 2011). Doing so may increase external validity and make analyses more interpretable by, and salient to, policy makers. Finally, interventionists should partner with economists early in the design stage to identify ex-ante valuation strategies (Welsh and Farrington, 2000) and grant reviewers should consider the merits of such strategies in applications.

Conclusion

We applaud the effort by Greenwood and Welsh (2012) to tell the stories of how evidence-based programs are being brought to scale by various states. In doing so, however, we hope that the most important message is not lost. The goal is *not* to proliferate specific proprietary programs but to improve the well-being of a community's population. Thus, we advocate a rigorous evidence-based approach to evaluating the dissemination of evidence-based programs and the impact thereof, lest we find ourselves, a decade from now, lamenting misplaced faith in a technocratic agenda.

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IMPACTS OF EXECUTIONS ON HOMICIDES

Deterrence and the Death Penalty

A New Look at Some Recent Findings

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Between 1977, after the Supreme Court essentially reinstated capital punishment with *Gregg v. Georgia* (1976), and the end of 2010, nearly 8,000 people were on death row in the United States (Snell, 2011). More than 1,200 were executed (Snell, 2011). The post-*Gregg* era is only the latest chapter in this country's centuries-old use of capital punishment and in the ongoing debates over its impact, fairness, and morality. Policy makers and scholars have been especially interested in whether the death penalty serves a crime-control function by deterring prospective murderers. The ongoing interest in and dialogue about this potential effect of capital punishment are important because it behooves us as a society to understand exactly what impact we have when we administer the ultimate punishment.

Expectations of deterrence follow from the basic idea that potential murderers decide whether to kill after considering the benefits and costs of killing. Because death is a great cost, the threat of execution could tip the decision in favor of not killing. Yet there is very mixed evidence on whether that happens, and definitive conclusions are further hampered by the use of data and methods that are several steps removed from the offender decision-making processes of interest (National Research Council, 2012). A review of the available evidence recently led a National Research Council committee to conclude—again—that we still do not know whether the legal status or use of capital punishment has any influence on homicide (National Research Council, 2012).

On the heels of the committee's report comes Land, Teske, and Zheng's (2012, this issue) extension of their earlier work (Land, Teske, and Zheng, 2009)—previous work that Radelet (2012, this issue) notes has been cited approvingly by death penalty supporters.

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Then, and now, their data come from Texas, the state with the greatest number of post-*Gregg* executions (Snell, 2011) and the state that our policy essayists note seems to drive past findings of deterrent effects. Using monthly time-series data on executions, felony homicides, and non-felony homicides, Land et al. (2012) discover that their previously found short-term deterrent effect apparently holds only for non-felony homicides and that some of those homicides are displaced to the following month. Felony homicides actually increase slightly after an execution. Yet the felony homicides are the homicides that are eligible for the death penalty. This poses an interesting problem for the deterrence interpretation. Not only is the apparent deterrent effect driven by Texas, but even there it seems to be driven by reductions in the wrong type of murder.

What, if anything, does this tell us about deterrence and the death penalty? Land et al. (2012) suggest that their findings point to subtypes of potential murderers who might respond differently to the threat of execution. Perhaps non-felony murderers are sensitive to the threat of execution, even if they are confused about which crimes are capital offenses, whereas the thought of sanctions actually makes hardened criminals' offenses more deadly by motivating them to eliminate witnesses. As Land et al. note, they can only speculate about these mechanisms because researchers have yet to open the black box of homicide offender decision making (National Research Council, 2012). Given this black box, can we call the observed effects deterrence and brutalization?

The policy essayists recast Land et al.'s (2012) findings in light of key elements of classic and modern deterrence and choice perspectives, namely information, risk, and other aspects of the sanction regime. First, a deterrent effect of capital punishment would depend on potential murderers' consideration of its authorized and actual uses, and we know almost nothing about their knowledge and perceptions (Fagan, Geller, and Zimring, 2012, this issue). How would they know what the execution time series looks like, so that they could adjust their behavior accordingly? Hjalmarsson (2012, this issue) suggests that they could learn through word-of-mouth—which she reasons would be more, not less, likely for more serious offenders—or through the media. Yet by her calculation, only one third of Texas executions are covered by major media outlets. Radelet (2012) suggests that this could be compounded by potential murderers' below-average knowledge of current events. If word of executions never reaches potential murderers, then their association with homicide could not be deterrence (National Research Council, 2012).

Second, notions of deterrence direct attention to both statutory and practical risk. Fagan et al. (2012) suggest that nearly half of death penalty-eligible homicides in Texas may fall in the non-felony homicide category (e.g., killings of young children and contract killings), and our interpretation of the findings could hinge on whether declines in those homicides are producing the apparent deterrent effect. In addition, Fagan et al. note that murderers' real risk of execution is low, raising the possibility that even perfect knowledge of the risk would not be sufficient for deterrence.

Finally, Radelet (2012) and Fagan et al. (2012) note that the key issue for policy is the marginal deterrent effect of execution over the next worst punishment, which in Texas in 2005 became life without the possibility of parole. This policy change occurred at the tail end of Land et al.'s (2012) time series. For deterrence to occur under this new condition, some potential murderers must be willing to risk life without the possibility of parole but be unwilling to risk execution (Radelet, 2012). Fagan et al. (2012) suggest that although life without parole seems to be changing the nature of sentencing in Texas, these changes may not be affecting homicide rates.

Together, this collection of papers suggests that if executions have deterrent effects at all, they are not the ones we might expect, and the currently available evidence cannot tell us why. By identifying an important contingency in their previous findings, Land et al.'s (2012) work leads us to think carefully about the relatively unstudied mechanisms linking capital punishment with homicide and to consider new and creative ways of studying the impact of executions.

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EXECUTIVE SUMMARY

IMPACTS OF EXECUTIONS ON HOMICIDES

Overview of: "The Differential Short-Term Impacts of Executions on Felony and Non-Felony Homicides"

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Research Summary

Social scientists have debated about whether the death penalty and/or executions deter homicides and thus save lives for at least half a century. Recent empirical analyses by Kovandzic, Vieraitis, and Boots (2009) and Land, Teske, and Zheng (2009) implied that if a deterrent effect of executions exists, it is small in magnitude and relatively short term. Discussions of Kovandzic et al. (2009) by Donahue (2009) and Rubin (2009) led to the question studied in this article: Do executions impact felony and non-felony homicides similarly? To address this question and build on recent studies, monthly time-series data on counts of executions and felony-type and non–felony-type homicides in Texas for the years 1994–2007 are analyzed. The results indicate a modest reduction, a deterrence effect, of approximately 1.96 non–felony-type homicides in the month after an execution followed by a rebound in the following second month with a net effect of 1.4 during a 12-month period. By comparison, the corresponding analyses of the felony-type homicide events series produce an estimated increase, a brutalization effect, in the month after an execution of approximately 0.5 homicide events. Combining these two counterbalancing effects produces a slight short-lived deterrent effect of an execution on all homicides taken together. This finding is consistent with the previous findings of Land et al.'s (2009) analyses of all homicides grouped together and with findings from prior studies of felony- and non–felony-type homicides.

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Policy Implications

These findings provide additional evidence that the deterrent effects of executions are modest and short term. In addition, they imply that there would be little, if any, deterrence of homicides in Texas if executions were not used frequently. Recently however, Texas has been a state with (a) a large population, (b) a large number of capital murders and convictions, (c) a continuing stream of convicted murderers sentenced to death, and (d) a willingness to use executions extensively. Whether the modest, short-term deterrent effects of executions found in Texas occur in other states is an open question. But it is evident that few other U.S. states have these four characteristics. At the same time, the downside of the use of executions extensively in Texas is a partially counterbalancing brutalization effect—a slight, short-term increase in the frequency with which perpetrators of felony crimes such as robbery kill in the process of committing the crime. And none of this speaks to ethical or cost–benefit issues in the use of capital punishment as a public policy.

Keywords

capital punishment, *executions*, *homicides*, *deterrence*

RESEARCH ARTICLE

The Differential Short-Term Impacts of Executions on Felony and Non-Felony Homicides

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Does the death penalty save lives? More sharply, do executions deter homicides? Alternatively, does the state sponsorship of executions brutalize the society, leading to the devaluation of human lives, and a subsequent increase in homicides? Or is there simply no detectable impact of executions on homicides? These and related questions have stimulated much social science research during the past several decades. Early reviews of the literature and analyses by Schuessler (1952) and Sellin (1967) are indicative of the long-standing criminological interest in the effects of the death penalty.

Deterrence questions have been animated in recent decades by the application of price theory to crime and criminal justice, in the form of Becker's (1968) human capital paradigm (Donohue, 2009: 795). Becker's theory emphasized rational choices by individuals to whom the severity as well as the certainty of punishment would be salient. This theory gave credibility to the proposition that the ultimate severe penalty of capital punishment serves as a general deterrent to homicides and that individuals living in a jurisdiction should respond to changes in the use of this punishment. The past decade has observed a new round

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of research, critiques of that research, and policy debates focused precisely on whether any credible empirical evidence demonstrates the existence of this general deterrence effect of capital punishment.

This article addresses deterrence questions by focusing on short-term effects using monthly time series for the state of Texas for the years 1994–2007. Specifically, it reports exploratory studies of whether executions impact felony and non-felony homicides similarly in the short term in the context of the relatively frequent use of executions in Texas; this topic has not been studied previously. Because the studies are exploratory, they do not take the form of a statement of sharply stated and tested hypotheses. Rather, the objectives are to develop a research question, probe the data for patterns that address this question, and then discuss whether these patterns are consistent with prior studies of deterrence. The next section reviews two recent articles that build on long traditions of research on the death penalty. The research question that flows out of this research and that is pursued in this study then is articulated. Descriptions follow of the data analyzed, statistical methods applied, and resulting empirical findings. The article concludes with a discussion of the findings and general conclusions.

Two Recent Articles

Two recent contributions to this line of research frame the questions posed and analyses reported in this article: Kovandzic, Vieraitis, and Boots (2009) and Land, Teske, and Zheng (2009).

The Kovandzic et al. (2009) article was published in the November 2009 issue of *Criminology & Public Policy* together with an editorial introduction by Donohue (2009) and two policy essays, Berk (2009) and Rubin (2009). Kovandzic et al. (2009) built on and extended the new round of research that has appeared in the past decade (Cloninger and Marchesini, 2001; Dezhbakhsh, Rubin, and Shepherd, 2003; Ehrlich and Liu, 1999; Mocan and Gittings, 2003; Shepherd, 2004; Zimmerman, 2004). These studies used annual time-series panel data on the 50 U.S. states for approximately 25 years from the 1970s to the late 1990s, with many claiming to find substantial numbers of lives saved through reductions in subsequent homicide rates after executions. This research, in turn, has produced a round of critiques (Berk, 2005; Donohue and Wolfers, 2005; Zimring, Fagan, and Johnson, 2010) that generally conclude that these findings are not robust to model specifications such that even small changes in specifications yield dramatically different results.

Kovandzic et al. (2009) reviewed this line of research and updated it with analyses of state-specific homicide rates per 100,000 population for 30 years from 1977 to 2006. By applying nine different measures of the presence of the death penalty and execution risk in each of the 50 states, they presented an extensive ordinary least squares state panel analysis of the most recent data available with many variations on model specifications and concluded that the death penalty does not deter murder. In addition, Kovandzic et al. (2009) found

statistically significant negative estimates of the impacts of the "number of executions" in a state in a given calendar year on the homicide rate when state-specific time trends are not included in the regression model. This finding was discounted by Kovandzic et al. (2009) by showing that the "number of executions" model leads also to a lower burglary rate (Donohue, 2009: 799). Because the death penalty for capital murders presumably should not influence the rate of burglaries, the inference is that the "number of executions" model detects the impact of another (unmeasured) factor associated more generally with lower crime.

In his discussion of the Kovandzic et al. (2009) article, Berk (2009) cited a number of well-known problems with conventional econometric panel data research designs and concluded that no credible evidence exists to conclude that the death penalty has any deterrent value and that no credible evidence exists to rule out any deterrent effects. He suggested a more modest goal of "mere" descriptive use of multivariate statistics to find systematic patterns in data without worrying about cause and effect. By comparison, Rubin's (2009) comment on the Kovandzic et al. (2009) article highlighted the findings of significant negative impacts of the "numbers of executions" on the homicide rate, arguing that this finding is consistent with a change in behavior in response to changes in prices or costs: "If one jurisdiction executes more criminals than another or if a jurisdiction becomes more likely to execute a criminal, and criminals perceive the direction of change in probability, then deterrence can be increased" (Rubin 2009: 855).[1]

The Kovandzic et al. (2009) article can be compared with the Land et al. (2009) article that was published in the November 2009 issue of *Criminology*. Rather than continuing in the line of panel analyses of annual data on the 50 U.S. states, Land et al. took as a point of departure Berk's (2005) conclusion that a principal reason for the sensitivity of the findings in such analyses to model specifications is that there are very few state-years (approximately 1% of all state-years) in which there have been six or more executions. In response, Land et al. (2009) focused on Texas, a state that has used the death penalty with sufficient frequency that it might be possible to make relatively stable estimates of the homicide response to executions. In addition, Land et al. (2009) narrowed the observation intervals for recording numbers of executions and homicides from calendar years to monthly intervals.

Using the monthly time-series data on Texas, Land et al. (2009) examined Zimmerman's (2004: 187–188) hypothesis that any deterrent effect of capital punishment is likely to affect the murder rate initially and then dampen quickly. They estimated seasonal autoregressive moving average and dynamic regression time-series models for 12 years after state and federal judicial appeal decisions in Texas coalesced in 1993, thereby resolving the key issues holding back systematic implementation of the death penalty. Thereafter, the death penalty was applied frequently and systematically from January 1994 through December 2005 and beyond.

1. In addition, Rubin (2009) raised several criticisms of the specific statistical decisions applied in the Kovandzic et al. (2009) study and argued that these cast doubt on its findings.

Land et al. (2009) concluded that their analyses showed evidence of modest short-term reductions in the numbers of homicides in Texas in the months after executions. Based on time-series analyses and model-independent validation tests, their best-fitting model showed evidence of short-term reductions in homicides in Texas in the first and fourth months after an execution—on the order of 2.5 fewer homicides total. Another model suggested that, in addition to homicide reductions, some displacement of homicides might occur from one month to another in the months after an execution—which decreases the total reduction in homicides after an execution to approximately 0.5 during a 12-month period.

With skepticism about these findings, Land et al. (2009) then applied model-independent statistical tests to show that the negative impacts at lags of 1 and 4 months after an execution appear with a greater frequency than would be expected by chance. They showed also that the estimated models are consistent with patterns of monthly homicides in Texas for a postestimation sample year, 2006. Third, to assess the possibility that the estimated state-level results reported previously are generic consequences of the statistical methods applied and/or a result of unmeasured factors generally affecting crime in Texas during the period under study, Land et al. (2009) applied time-series models to monthly execution and larceny-theft time series in Texas from 1994 to 2005 and found no relationship between the fluctuations in executions and larcenies. This result suggests that the estimated short-term deterrent and displacement effects of executions on homicides have internal validity and are not spurious.

Moving Forward—Refining the Classification of Homicides

In brief, the Kovandzic et al. (2009) and Land et al. (2009) studies represent the state of the criminological art in assessments of the deterrent effects of capital punishment and executions. And they lead to somewhat different conclusions, with the Kovandzic et al. (2009) article concluding that the death penalty does not deter murder and the Land et al. (2009) article concluding that evidence shows a small short-term deterrence effect of executions as well as of a displacement or deferral effect.

Can more be done? Or are we at yet another standoff between studies that find evidence of deterrence effects and studies that do not? A possible way forward was identified in Donohue's (2009) editorial discussion of the Kovandzic et al. (2009) article and the Rubin (2009) commentary. In citing other studies by Lee and McCrary (2005), Drago, Galbiati, and Vertova (2009), and Zimring et al. (2010), Donohue (2009: 797) stated that:

> [A] pattern is beginning to emerge that the most serious criminals (and juvenile-offending adolescents) simply are not susceptible to distant threats of heightened punishment.

Along somewhat similar lines, in his commentary on Kovandzic et al. (2009), Rubin (2009: 855) stated that in 2007, a Bureau of Justice Statistics study:

> found that 65.5% of criminals with a death sentence had prior felony convictions, so 34.5% did not. Given these numbers, clearly all murderers are not hardened criminals, and it is plausible that some potential murderers . . . were deterred by the threat of execution.

These commentaries stand in contrast to the fact that both the Kovandzic et al. (2009) and Land et al. (2009) studies and most other prior studies of the general deterrence hypothesis for capital punishment have used count or rate data on all murders and non-negligent homicides combined.

Might subsequent useful insights be gained from a more refined analysis of homicides? This question is pursued in the present study. Specifically, building on the focus of Land et al. (2009) on Texas because of its extensive use of capital punishment, we explore what information can be gained by disaggregating the homicide data into those homicides committed in the course of another felony crime, which are subject to capital punishment, and those committed otherwise. From analyses of these disaggregated data, we seek to determine whether evidence of short-term deterrence exists in either type of murder.

Data and Methods

Data

The time-series data on executions and felony-type and non–felony-type homicides in Texas by month from January 1994 through December 2007 analyzed herein are displayed graphically in Figures 1 and 2.[2] The source of the executions data series is the Texas Department of Criminal Justice (2008) website and information compiled specifically for the researchers by the Texas Department of Criminal Justice Executive Services Division. The source of the homicides data series is the Uniform Crime Reports (UCR) Program of the Texas Department of Public Safety.[3] The unpublished data were specially prepared and provided by the UCR Program director. Thereafter, the monthly data were formatted and classified as follows.[4]

The monthly homicide data series consists of only those homicides included in the UCR Program definition of "murder and non-negligent homicide." Negligent homicides

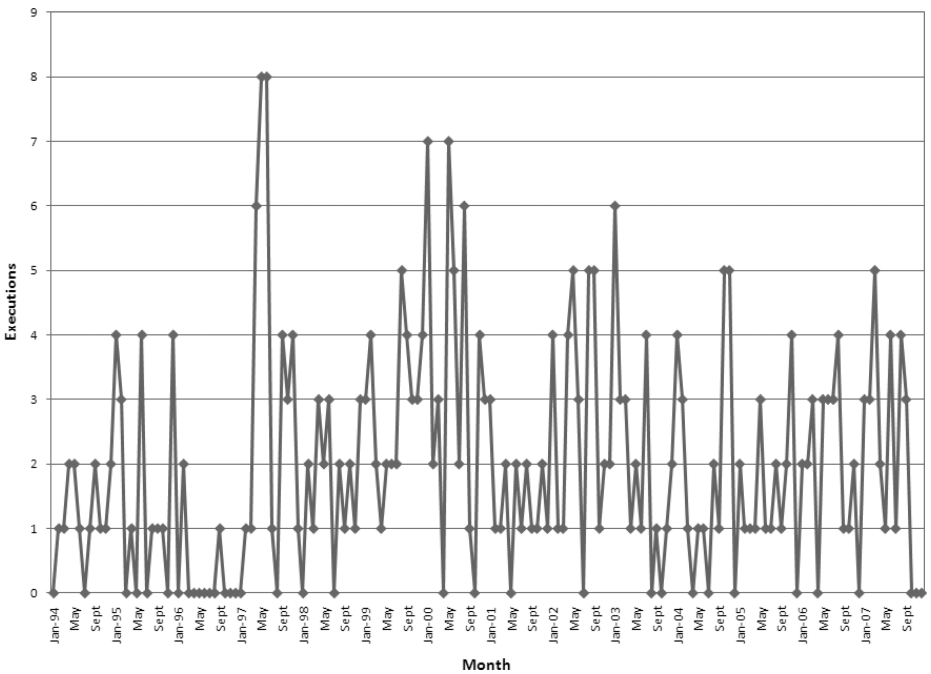
2. Land et al. (2009) analyzed monthly data on executions and counts of all homicides combined in Texas for the years 1994 through 2005. The current study disaggregates the homicide counts into felony-type and non–felony-type homicides and extends the data series through 2007. In addition, prior to the analysis of the disaggregated series, the findings of Land et al. (2009) for the monthly data on executions and counts of all homicides combined were replicated and found to hold up in the longer time series through 2007. Numerical results are available from the authors on request.

3. Calendar months are not an ideal observational interval for these analyses. Daily or 7-day weekly observational intervals would be much better. Unfortunately, the data on homicides reported to the UCR Program of the Texas Department of Public Safety are categorized into calendar months with no additional information on dates of the homicides. Accordingly, a more refined time interval of observation is not available at the current time.

4. The monthly executions and homicide data series are available from the authors on request.

FIGURE 1

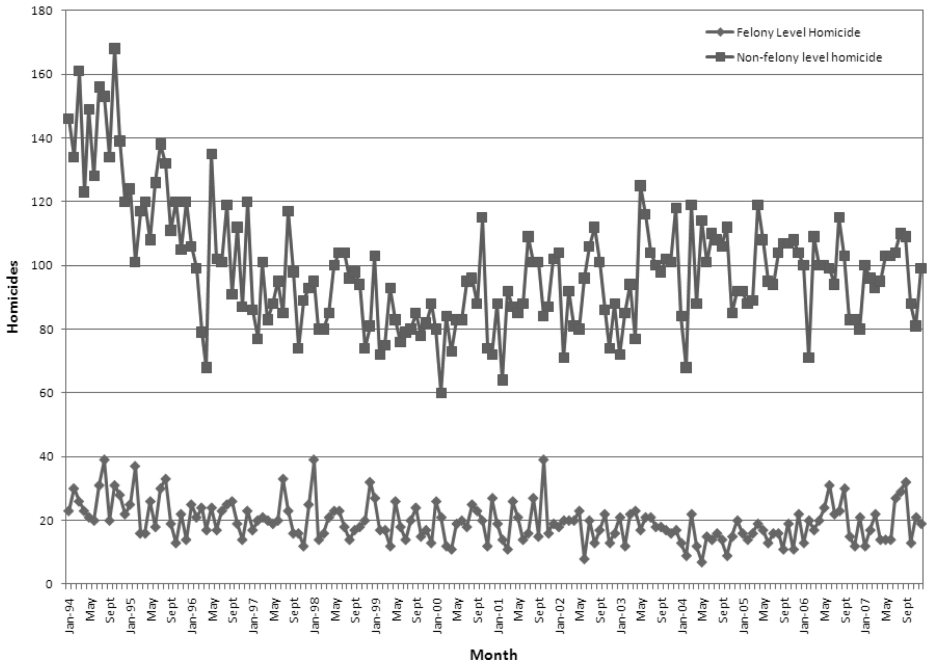
Number of Monthly Executions in Texas, January 1994 to December 2007



and justifiable homicides are not included. We divided homicides into felony-type and non–felony-type homicides. *Felony-type homicides* consist of homicides included in the definition of the FBI's Uniform Crime Reports Program: "Felony murder is defined as a killing which occurs in conjunction with the commission of another crime *such as* robbery, sex motive, and other felonious activities" (italics added for emphasis). The UCR Program distinguishes 12 coded circumstances including a code for "other." This code allows sufficient latitude to include such circumstances as the killing of a peace officer or fireman in the line of duty, kidnapping, murder for hire, murder of a judge in retaliation, or the intentional killing of a child. Similarly, we followed the standard of the UCR Program classification that designates all other homicides as *non–felony-type homicides*—removing from analysis justifiable and negligent homicides. To study the robustness of our analyses to this classification, we studied two alternative classifications of felony-type homicides, which will be defined and reported in the Results section. Because the same offender(s) may commit several homicides at the same time, which is counted as *one homicide event*, in addition to studying the effect of executions on *felony-type homicide counts*, we studied also the effect of executions on *felony-type homicide events*.

FIGURE 2

Number of Monthly Felony and Non–Felony-Type Homicides in Texas, January 1994 to December 2007



A key point in relation to the analyses reported in the subsequent discussion is the eligibility of these categories of felony-type and non–felony-type homicides for capital punishment in Texas. *Capital murder* is the term used to designate murders in Texas for which the convicted offender may be eligible for the death penalty. The Texas Penal Code (Section 19.03ff) states that a "person commits a [capital] offense if the person commits murder as defined under Section 19.02 (b) (1)," which states that a person commits an offense if he or she intentionally or knowingly causes the death of an individual; . . . "and specified criteria are met." These criteria, with possibly limited exceptions, conform to the classifications in the UCR supplemental homicide reports as described for felony-level murder. However, whether the alleged offender is actually charged with capital murder is a decision to be made by the grand jury and the prosecutor. Whether the crime constitutes capital murder will be decided by a jury.

Figure 1 portrays the number of monthly executions in Texas from January 1994 to December 2007. The frequency of executions ranges from 0 to 8, with several months showing six or more executions and with relatively fewer months with zero executions.

Figure 2 describes the trends of monthly felony and non-felony homicide counts for the corresponding years. The number of non–felony-type homicides is substantially larger

TABLE 1

Monthly Means, Standard Deviations, and Ranges of Executions and Homicides

Years 1994–2007	Mean	Standard Deviation	Range
Executions	1.99	1.76	0–8
Felony-type homicides	19.64	6.14	7–39
Felony-type homicide events	18.08	5.60	6–34
Non–felony-type homicides	98.91	19.4	60–168

than that of felony-type homicides. Also, it shows a significant downward trend in its mean level from approximately 160 killings per month to approximately 100. But the number of felony-type homicides is relatively stable, with only a slight downward drift.

Table 1 reports descriptive statistics for the monthly time series on executions and homicide counts in Texas that are shown graphically in Figures 1 and 2. For the period January 1994 to December 2007, the mean number of executions is close to 2 per month with a standard deviation of slightly less than 2 (1.80). The mean number of felony-type homicides is 19.64, with a standard deviation of 6.14. The mean number of felony-type homicide events is 18.08, with a standard deviation of 5.60. By comparison, the mean number of non–felony-type homicides is 98.91, with a standard deviation of 19.40.

Methods

To analyze the relationship of the monthly time series on executions in Figure 1 to the corresponding series on non–felony-type and felony-type homicides in Figure 2, following Land et al. (2009), we apply a combination of dynamic regression (DR)–linear transfer function (LTF) model building strategies with seasonal auto-regressive integrated moving-average (seasonal ARIMA) time-series models.[5] The DR-LTF approach to ARIMA time-series modeling, which builds on the classic Box–Jenkins approach to transfer function modeling (Box and Jenkins, 1976; McCleary and Hay, 1980), was developed by Liu and Hanssens (1982) and Tsay (1985); see also Pankratz (1991) and Yaffee (2000).

This strategy first checks for unidirectional causality via the Granger causality test (Granger, 1969). The Granger causality test essentially checks to determine whether one

5. Because of the complicated temporal interdependencies between the monthly executions and homicide series, extended lags and moving average effects must be considered. Therefore, we apply ARIMA time-series methods that were developed for metric variables with normal error terms. This modeling choice is acceptable (see Congdon, 2003: 193) because the numerical values of the homicide count time series are relatively large, with sample means far above zero; that is, monthly homicide counts in Texas are not rare events, and after differencing to eliminate trend and seasonal effects, the month-to-month fluctuations are bell shaped. Parameter estimates and summary statistics for the models reported in this article were obtained by the application of SAS Proc Arima, Version 9.1 (SAS Institute, Cary, NC).

of two time series (termed the *outcome series*) feeds back to affect the other series (termed the *input series*).[6] If it is concluded that this is not the case, then the next step is to model the linear transfer function as an autoregressive process and the error or noise term as an autoregressive-seasonal autoregressive process. This modeling process continues iteratively until a model is produced that has (a) white noise (uncorrelated) residual terms after the error term is modeled and (b) little or no evidence of correlations between the parameters of the noise and the transfer function model. These conditions are important for valid statistical analysis, as residuals that are correlated with the transfer function or are not white noise will produce underestimated standard errors of coefficients and thus inflated *t*-ratios, which may lead to incorrect inferences.

In sum, net of the secular trends up or down in both time series, we seek to ascertain whether any evidence exists for the association of month-to-month fluctuations in executions with subsequent month-to-month fluctuations in felony and non-felony homicides in Texas.

Results

An application of the Granger causality test to the executions as well as the felony and non–felony-type homicides data described showed that no evidence of feedback exists from either the felony-type homicides or the non–felony-type homicides time series to the executions time series.[7] This does not mean that no relationship exists between homicides committed in Texas and subsequent executions. Rather, it suggests only that the legal institutional processes that ultimately result in executions work on time scales that are not dependent on those that determine the pace of homicides. Accordingly, we continue the analysis by treating the executions series as an input series and the felony or non-felony homicides series as an outcome series.

Because both the executions and the homicide time series shown in Figures 1 and 2 have secular (year-to-year) and seasonal time trends, we apply 1st differences to the series to remove the secular trends and 12th differences to remove the seasonality from both series. Because 12th differences alone meet the augmented Dickey–Fuller unit root tests for felony-type homicides—the series after 12th differencing are already stationary—we present the results for 12th-order differencing of the felony-type homicide and execution series. In addition, the differenced homicide series was centered by subtracting a small remaining mean. The results of sequential estimation of several models are reported in Table 2 through Table 4.

6. As is the case for the season ARIMA statistical models used for the analyses reported in this article, the Granger causality test was developed for metric variables with normally distributed error terms. Its application in the current analyses should, therefore, be regarded as an approximation that is dependent on the fact that the numerical values of the homicide count time series are relatively large and far above zero (see footnote 5).

7. The numerical results of this test are not reported here, but they are available from the authors on request.

TABLE 2

Estimated Parameters and Model Fit Statistics for Several Seasonal Linear Transfer Function Models for Non–Felony-Type Homicide Counts Based on 1st- and 12th-Order Differencing of Homicide and Execution, January 1994–December 2007

		Estimated Model	
Lags Controlled in the Model		**Algebraic Form**	**Summary Statistics**
Noise model—no lags	Model 1	$(1-L)(1-L^{12})(Y_t-0.265) = \frac{(1-0.661L^2)(1-0.837L^{12})}{1+0.707L^1}e_t$	Variance estimate: 67.7358 Standard error estimate: 12.95128 AIC: 1252.515 SBC: 1261.645 Number of residuals: 155 *Residuals are white noise (Pr = 0.156 at lag 6).
Transfer function model with lags 1 to 12	Model 2	$(1-L)(1-L^{12})(Y_t-0.265) = -1.868L^1(1-L)(1-L^{12})X_t$	Variance estimate: 470.999 Standard error estimate: 21.70251 AIC: 1298.331 SBC: 1336.848 Number of residuals: 143 *Residuals are not white noise (Pr < 0.001 at lag 6).
Combined transfer function and noise model with lags 1 and 2	Model 3	$(1-L)(1-L^{12})(Y_t-0.265) = -1.386L^1(1-L)(1-L^{12})X_t + \frac{(1-0.7L^2)(1-0.828L^{12})}{1+0.72L^1}e_t$	Variance estimate: 166.1969 Standard error estimate: 12.89174 AIC: 1237.787 SBC: 1255.969 Number of residuals: 153 *Residuals are white noise (Pr = 0.2375 at lag 6). *No cross-correlation between transfer function parameters and noise model (Pr = 0.0727 at lag 11).
Combined transfer function and noise model with lags 1 and 2 and autoregressive terms	Model 4	$(1-L)(1-L^{12})(Y_t-0.265) = \frac{-1.961L^1-1.312L^2}{1+1.203L^1+0.835L^2}(1-L)(1-L^{12})X_t + \frac{(1-0.673L^2)(1-0.83L^{12})}{1+0.714L^1}e_t$	Variance estimate: 159.6275 Standard error estimate: 12.63438 AIC: 1233.414 SBC: 1257.657 Number of residuals: 153 *Residuals are white noise (Pr = 0.3373 at lag 6). *No cross-correlation between transfer function parameters and noise model (Pr = 0.1269 at lag 5).

TABLE 3

Estimated Parameters and Model Fit Statistics for Several Seasonal Linear Transfer Function Models for Felony-Type Homicide Events Based on 1st- and 12th-Order Differencing of Homicide and Execution, January 1994 to December 2007

Lags Controlled in the Model		Estimated Model: Algebraic Form	Estimated Model: Summary Statistics
Noise model—no lags	Model 1	$(1-L)(1-L^{12})Y_t = \frac{(1-0.852L^{12})}{1+0.646L^{1}+0.319L^{2}}\, e_t$	Variance estimate: 38.96674 Standard error estimate: 6.242334 AIC: 1026.448 SBC: 1035.578 Number of residuals: 155 * Residuals are not white noise (Pr < 0.0001 at lag 6).
Transfer function model with lags 1 to 12	Model 2	$(1-L)(1-L^{12})Y_t = 0.639L^{1}(1-L)(1-L^{12})X_t$	Variance estimate: 81.67098 Standard error estimate: 9.0372 AIC: 1047.773 SBC: 1086.29 Number of residuals: 143 * Residuals are not white noise (Pr < 0.0001 at lag 6).
Combined transfer function and noise model with lags 1 to 12	Model 3	$(1-L)(1-L^{12})Y_t = 0.627L^{1}(1-L)(1-L^{12})X_t + \frac{(1-0.742L^{12})}{1+0.647L^{1}+0.343L^{2}}$	Variance estimate: 40.95878 Standard error estimate: 6.399905 AIC: 961.8496 SBC: 1009.255 Number of residuals: 143 * Residuals are not white noise (Pr < 0.0001 at lag 6). * No cross-correlation between transfer function parameters and noise model (Pr = 0.1673 at lag 17).

Results for Non–Felony-Type Homicides

Table 2 presents estimated parameters and model fit statistics for several seasonal linear transfer function models for the monthly non–felony-type homicide counts based on 1st- and 12th-order differencing of the homicide and execution series. Model 1 of Table 2 is a model for the error or noise term of a seasonal ARIMA model of monthly non-felony homicides. This model applies 1st differences ($1 - L$) on the Y_t (monthly non-felony homicides) outcome variable to account for the secular (year-to-year) trend in the series. Also, it applies 12th differences ($1 - L^{12}$) to the homicides series to eliminate seasonal variation (a tendency for the same months in calendar years to have similar numbers of

TABLE 4

Estimated Parameters and Model Fit Statistics for Several Seasonal Linear Transfer Function Models for Felony-Type Homicide Events Based on 12th-Order Differencing of Homicide and Execution, January 1994 to December 2007

		Estimated Model	
Lags Controlled in the Model		**Algebraic Form**	**Summary Statistics**
Noise model—no lags	Model 1	$(1 - L^{12})(Y_t + 0.474) = \frac{(1 - 0.744L^2)}{1 - 0.841L^2 - 0.299L^{12}}\, e_t$	Variance estimate: 28.49164 Standard error estimate: 5.337756 AIC: 995.1336 SBC: 1013.433 Number of residuals: 156 * Residuals are white noise (Pr = 0.0967 at lag 12).
Transfer function model with lags 1 to 12	Model 2	$(1 - L^{12})(Y_t + 0.474) = 0.506L^1(1 - L^{12})X_t$	Variance estimate: 41.46481 Standard error estimate: 6.439317 AIC: 957.4073 SBC: 996.0149 Number of residuals: 144 * Residuals are white noise (Pr = 0.2984 at lag 6).
Combined transfer function and noise model with lags 1 to 12	Model 3	$(1 - L^{12})(Y_t + 0.474) = 0.467L^1(1 - L^{12})X_t + \frac{1}{1 + 0.918L^2 + 0.251L^{12}}\, e_t$	Variance estimate: 37.22081 Standard error estimate: 6.100886 AIC: 948.3916 SBC: 995.9087 Number of residuals: 144 * Residuals are not white noise (Pr = 0.0245 at lag 12). * No cross-correlation between transfer function parameters and noise model (Pr = 0.7964 at lag 17).

homicides). Next, the model centers the resulting detrended homicide series by subtracting the mean of 0.265. It then finds that a good model for the noise term in the ARIMA model has two components: (a) a seasonal moving average term (with a coefficient of –0.661 and –0.837 in the numerator), which indicates that a random fluctuation in the error term in 1 month carries over to affect the error negatively in the next 2 months and in the same months in subsequent years, and (b) an exponentially decaying autoregressive term (with a coefficient of 0.707 in the denominator), which indicates that a random disturbance in a given month in year *t* is associated with exponentially declining impacts on error terms in

the next month.[8] The summary statistics on the right-hand side of Table 2 show that this noise model reduces the residual elements in the error term to white noise.

Model 2 of Table 2 reports estimates for modeling only the transfer function from the input time series X_t (executions) to the outcome series Y_t (non-felony homicides). The transfer function applies both a 1st difference $(1 - L)$ and a seasonal difference filter to the X_t series. Then, it estimates a negative (deterrent) lag – 1 effect coefficient of –1.868. However, the model does not have good summary statistics. These statistics indicate that the residuals from this model are not white noise and, thus, that it is not sufficient to model the transfer function alone.

Model 3 combines the noise model from Model 1 with the transfer function model from Model 2. Because Model 2 suggests an only lag – 1 effect, we control for lag – 1 and lag – 2 of executions in Model 3. It suggests negative (deterrent) effect coefficients of –1.386 at lag – 1 for each execution. Because it uses as model selection criteria the Akaike information criterion (AIC) and the Schwartz Bayesian criterion (SBC, which is known also as the Bayesian information criterion), smaller values of both indicating a more desirable model, Model 3 is an improvement over both Models 1 and 2. Its residuals are white noise, and no cross-correlation occurs between the transfer function parameters and the noise model.

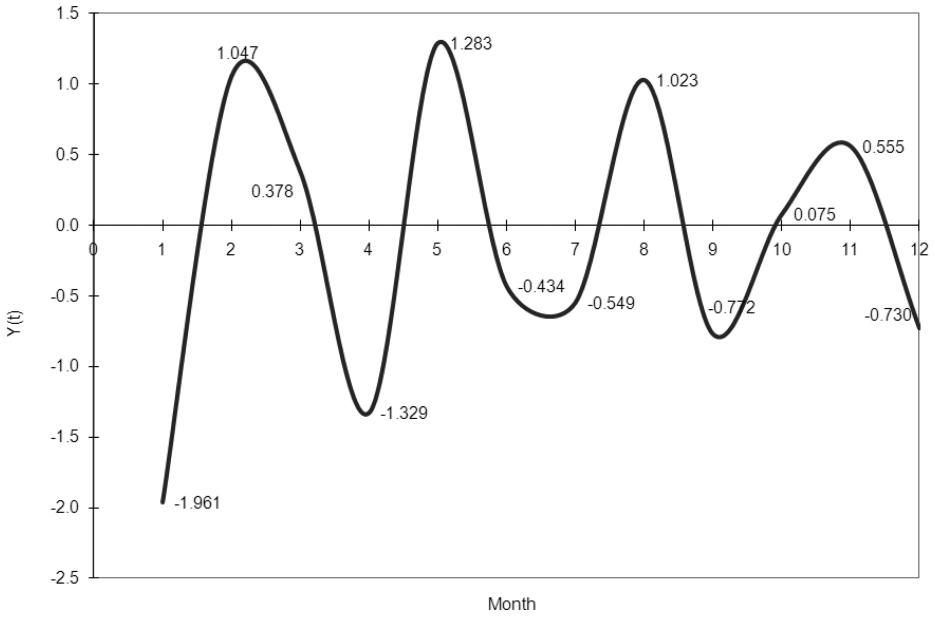
By comparison with Model 3, Model 4 incorporates first- and second-order autoregressive terms into the transfer function model. The resulting estimates of the transfer function show statistically a significant negative (deterrent) effect coefficient of –1.961 at lag – 1 and a negative coefficient of –1.312 at lag – 2 with the deterrent effect decaying in the subsequent months. Model 4 has both white noise residuals and no cross-correlation between the transfer function and noise models. The AIC statistic shows some slight improvement over Model 3, but the SBC statistic shows some deterioration compared with Model 3.

Figure 3 contains a graph of the estimated impulse response function of Model 4. In general, an impulse response function (Yaffee, 2000: 505) is a function displaying the structure of the response to an input (pulse, step, or continuous) in a dynamic regression model. In the current case, the input takes the form of a pulse or temporary change (an execution) in the value of the input series. Thus, Figure 3 plots the response of the homicide series for the following 12 months after a single execution as estimated by Model 4. The graph shows the negative lag – 1 effect coefficient corresponding to a reduction of approximately 1.961 homicides in the month after an execution as estimated in Model 4. This negative effect at lag – 1 is followed by a positive effect coefficient of approximately 1.047 homicides at lag – 2 or two months after the execution—which suggests that a fraction of the homicides deterred in the first month after an execution actually are suppressed and displaced to the second month after the execution. And afterward, this effect takes the form of an oscillating

8. For all models in Table 2, only regression coefficients that are statistically significant at the 0.05 level are reported.

FIGURE 3

Response Pattern from Pulse Input "Execution = 1," Based on Model 4 in Table 2



(quadratic) function that exhibits a damped pattern from the initial lag – 1 negative effect. Generally, however, the coefficients for the negative (deterrent) effects are larger for more months into the 12-month follow-up period than are the positive (displacement) effects.

The cumulative effect of the estimated month-by-month effects across the 12 months for Model 4 is –1.415; that is, a reduction of approximately 1.4 non–felony-type homicides after an execution. This result is close to the lag – 1 month estimated negative (deterrent) effect coefficient –1.386, or a reduction of approximately 1.4 homicides estimated in Model 3, which does not contain the autoregressive/exponential quadratic decay function terms of Model 4. Given the closeness of the AIC and SBC model selection statistics and other good statistical properties of these two models, there are no grounds for a clear choice of one over the other; rather, both must be judged as capturing some dynamic, short-term elements of the effects of an execution on non–felony-type homicides.[9]

9. Land et al. (2009) similarly found that two models, one with and one without autoregressive/quadratic response function terms, provided good fits to the monthly Texas count time series for all homicides aggregated together for the years 1994–2005.

Results for Felony-Type Homicide Events

Table 3 presents estimated parameters and model fit statistics for several seasonal linear transfer function models for felony-type homicide events based on 1st- and 12th-order differencing of the homicide and execution series. Several homicides committed by the same criminal(s) at the same time will be counted as one homicide event. Because felony-type criminals may commit more than one homicide at a time, we test the effect of executions on felony-type homicide events instead of on felony-type homicide counts although the results are basically the same.[10] We proceed with the analysis in steps similar to that for non-felony homicides.

Model 1 of Table 3 is a model for the error or noise term of a seasonal ARIMA model of monthly felony homicide events. Model 2 of Table 3 reports estimates for modeling only the transfer function from the input time series X_t (executions) to the outcome series Y_t (felony homicide events). The transfer function applies both a first difference $(1 - L)$ and a seasonal difference filter to the X_t series. In stark contrast to the findings for non–felony-type homicides, Model 2 suggests a positive (brutalization) lag – 1 effect coefficient of 0.639. Model 3 combines the noise model from Model 1 with the transfer function model from Model 2. It suggests a positive (brutalization) lag – 1 effect coefficient of 0.627. The AIC and SBC statistics indicate an improvement of Model 3 over Models 1 and 2, but its residuals are still not white noise.

As shown in Figure 2, felony-type homicides have only a slight downward secular drift across the time period of study; therefore, 1st-order differencing may not be necessary. Accordingly, we applied only 12th-order differencing of both the felony-type homicide events and execution series, which give a better model fit as shown in Table 4. The AIC and SBC statistics indicate Model 3 is slightly better than Model 2, but Model 3 does not have white noise residuals. Therefore, we choose Model 2 as the best model. Model 2 implies that an execution has a 1-month lagged brutalization effect of approximately 0.5 felony-type homicides.

As robustness checks on these findings, we conducted the analysis for two additional different definitions of felony-type homicides.[11] The first definition removes homicides related to prostitution, narcotic drug laws, or gambling. The second definition adds homicides related to child killings by babysitter and institutional (penal) killings. The estimated models resulting from these alternative classifications are basically the same, which suggest the findings observed in Table 3 and 4 are solid. Also, we examined the effect of execution on subcategories of felony-type homicide events, for example, homicide events

10. The table of results for analysis of the homicide counts series is available from the authors on request.

11. Additional forecasting and robustness analyses, similar to those reported in Land et al. (2009), were conducted. These analyses do corroborate the empirical findings reported in the current article.

related with robbery or with rape and other sex offenses. All these findings suggest a lag – 1 brutalization effect.[12]

Discussion

Debate among social scientists about whether the death penalty saves lives has carried on for at least half a century. Two recent empirical analyses are salient. By building on the recent round of studies that use a pooled time-series cross-section design to study annual time series on homicide rates and executions for the 50 U.S. states and by using 30 years of data, Kovandzic et al. (2009) from 1977 to 2006 concluded that the death penalty does not deter murder. By zooming in on Texas, the state that has been most active in using executions as a form of punishment and by using monthly time-series data for the years 1994–2005, Land et al. (2009) concluded that evidence of modest short-term reductions exist in the numbers of homicides in Texas in the months of or after executions. Thus, if a deterrent effect of executions exists, then the research evidence suggests that it is relatively short lived.

Discussions of Kovandzic et al. (2009) by Donahue (2009) and Rubin (2009) led to the question studied in this article: Do executions impact felony and non-felony homicides similarly? This question was addressed by using monthly time-series data on executions and homicides in Texas for the years 1994–2007, with the homicide data disaggregated into felony and non-felony-type homicides.

The results of the analyses of non–felony-type homicides produced two models, one of which contains autoregressive terms that describe an exponentially declining quadratic decay across the months after an execution and the other of which contains only a lag – 1 month term. Both models indicate a modest lag – 1 month net reduction, a deterrence. The nonautoregressive model lag – 1 month deterrent estimate is –1.4 and that of the autoregressive model is approximately –1.96 homicides in the month after an execution. Both of these estimates are larger than the corresponding nonautoregressive model lag – 1 month estimate (–1.3) and the autoregressive model lag –1 month estimate (–1.6) for all homicides combined analyzed by Land et al. (2009). In addition, the cumulative deterrent effect of an execution on non–felony-level homicides estimated in the autoregressive model is 1.4 during a 12-month period, which is substantially larger than the 0.5 cumulative reduction estimated for all homicides combined in Land et al. (2009). These findings are indicative of attenuation toward zero of effects estimated in analyses of all homicides aggregated together.

By comparison, our analyses of the felony-type homicide series produce a nonautoregressive time-series model estimated increase, a brutalization effect, in the month after an execution of approximately 0.5 homicides. Combining the two nonautoregressive model estimated counterbalancing lag – 1 month deterrent and brutalization effects produces a

12. Tables of these analyses are available from the authors on request.

slight estimated net deterrent effect of 0.9 homicides in the model after an execution. And they indicate that the short-lived deterrence effect of executions is concentrated among non–felony-type homicides.[13]

These findings can be compared with results from prior analyses of the short-term effects of executions on homicides. In regard to the effects of executions on total homicides, Phillips (1980) compared historical weekly data on the counts of homicides in England for the week of (the "experimental period") with the numbers for the weeks immediately before and after the execution week (the "control period") for 22 well-publicized executions in the years 1858–1921. He found a statistically significant drop in murders during the weeks of the executions followed by a recovery or increase in the weeks after the executions. This short-term deterrent effect followed by an increase—a temporal displacement—is similar to the pattern Land et al. (2009) found by using monthly time-series data on total homicides in Texas for 1994–2005. The disaggregated analyses for felony-type and non–felony-type homicides reported in this article found that the partial temporal displacement to the second month after an execution is evidenced for the non–felony-type homicides but not for the felony-type homicides. As one reviewer stated, what is to be made of the displacement findings? This certainly should be a focus of future research. It likely pertains to the diffusion of information about executions into the public culture and its rise and fall in salience for affecting day-to-day behaviors and interactions with the passage of time after an execution.

Other studies have focused on homicide counts or events classified into total as well as specific types, which is similar to the analyses reported in this article. Cochran, Chamlin, and Seth (1994) conducted an interrupted ARIMA time-series analysis of weekly data on homicide events for the calendar years 1989–1991 to study the effects of a single execution marking the return of Oklahoma to the use of capital punishment in 1990. They found no evidence of a deterrent or brutalization effect for total criminal homicides; no evidence of a deterrent effect of the execution on the level of felony homicides, stranger-felony, and stranger-robbery homicides; and a brutalization effect on the level of stranger homicides and for non-felony and argument-related stranger homicides. Bailey (1998) replicated and extended this analysis by conducting a multivariate autoregressive analysis, controlling for the frequency of executions in the United States as a whole, media coverage of executions, and selected sociodemographic variables. He found evidence consistent with the brutalization hypothesis for total homicides, as well as for a variety of different types of murder involving both strangers and nonstrangers. However, Bailey (1998) found also a

13. The analyses reported in this article have been conducted at the level of the entire state of Texas. Land et al. (2009) found that, generally, findings from short-term analyses at the state level were consistent with those at the county level for the most populous counties in Texas. At this lower level of analysis, however, the estimated effects are less stable because of the relatively small numbers of county-level executions.

possible lagged deterrent effect of the level of media coverage of executions for non-felony murders involving strangers.

The context of the effects of a single execution in Oklahoma is, of course, quite different from that of Texas during the time period studied here, where the mean number of executions per month was approximately two and some months had as many as eight executions. The virtually constant month-after-month stimulus of execution after execution in Texas during this period was a reminder of the seriousness with which the state used the death penalty. This may be the reason that we find evidence of a slight overall lagged deterrent effect per execution on total homicides and, consistent with Bailey (1998), a slight lagged deterrent effect on non-felony murders, although our analysis is not limited to those involving strangers.

These findings in the current study and in Bailey's (1998) study of a slight lagged deterrent effect of an execution on non-felony murders lead to the question of the extent to which the average citizen is knowledgeable regarding murders for which one may be prosecuted and receive the death penalty. Some crimes are reasonably obvious, such as murder-robbery, murder-rape, murder-young child, or the murder of a police officer in the line of duty. Others, such as the intentional killing of a spouse or the killing of another driver in a road rage incident, may not be so clear to the average citizen. Unfortunately, there does not seem to be much empirical data addressing this issue, which should be studied in future research.[14]

14. As an exploration along these lines, we surveyed 87 upper level criminal justice majors in a class taught by one of the co-authors. Most of these students would have already been required to have taken courses in criminal law and criminal procedure, and they would have been introduced to death-penalty–related issues in other courses. Eleven scenarios were presented and the students were asked to respond, to the best of their knowledge, whether the perpetrator could be subject to the death penalty in Texas. It was made clear that this was a test of knowledge and not of personal opinions or values. Several scenarios and responses are presented as follows for illustration: 1. Regarding a basic road rage murder, 48% of the respondents thought the perpetrator would be eligible for the death penalty. That is incorrect. 2. Seventy-five percent thought that a man who deliberately kills his neighbor over a barking dog would be eligible for the death penalty. That is incorrect. 3. A man living with a woman smothers her 9-year-old son. Seventy-one percent thought that the man would be eligible for the death penalty. They are incorrect. 4. A bar argument results in a man being stabbed in the back as he leaves the bar. Fifty-six percent of the respondents said the man would be eligible for the death penalty. They were incorrect. 5. A jealous husband beats his wife to death. Twenty-four percent said that this would be a death-penalty-eligible crime. That is incorrect. These five illustrations would be classified in the UCR supplemental homicide report as non-felony homicides. None of them are capital crimes in Texas. 6. At the same time, 70% correctly answered that someone who kills a clerk deliberately during a convenience store robbery would be eligible for the death penalty. At the same time, it is noteworthy that 22% did not. This crime is clearly eligible for the death penalty. 7. An argument over the price of a small amount of marijuana results in a homicide. Although 49% said that the perpetrator would be eligible for the death penalty, they were not correct. These results are a simple illustration that questions the assumption of perfect knowledge of death-penalty-eligible and non–death-penalty-eligible crimes. In fact, the respondents showed a strong tendency to believe that all murders, in general, are eligible for the death penalty. If this is true of the general public, then it would add credence to the findings that executions do have a deterrent effect on non-felony homicides. At the same time, caution is in order as

In addition, our finding of a slight lagged brutalization effect of an execution on felony-type homicides can be placed in the context of prior characterizations of brutalization effects in research on capital punishment as positing that state-sponsored killing, regardless of its political legitimacy, is likely to have a dehumanizing effect on the populace. Consequently, the use of capital punishment is expected to weaken social-based inhibitions against the use of deadly force to settle disputes, thereby encouraging some segments of the population to kill. Most prior work on the brutalization hypothesis has emphasized that this encouragement might be among the general population in response to such things as perceived wrongs and/or affronts to honor (see, e.g., Cochran et al., 1994: 128–129). By contrast, we found evidence of a brutalizing reaction to executions among individuals who commit felony-type murders. We could speculate that a felony-level offender may not want to leave a witness; however, we have no empirical findings to defend this claim. Also, we can speculate that it is simply a reaction against the system by hardened criminals who are reacting emotionally to the execution. This observation would be more in line with the brutalization hypothesis. However, this would be mere speculation also.

Note, however, that this brutalization finding brings the current analyses into consistency with recent research on perceived risk of punishment, rational choice, self-control, and crime. As stated by Pogarsky (2007: 72):

> Two compelling, but seemingly conflicting, theoretical expectations have been advanced and supported in the prior literature. On the one hand, criminal propensity should diminish deterrent effects because criminally prone individuals are less dissuaded by the delayed consequences to them from crime. On the other hand, the costs and benefits from offending should be more relevant to more criminally prone individuals because their greater willingness to offend makes them more attuned to instrumental considerations.

The findings from Pogarsky's (2007) study of detected drug use among a sample of nonviolent offenders in an intensive community supervision program support the latter position for perceived severity but not perceived certainty of punishment; that is, among low self-control program participants, increased perceived severity was associated with a lower probability of detected drug use. Similarly, in an analysis of data from the Dunedin (New Zealand) longitudinal study of individuals from birth through 26 years of age, Wright, Caspi, Moffitt, and Paternoster (2004) found that deterrence perceptions on self-perceived criminality had their greatest impact on criminally prone study members.

In brief, findings from these and some other studies (see Piquero, Paternoster, Pogarsky, and Loughran, 2011 for a review of research on individual differences in deterrence theory) seem to contradict those reported previously to the effect that the short-term effects of

this was a one-time study. Much more research is needed to understand why an execution would deter a non-felony murder.

executions on homicides in Texas are negative (indicating deterrence) for non–felony-type and positive (indicating brutalization) for felony-type homicides.[15] As noted, according to Donohue (2009) and Rubin (2009), the latter offenses are more likely to have been committed by individuals with prior felony convictions and who thus are more criminally prone. The inference is that the short-term deterrence effects of executions occur among the less criminally prone population—which, again, seem to contradict these findings from recent criminological research on individual differences and deterrence. That is, until one takes into account the short-term brutalization findings for felony-type homicides, which, as noted, are consistent with a rational thought process of "more criminally prone individuals [whose] greater willingness to offend makes them more attuned to instrumental considerations" (Pogarsky, as quoted previously), in particular, the decreased chance of being caught, convicted, and sentenced if no witnesses to a felony-type crime are left behind. When this instrumental consideration is factored in, our findings cohere with perspectives from other recent deterrence research.

Theoretical insight can be derived also from Sutherland (1937; Sutherland and Cressey, 1974: 84–85). Time, place, and circumstances all converge. At time X, in place Y, and under circumstances Z, such as a road rage incident or finding one's spouse in bed with another, a store clerk pressing the alarm, a child incessantly crying from colic, a police officer stopping a driver who has just been fired, or a child informing the pedophile that he is going to tell his parents, may result in a homicide. At the same time, 1 week before or 1 week later, in a different place, and under different circumstances, a homicide may not take place. Many factors may intervene. The findings in this study indicate that the circumstance in some cases may be knowledge that an execution took place recently. Something that is clear from the Land et al. (2009) study is that the *influence* of an execution is distributed randomly across Texas. This knowledge reaches some persons at a time that coincides with circumstances that would have resulted in a homicide. However, knowledge of a recent execution, however acquired, deters the imminent homicide.

This observation does raise the question of the announcement effect. No studies have examined how the announcement of an execution is distributed across the population of Texas with respect to awareness on the part of citizens. Announcement via television in Texas is rare (author's personal observation). Unless it happens to be a particularly noteworthy crime—particularly one in which last-minute appeals are being covered by the news—executions in Texas simply come and go. And yet, for a deterrent effect to occur, the news of each execution must spread to some members of the population for there to be a short-term deterrent effect. In general, 140,000 inmates know of the execution. Word does spread

15. Deterrence research by criminologists often is criticized for using convenience samples of college students. Both the Pogarsky (2007) and Wright et al. (2004) studies fare better in this respect because they are based on "real-world" samples. Nonetheless, they have their limitations as well: Pogarsky's sample was limited to nonviolent offenders and Wright et al. analyzed self-perceived criminality, not actual violent offenses.

through the grapevine to county jails and most likely into the criminal population (for an excellent discussion of how information spreads in the criminal community, see Sutherland, 1937). This combination of public media announcement and informal distribution of knowledge is a topic that should be addressed in future studies.

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IMPACTS OF EXECUTIONS ON HOMICIDES

Can Executions Have a Short-Term Deterrence Effect on Non-Felony Homicides?

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One of the most recent contributions to the ever-growing literature testing for a deterrent effect of the death penalty is the article by Land, Teske, and Zheng (2012, this issue). Specifically, Land et al. conduct a time-series analysis of the relationship between the number of monthly executions and homicides in Texas from 1994 to 2007, where they decompose homicides into non-felony and felony homicides. This extends the recent work of Land, Teske, and Zheng (2009), who used the same data to look at all homicides. Land et al. (2009) found that there were 0.5 to 2.5 (depending on the model) fewer homicides in Texas in the 12 months after an execution. Land et al.'s (2012) findings indicate that this deterrence effect is driven by non-felony homicides and that a small brutalization effect is actually observed for felony homicides.

One feature of the article by Land et al. (2012) that distinguishes it from much of the previous research that has been conducted on the death penalty is the type of data used. In particular, much of the existing literature uses data that are aggregated either geographically and/or temporally. Yet, Land et al. focus on Texas and use data that are temporally disaggregated down to the month. Thus, in the first part of this policy essay, I will discuss whether this is the right framework for the analysis. If a deterrent effect exists, then can one expect to identify it with an approach such as this?

The second part of this policy essay focuses on the interpretation of Land et al.'s (2012) key result: Any short-term deterrence effect is driven by non-felony–type homicides. I assess whether this finding makes sense given that deterrence can occur only if a potential offender

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is aware of the occurrence of an execution. Is someone who commits a non-felony–type homicide likely to be aware of the occurrence of an execution, let alone the number of executions or the month-to-month change in the number of executions? To answer this question, I present a brief analysis of data describing the media coverage of more than 170 executions in Texas from 1999 to 2004.

What Is the Right Framework and Unit of Analysis to Test for a Deterrent Effect of the Death Penalty?

I agree with Land et al. (2012) that conducting analyses using nationally and/or annually aggregated data is not the appropriate approach to study the deterrent effect of the death penalty. In other words, if studies of this sort actually found evidence of deterrence, I would be hard pressed to believe, for many reasons, that any estimated deterrence effect is properly identified.

According to Donohue and Wolfers (2006: 794), the death penalty is applied so rarely "that the number of homicides it can plausibly have caused or deterred cannot be reliably disentangled from the large year-to-year changes in the homicide rate caused by other factors." Not only is the death penalty rarely applied, but also in many year-state observations, it is never applied. Berk (2005) showed that much of the previous research purporting to have found evidence of deterrence is driven by just a few states and years with more than five executions. Thus, I support Land et al.'s (2012) focus on the state of Texas, in which the death penalty has been applied relatively frequently and consistently over time. One could argue that a deterrent effect of the death penalty is more likely to be found in Texas than in any other state, given that the probability of receiving a death sentence and being executed is much larger here than in the rest of the country.[1]

In addition, temporally aggregating homicide data to the annual level can also be problematic for identification of a deterrence effect. Homicide variation may only occur on the days immediately surrounding an execution. Given that there are so few executions and given all of the other factors that affect homicide rates, this variation may be impossible to observe upon annually aggregating homicide data. Alternatively, it may be that there is intertemporal substitution of homicides, such that a short-term deterrence effect occurs but is offset by an increase in homicides in the longer term. For these reasons, I agree with the authors that using monthly homicide data for the state of Texas is an improvement over annual data.

1. Hjalmarsson (2009) stated that there were 15.2 death sentences per 1,000 homicides from 1974 to 1995 in Texas and that 15% of the death sentences were carried out. These data contrast with national data presented by Donohue and Wolfers (2006); only 8.7 death sentences were handed down in 2003 per 1,000 homicides and just 1.9% of the 3,374 individuals on death row at the beginning of the year were executed, including those in Texas.

However, I argue that disaggregating the data down further to the weekly level would be even better.[2] To a lesser extent, monthly data are still subject to the same aggregation concerns as annual data. For instance, is there a deterrence effect in the first week after an execution, which is offset by an increase in homicides in the following week? However, another difference between a monthly and weekly analysis using Texas data should be highlighted. During Land et al.'s (2012) sample period (1994–2007), there were, on average, almost two executions per month and very few months had zero executions. Thus, they must analyze whether the difference in the number of executions from month to month has a deterrent effect on the difference in the number of homicides, controlling for seasonality. However, this presumes that in a state like Texas, which uses the death penalty fairly regularly, that the monthly number of executions affects a potential murderer's perceptions of the likelihood of receiving a death sentence from month to month. Do we really believe that such an individual is aware of or perceives the difference between months with three, four, or five executions? Using the week as the unit of analysis, however, would allow the researcher to look at the effect of a potential shock to perceptions—whether there are no executions versus at least one execution.

Regardless of the unit of analysis (i.e., weekly vs. monthly), executions can only have a deterrent effect if the potential murderer is aware of the executions. This observation is true both when measuring executions at the extensive margin (that is, whether at least one execution occurred in a specified period) and at the intensive margin (that is, the number of executions in that period). I will return to this point in my analysis/discussion that follows.

Interpreting the Results: Why Are Non-Felony Homicides Deterred?

Land et al.'s (2012) primary contribution is to take the analysis of Land et al. (2009) a step further and assess whether a differential effect of executions on felony and non-felony homicides exists. Land et al. find a deterrence effect of approximately two non-felony–type homicides in the month immediately after an execution, which is offset during the next 12 months, such that there is a net effect of 1.4 non-felony–type homicides deterred over a 12-month period. In contrast, felony-type homicides increase by 0.5 in the month after an execution. In their discussion of these results, Land et al. state that felony-type homicides "are more likely to have been committed by individuals with prior felony convictions and who thus are more criminally prone."

This statement leads to my primary concern with these results. Specifically, Land et al.'s (2012) interpretation of their results suggests that any deterrence effect of an execution is driven by those individuals who are less criminally prone and who are less likely to have

2. Land et al.'s (2012) current data cannot be disaggregated further, but I do not believe it is impossible to obtain homicide data that would allow for this analysis; for instance, this can potentially be done via public records requests to individual police departments, as done by Hjalmarsson (2009) in Dallas, San Antonio, and Houston.

a prior felony record. Is this result feasible? To answer this question, I think one needs to assess whether these "less criminally prone" individuals are likely to be aware of the number of executions in a given month.

As stated in the previous section, executions can have a deterrent effect only if one is actually aware that an execution took place. Land et al. (2012) recognize this and indicate in their concluding paragraph that there is little knowledge of how the announcement of an execution is distributed across the population of Texas. They point to this as an area for future research. I agree that this question needs to be studied in more detail. But also, I think that more can be said on the question.

Specifically, an individual can learn of an execution through two basic mechanisms: word-of-mouth and a public media announcement. However, it seems unlikely that the less criminally prone have the informal criminal networks for the word-of-mouth mechanism to play a prominent role in dispersing information. If anyone learned about executions via such a mechanism, then it would be those more criminally prone individuals with a felony record. Thus, a public media announcement is left as the underlying mechanism through which the "deterred" in Land et al.'s (2012) study learn about an execution. If this is the case, then future research should be conducted to assess whether the deterrent effect estimated by the authors is driven by those executions that receive the most media coverage.

Although I agree with the authors that more research on this question is needed, I also think that some existing data and research can begin to shed some light on this question. Thus, I will continue this discussion in the next section with a brief analysis of a data set that I assembled to test for a deterrence effect on homicides in three Texas cities (Dallas, Houston, and San Antonio) using daily data (Hjalmarsson, 2009).

Media Coverage of Texas Executions

In this section, I present a brief analysis of the media coverage of the 172 executions in Texas between January 1, 1999 and December 31, 2004.[3] Specifically, I present some statistics that (a) give some sense of how much media coverage is devoted to executions in Texas, where executions are not a rare phenomenon, and (b) indicate what circumstances will lead to coverage of an execution in a newspaper or on the news.

For each execution, I collected information about the execution, offender, and victim from the Texas Department of Criminal Justice's Web site. In addition, I collected data regarding whether there was news coverage of each execution in three local daily newspapers: The *Dallas Morning News* (DMN), *Houston Chronicle* (HC), and *San Antonio Express-News* (SAE).[4] I searched for news stories on each of the 172 executions in all three newspapers

3. This data was collected for Hjalmarsson (2009), where a more detailed description of the data can be found.

4. The *San Antonio Express-News* is the major newspaper in Central and South Texas with circulation spreading from Austin to the Mexico border. The *Houston Chronicle* has the largest circulation of any

TABLE 1

Media Coverage of Texas Executions from 1999 to 2004

Variable	Observations	Mean	Standard Deviation
At least one hit in the *Dallas Morning News*	172	0.65	0.48
At least one hit in the *Houston Chronicle*	172	0.35	0.48
At least one hit in the *San Antonio Express-News*	172	0.30	0.46
Covered at least once on the Dallas NBC News	83	0.36	0.48

Notes. The *Dallas NBC News* data were only obtained for the 83 most recent executions in the sample, November 2001 to 2004. For those executions that were covered, the average number of days between the first and last news article is 5.0 days in the *Dallas Morning News*, 13.8 days in the *Houston Chronicle*, and 10.4 days in the *San Antonio Express-News*.

and recorded the total number of stories about the execution as well as the dates of the first and last articles. Of course, a legitimate concern is the possibility that potential offenders do not read the newspaper. Although television coverage of executions is much more difficult to come by, I obtained coverage information for the 83 most recent executions in the data from an NBC affiliate station in Dallas.

Table 1 presents summary statistics that indicate the extent to which executions are covered in each of these media outlets. Overall, execution coverage varies across city papers. Whereas DMN reported on 65% of the executions from 1999 to 2004, the HC and SAE covered just 35% and 30% of executions, respectively. The higher coverage rate in the DMN is driven by the fact that almost all executions were covered at least once prior to June 15, 2001; a change in management at this time resulted in a decrease in the coverage rate to approximately 34%, which is comparable with the other newspapers. Finally, even though 81% of executions were covered in at least one newspaper, only 38% were covered in more than one paper and just 10% were covered in all three papers. A similar pattern is observed when looking at television coverage, as just 36% of executions were covered at least once on the Dallas NBC News. For those executions covered by NBC, the average amount of time devoted to the story was approximately 55 seconds.

Thus, the summary statistics described previously indicate that only one third of executions are covered by each media outlet. Can anything be said about which executions are likely to receive such coverage? As described in Hjalmarsson (2009), the strongest predictor of whether an execution is covered by a local media outlet is whether the sentence occurred locally; for example, the sentencing of an offender in Harris County, which contains Houston, significantly increases the likelihood that the execution is covered in the *Houston Chronicle*.

newspaper in Texas. Searches of the *San Antonio Express-News* and the Houston Chronicle were conducted through LexisNexis while searches of *The Dallas Morning News* were conducted through the paper's own Web site and archives.

Implications of the Media Coverage Analysis

The preceding analysis highlights two important points about the media coverage of Texas executions. First, each media outlet covers only approximately one third of the executions in Texas. Second, the strongest predictor of whether an execution is covered is whether the offender was sentenced locally.

Given these findings, I find it difficult to believe that individuals with the potential to commit non-felony–type homicides become aware of the number of monthly executions in Texas through public media announcements. If, as I suggested, these offenders do not have the informal criminal networks to learn of these executions via word-of-mouth, then one is left asking how it is possible for such a deterrence effect to be found.

Therefore, I think that additional research is needed before I can be convinced of the findings that (a) a short-term deterrence effect occurs in Texas and (b) it is driven by non-felony–type homicides. Specifically, we need to focus on how aware the populace (and especially the subpopulace of potential offenders) is of an execution. If Land et al.'s (2012) results are to be believed, then analyses should be done that show that the deterrence of non-felony–type homicides is driven by the subset of executions covered by the media (or by those that were sentenced locally).

Finally, Land et al. (2012) claim that their results imply "that there would be little, if any, deterrence of homicides in Texas if executions were not used frequently." Consequently, Land et al. question whether such a deterrence effect would be found in other states, which do not have the same high and persistent levels of the death penalty and execution rates. Although I agree with the authors that it is unclear whether such an effect would be found in other states with a more limited use of the death penalty, I think that Land et al.'s discussion of the policy implications overlooks two points. First, what about the role played by the media? Perhaps the low coverage rate in Texas newspapers of executions is because executions in Texas are such a "common" phenomenon. What kind of media coverage do executions receive in other states, where executions are a more "rare" phenomenon? Thus, is it not possible for an execution to have a larger effect (even if there are not many executions) if it is covered by the media more intensively? Second, and perhaps more fundamentally, Land et al. study the effect of the difference in month-to-month executions. That is, as I understand it, identification does not rely on the number of executions but, rather, on a variation in the number of monthly executions. Could this not be satisfied in other states with fewer executions?

Although I am certainly not convinced of the existence of a deterrence effect, I hope that future research extends these analyses to other states and pays closer attention to the potential role played by the media in making the populace aware of the occurrence of an execution.

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IMPACTS OF EXECUTIONS ON HOMICIDES

The Death Penalty in Texas

On Failing to Acknowledge Irrelevance

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Kenneth Land, Raymond H. C. Teske, Jr., and Hui Zheng's (2012, this issue) article is an interesting addition to the scholarly research that has examined the possible deterrent effects of the death penalty. Although most of the nation's top criminologists believe that the published research has shown that the death penalty is not and has never been a superior deterrent to criminal homicide than alternative sentences of long confinement (Radelet and Lacock, 2009), the scholarly debate is certain to continue. However, scholarly debates over the death penalty are different from public policy debates that may use our research to justify, at least in part, the execution of convicted offenders. Especially when the research may be used to justify the taking of a human life, it would seem prudent for researchers to be extraordinarily clear and careful when outlining the ways in which their research may (or may not) support life-or-death public policies. In this essay, I argue that Land et al.'s findings are not relevant to contemporary death penalty debates.

What Are the Policy Implications?

Land et al.'s (2012) article is being published in *Criminology & Public Policy*, which is an outlet intended for dissemination of criminological scholarship that has relevance for state and federal legislators. As described by its editors, this journal's "central objective is to publish articles that strengthen the role of research in the development of criminal justice policy and practice" (Blomberg and Mestre, 2012: 16).

What do Land et al. (2012) view as the policy implications of their work? In the "Policy Implications" section of the article, Land et al. summarize their findings, speculate about whether the same patterns could be found in other states, and end by stating that their

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findings do not speak to the "ethical" or "cost–benefit" issues in death penalty debates. Nowhere do Land et al. suggest what legislators or policy advocates should or should not do with this work. In fact, Land et al. do not attempt to outline any public policy implications of their research.

Given their silence, there is a very real probability that others will jump to fill the lacuna and use the article by Land et al. (2012) as a justification for the continued or increased use of the death penalty. When papers in any scholarly journal, much less those published in a journal devoted to public policy, are silent or circumspect about the policy implications of the research, then the research can be misunderstood easily or otherwise used improperly. And if readers do misstate the policy implications of our research, then shouldn't we jump at the opportunity to correct the record?

An instructive example can be observed from the previous work by Land, Teske, and Zheng (2009). This study has already been used by pro–death penalty advocates to justify frequent use of the gurney. When the study was released, it received extensive press coverage. In that coverage, Kent Scheidegger, one of this country's most vocal supporters of the death penalty, was quoted as saying the work "would be sufficient by itself to justify the death penalty" (Graczyk, 2010: B1). In his blog, Scheidegger (2009) found further use for the work. He wrote a few paragraphs summarizing the study, arguing that it proved that "10 executions in a year would save 5 to 25 lives" (2009, para. 9). Scheidegger likes to see these kind of results. "That would be sufficient by itself to justify the death penalty," he wrote, "but short-term deterrence is not the only reason. There are (sic) long-term deterrence, retribution, and incapacitation as well" (2009, para. 10). In short, if Kent Scheidegger had his way, then more people would be put to death, in part, because of Land et al.'s (2012) research.

Readers deserve a clear statement of what these authors view as the policy implications of their work, and Land et al. (2012) fail to provide it. At the very least, the statement on policy implications should remind readers that the authors consider their work to be "exploratory" and that the objectives they outlined for their research have nothing to do with public policy.[1]

Land et al. (2012) report that deterrent effects of executions are short term, affect mainly non-felony homicides, and are limited to Texas.[2] Friends of the executioner will be quick to argue that this research means that other states need to increase their per-capita execution rates so they can approach what Texas does. The bottom line is as follows:

1. "Rather, the objectives are to develop a research question, probe the data for patterns that address the question, and then discuss whether these patterns are consistent with prior studies of deterrence" (Land et al., 2012).

2. The geographic limitation of this study to Texas is prudent, given that only Texas data were analyzed. However, it is curious that the authors suggest that the findings may be limited to Texas because Texas has a high number of executions. In fact, per 100,000 population, Oklahoma has a far higher execution rate than Texas (Death Penalty Information Center, 2012a).

Responsible researchers should be able to anticipate how their research might be used and be very cautious about anticipating ways in which it might be misused.

Land et al. (2012) tend to force-fit this study into a larger jigsaw puzzle to make this article seem consistent with other research, even when this piece does not exactly fit. For example, Land et al. argue that their results are consistent with a study of executions in England published by David Phillips (1980). As Land et al. state correctly, Phillips claimed to have found a short-term drop in the number of homicides in England in the weeks after a highly publicized execution. But they fail to mention that this study was thoroughly discredited by William Bowers (1988), who uncovered several errors in the numbers of weeks studied and in the weekly homicide counts that Phillips used in his work. Once those errors were corrected, Bowers found a statistically significant increase, not a decrease, in homicides in the weeks after highly publicized executions.

It is possible that Land et al. (2012) were simply unaware of the research by Bowers (1988), published in an edited monograph, not a journal, some 25 years ago. Fair enough, at least fair enough for research that is not used to buttress life-and-death social policies. But the point is that this research *will* be used to justify social policies—more executions—even though Land et al. pass on the opportunity to state precisely what are and what are not the policy implications of their work. We can anticipate that others will (improperly?) fill the void left by Land et al.'s failure to state the policy implications precisely (as they view them) and use the study to draw life-and-death policy implications. As such, if the study cites another study as an argument for reliability, then the authors need to make mighty sure that the cited work has not been discredited.[3]

How Does Deterrence Work?

The debate about the deterrent effects of the death penalty is not about the death penalty *per se* but about whether there is any *marginal* deterrent effect of executions over and above the next less serious sanction: long imprisonment. Land et al. (2012) fail to note the significant change in Texas law in September 2005, when Texas enacted a "life without parole" (LWOP) sanction for those eligible for, but spared, the death penalty.[4] In 14 of the 16 years that Land et al. studied, LWOP was not available. It is entirely possible, therefore, that the slight reductions in homicides observed by Land et al. after executions during the

3. Land et al. (2012) also cite with favor the deterrence research conducted by Zimmerman (2004). They fail to mention that Zimmerman's (2006) later work found that the deterrent effect of the death penalty was limited to executions via the electric chair, a method of execution that has been used only eight times in the past decade (Death Penalty Information Center, 2012b). In contrast, the authors fail to note that other researchers have also found deterrent effects of executions to be stronger on non-felony homicides than on felony homicides (Shepherd, 2004), which is curious because Land et al. (2009) cited the paper by Shepherd (2004).

4. This Bill was signed June 17, 2005, with an effective date of September 1, 2005. At the time, Texas and New Mexico were the only two death penalty states that did not also authorize LWOP (Associated Press, 2005). New Mexico has since abolished the power for the state to impose new death sentences.

time period of their study would no longer be found. Today, if the death penalty in Texas were a superior deterrent, then we would need to identify a group of potential killers who would commit the homicide knowing they might be sentenced to LWOP but would refrain if they knew they risked execution.

Potential murderers in Texas who are thinking about possible sanctions also have another handy option today that was not available during the study period. Its western neighbor, New Mexico, abolished the death penalty in 2009. We expect that some of the would-be Texas murderers who think about sanctions would recognize this new law and take their friend or loved one to New Mexico to kill them, thus risking "only" LWOP. Obviously, this idea is absurd. Murderers tend not to think ahead, especially those who kill friends or loved ones during crimes of passion.

And that suggests another problem with this research. The findings lack face validity: Non-felony homicides are deterred, but not felony homicides. If one believes these findings, then the types of murders that result in execution (those that are especially premeditated or "cold and calculated," those with accompanying felonies, and those done with a motive of pecuniary gain) are not deterred, but those done in moments of passion (barroom brawls and murder during a heated domestic argument) are deterred. The latter are much less likely even to result in a conviction for first-degree murder. Much more work is necessary in uncovering the ways in which deterrence is supposed to work before Land et al.'s (2012) article has public policy implications.

I have no problem accepting Land et al.'s (2012) contention that "[a]nnouncement via television" is rare. However, the claim that, "In general, 140,000 inmates know of the execution" seems to me to be preposterous.[5] In my own experience, prisoners know less about current events than members of the general public, not more. Furthermore, the few who are released each month and who do not kill within a few months of release because they have been deterred by news of an execution would have a miniscule effect on overall homicide rates.

Conclusion

In short, Land et al. (2012) are to be commended for undertaking an interesting "exploratory" piece. Unfortunately, their discussion of policy implications is inadequate. Even at best, small studies such as this, standing on their own, cannot have an impact on important life-or-death social policies, although it might fit in with many others as part of a body of scholarship that might be of interest to policy makers. In death penalty scholarship, the literature on deterrence overwhelmingly shows no deterrent effects (Radelet and Lacock, 2009), but that does not mean that new studies such as this cannot affect the conventional wisdom. Nonetheless, standing alone, this work has no direct public policy implications, and the authors should be up front in acknowledging it. They fail to anticipate the very

5. On January 1, 2010, Texas prisons housed 171,249 inmates (Pew Center on the States, 2010: 7).

real possibility that their work may be misused by others to argue for policy implications that the authors, and certainly the data (not to mention the vast majority of criminological studies on deterrence that have been published over the past century), might or do not support. As I see it, Land et al.'s article has far too many holes in it to be used to justify policy, especially policies that involve life-and-death issues.

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IMPACTS OF EXECUTIONS ON HOMICIDES

The Texas Deterrence Muddle

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The ongoing debate about capital punishment in the United States juggles several contentious questions. Innocence, cost, racial fairness, proportionality, retributivist calculus, and deterrence concerns thread a literature whose richness testifies to the endurance of capital punishment in American legal and political culture. For proponents of capital punishment, the connection between the moral and utilitarian or consequentialist positions trumps all other concerns: They suggest that if the death penalty can prevent—through the incapacitation of the offender and general deterrence of would-be killers—the loss of even one innocent life from murder, then execution is a morally justified or perhaps even morally required penal response (Sunstein and Vermeule, 2005).[1] This linkage raises the stakes in the death penalty beyond policy considerations (Garland, 2011; Steiker and Steiker, 2010; Zimring, 2003) and elevates the question of whether executions deter to near primacy in this debate.

The latest work on executions and murders reported by Kenneth C. Land, Raymond H. C. Teske, and Hui Zheng (2012, this issue), together with reports from previous stages of their Texas capital punishment project (Land, Teske, and Zheng, 2009), takes its place in the recurring debate surrounding the deterrence question (Nagin and Pepper, 2012). As with its predecessors, Land et al.'s work has implications for both the moralist and consequentialist

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1. Cass R. Sunstein later joined with Justin Wolfers (2008), whose work with John Donohue (Donohue and Wolfers, 2005) was critical of the Sunstein–Vermeule (2005) analysis, to clarify their respective assessment of the evidence of a deterrent effect of executions on murder. A few years later, Sunstein and Wolfers (2008) concluded that "the best reading of the accumulated data is that they do not establish a deterrent effect of the death penalty."

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positions, perhaps more so than studies done in other death penalty states. Texas is special for three reasons. First, the state has been the dominant user of executions in the decades since the U.S. Supreme Court imposed a brief moratorium in *Furman v. Georgia* (1972). Since executions resumed in Texas in 1982 after the Supreme Court decision in *Gregg v. Georgia* (1976), Texas's 472 executions through 2011 account for more than one third of all executions in the United States (Death Penalty Information Center, 2012).

The second reason to focus on Texas is that much of the deterrent effect observed in the post-*Gregg* deterrence studies is leveraged by the influence of Texas (Berk, 2005). Berk observed that any evidence of the impacts of executions on homicide rates can be dismissed for U.S. death states other than Texas. So, if executions can show a distinctive impact on death-eligible killings anywhere, then Texas should be the place. Given its high rate of executions, the case for the impact of the death penalty on homicide cannot be so easily dismissed if we observe deterrence in Texas (Fagan, Zimring, and Geller, 2006).

The third reason is that Texas offers a unique opportunity to estimate the marginal deterrent effect of execution beyond the next most serious punishment: a sentence to natural death in prison or life without the possibility of parole (commonly known as LWOP). The unique opportunity to test the marginal deterrent effects of execution compared with LWOP emerges in Texas in two ways. One way is the enactment of LWOP as a sentencing option for capital-eligible murders in September 2005, in the midst of the lengthy time series of murders and executions that Land et al. (2012) examine for evidence of deterrence. Such opportunities for natural experiments in criminal justice are rare but can offer strong evidence of the effects of new law or policy (Fagan, 1990). Second, as a result of the new LWOP statute, Texas now has high rates of both executions and LWOP sentences (Olsen, 2011).[2] The dual high prevalence of the two most severe sanctions available for capital-eligible murders provides fertile ground for a robust test of the deterrence hypothesis.

How to view the contributions of Land et al.'s (2012) article is the focus of this policy essay. Several longstanding parameters of this debate will help us to gauge its contributions. And a closer look at the capital punishment regime in Texas also may help to place Land et al.'s (2009, 2012) work in a broader social science and jurisprudential context on capital punishment that will shape how these inquiries might look in the future.

Deterrence

Land et al.'s (2012) research is located in a streamlined framework of deterrence that departs significantly from contemporary renderings of deterrence, whether applied to murder or

2. The Texas LWOP statute also provided opportunity for age-specific experimentation on the effects of LWOP on young murder offenders. From September 2005 to September 2009, Texas allowed life without parole prison sentences for juvenile offenders under the age of 18 years at the time of their offense who had been certified to stand trial as adults. SB 839 changed Texas law to bar such punishment in September 2009. By then, 21 people in Texas had been sentenced for crimes they committed before 18 years of age.

other crimes. The basic Becker–Ehrlich logic of the economic approach to crime (Becker, 1968, 2006; Ehrlich, 1975) is nowhere to be found in the Land et al. (2012) work. The key feature of the economic approach is the assumption that (a) criminal acts are purposeful choices that are subject to individual utility functions, (b) actions are bounded by social influences including rational or irrational views about the consequences of actions, and (c) those costs are created through cascades of legal interventions, from detection to prosecution, sentencing, and punishment.

Dozens of studies on executions and murder have followed this design (see Donohue, 2009; Fagan, 2006; Nagin and Pepper, 2012, for reviews), including the recent efforts by Kovandzic, Vieraitis, and Boots (2009) and Donohue and Wolfers (2009). All are rooted in choice theory, consistent with Becker, and all, regardless of discipline, seek to identify a causal link between executions (or death sentences) and offender choices to commit homicides.

Theoretical work on crime and deterrence has moved beyond those early cost-centric formulations to broaden the notion of choice and incentives. New work on deterrence focuses on perceptions of both risks and rewards of crime, the rationality calculus of criminal offenders, dose-response effects of various sanctions, and several individual-level factors that may either moderate or mediate the sanction–crime relationship (Apel, 2012; Loughran, Piquero, Fagan, and Mulvey, 2012; Nagin, 1998; Nagin and Paternoster, 1994; Piquero, Paternoster, Pogarsky, and Loughran, 2011; Robinson and Darley, 2004; Williams and Hawkins, 1986; Zimring and Hawkins, 1973).

But neither of these versions of deterrence is the focus of Land et al.'s (2012) project. Instead, this article and the previous publication join many studies of deterrence that examine the joint stochastic processes that link homicides (however measured) and executions across time, without specifying the intervening processes. Land et al.'s project foregoes a detailed specification of the sanctioning regime for capital-eligible murders where execution is the end of the line that starts with detection risks and ends with execution or another form of incapacitative punishment. It is agnostic on the substantive influences on the choices that offenders make given execution risks. Apart from individual differences, Land et al.'s approach also assumes that the characteristics of the choice are independent of local contexts—the work is silent on local crime or social conditions in neighborhoods, the efficiency of the local police and courts to detect and punish crimes, the signals of risk that emanate from those authorities, the availability or likelihood of alternative harsh punishments, and the social networks of offenders and would-be offenders that communicate risk. Each of these matters is detailed in the next section.

Which Homicides?

One comparative advantage of Land et al.'s (2012) work is the disaggregation of homicides into components. This strategy is done for several good reasons. Not all homicides are eligible for a death sentence, nor are all equally deterrable (see, e.g., Shepherd, 2004, 2005).

Since *Gregg*, the cherished idea that "death is different" has guided states to craft death penalty statutes that reserve execution for offenders who meet statutorily defined capital eligibility requirements (Abramson, 2004; Steiker and Steiker, 2010). State statutes base capital eligibility in part on grades of heinousness or premeditation; they also include "felony murders" where killings take place in the course of commission of a nonhomicide felony crime. But even that threshold does not capture the totality and complexity of killings that are capital eligible. Other homicides—such as killings of police or children, or multiple victim shootings—evoke normative outrage that motivates legislatures to create eligibility for the death penalty for such crimes (Sharon, 2011; Simon and Spaulding, 1999). An effective death penalty would produce changes in the heterogeneous categories of homicides that are death eligible and that face the threat of execution.

Land et al.'s (2012) project is not the first to have tried this. In 2006, Fagan, Zimring, and Geller published a study that disaggregated Texas homicides into two groups—those potentially eligible for a death penalty (approximately 25% of all kills) and non–death-eligible killings (the other 75%) (Fagan et al., 2006). The study investigated whether death-eligible killings responded to Texas execution rates and found that they did not. We showed that almost the entire decline in homicides that happened in Texas involved killings that did not risk a death sentence. We concluded that the variation in execution rates would not be a plausible influence on the variation in non–death-eligible killings under the conventional theories of deterrence.

This latest version of Land et al.'s (2012) Texas analysis addresses only a subset of this group of capital-eligible murders: "felony homicides." Accordingly, the unique contribution of Land et al.'s (2012) project is unclear because felony murders are only a part of the story of capital punishment in Texas. The Texas capital punishment statute (Texas Penal Code §19.03) lists a set of other aggravators that render first-degree murder eligible for capital punishment: killings of children younger than 6 years of age, killings of police officers or staff in correctional institutions, mass shootings, murder for hire, and murder during a prison escape. There is no doubt that felony murders are an important piece of the "market share" of capital-eligible homicides, but they are only approximately half of all capital-eligible homicides (Fagan et al., 2006).

Our 2006 study applied the criteria and definition from §19.03 to the Supplemental Homicide Report data to estimate that 21.1% of all homicides in Texas 1977–2003 were capital eligible. Table 1, which is adapted from Fagan et al. (2006), shows that 54.6% of all capital-eligible homicides were felony murders. Among felony murders, nearly 80% of those were murders committed during the course of robberies. The rest fell into several other categories of capital eligibility in the Texas statute, in which multiple victim shootings is the second largest category.

The challenge remaining in Land et al.'s (2012) study is to estimate the effects of executions on the rest of the pool of capital-eligible homicides: the 45.5% that were non-felony murder, capital-eligible homicides. Readers are left to wonder whether these other

TABLE 1

Capital-Eligible Homicides, Texas, 1977–2003

Category	*N*	% of All Homicides	% of Capital-Eligible Homicides
Homicides during crimes	5,723	11.6	54.6
Institution killings	117	0.2	1.1
Gangland killings	259	0.5	2.5
Youth gang killings	155	0.3	1.5
Sniper killings	18	0.0	0.2
Murders of children 6 and younger	1,520	3.1	14.5
Killings of police officers	148	0.3	1.4
Multiple victims	3,725	7.5	35.6
Total capital eligible	10,476	21.1	100.0
Total non–capital eligible	39,060	78.9	
Total	49,536	100.0	

Source: Adapted from Fagan, Zimring, and Geller (2006).

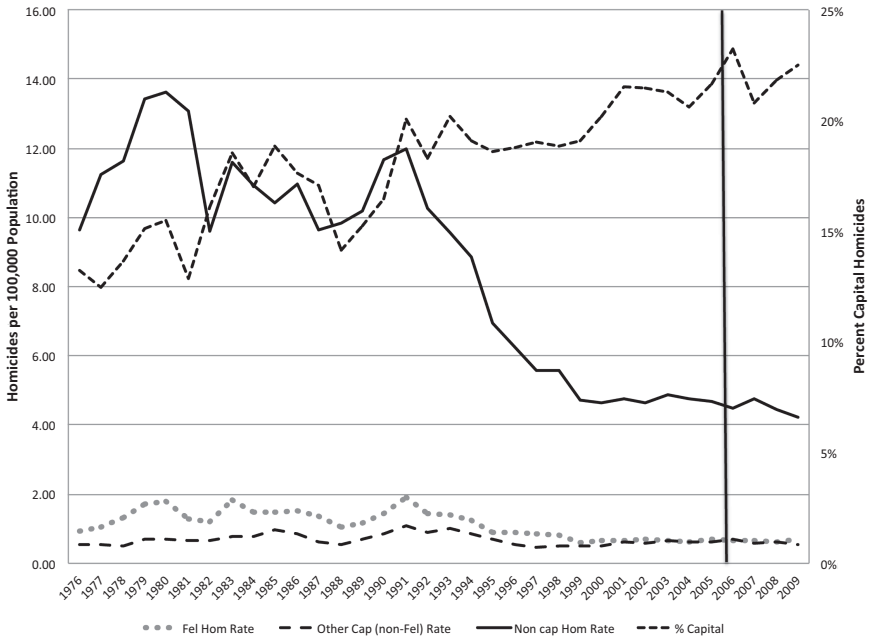
capital-eligible homicides were included in the non-felony category and treated in one group with other non–capital-eligible homicides. If so, the value of segregating felony homicides is diminished in the search for deterrence. Multiple-victim shootings, for example, which in Table 1 comprise more than a third of capital-eligible homicides in Texas, are different in motivation and most likely in offender attributes from second-degree murders that ensue from bar fights or road rage incidents. We are left to wonder which side of the ledger in Land et al.'s study accounts for these killings.

Figure 1 provides a picture of the trends over time in these two forms of capital-eligible killings. In our study, we hypothesized that the marginal deterrent effect of execution would be concentrated in the death-eligible homicide group. The differential impact we found suggests that the variations in execution were not the feature that is driving reductions in homicide in Texas over time. Extending our time series from 2003 to 2009, in an era of declining executions, suggests that nothing has changed. In fact, from 2001 to 2009, the numbers of felony murders and other non-felony murder, capital-eligible killings in Texas have been just about equal.

Deterrence may or may not exist in Texas, but if the goal of separating homicides into those that are capital eligible and those that are not is to better identify the deterrent effects of executions, then limiting the analysis only to felony murders pulls the rug out from under the enterprise. Let's assume, however, that the basic finding of transient deterrent effects of executions on non-felony murders is right. But which of this heterogeneous category of non-felony murders seems deterrable, even for a short moment? Is it the rest of the capital eligible pool, or is it the barroom brawls or the jealous domestic rages? Both statutory and policy considerations would benefit from an answer to that question. So, too, would the moral argument that Sunstein and Vermeule (2005) brought into the debate.

FIGURE 1

Capital-Eligible and Non–Capital-Eligible Homicides in Texas, 1976–2009



The Supply of Capital Cases

Although Land et al.'s (2012) approach examines the deterrent effects of executions, those cases represent the end of a winnowing process that reduces a larger pool of capital-eligible offenders to a far smaller number of those who, in effect, have lost a detection and punishment lottery. The process relies on the skills (and perhaps luck) of the police to catch offenders and launch a process that leads to prosecution as a capital-case, conviction, sentencing, and punishment. The detection process has implications both for creating the supply of cases eligible for execution as well as for the mechanics of deterrence. If a choice-theoretic model of rational deterrence is right, then offenders who perceive low risks of detection are unlikely to internalize these risks into the decision to commit a murder.

Consider how this sorting process worked out during the period of Land et al.'s (2012) study. From 1994 to 2007, 19,951 killings were classified in the FBI's Uniform Crime Reports as murder or manslaughter. Applying the Texas capital murder statute, we estimate that 21.1% of all murders were capital eligible. The pool is then narrowed by apprehension risk. The Texas Department of Public Safety reports that about 75% of all murders in 2009 were cleared by arrest of an identified suspect, a rate that is fairly stable over time in Texas

(Fagan et al., 2006). The rate was approximately the same for capital-eligible and other homicides.

These arrests produced a total of 450 death sentences in Texas in the 1994–2007 window of Land et al.'s (2012) study (Death Penalty Information Center, 2012). At the end of the punishment regime for capital-eligible crimes, 423 executions occurred during this period (Texas Department of Corrections, 2012). The estimates of death sentences and executions obviously include murders that took place before 2004 and exclude those who were sentenced after 2007. Still, these events establish the basic parameters of deterrence contingencies to would-be killers and are essential parts of the signal of both punishment risk and cost that comprise a deterrence regime (Fagan, 2006). Using simple if not crude math, a person committing any murder in Texas might think that he has about a 2.1% chance of execution, and a person committing a capital-eligible murder—if he knew the rules of aggravating circumstances—might think that he has a 10% chance of execution during that period of time. This estimate does not take into consideration the exonerations that took place during this time in Texas, nor the number of death sentences that are reversed and resentenced to a term in prison (Liebman, Fagan, West, and Lloyd, 2000).

A rational decision maker would view these as long odds, if that person were concerned only with execution as the cost to be avoided. But from what we know about murderers, even that calculus is strained by cognitive distortions and the fact that a set of powerful and complex rewards might lead to a decision that execution is a price worth risking (see, e.g., Fagan and Wilkinson, 1998; Katz, 1998).

Signaling Risk

How well does this lottery get the message across to deter homicides in general, and especially that subset that are eligible for execution? Whether and how well offenders gain knowledge of punishment risks is central to a deterrence argument. Although deterrence studies vary in terms of their observational units (counties, states) over time, Land et al. (2012) chose to aggregate responses across Texas's 254 counties, assuming that risks not only are uniform across the state but also are communicated with equal strength across those units. It is a big assumption in a big state, and it bears on how we conceptualize the communication component of deterrence.

Almost nothing is known about the awareness of sanction risks—arrest, sentencing, or execution—among those who go on to commit homicides, and certainly none is known about those who commit capital-eligible homicides. Still, it seems unlikely that most killers are reading about execution risks in the newspapers or hearing about recent executions on television or radio. Even when those announcements are available, they seem to have no effect on deterrence in the days and weeks after an execution. Hjalmarsson (2009) studied homicides in the days and weeks after newspaper announcements of executions in three

TABLE 2

Capital-Eligible and Non–Capital-Eligible Homicides, Largest Texas Counties, 1977–2009 (*N*,%)

County	Capital Eligible	Felony Homicides (Subset of Capital Eligible)	Other Homicides	Total
Harris, Dallas, Bexar	6,029	4,359	25,923	31,952
	(56.3)	(64.2)	(53.0)	(53.6)
Other counties	4,676	2,429	22,947	27,623
	(43.7)	(35.8)	(47.0)	(46.4)
Total	10,705	6,788	48,870	59,575

Source: Adapted from Supplemental Homicide Reports, 1977–2009, ICPSR, NACJD.

large Texas cities from 1999 to 2004: Dallas, Houston, and San Antonio. She found no evidence of deterrent effect when local executions received local media coverage.

This finding is important not just for its implications for the signaling question but also for the overall Texas effect: Table 2 shows that these three counties (Harris, where Houston is located; Dallas County; and Bexar County, where San Antonio is located) account for more than half of the capital-eligible murders in Texas from 1977 to 2009 and a similar share of total homicides. These counties account for nearly two thirds of the felony murders, a major share of the capital-eligible homicides. If there are no media effects in these counties, with their large media markets and high-population density, then it may be unreasonable to expect announcement effects—if there are such announcements at all—in the sparser counties across the states.

It might also be unrealistic to assume that news of executions travels efficiently across the vast areas between Texas cities and their media markets. Consider that the state's execution facility is in the state prison in Huntsville, approximately 67 miles north of Houston in the southeastern corner of the state. Execution announcements elsewhere would have to be publicized to state population centers in north Texas (Amarillo, 575 miles from Huntsville) or west Texas (El Paso, 750 miles from Huntsville) to amplify the signal of execution risk. Moreover, executions come from only a handful of counties in the state, as do capital-eligible murders. Again, the demands of deterrence for efficiency in information markets suggest that these assumptions are strained if not unrealistic.

Alternative Punishments

Estimates of deterrence typically focus on the marginal deterrent effects of alternative punishments as part of the punishment regime. In other words, at the end of this process of production of sanctions, we should be able to observe the marginal effects of executions compared with other punishment contingencies and realities. In the case of capital-eligible punishments, the marginal effects might be estimated by comparing executions to lengthy

prison sentences, including sentences of LWOP. Another way of considering marginal deterrence for capital-eligible homicides is to consider the efficacy of sentencing for the predicates of felony homicide: prison sentences for robberies. If robberies are the modal category of felony murder, then a marginal deterrent effect might be discerned from comparisons of executions for felony murder for robbery with prison sentences for robberies (Fagan et al., 2006).

Land et al.'s (2009, 2012) projects do not consider either approach. Texas, however, provides an important opportunity for a natural experiment on the effects of LWOP sentences for capital-eligible murders. The state had no provision for LWOP sentences until September 2005. Prior to the new law, defendants in Texas convicted of a capital-eligible murder received either a death sentence or a minimum of 40 years in prison. Since the state introduced the option of a life-without-parole (LWOP) sentence for capital murder in September 2005—simultaneously eliminating the possibility of parole for capital crimes—the number of capital cases filed has escalated, whereas the number of new death sentences in Texas has decreased sharply from 48 in 1999 to 8 this year. According to the *Houston Chronicle* (Olsen, 2011), 398 Texas offenders convicted of capital-eligible murder were sentenced to life without parole since the 2005 passage of the LWOP law, compared with 66 people who were sentenced to death. The LWOP law has been used in approximately one third of all Texas counties at least once.

Once again, not only does the volume of executions in Texas present unique opportunities to study deterrence, but the state also presents unique opportunities to study the effects of LWOP on plea bargaining (Kuziemko, 2006) and ultimately on sentences using the types of stochastic models favored by Land et al. (2009, 2012). By way of preview of what might forecast the results, Figure 1 shows the trends in capital-eligible and other homicides before and after the passage of the LWOP law in 2005. Since 2000, murder rates have decreased from 5.9 per 100,000 to 5.0 per 100,000 in 2010 (Federal Bureau of Investigation, 2012). Executions in Texas have declined from 37 in 1999 to 17 in 2011 (Texas Department of Corrections, 2012). It seems that other than increasing the state's population of persons serving sentences of death in prison, there has been little effect thus far either of the state's new LWOP law or its sharp decline in executions on either capital-eligible or other murders.

Conclusion

No matter which side of the debate they take, nearly all researchers agree that if we could observe a deterrent effect from executions in the United States, it would be in Texas, the nation's leader in executions since the resumption of capital punishment in the United States in 1977 (Berk, 2005; Fagan et al., 2006; Zimring, Fagan and Johnson, 2010). Yet the results from the Land et al. (2009, 2012) projects suggest that the question of deterrence, based on Texas data, remains a muddle. The most sensitive test of the marginal deterrent effect of

executions in Texas is shown by the separation of capital-eligible and non–capital-eligible cases in Figure 1. It provides no evidence that death-eligible cases are execution-sensitive. The Land et al. (2012) study offers a partial though weaker confirmation of what we concluded in our 2006 article, and what we have shown here.

The Land et al. (2012) study does little to resolve the muddle of why executions evidently fail to deter. In our 2006 study, we use the standard "cost" or "risk of unpleasantness" theory of deterrence to frame our hypothesis. In the Land et al. (2012) study, no explicit theory is provided of what aspects of execution are supposed to influence potential homicide offenders. If it is the risk of the potential killer to himself be executed, then the results they obtain are the reverse of what deterrence theory would predict: The group with the highest risk of death sentence shows a tiny, transient, and reversible effect compared with the group (non-felony killings) with far lower death sentence risks. Even momentary, transient, and entropic fluctuations in felony murders, the backbone of Land et al.'s (2012) analysis, cannot conceal the overall pattern of nonresponsiveness of capital-eligible homicides to the threat of execution. This nonresponsiveness is even more stark in the years of the past decade when execution threats were diminishing and when the use of other harsh sanctions including LWOP sentences were increasing.

The uncertainty that infects the evidence on the deterrent effects of executions should weigh heavily on the minds of legislators who use such evidence to inform judgments and policy decisions. This uncertainty translates into risks that, in the interest of life–life trade-offs, we may in fact end lives with no reliable evidence of any savings of lives. This uncertainty creates heavy ethical demands. What is the appropriate response of the ethical legislator to the uncertainty that plagues the question of whether executions deter? Evidence from Texas seems to show that the world is not an orderly place organized around the harmony of market equilibrium. Legislators should take notice.

Even with these uncertainties, researchers hoping to clarify or resolve the deterrence question continue to search for the right set of econometric tools. But the question itself, as well as those who stick with it, is hopelessly burdened by their search for the rational murderer who, having decided to commit a murder that may be eligible for the death penalty, stops before killing, looks around at the prospects of detection, listens to the announcements of punishment risks and costs, and gladly risks a death in prison sentence but is transfixed and transformed by the very long odds of being executed before dying of natural causes. This is indeed a muddle if not an impossibility.

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