

CONTENTS

VOLUME 11 • ISSUE 2 • MAY 2012

VOLLMER AWARD

VOLLMER AWARD ADDRESS

- On Behalf of Women Offenders: Women's Place in the Science of
Evidence-based Practice 111

Patricia Van Voorhis

VOLLMER AWARD COMMENTARIES

- Patricia Van Voorhis: Have Vision, Will Travel 147

Emily J. Salisbury and Meda Chesney-Lind

- "Every Time a Bell Rings an Angel Gets His Wings": Commentary on Patricia
Van Voorhis' Receipt of the 2011 Vollmer Award 155

Bonita M. Veysey

HIGH POINT DRUG MARKET INTERVENTION

EDITORIAL INTRODUCTION

- The Impact of Drug Market Pulling Levers Policing on Neighborhood Violence:
An Evaluation of the High Point Drug Market Intervention 161

Philip J. Cook

EXECUTIVE SUMMARY

- Overview of: "The Impact of Drug Market Pulling Levers Policing on
Neighborhood Violence: An evaluation of the High Point Drug Market
Intervention" 165

**Nicholas Corsaro, Eleazer D. Hunt, Natalie Kroovand Hipple,
and Edmund F. McGarrell**

RESEARCH ARTICLE

- The Impact of Drug Market Pulling Levers Policing on Neighborhood
Violence: An evaluation of the High Point Drug Market Intervention 167

**Nicholas Corsaro, Eleazer D. Hunt, Natalie Kroovand Hipple,
and Edmund F. McGarrell**

POLICY ESSAYS

- Getting Deterrence Right? Evaluation Evidence and Complementary
Crime Control Mechanisms 201

Anthony A. Braga

Good Markets Make Bad Neighbors: Regulating Open-air
 Drug Markets211
Peter Reuter and Harold A. Pollack

EARLY INTERVENTION BETWEEN SCHOOLS AND LAW ENFORCEMENT

EDITORIAL INTRODUCTION

Editorial Introduction 221
Alex R. Piquero

EXECUTIVE SUMMARY

Overview of: “Getting the Law Involved: A Quasi-experiment in Early
 Intervention Involving Collaboration between Schools and the District
 Attorney’s Office” 225
John Paul Wright, Pamela M. McMahon, Claire Daly, and J. Phil Haney

RESEARCH ARTICLE

Getting the Law Involved: A Quasi-experiment in Early Intervention
 Involving Collaboration between Schools and the District Attorney’s Office 227
John Paul Wright, Pamela M. McMahon, Claire Daly, and J. Phil Haney

POLICY ESSAYS

New Standards for Demonstrating Program Effectiveness 251
Peter W. Greenwood

The Case for Early Crime Prevention 259
Brandon C. Welsh

Should the Juvenile Justice System be involved in Early Intervention? 265
David P. Farrington

CRIME REDUCTION THROUGH A REGULATORY APPROACH

EDITORIAL INTRODUCTION

Crime as Pollution: Lessons from Environmental Regulation 275
Daniel S. Nagin

EXECUTIVE SUMMARY

Overview of: “Crime Place and Pollution: Expanding Crime Reduction Options
 through a Regulatory Approach” 279
John E. Eck and Emily B. Eck

RESEARCH ARTICLE

Crime Place and Pollution: Expanding Crime Reduction Options through a
Regulatory Approach281

John E. Eck and Emily B. Eck

POLICY ESSAYS

Bringing Social Context Back Into the Equation: The Importance of Social
Characteristics of Places in the Prevention of Crime.....317

David Weisburd

Some Problems with Place-based Crime Policies327

Dan A. Black and Kyung Park

Crime, Place, and Pollution: Expanding Crime Reduction Options through
a Regulatory Approach.....335

Lorraine Mazerolle and Janet Ransley

Joining the Regulatory Fold345

Malcolm K. Sparrow

Crime Reduction: Responsibility, Regulation, and Research361

Nick Tilley

ASSESSING THE EARNED DISCHARGE PILOT PROJECT

EDITORIAL INTRODUCTION

Evidence-Based Policy and the Politics of Criminal Justice Reform379

Heather Schoenfeld

EXECUTIVE SUMMARY

Overview of: “Assessing the Earned Discharge Pilot Project: The Importance
of Context, Capacity, and Content”383

Sarah M. Smith, Marisa K. Omori, Susan F. Turner and Jesse Jannetta

RESEARCH ARTICLE

Assessing the Earned Discharge Pilot Project: The Importance of Context,
Capacity, and Content385

Sarah M. Smith, Marisa K. Omori, Susan F. Turner and Jesse Jannetta

POLICY ESSAYS

Perpetual “Crisis” and the Dysfunctional Politics of Corrections in California411

Michael C. Campbell

Resisting “Evidence” in Challenging Correctional Environments.....421

Jeffrey Lin

Guide to Preparing Manuscripts

Editorial Policy—*Criminology & Public Policy* (CPP) is a peer-reviewed journal devoted to the study of criminal justice policy and practice. The central objective of the journal is to strengthen the role of research findings in the formulation of crime and justice policy by publishing empirically based, policy-focused articles. Authors are encouraged to submit papers that contribute to a more informed dialogue about policies and their empirical bases. Papers suitable for CPP not only present their findings, but also explore the policy-relevant implications of those findings. Specifically, appropriate papers for CPP do one or more of the following:

- Strengthen the role of research in the development of criminal justice policy and practice
- Empirically assess criminal justice policy or practice, and provide evidence-based support for new, modified, or alternative policies and practices
- Provide more informed dialogue about criminal justice policies and practices and the empirical evidence related to these policies and practices
- Advance the relationship between criminological research and criminal justice policy and practice

The policy focus of the journal requires articles with a slightly different emphasis than is found in most peer-reviewed academic journals. Most academic journals look for papers that have comprehensive literature reviews, provide detailed descriptions of methodology, and draw implications for future research. In contrast, CPP seeks papers that offer literature reviews more targeted to the problem at hand, provide efficient data descriptions, and include a more lengthy discussion of the implications for policy and practice. The preferred paper describes the policy or practice at issue, the significance of the problem being investigated, and the associated policy implications. This introduction is followed by a description and critique of pertinent previous research specific to the question at hand. The methodology is described briefly, referring the reader to other sources if available. The presentation of the results includes only those tables and graphs necessary to make central points (additional descriptive statistics and equations are provided in appendices). The paper concludes with a full discussion of how the study either provides or fails to provide empirical support for current, modified, or new policies or practices. The journal is interdisciplinary, devoted to the study of crime, deviant behavior, and related phenomena, as found in the social and behavioral sciences and in the fields of law, criminal justice, and history. The major emphases are theory, research, historical issues, policy evaluation, and current controversies concerning crime, law, and justice.

Manuscript Submissions—Manuscripts are to be submitted electronically to cpp@fsu.edu. The manuscript should be submitted in one Word (.doc) file with tables and figures in the same document as the manuscript text. Please note that Word 2007 is not yet compatible with journal production systems. Unfortunately, the journal cannot accept Microsoft Word 2007 documents until such time as a stable production version is released. Please use Word's "Save As" option, therefore, to save your document as an older (.doc) file type. Additional documents, including cover letters or memos to the editor, may also be e-mailed as supplemental files. Although we strongly encourage on-line submission, those who prefer not to submit on-line may send a CD to Julie Mestre, Managing Editor, Florida State University, Center for Criminology & Public Policy Research, 325 John Knox Road Building L-102, Tallahassee, FL 32303.

An executive summary of approximately 150 words and a brief biographical paragraph describing each author's current affiliation, research interests, and recent publications should accompany the manuscript.

Papers accepted for publication should comply with American Psychological Association guidelines concerning nonsexist language. We accept three formats for digital artwork submission: Encapsulated PostScript (EPS), Portable Document Format (PDF), and Tagged Image Format (TIFF). We suggest that line art be saved as EPS files. Alternately, these may be saved as PDF files at 600 dots per inch (dpi) or better at final size. Tone art, or photographic images, should be saved as TIFF files with a resolution of 300 dpi at final size. For combination figures, or artwork that contains both photographs and labeling, we recommend saving figures as EPS files, or as PDF files with a resolution of 600 dpi or better at final size. More detailed information on the submission of electronic artwork can be found at:

<http://authorservices.wiley.com/bauthor/illustration.asp>

The American Society of Criminology regards submission of a manuscript to this journal as a commitment to publish herein; simultaneous submission to another journal is unacceptable. Every effort will be made to notify authors of editorial decisions within 3 months of manuscript and processing fee receipt. Note that CPP publication decisions arrive by postal mail, so please indicate whether you prefer e-mail correspondence to postal mail upon submission of your manuscript.

Please consult and conform to the CPP Style Sheet, which is available at cpp.fsu.edu, prior to submission.

Criminology & Public Policy (Print ISSN #1538-6473/On-line ISSN #1745-9133) is published quarterly on behalf of the American Society of Criminology, 1314 Kinnear Road, Suite 212, Columbus, OH 43212 by Wiley Subscription Services, Inc., a Wiley Company, 111 River St., Hoboken, NJ 07030-5774.

Information for subscribers. *Criminology & Public Policy* is published in four issues per year. Institutional print and on-line subscription prices for 2012 are: US\$309 (U.S.), US\$380 (rest of world), €243 (Europe), £194 (U.K.). Prices are exclusive of tax. Asia-Pacific GST, Canadian GST, and European VAT will be applied at the appropriate rates. For more information on current tax rates, please visit www.wileyonlinelibrary.com/tax-vat. The price includes on-line access to the current and all on-line back issues to January 1, 2008 (where available). For other pricing options, including access information and terms and conditions, please visit www.wileyonlinelibrary.com/access. A subscription to *Criminology & Public Policy* also includes 4 issues of *Criminology*.

Delivery Terms and Legal Title. Where the subscription price includes print issues and delivery is to the recipient's address, delivery terms are Delivered Duty Unpaid (DDU); the recipient is responsible for paying any import duty or taxes. Title to all issues transfers FOB our shipping point, freight prepaid. We will endeavor to fulfil claims for missing or damaged copies within six months of publication, within our reasonable discretion and subject to availability.

Journal customer service. For ordering information, claims, and any inquiry concerning your journal subscription, please visit www.wileycustomerhelp.com or contact your nearest office. *Americas* e-mail: cs-journals@wiley.com; telephone: +1 781 388 8598 or +1 800 835 6770 (toll free inside the U.S. and Canada). *Europe, Middle East, and Africa* e-mail: cs-journals@wiley.com; telephone: +44 (0) 1865 778315. *Asia Pacific* e-mail: cs-journals@wiley.com; telephone: +65 6511 8000. *Japan* For Japanese speaking support, email: cs-japan@wiley.com; telephone: +65 6511 8010 or telephone (toll free): 005 316 50 480. **Visit our Online Customer Get-Help** available in 6 languages at www.wileycustomerhelp.com.

Membership. American Society of Criminology membership is available to all interested people. Individuals interested in joining should complete and return the application forms on the American Society of Criminology Web site (www.asc41.com). Membership in the American Society of Criminology includes a subscription to *Criminology* and *Criminology & Public Policy*.

Back issues. Information about the availability and prices of back issues can be obtained from the American Society of Criminology by e-mail (asc@asc41.com) or telephone (614-292-9207).

Mailing and on-line access. Journal Customer Services, John Wiley & Sons, Inc., 350 Main St., Malden, MA 02148-5020. Postmaster: Send all address changes to *Criminology & Public Policy*. View this journal online at wileyonlinelibrary.com. For submission instructions, subscription and all other information, visit [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1745-9133](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1745-9133).

Access to this journal is available free online within institutions in the developing world through the AGORA initiative with the FAO, the HINARI initiative with the WHO and the OARE initiative with UNEP. For information, visit www.aginternetwork.org, www.healthinternetwork.org, and www.oarescience.org. *Criminology & Public Policy* is published by Wiley Periodicals, Inc., Commerce Place, 350 Main Street, Malden, MA 02148; Tel: (781) 388-8200; Fax: (781) 388-8210.

ISSN 1538-6473 (Print)

ISSN 1745-9133 (Online)

Wiley contacts. Ang Wen Ting, Production Editor (e-mail: CAPP@wiley.com); Kristin McCarthy, Advertising (e-mail: kmccarthy@wiley.com).

Wiley's Corporate Citizenship initiative seeks to address the environmental, social, economic, and ethical challenges faced in our business and which are important to our diverse stakeholder groups. Since launching the initiative, we have focused on sharing our content with those in need, enhancing community philanthropy, reducing our carbon impact, creating global guidelines and best practices for paper use, establishing a vendor code of ethics, and engaging our colleagues and other stakeholders in our efforts. Follow our progress at www.wiley.com/go/citizenship.

Copyright © of The American Society of Criminology. All rights reserved. No portion of the contents of *Criminology & Public Policy* may be reproduced without the permission of the American Society of Criminology. Please forward all rights and permission requests to the American Society of Criminology, 1314 Kinnear Road, Suite 212, Columbus, OH 43212.

Disclaimer. The Publisher, the American Society of Criminology and Editor cannot be held responsible for errors or any consequences arising from the use of information contained in this journal; the views and opinions expressed do not necessarily reflect those of the Publisher, the American Society of Criminology and Editor.

Printed in the USA by The Sheridan Group.

VOLLMER AWARD

V O L L M E R A W A R D A D D R E S S

On Behalf of Women Offenders

Women's Place in the Science of Evidence-Based Practice

Patricia Van Voorhis

University of Cincinnati

The argument on behalf of women offenders was made at least four decades ago at the National Conference on Corrections convened by then President Richard Nixon in response to the 1971 Attica Prison riots. Among many speakers, Dr. Edith Flynn delivered the only address on women offenders. In "The Special Problems of Female Prisoners," Dr. Flynn noted that female prisoners were largely ignored. She supported her assertion with reference to the then-recent President's Commission on Law Enforcement and Administration of Justice (1967), noting that not a "single paragraph or statistic on the female offender could be found in any of the material" (Flynn, 1971:113). She asserted further that the prevailing theories of criminal behavior were inapplicable to women and that the resulting lack of information had adverse implications for managing and treating female offenders. In the intervening years, research has put forward a clearer picture of how women become involved in the justice system and what their treatment needs are when they get there. However, there is clear reason to lament the arduously slow pace in which emerging evidence is impacting policies and front-line practices and services for women (Belknap, 2007; Belknap and Holsinger, 2006; Blanchette and Brown, 2006; Bloom, Owen, and Covington, 2003; Chesney-Lind, 2000; Holtfreter, Reisig, and Morash, 2004; Messina, Grella, Cartier, and Torres, 2010; Reisig, Holtfreter, and Morash, 2006; VanDieten, 2011; VanVoorhis, 2009).

Attempts to fill the knowledge gap observed by Dr. Flynn were addressed initially by surveys of correctional programs (Glick and Neto, 1977) and of women offenders (U.S. Government and Accounting Office [GAO], 1979). Several classic qualitative studies followed over the ensuing decades (Arnold, 1990; Bloom, 1996; Chesney-Lind and

The author wishes to thank Angela Thielo, M.S. for her skilled and generous assistance with the research for this article. Direct correspondence to Patricia Van Voorhis, School of Criminal Justice, University of Cincinnati, P.O. Box 210389, 600 Dyer Hall, Cincinnati, OH 45221-0389 (e-mail: pat.vanvoorhis@uc.edu).

Rodrigues, 1983; Chesney-Lind and Shelden, 1992; Daly, 1992, 1994; Gilfus, 1992; Holsinger, 2000; Owen, 1998; Richie, 1996; Smart, 1976). Over time, these studies portrayed different pictures of women's and men's entry (pathways) to crime, one that, for women, implicated abuse and trauma, poverty, unhealthy relationships, mental illness, substance abuse, and parental concerns.

Little attention was devoted to showing how these differences might impact correctional programs and services for women. An earlier report by Barbara Bloom and James Austin sought to highlight innovative strategies and programs (Austin, Bloom, and Donahue, 1992), but even by the end of that decade, many feminist scholars simply observed that there was an appalling lack of research on which to build correctional approaches for women (Chesney-Lind, 1997, 2000; Girls Incorporated, 1996; Holtfreter et al., 2004; Morash, Bynum, and Koons, 1998; Van Voorhis and Presser, 2001).

At the same time, however, correctional treatment was coming back into favor after decades of policies favoring incapacitation and deterrence and that change *was* research driven (see Cullen, 2005). Even so, the research fueling the policy transition was conducted largely on boys and men. For example, two highly influential meta-analyses of correctional programs effectively proved to policy makers that certain types of treatment programs substantially reduced future offending. However, both concluded with warnings that women and girls were underrepresented in the research (Andrews, Zinger, et al., 1990; Lipsey, 1992). The meta-analysis conducted by Donald A. Andrews and his associates at Carlton University generated a series of "Principles of Effective Intervention" (see also Gendreau, 1996) that fueled the development of the now predominant correctional treatment paradigm, variously referred to as "the Canadian Model," the Risk Needs Responsivity Model (RNR), the "What Works" Model, and the General Personality and Cognitive Social Learning Model (GPCSL). Through the remainder of this address, I will refer to this approach as the RNR model.

A parallel body of research developed classification and assessment systems on men. As with other research, the custody classification assessments used to assign inmates to prisons were validated initially on men or samples that made up such a small proportion of women that the resulting findings were attributable to men (Brennan, 1998; Morash et al., 1998; Van Voorhis and Presser, 2001). A national survey of state prison correctional classification directors found that 36 states had not validated their classification systems on female inmates but generalized findings to them, just the same (Van Voorhis and Presser, 2001). Of course, the flawed policy of generalizing male-based research to women resulted in erroneous assignments of women to custody levels. Specifically, these involved problems with overclassification or with assigning women to higher custody levels than warranted on the bases of their actual behavior. In fact, comparative studies found that maximum-custody women incurred serious misconducts at roughly the rate of medium-custody men. Moreover, women's aggressive behaviors while incarcerated occurred much less frequently

than men's and involved much less serious forms of aggression (Hardyman and Van Voorhis, 2004).

A second type of correctional assessment, dynamic risk/needs assessments, were designed to classify community correctional offenders into low, medium, and high levels of community risk on the basis of needs known to predict future offending. Because the assessments identified an array of predictive needs, they also served as a valuable tool for triaging offenders into programs most likely to turn them away from lives of crime. The early construction validation studies for these assessments also were based largely on male offender samples (e.g., see Blanchette and Brown, 2006; Brennan, 1998; Holtfreter et al., 2004; Van Voorhis, Wright, Salisbury, and Bauman, 2010) and validated on women much later than their initial construction (e.g., see Andrews, Dowden, and Rettinger, 2001; Lowenkamp, Holsinger, and Latessa, 2001; Manchak, Skeem, Douglas, and Siranosian, 2009; Smith, Cullen, and Latessa, 2009). For the most part, the revalidation studies found these assessments to be valid for women. However, by the time researchers addressed this problem with external validity, it was too late to include the needs that gender-responsive scholars found most relevant to women offenders. Thus, the programs were not targeted to many problems that brought women into crime (Belknap and Holsinger, 2006; Bloom et al., 2003; Hannah-Moffat, 2009; Van Voorhis et al., 2010). With no assessments to identify these problems, women were less likely to be triaged to gender-specific services such as protection from abusive partners, childcare services, access to reliable transportation, low self-efficacy, trauma and abuse, parenting programs, healthy relationships, and realistic employment opportunities that allowed for self-support (Bloom et al., 2003).

These oversights were not lost on federal policy makers and practitioners. Several initiatives, mostly in the area of disseminating research and innovative ideas, encouraged awareness of women offenders (see Buell, Modley, and Van Voorhis, 2011). National conferences on the subject began in 1985 with The First National Adult and Juvenile Female Offender Conference. The National Institute of Corrections (NIC) was especially instrumental in providing publications and technical assistance, beginning with the 1993 publication of *A Guide to Programming for Women in Prison* (Education Development Center, Inc., 1993), the creation of a curriculum in *Sentencing Women Offenders: A Training Curriculum for Judges* (Cicero and DeCostanzo, 2000), and the development of the Federal Center for Children of Prisoners. In 1994, the U.S. Congress passed the Violence Against Women Act, establishing the Office on Violence Against Women within the U.S. Department of Justice. Relevant federal responses also have occurred under the rubric of the 2003 Prison Rape Elimination Act. Later work funded by the NIC produced an award-winning publication *Gender-Responsive Strategies: Research, Practice, and Guiding Principles for Women Offenders* (Bloom et al., 2003) along with several tools to assist agencies' efforts to design programs and services that are more amenable to women. These programs included the *Women Risk/Needs Assessment* (uc.edu/womenoffenders), the *Women Offender Case Management Model* (Van Dieten, 2008), and the *Gender-Informed Practice Assessment*

(GIPA) (Center for Effective Public Policy, 2010). In 2010, the Bureau of Justice Assistance, in partnership with NIC, established the National Resource Center on Justice Involved Women, “to provide guidance and support to criminal justice professionals and to promote evidence-based, gender-responsive policies and practices” (cjinvolvedwomen.org).¹

I was privileged to work on several of these projects along with teams of extremely talented and committed graduate students, government officials, scholars, administrators, practitioners, and activists. Beginning in the late 1990s, the University of Cincinnati secured a cooperative agreement with NIC to construct a public domain women’s risk/needs assessment (WRNA). Along with the research, my staff and I operated in the role of *embedded researchers* (Petersilia, 2008), as research partners with the agencies participating in our research and adopting the assessments.

Having spent most of my career studying male offenders, including a good deal of research in the RNR approach, I had not until then directly experienced how difficult it could be to study women. These challenges were apparent on a political and a professional level, impacting me as a scholar, consultant, advisor, and teacher. I can state unequivocally that it is professionally and financially much more difficult to study women than men. I experienced these difficulties firsthand and believe that they have been documented accurately by others (see Chesney-Lind, 2012). However, I was least prepared for my first-hand introduction to the abysmal state of science as it accounts for, or more accurately, fails to account for, the lives of women. On reflection, how that science has unfolded in a culture where “male is norm” (Tavris, 1992) was discouraging to observe, and the costs of the “male is norm” scientific model are substantial. Thus, I also was embedded in the process of an emerging body of evidence that ran contrary to the prevailing evidence of the day. There is a story to that, and I believe that it is important to tell it.

If I may be permitted a moment of personification, social science has not been an innocent party to the slow pace at which the needed policies and practices for women offenders unfolded. After 12 years of studying women offenders, I now find myself with a less than sanguine view of science than I had at the outset. There are many social and political challenges to developing policy and programs relevant to women, but I wish to discuss the challenges that science, of all things, imposed on this task. As will be observed, several of these scientific issues were not unique to corrections but reflected the scientific culture of our times. Other challenges emerged from the recent science of correctional treatment itself.

1. Some maintain that even these advances would not have occurred without dramatic increases in the number of women incarcerated (Buell et al., 2011). Largely a result of policies promoting mandatory sentencing for drug offenders and reductions in funding for mental health services (see Austin, Bruce, Carroll, McCall, and Richards, 2001; Mauer, Potler, and Wolf, 1999), growth in the size of women’s prison populations far outpaced growth in the size of men’s prison populations (Bureau of Justice Statistics, 1999). The most recent figures show a decline in state and prison populations (Guerino, Harrison, and Sabol, 2011; Pew Center on the States, 2010); however, the national imprisonment rate declined for men and remained unchanged for women (Guerino et al., 2011).

In the pages that follow, I discuss the challenges impacting the gender-responsive movement in corrections. I will, however, conclude on a more optimistic note with an overview of the emerging evidence, a body of research that, although still not as plentiful as that regarding men, is nevertheless achieving consistency across studies and showing a promising path to improving approaches for women (VanDieten, 2011).

It is now almost 40 years since Professor Flynn (1971) reminded the National Conference on Corrections that the field had produced no research on women offenders and that, as a consequence, women served by the male model of corrections were not receiving appropriate programs and services. The science needed to correct this situation emerged too slowly. Moreover, new evidence-based treatment models for women are even now mostly in a dissemination stage, far from full implementation. True, some correctional and pretrial agencies adopted evidence-based, gender-responsive assessments and programs, but many of these efforts have experienced fit-full starts and stops. I continue to agree with Professor Flynn. As an overview, science was a factor in the following key ways:

1. As far as women and minorities are concerned, many endeavors of science, including medicine, education, and mental health, fall far short of formulating scientifically representative samples. Many such studies then develop conclusions that generalize findings inappropriately to women and minorities. As far as women and minorities are concerned, scientific problems with external validity (a concept taught early in most research methods courses) are pervasive.
2. The recent policy mandates for evidence-based practice and the commensurate elevation of meta-analysis as the “gold standard” have had the effect of blaming women for their invisibility. The perceived failure to produce the multitude of studies needed to support a meta-analysis of interventions for women offenders runs the strong risk of stifling innovation and causing some to downplay the emerging evidence on women that is available.
3. After surviving many years of its own struggles to achieve legitimacy as a correctional policy, some proponents of the popular Canadian RNR treatment paradigm were resistant to evidence suggesting that their treatment targets and modalities may need to be expanded and modified to accommodate women offenders better. One would think that the RNR model, like other scientific products, would evolve as science does; however, women were the subject of the emerging science, and the science involving women advances very slowly.
4. When all is said and done, there *is* an emerging body of evidence on women offenders. This literature, although not sufficient in numbers to support meta-analytic study, is remarkably consistent across studies and linked to favorable outcomes for women. Taken as a whole, the emerging science also forms a coherent model for women offenders that departs from some but not all of the principles underlying the RNR model.

But reaching the current stage of progress (number 4 in the preceding list) required that arguments “on behalf of women offenders” sustain several identifiable “scientific” challenges.

First, the problem observed by Professor Flynn four decades ago (1971) was not unique to corrections, but it was embedded in the wider scientific culture, impacting women in the general population as well as those encountering the criminal justice system. Sadly, inattention to women was apparent in medical trials, validations of educational exams used to determine college entrance and receipt of scholarships, and validations of mental health assessments, to name a few.

The historical exclusion of women from vital clinical trials ultimately led to the National Institute of Health Revitalization Act of 1993, which required the inclusion of women and members of minority groups in all National Institutes of Health (NIH)-supported biomedical and behavioral research except in instances where a clear and compelling reason was established that to do so would be inappropriate (e.g., the study of a sex-specific illness).² The guidelines further stipulated that childbearing potential and the added cost of including women and minorities were no longer acceptable justifications for not including women in equal numbers to men in clinical trials. Up until that point, exclusion of women from medical research was, according to some, an unintended consequence of protecting vulnerable populations, including pregnant women, and premenopausal women who were capable of becoming pregnant (Goldenberg, 2003; Killien et al., 2000). For others, the exclusion was the outcome of a naive assumption that findings observed from studies on male subjects could be generalized to women without modification, a startling “leap of faith: in an otherwise rigorous research enterprise” (NIH, 1999: 10, quoted in Bloom et al., 2003). So strong was the “male is norm” filter that it successfully trumped one of the core lessons in any graduate research methods class—external validity.

Notwithstanding the 1993 guidelines, which had no enforcement provisions, subsequent forums and publications demonstrated an ongoing failure to recruit sufficient numbers of women in clinical trials. Even fewer studies disaggregated findings by gender, where true gender-specific findings would be observed (Geller, Adams, and Carnes, 2006; NIH, 1999; Ramasubbu, Gurm, and Litaker, 2001; Vidaver, Laffeur, Tong, Bradshaw, and Marts, 2000).³ Among the costs incurred by generalizing findings from male samples to females are (a) a mistaken understanding of the role of aspirin in preventing women’s strokes

2. By 1995, the National Institute of Health Revitalization Act of 1993 had been adopted by other federal agencies, including the Agency for Health Research and Quality and the Center for Disease Control and Prevention.

3. Clear evidence of the problem emerged in a study accounting for only those federally funded trials that could have been started after the NIH 1993 guidelines took effect. The authors found 30% of the later studies failed to assemble samples that were composed of at least 30% women or more. This figure increased to 44% when drug trials were examined. Furthermore, 87% of the trials failed to disaggregate findings by sex or include sex as a covariate. None of these acknowledged concerns for generalizability (Geller et al., 2006).

and heart attacks (Ridker et al., 2005), (b) a limited understanding of heart disease in women (Chen, Woods, and Puntillo, 2005; Dey et al., 2008; Rathore, Wang, and Krumholtz, 2002), and (c) a host of issues with pharmaceutical dosages (Keiser, 2005; Vidaver et al., 2000).

Similar practices disparage early validations of college entrance examinations, including the Scholastic Aptitude Test (SAT), the National Merit Examination, and the Graduate Record Examination (GRE). Replicated studies conducted during the 1980s and 1990s consistently found that educational tests used for vital college entrance decisions performed differently for men and women, including on the National Merit Exam (National Association for College Admission Counseling [NACAC], 2008), the SAT (Bridgeman and Wendler, 1991; Clark and Gandy, 1984; Leonard and Jiang, 1999; Silverstein, 2000; Wainer and Steinberg, 1992), and the GRE (House, Gupta, and Xiao, 1997; Sternberg and Williams, 1997). The core problem was not that women scored lower than men on such examinations but that such tests tended to underpredict the ultimate performance of women and to overpredict the performance of men. In large competitive schools that placed primary reliance on the examination results, women were observed to have lower entrance rates than men (Leonard and Jiang, 1999).

Use of the disparate tests in awarding scholarships and National Merit Awards was particularly egregious and was found to have a discriminatory effect that in one case resulted in a change to state policy (*Sharif v. New York State Education Department*, 1989) and, in the case of the National Merit Exam, a large out-of-court settlement. Reportedly, the gender prediction gap on these exams was known to insiders for more than a quarter of a century (Leonard and Jiang, 1999) and finally led to the inclusion of a writing sample in 2005 that presumably improved the prediction for female students, but not everyone is convinced (NACAC, 2008).

I first learned of the external validity problems associated with some cognitive, personality, and mental health assessments from Carol Gilligan. I had the good fortune to be sent to Harvard University by my dissertation advisor, Marguerite Warren, to learn how to classify probationers according to Lawrence Kohlberg's Stages of Moral Judgment (Kohlberg, Colby, Gibbs, Speicher-Dubin, and Candee, 1979). Gilligan, a faculty member, addressed my fellow workshop participants and me after a long day of lessons on the Moral Development scoring protocol. She explained to us and a group of Harvard researchers and instructors, who clearly were less than happy with her, that the Stages of Moral Judgment had been formulated on the study of the lives of boys and men and then erroneously generalized to girls and women. After the fact, females were assessed on the protocol, only to find that many clustered around stage 3 on the stage-based typology. Stage 3 is a stage reserved for humans who base moral decisions on a concern for reciprocity in close relationships. One could develop to higher stages of moral development, stages reserved for those who valued the importance of maintaining social systems or universal principles of moral action, but women seldom did. Gilligan later rectified the problem by studying samples of women

and observing that “the stage 3 problem” was a function of the “male is norm” assumption and the failure to account for the fact that women are relational and factor relationships into most decision-making regardless of “maturity” (Gilligan, 1982; Taylor, Gilligan, and Sullivan, 1995).

Strong professional guidelines recommend the use of mental health assessments only on populations “whose validity and reliability has been established for use with members of the population tested” (American Psychological Association [APA], 2010). However, one can now deviate from these in cases where the author expresses appropriate reservations. Concerns have been raised for the Mf (Masculinity-Femininity) scale of the Minnesota Multiphasic Personality Inventory-2 (Lewin and Wild, 1991), the Psychopathy Checklist-Revised (Baker and Mason, 2010), tests of worker satisfaction (Hesse-Biber, Nagy, and Yaiser, 2004), and intelligence tests (Hyde, 1990). The absence of females from psychological research is similar to that observed in medicine, education, and criminal justice with concerns raised for psychotherapy in general (APA Divisions 17 and 35, 2004; Levrant and Silverstein, 2005) as well as for specific specialty areas such as school psychology (Holverstott et al., 2002), mental retardation (Porter, Christian, and Poling, 2003), psychopharmacology (Poling et al., 2009), and organizational psychology (Jarema, Snyckerski, Bagge, Austin, and Poling, 1999).

In sum, women’s issues do not become the focus of policy and innovation because the science that would foster such change devotes limited attention to them, and what is not observed is not attended to. This obvious knowledge gap underscores the poignant titles chosen for some recent scholarship, for example *The Mismeasure of Woman* (Tavris, 1992), *The Invisible Woman* (Belknap, 2007), and *Half the Human Experience* (Hyde, 2006).

The second challenge occurred within the past decade when public-sector funding placed a premium on those practices and policies that showed evidence of achieving effective outcomes. The evidence-based practice mantra refers to the use of research and science, particularly controlled studies, to identify the best practices in a field. It has been voiced by policy makers ranging from agency heads to presidents of the United States. However, the evidence-based mandate places women and minorities, who have been understudied, at a distinct disadvantage.

The movement to evidence-based practice began in medicine in the early 1990s and then moved to other fields such as psychotherapy (Task Force on Promotion and Dissemination of Psychological Procedures, 1995) and more slowly to corrections (Cullen and Gendreau, 2001; MacKenzie, 2000). It forms the foundation for many public, performance-based budgeting systems, holds a prominent place in the recent health care law, and factors heavily into funding of social policy and research. Evidence-based practice also is the basis for recent federally sponsored Web sites designed to help correctional professionals select programs that show evidence of decreasing offender recidivism, including Blueprints for Violence Prevention (colorado.edu/cspv), the Office of Juvenile Justice and Delinquency Prevention Model Programs Guide (ojjdp.gov), and the National Registry of Evidence-based Programs and Practices (nrepp.samsha.gov). Most recently, The Office of Justice Programs

opened a similar site (crimesolutions.gov). Many individuals, myself included, believed that the evidence-based mandate was past due, especially in the field of corrections with its less-than-illustrious tradition of eclectic and creative interventions that could not possibly have produced favorable outcomes, for example cake decorating, drums and candles, horseback riding, wagon trains, and plastic surgery (Van Voorhis, Cullen, and Applegate, 1995).

The keys to the “evidence-based” movement in corrections are several influential meta-analyses, a methodologically rigorous strategy for synthesizing findings across numerous controlled studies (Glass, McGaw, and Smith, 1981). Such studies produce “effect sizes” for each modality studied, and the “effect size” statistic was noted to produce far more stable findings than former methods of synthesizing research (e.g., votecounting).

Several meta-analyses of correctional treatment programs were conducted during the 1990s, but two were especially noteworthy. One was a study of 154 evaluations of correctional programs (Andrews et al., 1990b) that generated a series of guidelines referred to as the Principles of Effective Intervention (see also Andrews, Dowden, and Gendreau, 1999; Gendreau, 1996). The second reviewed 443 delinquency prevention and intervention programs (Lipsey, 1992). Both showed policy makers that rehabilitation models substantially reduced future offending. Other meta-analyses established treatment-relevant predictors of recidivism (Andrews, Bonta, et al., 1990; Gendreau, Little, and Goggin, 1996). Meta-analyses also convincingly countered naïve assumptions that the crime problem could be solved by such approaches as boot camps (MacKenzie, Wilson, and Kider, 2001) or other “punishing smarter” ideas (Andrews et al., 1990b; Gendreau et al., 1996; Gendreau, Goggin, and Cullen, 1999; Langen and Levin, 2002).

Even so, the power of evidence, especially evidence put forward by the meta-analyses, looped around full circle to fault the gender-responsive movement for the invisibility of women in key policy and programmatic research. Evidence came to drive policy, but for women, there was no evidence; as noted, the invisibility of women in key research was pretty much a fact of science. Indeed, only 2.4% of the experimental studies examined in Mark Lipsey’s (1992) meta-analysis sampled only girls, and 5.9% sampled primarily girls. The meta-analysis conducted by Andrews and his associates (1990) concluded with the admonition that gender effects required a more detailed analysis. Even, Lipsey’s larger, most recent analysis reported that only 4.0% of the studies sampled mostly female studies versus 87.0% accounting for all male or mostly male samples (Lipsey, 2009: 132). The authors acknowledged their concerns for the limited research on women, but their findings nevertheless formed the foundations of today’s approach to correctional treatment, treatment models that are offered to both males and females.

The founders of the meta-analysis technique warned of such problems when they noted that findings are highly dependent on the criteria for selecting studies from the total universe of available studies (i.e., selection bias) (Glass et al., 1981; Smith, 1980). Although the authors of the correctional meta-analyses certainly did not seem to commit selection bias, their results had the same effect because the requisite studies on women were not

available. In a review of psychological, educational, and behavioral treatments, Lipsey and Wilson (1993: 1200) presented the problem in thoughtful terms:

Meta analysis is only possible for treatment approaches that have generated a corpus of research sufficient in quantity and comparability for systematic analysis within a statistical framework. Such a body of studies, in turn, is only likely to be produced for widely used and well-developed approaches growing out of established theory or practice, or for promising innovations. Thus the treatment approaches represented in meta analysis and reviewed in this article represent rather mature instances that are sufficiently well developed and credible to attract practitioners and sufficiently promising (or controversial) to attract a critical mass of research.

Simply put, meta-analysis and evidence-based practice is not the friend of underrepresented groups attempting to secure knowledge of optimal medical, therapeutic, or other treatments (Sue and Zane, 2005), and it should not purport to be. For their part, the Canadian authors of the RNR model sought to rectify the under-representation of women by conducting meta-analyses on necessarily smaller programmatic databases of women offenders (e.g., Dowden and Andrews, 1999). Validations of the risk/needs assessment accompanying the RNR model, the Level of Service Inventory (Andrews and Bonta, 1995), were conducted on samples of women offenders, and the sample sizes of these studies increased over time (e.g., Andrews and Bonta, 1995; Andrews, Bonta, and Wormith, 2004; Coulson, Ilacqua, Nutbrown, Giulekas, and Cudjoe, 1996; Lowenkamp et al., 2001; McConnell, 1996; Rettinger, 1998; Simourd and Andrews, 1994; Smith et al., 2009). Evidence, in the case of these studies, conformed to a pattern of repeated tests of the RNR programs and assessments and to proud assertions that the favorable findings refuted critics of the RNR model, including feminist scholars and other proponents of alternative gender-responsive approaches (see Andrews and Bonta, 2010). The studies that supported RNR for girls and women did not test the gender-responsive models. As such, there was no basis for any conclusions that gender-responsive approaches were flawed. Only two of these authors (see Blanchette and Brown, 2006; Smith et al., 2009) acknowledged the logical error of refuting gender-responsive proponents without testing directly the gender-responsive treatment targets and programs.

Not everyone would say there is anything wrong with this state of science. For example, in response to the well-established ethnic disparities in mental health research, the U.S. Surgeon General (2001) issued the guideline that minority mental health clients should be given treatments supported by the "best available evidence." A similar argument has been made on behalf of delinquent girls, as when Hubbard and Matthews (2008) thoroughly reviewed the impressive empirical support for the RNR model along with more limited research relevant to the arguments put forward by gender-responsive scholars. They noted many ways in which the RNR model could be modified for girls and struggled to find areas

of consensus between the two approaches. But at several points, particularly with regard to risk/need factors and assessments, the authors lamented the paucity of research on the recommendations of gender-responsive scholars and somewhat regretfully recommended approaches that were well within the confines of the RNR model.

Of course, if left on the table, “the best available evidence” argument minimizes the urgency to conduct more appropriate research and risks inattention to emerging research. Moreover, it is likely the case that the “best available evidence” is not a picture of the assessment and treatment models we would have if we had started with girls and women. Critics of the RNR approach note that, whereas it was evidence based, it was nevertheless formulated on the basis of research on male populations and only later found to be effective with women (Bloom et al., 2003). Several feminist critics faulted the over-reliance on the meta-analysis to the dismissal of qualitative studies that comprised most of the evidence supporting gender-responsive approaches to corrections (see Chesney-Lind, 2000; Hannah-Moffat and Shaw, 2000; Kendall, 2004). More scholars faulted the LSI-R for neglecting to include gender-specific factors (Blanchette and Brown, 2006; Funk, 1999; Holtfreter and Morash, 2003; Reisig et al., 2006; Van Voorhis et al., 2010). The consistent response of a least two Canadian authors underscores the point of this section (Andrews and Bonta, 2010: 514):

With all due respect, it is time for those who feel they are entitled to offer programs inconsistent with GPCSL and RNR perspectives to show some social responsibility. They must begin to program and evaluate in a “smarter” manner. To our knowledge, the evidence base in support of their approaches flirts with nil.

Third, on the strength of the evidence and with a good deal of dissemination and technical support from the NIC, the RNR model has been implemented widely and represents considerable investment on the part of adopting jurisdictions. In some circles, the RNR model is used synonymously with “evidence-based practice.” Implementation of the RNR model incurred many political struggles in its own right and was in many ways a dramatic improvement over previous approaches. However, with strong roots in the notion of a general theory of crime, the proponents of RNR resisted suggestions that the model could be improved for women. Thus, although improvements, modifications, and progress, would seem to be inevitable to science and social policy, the authors and proponents of RNR resisted suggestions for change and evidence supportive of change. And they, after all, seemed to be in the driver’s seat.

The seminal meta-analysis (Andrews et al., 1990b; Lipsey, 1992) showed that only appropriate treatments could reduce recidivism by as much as 30%. The characteristics of an appropriate program were outlined in the Principles of Effective Intervention. Accordingly, appropriate programs (a) targeted intensive services to high-risk offenders (the risk principle); (b) targeted programs to needs (risk factors) related to future offending; (c) were consistent with cognitive-behavioral, social learning, and radical behavioral

approaches to treatment (general responsivity principle); and (d) were responsive to personal and interpersonal considerations that posed barriers to successful treatment in appropriate programs (e.g., learning styles, intelligence, motivation, gender, ethnicity, and personality).

In time, the RNR paradigm drew in others who wrote consistent cognitive behavioral and social learning curricula (e.g., see Bush and Bilodeau, 1993; Bush, Taymans, and Glick, 1998; Goldstein, Glick, and Gibbs, 1998; Ross and Fabiano, 1985; Taymans and Parese, 1998) and alternative dynamic risk-needs assessments such as the Northpointe COMPAS (Brennan, Dieterich, and Oliver, 2006), and later the Ohio Risk Assessment System (Latessa, Smith, Lemke, Makarios, and Lowenkamp, 2009). From my own experience, RNR was admirably clear and translated well into treatment protocols. It soon brought psychologically informed treatment modalities into correctional environments for the first time in decades.

However, the RNR model did not come on the scene without its detractors. Evidence notwithstanding, many still clung to antirehabilitation themes first prompted by Martinson (1974; Farabee, 2005; Gaes, Flanagan, Motiuk, and Stewart, 1999; Logan and Gaes, 1993). The main proponents of RNR were frequently answering their detractors (Andrews and Bonta, 2010; Cullen, Smith, Lowenkamp, and Latessa, 2009; Gendreau et al., 2002b; Latessa, Cullen, and Gendreau, 2002) and occasionally expressed impatience with the number of times key findings had to be published and republished (see Andrews and Bonta, 2010). Additionally, high-quality implementation and program fidelity proved to be extraordinarily difficult (Bonta, Bogue, Crowley, and Motiuk, 2001; Gendreau, Goggin, and Smith, 2001; Latessa et al., 2002; Taxman and Bouffard, 2003) and clearly attenuated program outcomes when it was not present (Lipsey, 2009; Lowenkamp, 2004; Lowenkamp and Latessa, 2002; Lowenkamp, Latessa, and Smith, 2006).⁴ That there was ongoing concern for whether the RNR model would become widely implemented and have “staying power” was perhaps expressed most passionately in one of the last publications Don Andrews (Andrews and Bonta, 2010: 506) participated in prior to his death:

[M]any agencies are struggling with the implementation of RNR. And need help now or the movement is going to suffer and the community will be exposed to more crime. Quite frankly, for some of us, it is difficult to bear the thought of prevention and corrections returning to that “nothing works—we can’t predict—we can’t influence” position of anticipatory failure. Never again do we want perspectives on offenders that negate human diversity, dismiss human agency, and indeed destroy hope.

One does not have to read far in the *Psychology of Conduct* (Andrews and Bonta, 2010) to observe that the authors were especially exasperated by the feminist scholars who objected

4. Program fidelity will continue to be a major challenge for both the RNR and the new gender-responsive models.

to the idea of developing an entire treatment paradigm on the basis of research men and boys (e.g., Belknap, 2007; Belknap and Holsinger, 2006; Bloom et al., 2003; Chesney-Lind, 2000; Reisig et al., 2006; Van Voorhis et al., 2010). Several feminist critics also rejected the notion of risk and risk/need assessment (Hannah-Moffat, 2004, 2009; Smart, 1982). As discussed, other authors noted that the gender-neutral risk needs assessments such as the LSI-R and the Northpointe COMPAS did not include the risk/need factors most appropriate to women offenders (Covington, 1998; Farr, 2000; Hardyman and Van Voorhis, 2004; Holtfreter and Morash, 2003; Morash et al., 1998; Van Voorhis and Presser, 2001; Van Voorhis, Salisbury, Wright, and Bauman, 2008; Van Voorhis et al., 2010). In response, the Canadian authors made it clear and provided evidence that the RNR model was consistent with general theories of crime and was applicable across types of crimes, offenders, and social conditions; gender was not relevant to its effectiveness (Andrews and Bonta, 1995, 2010; Andrews et al., 1990; Bonta, 1995; Dowden and Andrews, 1999).

In time, support was shown for a hybrid model, one that would modify the RNR model to fit the needs of women offenders better. At a policy level, this approach also had strong backing from the NIC. For the proponents of the hybrid model, the needs principle came under a good deal of scrutiny. There was wide consensus that if the goal were to decrease recidivism, then the risk factors for recidivism should be targeted. However, scholars looking to modify the RNR model raised questions about *what* should be targeted (see Blanchette and Brown, 2006; Holsinger and Van Voorhis, 2005; Holtfreter and Morash, 2003; Reisig et al., 2006; Salisbury et al., 2009a; Van Voorhis et al., 2010; Wright, Salisbury, and Van Voorhis, 2007).

By following two key meta-analyses (Andrews, Bonta, et al., 1990; Andrews, Zinger, et al., 1990), agencies steeped in the RNR tradition were encouraged to prioritize program resources to a limited but potent set of risk factors, referred to as the “Big 4” (criminal history, criminal thinking, personality attributes, and criminal peers) or the Central 8 (the Big 4 plus family/marital, education/employment, substance abuse, and leisure/recreation). All were key factors on the LSI-R (Andrews and Bonta, 1995) and later the LS/CMI (Andrews et al., 2004) and referred to as “criminogenic needs.” RNR proponents also faulted forensic psychology and other models of correctional interventions for undue attention to mental illness, self-esteem, and poverty (Andrews and Bonta, 2010). In contrast, the gender-responsive hybrid model focused empirical research on risk/need factors suggested by feminist and pathways research (Gehring, 2011; Jones, 2011; Van Voorhis et al., 2010) and hypothesized that many of the traditional, gender-neutral risk factors for future offending would be shared by men and women but that another set of needs would be unique to women offenders. Still others might be predictive of offense-related outcomes for both women and men but work differently (e.g., antisocial associates) (see Salisbury and Van Voorhis, 2009).

In the United States, research on the utility of a hybrid gender-responsive classification and risk/needs assessments began in 2000 with a cooperative agreement awarded to the

University of Cincinnati (UC) by the NIC. Not surprisingly, at the outset of this research, there was little in the way of relevant correctional research to guide the project. This was my first insider's view of the invisibility of women and the first time in my career that I had to design a study without what I viewed to be a solid quantitative knowledge base. Women were truly "correctional after thoughts" (Ross and Fabiano, 1985).

We relied heavily on the now-classic qualitative studies conducted prior to that point (Arnold, 1990; Bloom, 1996; Chesney-Lind and Rodrigues, 1983; Chesney-Lind and Sheldon, 1992; Daly, 1992, 1994; Owen, 1998; Richie, 1996; Smart, 1976). However, these were not completely suited to the research question at hand. That is, in a policy context that placed priority on the treatment of criminogenic needs/risk factors, it was not clear at the time whether needs such as past victimization, abuse and trauma, mental health, parental stress, unhealthy relationships, poverty, and self-efficacy were risk factors or extremely prevalent and unfortunate conditions that were, nevertheless, not bringing women back into the system. We conducted focus groups with women and staff in varied correctional settings, seeking their reactions to questions such as (a) "what areas of difficulty are likely to bring women/you back into the system," (b) "what do you see as their/your most difficult challenges," (c) "do you perceive women offenders to be dangerous," and (d) "do current assessments tap needs most pertinent to you/women offenders?"

Afterward, we set out to test the following gender-responsive needs to determine whether they were predictive of offense-related outcomes: anger, family conflict, relationship dysfunction, child abuse, adult abuse, mental health history, depression (symptoms), psychosis (symptoms), and parental stress. In keeping with emerging research on positive psychology (Seligman, 2002; Sorbello, Eccleston, Ward, and Jones, 2002; van Wormer, 2001), which was finding many advocates among feminist criminologists (Blanchette and Brown, 2006; Bloom et al., 2003; Morash et al., 1998; Schram and Morash, 2002), we also incorporated strengths such as family support, parental involvement, self-efficacy, and educational assets.

We held, perhaps naively, to the belief that the UC/NIC findings would simply suggest an evolution to the Canadian RNR model. As such, one of our goals was to construct a "trailer" assessment that could serve as an addendum to gender-neutral risk/needs assessments such as the LSI-R, the Northpointe COMPAS, and the LS/CMI. In time, the NIC/UC construction validation found the traditional gender-neutral, dynamic risk/need factors and assessments to be predictive, however the addition of the gender-responsive risk/need factors significantly improved the overall predictive validity of the gender-neutral risk/needs assessments for women offenders. This lent support to our assumption that a modification of the basic RNR model would better accommodate women.

Reactions to the UC/NIC validation studies varied. The WRNA Trailer was appended to the Northpointe COMPAS after Northpointe researchers conducted a pilot validation test on a prison sample in the State of California (Brennan et al., 2008). These findings were

confirmed on a revalidation prison sample 2 years later (Van Voorhis, 2011; Van Voorhis and Groot, 2010).

Canadian scholars continued to maintain that gender-responsive needs were noncriminogenic and unrelated to future offending (i.e., not risk factors) (Andrews and Bonta, 2010). They stopped far short of advocating that nothing be done to address these areas, however. Instead, the RNR model addresses gender and ethnicity through the specific responsivity and the normative principle of effective intervention. That is, specific responsivity factors are considered needs and conditions that pose a barrier to the treatment of the “Big 4” or “Central 8.” The normative principle maintains that some treatments must be performed in the name of respect for the humane, just, and ethical principles. Translated, the rationale for treating a need such as mental health is to assure that conditions are stable enough to treat the needs identified as criminogenic, especially antisocial attitudes, associates, and personality characteristics. Our position was much different. Because our research found factors such as mental health, parenting issues, trauma, and other gender-responsive needs to be risk factors for future offending, their treatment was not simply a means to another end but a priority. Our research specifically questioned the notion that the “Big 4” should be given a higher priority over other risk factors for women (Van Voorhis et al., 2010).

Andrews and Bonta’s 2010 review of the UC/NIC findings pushed back. Their account of the research selectively reported findings, omitting three of the nine validation study results because they involved gender-neutral assessments other than the LSI-R. They then took findings out of context, indicating that the WRNA Trailer was intended to be an alternative (rather than a supplement) to the gender-neutral LSI-R. Our findings that the block of gender-responsive risk factors made statistically significant contributions to the LSI-R and other gender-neutral assessments seemed to be misunderstood by these authors. They concluded, as some editors also have done, by faulting the UC/NIC study for focusing exclusively on women and not including a comparison group of men. That is right, decades of research on men, generalized to women, and one of the first studies to focus on women is faulted for not having a male comparison group.⁵

Fourth, an emerging body of evidence supports the various components of the gender-responsive approach. Consistent with other attempts to conduct research on women offenders (first point in this address), many of these studies are poorly funded relative to similar research

5. Actually, although we cannot deny the irony, we had similar concerns of our own. There are some risk/need factors such as mental health and trauma that we would not want to dismiss out of hand for men, particularly returning veterans and others. We also knew that we had different methods of measuring mental health and abuse, and wanted assurances that they were not risk factors for men as well as women. As a result, we initiated two small studies with male control groups. Both found gender-responsive predictors for women and not men (Bell, 2012; Gehring, 2011). The risk factors found in the male samples were supportive of the RNR model, which is not to suggest that treatments for mental health, abuse, and trauma should be denied to anyone, but they are most appropriate to women. Moreover, treatment priorities for women should be considerably different from those suggested by the RNR model.

on men. Additionally, currently it is likely that not enough studies exist to support a large meta-analysis, so the gender-responsive approach could be faulted for not withstanding such rigorous scrutiny (point 2). However, an emerging body of research supports the risk factors cited in feminist writings and many of the programs designed to address them. Moreover, there is consistency across studies. In other words, the evidence is far from “nil.”

A modest push for empirical evidence on women offenders in correctional settings came about in the early 2000s. Recognizing the paucity of research on women offenders, the NIC funded a broad review of strategies deemed appropriate to women offenders—*Gender Responsive Strategies: Research, Practice and Guiding Principles for Women Offenders* (Bloom et al., 2003). One component of this expansive review took the researchers outside of the criminal justice and correctional literature to studies conducted in medicine, mental health, child welfare, domestic violence, substance abuse, education, welfare, and families. The authors addressed several concerns including sexual safety, hiring practices, and sentencing practices, but their treatment recommendations focused on multimodal (wrap-around) services. They recommended a focus on the confluence of mental health, substance abuse and trauma, and interventions to improve women’s socioeconomic conditions. Treatment modalities also should incorporate culturally sensitive and relational approaches that maintain women’s connections to community, family, children, and other relationships. The authors recommended correctional assessments that would provide a better picture of women’s needs and decrease overclassification.

At the same time, many studies compared the needs of male and female offenders. A lengthy review of these studies is beyond the scope of this address; however, the studies generally noted higher rates of mental illness, abuse, and trauma among women than men (see Blanchette and Brown, 2006; Hubbard and Pratt, 2002; Langan and Pelissier, 2001; Messina, Grella, Burdon, and Prendergast, 2007; Salisbury and Van Voorhis, 2009). Another suggestion that the picture of women’s risk might be qualitatively different than men’s risk appeared on the LSI-R itself. Several authors found the LSI-R predictive for males and females (Kroner and Mills, 2001; Manchek et al., 2009; Smith et al., 2009). However, a comparison of needs scores showed the differences between males and females. For example, women scored significantly higher than men on the emotional personal (mental health) (Holsinger et al., 2003; Manchak et al., 2009; Mihailides, Jude, and Van den Bosshe, 2005; Palmer and Hollin, 2007; Raynor, 2007), family/marital (Holsinger, Lowenkamp, and Latessa, 2003), and financial domains (Heilbrun et al., 2008; Holsinger et al., 2003; Manchak et al., 2009; Mihailides et al., 2005; Raynor, 2007). Women scored significantly lower than men on criminal history (Heilbrun et al., 2008; Holsinger et al., 2003; Manchak et al., 2009; Mihailides et al., 2005; Raynor, 2007), use of leisure time, criminal thinking (Holsinger et al., 2003; Manchak et al., 2009), companions, and substance abuse (Holsinger et al., 2003). Male-to-female comparisons on other measures of the same gender-neutral risk/need factors as those noted on the LSI-R show a similar pattern of findings (e.g., see Bell, 2012; Gehring, 2011). Most of these studies did not compare the predictive merits

of each of the LSI-R need domains. However, in one study, financial issues were potent predictors for women, whereas criminal history financial needs and substance abuse were predictive for men (Manchak et al., 2009).

The UC/NIC research took this inquiry a step further to determine whether gender-responsive needs noted in the feminist literature were predictive of future offending and serious prison misconducts. The research generally found the traditional gender-neutral dynamic risk/need factors and assessments to be predictive of recidivism and prison misconducts, but the addition of the gender-responsive risk/need factors improved the overall predictive validity of the gender-neutral risk/needs assessments for women offenders. In addition to findings noted in the previous section with regard to the significant incremental validity of the block of gender-responsive factors, the predictive merits of specific gender-responsive factors identified several important treatment targets. These targets varied somewhat across types of correctional settings (probation, prerelease, and prison) but generally implicated mental health issues, financial problems, parental stress, unsafe housing, and self-efficacy in community settings. Abuse variables seemed to lead to mental health and substance abuse problems in a pathway that ultimately led to recidivism (Salisbury and Van Voorhis, 2009), a pathway that also is observed in other studies (e.g., McClellan, Farabee, and Crouch, 1997; Messina et al., 2007). Risk factors predisposing women to more serious forms of misconduct in prison settings included mental health problems, child abuse, and dysfunctional relationship dynamics. A revalidation study is underway with larger samples and will be completed in the months ahead; however, three samples have been analyzed (see Brushette, Van Voorhis, and Bauman, 2011; Van Voorhis and Groot, 2010), and the results are consistent with the previous construction validation research. Consistent findings also were noted in a study reexamining the Youth Assessment and Screening Instrument (Jones, 2011).

The search for evidence-based programs to address gender-responsive needs also shows a slowly improving empirical picture of “what works” for women offenders. For example, a key risk factor for women’s recidivism, especially in community settings, is parental stress exhibited by women who have little financial and emotional support in raising their children and who experience difficulties with child management (Van Voorhis et al., 2010). *The Visiting Nurses Program*, which is a fairly well-known intervention for at-risk mothers, provides support addressing child health and child management. Experimental research found favorable outcomes for both the children and their mothers who had lower post program offense rates than mothers in a comparison group (Olds et al., 2004). Behavioral child management programs have long showed favorable effects on at-risk children, but we are beginning to learn that they have important outcomes for parents as well (Piquero, Farrington, Welsh, Tremblay, and Jennings, 2009). Another parenting program with promising outcomes is the Female Offender Treatment and Employment Program (FOTEP), which is a residential reentry program for women that offered intensive case management to women and focused on employment and substance abuse. The

parenting focus was on reunification with dependent children. Findings showed a reduction in recidivism for FOTEP participants (Grella, 2009).

One gender-responsive principle noted in *Gender Responsive Strategies: Research, Practice and Guiding Principles for Women Offenders* (Bloom et al., 2003) advocated for wrap-around services. Multimodal services are recommended for most offender populations (see Lipsey, 2009), but two program models tailor the notion to women offenders. *Moving On* (Van Dieten and MacKenna, 2001) teaches women to access and mobilize varied community resources. Consistent with the emerging profiles of women offenders, *Moving On* also works with women to enhance strengths, build healthy relationships, and target self-defeating thoughts. The program uses a cognitive-behavioral treatment modality. A matched comparison group study was completed recently among probationers in Iowa, which found significant reductions in recidivism (Gehring, Van Voorhis, and Bell, 2010). A second program, *Women Offender Case Management Model* (WOCMM) (Van Dieten, 2008), works with correctional practitioners to develop comprehensive case management strategies for women. The development of a network of community services and partnerships is a requirement of WOCMM program sites. The program also trains case managers to address gender-responsive risk/need factors and use strengths-based and relationship-focused approaches. This program also was evaluated within the past year, with favorable decreases in recidivism (Orbis Partners, Inc., 2010; see also Morash, 2010).

Advocating for an approach to substance abuse that recognizes its co-occurrence with mental health and trauma, Stephanie Covington developed a women's substance abuse program *Helping Women Recover: A Program for Treating Substance Abuse* (2008). The program builds from four perspectives on women's addiction: These accommodate the importance of women's pathways to crime, relationship issues, and addictions co-occurring with mental health issues and trauma. Attention is given to self-efficacy and the impact of sexism and trauma on perceptions of the self and the self in relationship with others. Program modules also discuss families of origin, healthy support systems, sexuality, body image, and spirituality. A second program *Beyond Trauma* (Covington, 2003) provides information on trauma and its effects and then moves to the development of coping skills. Both programs use cognitive-behavioral elements and exercises but also incorporate psychoeducation, mindfulness, guided imagery, and expressive art techniques. A recent randomized experimental study of both programs administered sequentially found a significantly lower return to prison rates for women in the two gender-responsive programs than those in the standard therapeutic model (Messina et al., 2010). The effects on intermediate outcomes pertaining to psychological well-being also have been favorable (Covington, Burke, Keaton, and Norcott, 2008; Messina et al., 2010).

Two additional programs for addressing abuse and trauma, *Seeking Safety* (Najavits, 2002) and *Dialectical Behavioral Therapy* (DBT) (Linehan, 1993), were not developed specifically for offender populations. As such, numerous studies exist, but all speak to favorable intermediate outcomes such as reductions in suicide attempts and drug use and

improvements in treatment retention, mental health, and post-traumatic stress disorder (PTSD) systems. *Seeking Safety* is a cognitive-behavioral program for co-occurring disorders of trauma/PTSD and substance abuse. Evaluation research shows favorable intermediate outcomes, but it was not possible to locate any evaluations of the program's impact on offense-related outcomes (Najavits, Gallop, and Weiss, 2006; Najavits, Weiss, Shaw, and Muenz, 1998). DBT is also a cognitive-behavioral approach involving skills training, motivational enhancement, and coping skills. The impact of DBT has been tested in several treatment settings and found to have many positive intermediate outcomes (for a summary of evaluation findings, see Dimeff, Koerner, and Linehan, 2002).

Another substance abuse program for women, *Forever Free*, targeted gender-responsive risk factors such as self-efficacy, healthy relationships, abuse and trauma, and parenting. *Forever Free* included a voluntary aftercare program. The services were multimodal, and the evaluation results showed that the program reduced drug use and recidivism significantly (Hall, Prendergast, Wellish, Patten, and Cao, 2004; Prendergast et al., 2002).

In sum, a promising picture of studies seems to support cognitive-behavioral programs targeted to gender-responsive risk/need factors. Of course, given funding patterns and other roadblocks to implementing women's programs and services (a paper in its own right), it is likely to be some time before enough research on women is available to support a large meta-analysis on women offenders. Indeed, it took decades to amass the male-based, evaluation databases. A more favorable approach to positioning women's programs in an evidence-based policy climate would be to continue to conduct controlled studies of women-specific models and make greater use of the Web-based evidence compilation platforms prepared by the Substance Abuse and Mental Health Services Administration, Office of Justice Programs, and Office of Juvenile Justice and Delinquency Prevention Model Programs. These provide program-specific information with references to the specific programs and program components. The needs of women offenders are too great to wait (years) for a large meta-analysis to produce information on maybe six program characteristics (given the realities of meta-analysis). Moreover, use of "best available," male-based evidence is not advisable, given the emerging state of knowledge.

Conclusion: Women's Place in the Science of Evidence-based Practice

It is certainly possible that meta-analysis and other forms of study counting will continue to be the gold standard for determining what research is translated into policy. Moreover, limited scholarly interest may continue to collide with weak funding to keep women understudied. In such a climate, however, gender-responsive approaches to correctional treatment are doomed to be caught in the senseless cycle of no research, no evidence, and ongoing adherence to "best available evidence" where the "male is norm." In contrast, if we can build on available evidence, then a picture is beginning to emerge that outlines an evidence-based approach for women.

From my vantage point, the evidence presented continues to converge on a hybrid model that modifies the prevailing principles of effective intervention for women. However, in the case of some principles, such as the needs principle (defined previously), extensive modification seems to be warranted. I believe also that the principles of effective intervention continue to form a meaningful organizational structure for presenting an evidence-based model for women, but that model differs from the current RNR model in several key ways.

First, the evidence suggests that the risk principle should continue to apply to women but do so with important qualifications. The risk effect (an interaction between risk and intensive treatment) has been found in evaluations of two intensive gender-responsive programs (Gehring et al., 2010; Orbis Partners, Inc., 2010) and one evaluation of gender-neutral halfway houses across the State of Ohio (Lovins et al., 2007). That is, even with women, high-risk offenders have better treatment outcomes in intensive programs than low-risk offenders. Moreover, what too often gets ignored in policy formulations of the risk principle is the fate of low-risk offenders who have worse outcomes even in state-of-the-art, “evidence-based” programs than they might have had if we had not intervened or brought them further into the justice system. By definition, low-risk offenders have many prosocial influences in their lives. These women may need less intensive interventions for fewer needs, but they also will benefit, where possible, from ongoing contact with the prosocial influences in their lives (Salisbury et al., 2009).

The evidence does not support the argument that risk management and risk assessment are inappropriate for women offenders (Blanchette and Brown, 2006). Underlying this argument is the assertion that women are not dangerous and, therefore, should not be classified by levels of risk (Hannah-Moffitt, 2004, 2009; Smart, 1982). In our research, however, 12-month recidivism in community samples ranged from 21% in a probation sample to 44% in a parole sample. Among high-risk groups, these rates are much higher. This is sufficient to support interventions for high-risk women and accurate, assessment-based indications of who they are.

Just the same, an appropriate risk management policy for women should reconceptualize notions of maximum custody and high risk. The high-risk/high-custody female offender is not the same as the high-risk/high-custody male offender, and this is seldom reflected in correctional policy. Most validations of risk and custody assessments find that even in high-risk groups, women reoffend, commit serious misconducts, and return to prison at considerably lower rates than men (Hardyman and Van Voorhis, 2004; Wright, Van Voorhis, Salisbury, and Bauman, 2009).⁶ A simple comparison of high-risk males and females on their rate of offense-related outcomes would, in most cases, reveal this distinction to policy

6. In prison settings, this comparison should not include minor infractions such as insubordination. These actually tend to be higher for women than men, reflecting poor staff skills in managing women offenders and a tendency to revert to excessive issuance of misconducts to do so (Hardyman and Van Voorhis, 2004). A comparison of serious or aggressive misconducts typically finds much lower rates for women than men.

makers and administrators. Women's rates are typically much lower than men's. These comparisons should perhaps be made before impractical investments are devoted to overly secure and austere prison structures located far from children and other supportive family members (Wright et al., 2009). Supervision policies for high-risk females in the community also should reflect differences between males and females (Salisbury, Van Voorhis, Wright, et al., 2009b). Furthermore, legal analyses of this issue are finding that equal treatment for males and females is not required if the data show they are not, in fact, equal (Raeder, 2012).

The scholarship specific to women offenders placed the need principle of the principles of effective intervention under greatest scrutiny (Blanchette and Brown, 2006) and found it to be incomplete and in need of considerable modification (Blanchette, 2009; Buell et al., 2011; Salisbury, Van Voorhis, Wright, et al., 2009b; Van Voorhis et al., 2010; Wright et al., 2009). The commonsense notion still holds that to reduce criminal behavior, we must address the risk factors for criminal behavior. However, recent research has identified a new set of gender-responsive risk/need factors. The programs designed to address these gender-responsive needs seem to be working. Empirical observations of the influences of trauma, mental illness, parental stress, poverty, and unhealthy relationships also suggest a merger of the criminogenic focus of correctional policy with a public health focus (Butler and Engle, 2011). Evidence supports this shift, and the shift advocates well for policies and approaches that bring other social service agencies (e.g., substance abuse, labor, education, mental health, child services, and welfare) to the table. In fact, partnerships among such agencies are observed in several prison reentry programs and in several pretrial, "preentry" programs (e.g., Buell et al., 2011).

As for the general responsivity principle, the emerging gender-responsive programs tend to be cognitive-behavioral programs and, therefore, fit (if somewhat uneasily⁷) within the behavioral, social learning, and cognitive-behavioral modalities noted by the general responsivity principle. To guide gender-responsive programming more carefully in this regard, Blanchette and Brown (2006: 126) reformulated the general responsivity principle:

A gender-informed responsivity principle states that in general, optimal treatment response will be achieved when treatment providers deliver structured behavioral interventions [grounded in feminist philosophies as well as social learning theory] in an empathic and empowering manner [strength-based model] while simultaneously adopting a firm but fair approach.

Finally, the suggestion that women can be accommodated through little more than adherence to the specific responsivity principle or the normative principle (just being decent) (Andrews and Bonta, 2010) is difficult to support on the basis of emerging evidence. Responsivity factors are needs (e.g., parenting) that should be accommodated (e.g.,

7. Many of the women's programs also add guided imagery, mindfulness, and other approaches to the cognitive modality.

childcare) for the purpose of freeing a client to address a criminogenic need (e.g., antisocial thinking) more effectively. In this example, the treatment of antisocial thinking is the priority and child care is a means to that end. If we referred instead to parental stress as a risk factor, then it assumes greater priority and is addressed with the hope of decreasing the mother's future offending. In addition to child care, then, we might recommend consideration of such interventions as child management programs, parental support groups, and various forms of financial assistance. Thus, the qualitative difference between a responsivity factor and a risk factor has important implications for policy and programmatic strategy. Whether in the realm of criminal justice or public health, a policy of addressing a risk factor is a statement that our goal is to stabilize or ameliorate that condition and that doing so will produce the desired outcome of changing offender behavior. It becomes a stronger priority; it is not a means to an end of treating Big 4 or Central 8 risk factors. Thus, it is not enough to address old treatment targets with a focus that might be more amenable to women, for example, relational therapists or pink walls. For many women offenders, serious attention and priority must be given to a modified list of risk factors.

In closing, most innovative approaches for women offenders have been implemented only within the past decade. Moreover, these changes have occurred on a small scale, largely because the research needed to support such innovation was unavailable in corrections and other fields. More startling, scientific enterprises habitually generalized findings pertinent to men to women, and this practice resulted in substantial costs to women. Additional costs were observed when evidence-based guidelines imposed "best available practices" and faulted the critics of "male is norm" practices for the fact that women are understudied. I do not refrain from issuing the frequent call for more research, but I also wanted to make a case for highlighting the evidence that *is* present. There is the ongoing risk that women's invisibility to science could extend to a denial of the evidence that is beginning to amass. The evidence on behalf of women offenders is not nil, and policy makers should not be encouraged to ignore it.

References

- American Psychological Association (APA). 2010. Amendments to the 2002 Ethical Principles of Psychology and Code of Conduct. *American Psychologist*, 65: 493.
- American Psychological Association Divisions 17 and 35 (2004). *Draft Guidelines for Psychological Practice with Girls and Women*. Washington, D.C.: Author.
- Andrews, Donald A. and James A. Bonta. 1995. *Level of Service Inventory-Revised*. North Tonawanda, NY: Multi-Health Systems.
- Andrews, Donald A. and James A. Bonta. 2010. *The Psychology of Criminal Conduct*, 5th Edition. Cincinnati, OH: LexisNexis.
- Andrews, Donald A., James A. Bonta, and Robert D. Hoge. 1990a. Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior*, 17:19–52.

- Andrews, Donald A., James A. Bonta, and Steven Wormith. 2004. *Level of Service/Case Management Inventory:LS/CMI Manual*. Toronto, Ontario, Canada: Multi-Health Systems.
- Andrews, Donald A., Craig Dowden, and Paul Gendreau. 1999. *Clinically Relevant and Psychologically Informed Approaches to Reduced Re-Offending: A Meta-Analytic Study of Human Risk, Need, Responsivity, and Other Concerns in Justice Contexts*. Unpublished manuscript, Carleton University, Ottawa, Ontario, Canada.
- Andrews, Donald A., Craig Dowden, and Jill L. Rettinger. 2001. Special populations within corrections. In (John A. Winterdyck, ed.), *Corrections in Canada: Social Reactions to Crime*. Toronto, Ontario, Canada: Prentice-Hall.
- Andrews, Donald A., Ivan Zinger, Robert D. Hoge, James A. Bonta, Paul Gendreau, and Francis T. Cullen. 1990b. Does correctional treatment work? A psychologically informed meta-analysis. *Criminology*, 28: 419–429.
- Arnold, Regina A. 1990. Processes of victimization and criminalization of Black women. *Social Justice*, 17: 156–166.
- Austin, James, Barbara Bloom, and Trish Donahue. 1992. *Female Offenders in the Community: An Analysis of Innovative Strategies and Programs*. San Francisco, CA: National Council on Crime and Delinquency.
- Austin, James, Marino A. Bruce, Leo Carroll, Patricia L. McCall, and Stephen C. Richards. 2001. The use of incarceration in the United States. *Critical Criminology: An International Journal*, 10: 17–41.
- Baker, Nancy L. and Janelle L. Mason. 2010. Gender issues in psychological testing of personality and abilities. In (Joan C. Chrisler and Donald R. McCreary, eds.), *Handbook of Gender Research in Psychology*, Volume 2. New York: Springer.
- Belknap, Joanne. 2007. *The Invisible Woman: Gender, Crime, and Justice*, 3rd Edition. Belmont, CA: Thompson Wadsworth.
- Belknap, Joanne and Kristi Holsinger. 2006. The gendered nature of risk factors for delinquency. *Feminist Criminology*, 1: 48–71.
- Bell, Valerie. 2012. *Gender-Responsive Risk/Needs Assessment: A Comparison of Women and Men*. Unpublished doctoral dissertation, University of Cincinnati, Cincinnati, OH.
- Blanchette, Kelly. 2009. Consensus Knowledge Statement and Relevant Research, Technical Assistance Report. Washington, D.C.: National Institute of Corrections, U.S. Department of Justice.
- Blanchette, Kelly and Shelley L. Brown. 2006. *The Assessment and Treatment of Women Offenders: An Integrated Perspective*. Chichester, U.K.: Wiley.
- Bloom, Barbara. 1996. *Triple Jeopardy: Race, Class and Gender as Factors in Women's Imprisonment*. Riverside: University of California.
- Bloom, Barbara, Barbara Owen, and Stephanie Covington. 2003. *Gender-Responsive Strategies: Research Practice and Guiding Principles for Women Offenders*. Washington, DC: National Institute of Corrections, U.S. Department of Justice.
- Bonta, James A. 1995. The responsivity principle and offender rehabilitation. *Forum on Corrections Research*, 7: 34–37.

- Bonta, James A., Brad Bogue, M. Crowley, and Laurence Motiuk. 2001. Implementing offender classification systems: Lessons learned. In (Gary Bernfeld, David Farrington, and Alan Leschied, eds.), *Offender Rehabilitation in Practice: Implementing and Evaluating Effective Programs*. Chichester, U.K.: Wiley.
- Brennan, Tim. 1998. Institutional classification of females: Problems and some proposals for reform. In (Ruth T. Zaplin, ed.), *Female Offenders: Critical Perspectives and Effective Interventions*. Gaithersburg, MD: Aspen.
- Brennan, Tim, William Dieterich, Beate Ehret, Markus Breitenback, Sabrina Arredondo Matson, and Brian Matson. 2008. *Risk and Need Assessment of Women Offenders in California Prisons: An Evaluation of COMPAS Reentry and NIC's Gender Responsive Approach*. Sacramento: California Department of Corrections and Rehabilitation.
- Brennan, Tim, William Dieterich, and William L. Oliver. 2006. *COMPAS: Technical Manual and Psychometric Report Version 5.0*. Traverse City, MI: NorthpointeInstitute.
- Bridgeman, Brent and Cathy Wendler. 1991. Gender differences in predictors of college mathematics performance and in college mathematics course grades. *Journal of Educational Psychology*, 83: 275–284.
- Brushette, Rachel, Patricia Van Voorhis, and Ashley Bauman. 2011. *Validation of the Women's Risk/Needs Assessment (WRNA) in a Pretrial Setting*. Paper presented at the annual meeting of the American Society of Criminology, Washington, DC.
- Buell, Maureen, Phyllis Modley, and Patricia Van Voorhis. 2011. Policy developments in the U.S. In (Rosemary Sheehan, Gill McIvor, and Chris Trotter, eds.), *Working with Women Offenders in the Community*. Devon, U.K.: Willan.
- Bureau of Justice Statistics. 1999. *Special Report: Women Offenders*. Washington, DC: U.S. Department of Justice.
- Bush, Jack and Brian Bilodeau. 1993. *OPTIONS: A Cognitive Change Program*. Washington, DC: National Institute of Corrections, U.S. Department of Justice.
- Bush, Jack, Juliana Taymans, and Barry Glick. 1998. *Thinking for a Change*. Washington, DC: National Institute of Corrections, U.S. Department of Justice.
- Butler, Burke and Rebecca Engle. 2011. *ABA Corrections Committee: Report on Gender Responsive Classification Committee*. New Haven, CT: Yale University Press.
- Center for Effective Public Policy. 2010. *Gender-Informed Practice Assessment (GIPA)*. Washington, DC: National Institute of Corrections, U.S. Department of Justice.
- Chen, Wan, Susan Woods, and Kathleen Puntillo. 2005. Gender differences in symptoms associated with acute myocardial infarction: A review of the research. *Heart Lung*, 34: 240–247.
- Chesney-Lind, Meda. 1997. *The Female Offender: Girls, Women, and Crime*. Thousand Oaks, CA: Sage.
- Chesney-Lind, Meda. 2000. What to do about girls? Thinking about programs for young women. In (Maeve W. McMahon, ed.), *Assessment to Assistance: Programs for Women in Community Corrections*. Lanham, MD: American Correctional Association.
- Chesney-Lind, Meda. 2012. Campus crime beat: The challenges of doing feminist criminology in the academy. *Women & Criminal Justice*, 22: 1–14.

- Chesney-Lind, Meda and Noelle Rodrigues. 1983. Women under lock and key. *The Prison Journal*, 63: 47–65.
- Chesney-Lind, Meda and Randall G. Shelden. 1992. *Girls, Delinquency, and Juvenile Justice*. Belmont, CA: Thompson Wadsworth.
- Cicero, June H. and Elaine T. DeCostanzo. 2000. *Sentencing Women Offenders: A Training Curriculum for Judges*. Washington, DC: National Institute of Corrections and National Association for Women Judges.
- Clark, Mary Jo and Jerilee Gandy. 1984. *Sex Differences in the Academic Performance of Scholastic Aptitude Test Takers*. College Board Rep. No. 84–8 Educational Testing Science Research Rep. No. 84–43. New York: College Entrance Examination Board.
- Coulson, Grant, Giorgio Ilacqua, Verna Nutbrown, Diana Giulekas, and Francis Cudjoe. 1996. Predictive utility of the LSI for incarcerated female offenders. *Criminal Justice and Behavior*, 23: 427–439.
- Covington, Stephanie. 1998. The relational theory of women’s psychological development: Implications for the criminal justice system. In (Ruth T. Zaplin, ed.), *Female Offenders: Critical Perspectives and Effective Interventions*. Gaithersburg, MD: Aspen.
- Covington, Stephanie. 2003. *Beyond Trauma: A Healing Journey for Women*. Center City, MN: Change Companies.
- Covington, Stephanie. 2008. *Helping Women Recover: A Program for Treating Substance Abuse. Facilitator’s Guide-Revised Edition for Use in the Criminal Justice System*. San Francisco, CA: Jossey-Bass.
- Covington, Stephanie, Cynthia Burke, Sandy Keaton, and Candice Norcott. 2008. Evaluation of a trauma-informed and gender-responsive intervention for women in drug treatment. *Journal of Psychoactive Drugs*, Suppl. 5: 387–398.
- Cullen, Francis T. 2005. The twelve people who saved rehabilitation: How the science of criminology made a difference: The American Society of Criminology 2004 Presidential Address. *Criminology*, 43: 1–42.
- Cullen, Francis T. and Paul Gendreau. 2001. From nothing works to what works: Changing professional ideology in the 21st century. *Crime & Delinquency*, 81: 313–338.
- Cullen, Francis T., Paula Smith, Christopher T. Lowenkamp, and Edward Latessa. 2009. Nothing works revisited: Deconstructing Farabee’s “rethinking rehabilitation.” *Victims & Offenders*, 4: 101–123.
- Daly, Kathleen. 1992. Women’s pathways to felony court: Feminist theories of law breaking and problems of representation. *Southern California Review of Law and Women’s Studies*, 2: 11–52.
- Daly, Kathleen. 1994. *Gender, Crime and Punishment: Is Justice Blind or are Men and Women Treated Differently by the Courts?* New Haven, CT: Yale University Press.
- Dey, S., M. Flather, G. Devlin, D. Brieger, E. Gurfinkel, P. Steg, et al. 2008. Sex-related differences in the presentation, treatment and outcomes among patients with acute coronary syndromes: The Global Registry of Acute Coronary Events. *Heart*, 95: 20–26.
- Dimeff, Linda A., Kelly Koerner, and Marsha M. Linehan. 2002. *Summary of Research on Dialectical Behavior Therapy*. Seattle, WA: Behavioral Tech.

- Dowden, Craig and Don A. Andrews. 1999. What works for female offenders. A meta-analytic review. *Crime & Delinquency*, 45: 435–452.
- Education Development Center, Inc., Center for Equity and Cultural Diversity. 1993. *A Guide to Programming for Women in Prison*. Washington, DC: National Institute of Corrections, U.S. Department of Justice.
- Farabee, David. 2005. *Rethinking Rehabilitation: Why We Can't Reform Our Criminals?* Washington, DC: AEI Press.
- Farr, Kathryn A. 2000. Classification of female inmates: Moving forward. *Crime & Delinquency*, 46: 3–17.
- Flynn, Edith E. 1971. *The Special Problems of Female Prisoners*. Paper presented at the National Conference on Corrections, Williamsburg, VA.
- Funk, Stephanie J. 1999. Risk assessment for juveniles on probation: A focus on gender. *Criminal Justice and Behavior*, 26: 44–68.
- Gaes, Gerald, Timothy Flanagan, Lawrence Motiuk, and Lynn Stewart. 1999. Adultcorrectional treatment. In (Michael H. Tonry and Joan Petersilia, eds.), *Prisons, Crime and Justice: A Review*, Volume 26. Chicago, IL: University of Chicago Press.
- Gehring, Krista. 2011. *Are Needs Related to Pretrial Outcomes?* Unpublished doctoral dissertation, University of Cincinnati, Cincinnati, OH.
- Gehring, Krista S., Patricia Van Voorhis, and Valerie R. Bell. 2010. “What Works” for female probationers? An evaluation of the Moving On Program. *Women, Girls, and Criminal Justice*, 11: 1, 6–10.
- Geller, Stacie E., Marci Goldstein Adams, and Molly Carnes. 2006. Adherence to federal guidelines for reporting of sex and race/ethnicity in clinical trials. *Journal of Women's Health*, 15: 1123–1131.
- Gendreau, Paul. 1996. The principles of effective intervention with offenders. In (Alan T. Harland, ed.), *Choosing Correctional Options that Work: Defining the Demand and Evaluating the Supply*. Thousand Oaks, CA: Sage.
- Gendreau, Paul, Claire Goggin, and Francis T. Cullen. 1999. *The Effects of Prison Sentences on Recidivism*. Ottawa, Ontario, Canada: Public Works and Government Services.
- Gendreau, Paul, Claire Goggin, Francis T. Cullen, and Mario Paparozzi. 2002a. The common-sense revolution and correctional policy. In (James Maguire, ed.), *Offender Rehabilitation and Treatment: Effective Programs and Policies to Reduce Re-Offending*. Chichester, U.K.: Wiley.
- Gendreau, Paul, Claire Goggin, and Paula Smith. 2001. Implementation guidelines for correctional programs in the “real world.” In (Gary A. Bernfeld, David P. Farrington, and Alan W. Leschied, eds.), *Offender Rehabilitation in Practice*. West Sussex, U.K.: Wiley.
- Gendreau, Paul, Claire Goggin, and Paula Smith. 2002b. Is the PCL-R really the “unparalleled measure of offender risk?” A lesson in knowledge cumulation. *Criminal Justice and Behavior*, 29: 397–426.
- Gendreau, Paul, Tracey Little, and Claire Goggin. 1996. A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology*, 34: 575–607.

- Gilfus, Mary E. 1992. From victims to survivors to offenders. Women's routes of entry and immersion into street crime. *Women and Criminal Justice*, 4: 63–90.
- Gilligan, Carol. 1982. *In a Different Voice*. Cambridge, MA: Harvard University Press.
- Girls Incorporated. 1996. *Prevention and Parity: Girls in Juvenile Justice*. Indianapolis, IN: Girls Incorporated National Resource Center.
- Glass, Gene V., Barry McGaw, Mary Lee Smith. 1981. *Meta-Analysis in Social Research*. Beverly Hills, CA: Sage.
- Glick, Ruth and Virginia Neto. 1977. *A National Study of Women's Correctional Programs*. Washington, DC: U.S. Government Printing Office.
- Goldenberg, Marvin M. 2003. Politics and clinical trials: The inclusion of women. *Pharmacy and Therapeutics*, 28: 791–796.
- Goldstein, Arnold P., Barry Glick, and John C. Gibbs. 1998. *Aggression Replacement Training: A Comprehensive Intervention for Aggressive Youth*, Revised Edition. Champaign, IL: Research Press.
- Grella, Christine. 2009. *Female Offender Treatment and Employment Project (FOTEP). Summary of Evaluation Findings*. Los Angeles, CA: UCLA Integrated Substance Abuse Programs.
- Guerino, Paul, Paige Harrison, and William Sabol. 2011. *Prisoners in 2010*. Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.
- Hall, Elizabeth, Michael Prendergast, Jean Wellish, Meredith Patten, and Yan Cao. 2004. Treating drug abusing women prisoners: An outcomes evaluation of the Forever Free Program. *The Prison Journal*, 84: 81–105.
- Hannah-Moffat, Kelly. 2004. Gendering risk: At what cost? Negotiations of gender and risk in Canadian women's prisons. *Feminism and Psychology*, 14: 243–249.
- Hannah-Moffat, Kelly. 2009. Gridlock or mutability: Reconsidering gender and risk assessment. *Criminology & Public Policy*, 8: 209–219.
- Hannah-Moffat, Kelly and Margaret Shaw. 2000. Thinking about cognitive skills? Think again! *Criminal Justice Matters*, 39: 8–9.
- Hardyman, Patricia L. and Patricia Van Voorhis. 2004. *Developing Gender-Specific Classification Systems for Women Offenders*. Washington, DC: National Institute of Corrections, U.S. Department of Justice.
- Heilbrun, Kirk, David Dematteo, Ralph Fretz, Jacey Erickson, Kento Yasuhara, and Natalie Anumba. 2008. How "specific" are gender-specific rehabilitation needs? An empirical analysis. *Criminal Justice and Behavior*, 35: 1382–1397.
- Hesse-Biber, Sharlene Nagy, and Michelle L. Yaiser. 2004. Feminist approaches to research as a process: Reconceptualizing epistemology, methodology, and method. In (Sharlene Nagy Hesse-Biber and Michelle L. Yaiser, eds.), *Feminist Perspectives on Social Research*. New York: Oxford University Press.
- Holsinger, Alexander, Christopher Lowenkamp, and Edward Latessa. 2003. Ethnicity, gender and the LSI-R. *Journal of Criminal Justice*, 31: 309–320.
- Holsinger, Kristi. 2000. Feminist perspectives on female offending: Examining realgirls' lives. *Women & Criminal Justice*, 12: 23–51.

- Holsinger, Kristi and Patricia Van Voorhis. 2005. Examining gender inequities in classification systems: Missouri's development of a gender-responsive assessment instrument. *Women, Girls, and Criminal Justice*, 6: 33–34, 44–47.
- Holtfreter, Kristy and Merry Morash. 2003. The needs of women offenders: Implications for correctional programming. *Women & Criminal Justice*, 14: 137–160.
- Holtfreter, Kristy, Michael D. Reisig, and Merry Morash. 2004. Poverty, state capital, and recidivism among women offenders. *Criminology & Public Policy*, 3: 185–208.
- Holverstott, Katherine M., Kristal E. Ehrhardt, Trisha Parish, Ruth Ervin, Lanai Jennings, and Alan Poling. 2002. Females and males as participants in school psychology research: Data from four journals over 15 years. *School Psychology International*, 23: 449–457.
- House, J. Daniel, Suman Gupta, and Beiling Xiao. 1997. *Gender Differences in Prediction of Grade Performance from Graduate Record Examination Scores*. Paper presented at the annual meeting of the Illinois Association for Institutional Research, Chicago, IL.
- Hubbard, Dana and Betsy Matthews. 2008. Reconciling the differences between “Gender-Responsive” and the “What Works” literatures to improve services for girls. *Crime and Delinquency*, 54: 225–258.
- Hubbard, Dana and Travis Pratt. 2002. A meta analysis of the predictors of delinquency among girls. *Journal of Offender Rehabilitation*, 34: 1–13.
- Hyde, Janet S. 1990. Analysis and the psychology of gender differences. *Signs*, 16: 53–73.
- Hyde, Janet S. 2006. *Half the Human Experience*. Boston, MA: Houghton Mifflin.
- Jarema, Kimberly, Susan Snyderski, Susan Bagge, John Austin, and Alan Poling. 1999. Participation of women as authors and participants in articles published in the Journal of Organizational Behavior Management. *Journal of Organizational Behavior Management*, 19: 85–94.
- Jones, Natalie. 2011. *Merging Theoretical Frameworks to Inform Risk Assessment for the Young Female Offender*. Unpublished doctoral dissertation, Carleton University, Ottawa, Ontario, Canada.
- Keiser, Jocelyn. 2005. Gender in the pharmacy: Does it matter? *Science*, 308: 1572.
- Kendall, Kathleen. 2004. Dangerous thinking: A critical history of correctional cognitive behaviorism. In (George Mair, ed.), *What Matters in Probation*. Devon, U.K.: Willan.
- Killien, Marcia, Judy Ann Bigby, Victoria Champion, Emma Fernandex-Repollet, Rebecca D. Jackson, Marjorie Kagawa-Singer, et al. 2000. Involving minority and underrepresented women in clinical trials: The National Centers of Excellence in Women's Health. *Journal of Women's Health and Gender-Based Medicine*, 9: 1061–1070.
- Kohlberg, Lawrence, Ann Colby, John Gibbs, Betsy Speicher-Dubin, and Dan Candee. 1979. *Standard Form Scoring Manual*. Cambridge, MA: Harvard University Press.
- Kroner, Daryl and Jeremy Mills. 2001. The accuracy of five risk appraisal instruments in predicting institutional misconduct and new convictions. *Criminal Justice and Behavior*, 28: 471–489.
- Langan, Patrick A. and David J. Levin. 2002. *Recidivism of prisoners released in 1994*. Washington, DC: Office of Justice Programs, Bureau of Justice Statistics, U.S. Department of Justice.

- Langan, Patrick A. and Bernadette Pelissier. 2001. Gender differences among prisoners in drug treatment. *Journal of Substance Abuse*, 13: 291–301.
- Latessa, Edward J., Francis T. Cullen, and Paul Gendreau. 2002. Beyond correctional quackery: Professionalism and the possibility of effective treatment. *Federal Probation*, 66: 43–49.
- Latessa, Edward J., Paula Smith, Richard Lemke, Matthew Makarios, and Christopher Lowenkamp. 2009. *Creation and validation of the Ohio Risk Assessment System: Final Report*. Cincinnati, OH: University of Cincinnati Center for Criminal Justice Research.
- Leonard, David K. and Jiming Jiang. 1999. Gender bias and the college predictions of the SATs: A cry of despair. *Research in Higher Education*, 40: 375–407.
- Levrant, Ronald and Louise Silverstein. 2005. Gender is neglected by both evidence-based practices and therapy as usual. In (John Norcross, Larry Beutler, and Ronald Levant, eds.), *Evidence-Based Practices in Mental Health: Debate and Dialogue on Fundamental Questions*. Washington, DC: American Psychological Association.
- Lewin, Miriam and Cheryl L. Wild. 1991. The impact of the feminist critique on tests, assessment, and methodology. *Psychology of Women Quarterly*, 15: 581–596.
- Linehan, Marsha. 1993. *Cognitive Behavioral Therapy for Borderline Personality Disorder*. New York: Guilford Press.
- Lipsey, Mark W. 1992. Juvenile delinquency treatment: A meta-analytic inquiry into the variability of effects. In (Thomas D. Cook, Harris Cooper, David J. Cordray, Heidi Hartmann, Larry V. Hedges, Richard J. Light, et al., eds.), *Meta-Analysis for Explanation*. New York: Russell Sage Foundation.
- Lipsey, Mark W. 2009. The primary factors that characterize effective interventions with juvenile offenders: A meta analytic overview. *Victims & Offenders*, 4: 124–147.
- Lipsey, Mark and David Wilson. 1993. The efficacy of psychological, educational, and behavioral treatment: Confirmation from meta-analysis. *American Psychologist*, 48: 1189–1209.
- Logan, Charles and Gerald Gaes. 1993. Meta-analysis and the rehabilitation of punishment. *Justice Quarterly*, 10: 245–263.
- Lovins, Lori Brusman, Christopher Lowenkamp, Edward J. Latessa, and Paula Smith. 2007. Application of the risk principle to female offenders. *Journal of Contemporary Criminology*, 23: 383–393.
- Lowenkamp, Christopher T. 2004. *A Program-Level Analysis of the Relationship Between Correctional Program Integrity and Treatment Effectiveness*. Unpublished doctoral dissertation, University of Cincinnati, Cincinnati, OH.
- Lowenkamp, Christopher T., Alexander M. Holsinger, and Edward J. Latessa. 2001. Risk/need assessment, offender classification, and the role of childhood Abuse. *Criminal Justice and Behavior*, 28: 543–563.
- Lowenkamp, Christopher T. and Edward J. Latessa. 2002. *Evaluation of Ohio's Community-Based Correctional Facilities and Halfway House Programs*. Cincinnati, OH: University of Cincinnati.

- Lowenkamp, Christopher T., Edward J. Latessa, and Paula Smith. 2006. Does correctional program quality really matter? The impact of adhering to the principles of effective intervention. *Criminology & Public Policy*, 5: 575–594.
- MacKenzie, Doris L. 2000. Evidence-based corrections: Identifying what works. *Crime & Delinquency*, 46: 457–471.
- MacKenzie, Doris L., David B. Wilson, and Suzanne B. Kider. 2001. Effects of correctional boot camps on offending. *The ANNALS of the American Academy of Political and Social Science*, 578: 126–143.
- Manchak, Sarah, Jennifer Skeem, Kevin Douglas, and Mario Siranosian. 2009. Does gender moderate the predictive utility of the Level of Service Inventory-Revised (LSI-R) for serious violent offenders? *Criminal Justice and Behavior*, 36: 425–442.
- Martinson, Robert. 1974. What works?: Questions and answers about prison reform. *The Public Interest*, 35: 22–54.
- Mauer, Marc, Cathy Potler, and Richard Wolf. 1999. *Gender and Justice: Women, Drugs and Sentencing Policy*. Washington, DC: The Sentencing Project.
- McClellan, Dorothy, David Farabee, and Benjamin Crouch. 1997. Early victimization, drug use, and criminality: A comparison of male and female prisoners. *Criminal Justice and Behavior*, 24: 455–476.
- McConnell, Beth A. 1996. *The Prediction of Female Offender Recidivism with the Level of Supervision Inventory*. Unpublished honor's thesis, Queens University, Kingston, Ontario, Canada.
- Messina, Nina, Christine Grella, William Burdon, and Michael Prendergast. 2007. Childhood adverse events and current traumatic distress: A comparison of men and women drug-dependent prisoners. *Criminal Justice and Behavior*, 34: 1385–1401.
- Messina, Nina, Christine Grella, Jerry Cartier, and Stephanie Torres. 2010. A randomized experimental study of gender-responsive substance abuse treatment for women in prison. *Journal of Substance Abuse Treatment*, 38: 97–107.
- Mihailides, Stephen, Belinda Jude, and Eric Van denBosshe. 2005. The LSI-R in an Australian setting: Implications for risk/needs decision making in forensic contexts. *Psychiatry, Psychology and Law*, 12: 207–217.
- Morash, Merry. 2010. *Women on Probation and Parole*. Boston, MA: Northeastern University Press.
- Morash, Merry, Timothy S. Bynum, and Barbara A. Koons. 1998. *Women Offenders: Programming Needs and Promising Approaches*. Washington, DC: National Institute of Justice, U.S. Department of Justice.
- Najavits, Lisa M. 2002. *Seeking Safety: A Treatment Manual for PTSD and Substance Abuse*. New York: Guilford Press.
- Najavits, Lisa M., Robert J. Gallop, and Roger D. Weiss. 2006. Seeking Safety therapy for adolescent girls with PTSD and substance abuse: A randomized controlled trial. *Journal of Behavioral Health Services & Research*, 33: 453–463.
- Najavits, Lisa M., Roger D. Weiss, Sarah R. Shaw, and Larry R. Muenz. 1998. "Seeking Safety": Outcomes of a new cognitive-behavioral psychotherapy for women with

- posttraumatic stress disorder and substance dependence. *Journal of Traumatic Stress*, 11: 437–456.
- National Association for College Admission Counseling (NACAC). 2008. *Report of the Commission on the Use of Standardized Tests in Undergraduate Admission*. Arlington, VA: Author.
- National Institutes of Health (NIH). 1999. *Agenda for Research on Women's Health in the 21st Century*. Rockville, MD: U.S. Department of Health and Human Services.
- Olds, David, JoAnn Robinson, Lisa Pettitt, Dennis W. Luckey, John Holmberg, Rosanna K. Ng, et al. 2004. Effects of home visits by paraprofessionals and by nurses: Age 4 follow-up results of a randomized trial. *Pediatrics*, 114: 1560–1568.
- Orbis Partners, Inc. 2010. *Women Offender Case Management Model: The Connecticut Project*. Washington, DC: National Institute of Corrections, U.S. Department of Justice.
- Owen, Barbara. 1998. *In the Mix: Struggle and Survival in a Women's Prison*. Albany: State University of New York Press.
- Palmer, Emma and Clive Hollin. 2007. The Level of Service Inventory-Revised with English women prisoners: A needs and reconviction analysis. *Criminal Justice and Behavior*, 34: 1385–1401.
- Petersilia, Joan. 2008. Influencing public policy: An embedded criminologist reflects on California prison reform. *Journal of Experimental Criminology*, 4: 335–356.
- Pew Center on the States. 2010. *Prison Count 2010*. Washington, DC: Author.
- Piquero, Alex, David Farrington, Brandon Welsh, Richard Tremblay, and Wesley Jennings. 2009. Effects of early family/parent training programs on antisocial behavior and delinquency. *Journal of Experimental Criminology*, 5: 83–120.
- Poling, Alan, Amy Durgin, Kelly P. Bradley, Lindsay K. Porter, Karen Van Wagner, Marc Weeden, et al. 2009. Female's participation in psychopharmacology research as authors, editors, and subjects. *Experimental and Clinical Psychopharmacology*, 17: 105–112.
- Porter, Carl L., LeeAnn Christian, and Alan Poling. 2003. Research brief: Some data concerning the reporting of participant's gender in the mental retardation literature. *Mental Retardation*, 41: 75–77.
- Prendergast, Michael, Jean Wellisch, and Gregory Falkin. 1995. Assessment of services for substance-abusing women offenders and correctional settings. *The Prison Journal*, 75: 240–256.
- Prendergast, Michael, Elizabeth Hall, and Jean Wellisch. 2002. *Outcome Evaluation of the Forever Free Substance Abuse Treatment Program: One-year Post-Release Outcomes*. Washington, D.C.: National Institute of Justice, U.S. Department of Justice.
- President's Commission on Law Enforcement and Administration of Justice. 1967. *The Challenge of Crime in a Free Society*. Washington, DC: U.S. Department of Justice.
- Raeder, Myrna. 2012. *Legal Implications for Managing Justice-Involved Women*. Washington, DC: National Institute of Corrections, U.S. Department of Justice.

- Ramasubbu, Kumudha, Hitinder Gurm, and David Litaker. 2001. Gender bias in clinical trials? Do double standards still apply? *Journal of Women's Health and Gender-Based Medicine*, 10: 757–764.
- Rathore, Saif S., Yongfei Wang, and Harlan M. Krumholtz. 2002. Sex-based differences in the effect of digoxin for the treatment of heart failure. *New England Journal of Medicine*, 347: 1403–1411.
- Raynor, Peter. 2007. Risk and need assessment in British probation: The contribution of the LSI-R. *Psychology, Crime & Law*, 13: 125–138.
- Reisig, Michael D., Kristy Holtfreter, and Merry Morash. 2006. Assessing recidivism risk across female pathways to crime. *Justice Quarterly*, 23:384–405.
- Rettinger, Jill L. 1998. *A Recidivism Follow-Up Study Investigating Risk and Need Within a Sample of Provincially Sentenced Women*. Unpublished doctoral thesis, Carleton University, Ottawa, Ontario, Canada.
- Richie, Beth E. 1996. *Compelled to Crime: The Gendered Entrapment of Battered Black Women*. New York: Routledge.
- Ridker, Paul M., Nancy R. Cook, I-Min Lee, David Gordon, J. Michael Gaziano, JoAnn E. Manson, et al. 2005. A randomized trial of low-dose aspirin in the primary prevention of cardiovascular disease in women. *New England Journal of Medicine*, 352: 1293–1304.
- Ross, Robert R. and Elizabeth A. Fabiano. 1985. *Time to Think: A Cognitive Model of Delinquency Prevention and Offender Rehabilitation*. Johnson City, TN: Institute of Social Science and Arts.
- Salisbury, Emily J. and Patricia Van Voorhis. 2009. Gendered pathways: An empirical investigation of women probationers' path to incarceration. *Criminal Justice and Behavior*, 36: 541–566.
- Salisbury, Emily, Patricia Van Voorhis, and Georgia Spiropoulis. 2009a. The predictive validity of a gender responsive risk/needs assessment. *Crime & Delinquency*, 55: 550–585.
- Salisbury, Emily, Patricia Van Voorhis, Emily M. Wright, and Ashley Bauman. 2009b. Changing the probation experience for women offenders: Findings from the Women's Needs and Risk Assessment Project. *Women, Girls, and Criminal Justice*, 10: 83–84,92–95.
- Schram, Pamela J. and Merry Morash. 2002. Evaluation of a life skills program for women inmates in Michigan. *Journal Offender Rehabilitation*, 34:47–70.
- Seligman, Martin E. P. 2002. *Authentic Happiness: Using the New Positive Psychology to Realize your Potential for Lasting Fulfillment*. New York: Free Press.
- Silverstein, Andrea L. 2000. Standardized tests: The continuation of gender bias in higher education. *Hofstra Law Review*, 29:669–700.
- Simourd, Linda and Don A. Andrews. 1994. Correlates of delinquency: A look at gender differences. *Forum on Corrections Research*, 6: 26–31.
- Smart, Carol. 1976. *Women, Crime, and Criminology: A Feminist Critique*. London: Routledge and Kegan Paul.
- Smart, Carol. 1982. The new female offender: Reality or myth? In (Barbara Price and Natalie Sokoloff, eds.), *The Criminal Justice System and Women*. New York: Clark Boardman.

- Smith, Mary L. 1980. Publication bias and meta analysis. *Evaluation in Education*, 4: 22–24.
- Smith, Paula, Francis T. Cullen, and Edward J. Latessa. 2009. Can 14,737 women be wrong? A meta analysis of the LSI-R and recidivism for female offenders. *Criminology & Public Policy*, 8: 183–208.
- Sorbello, Laura, Lynne Eccleston, Tony Ward, and Robin Jones. 2002. Treatment needs of female offenders: A review. *Australian Psychologist*, 37: 198–205.
- Sternberg, Robert and Wendy Williams, 1997. Does the Graduate Record Examination predict meaningful success in the graduate training of psychologists. *American Psychologist*, 52: 630–641.
- Sue, Stanley and Nolan Zane. 2005. Ethnic minority populations have been neglected by evidence-based practices. In (John Norcross, Larry Beutler, and Ronald Levant, eds.), *Evidence Based Practices in Mental Health: Debate and Dialogue on Fundamental Questions*. Washington, DC: American Psychological Association.
- Task Force on Promotion and Dissemination of Psychological Procedures, Division of Clinical Psychology of the American Psychological Association. 1995. Training and dissemination of empirically validated psychological treatment: Report and recommendation. *The Clinical Psychologist*, 48: 3–23.
- Tavris, Carol. 1992. *The Mismeasure of Woman*. New York: Simon & Schuster.
- Taxman, Faye S. and Jeffrey A. Bouffard. 2002. Assessing therapeutic integrity in modified therapeutic communities for drug-involved offenders. *The Prison Journal*, 82: 189–212.
- Taylor, Jill McClean, Carol Gilligan, and Amy Sullivan. 1995. *Between Voice and Silence: Women and Girls, Race and Relationship*. Cambridge, MA: Harvard University Press.
- Taymans, Juliana and Steve Parese. 1998. *Problem Solving Skills for Offenders: A Social Cognitive Intervention*. Washington, DC: George Washington University Press.
- U.S. Government and Accounting Office (GAO). 1979. Female offenders—Who are they and what are the problems confronting them? NCJ 060496. Washington, DC: Author.
- U.S. Surgeon General. 2001. *Mental Health: Culture, Race, and Ethnicity—A Supplement to Mental Health: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services.
- Van Dieten, Marilyn. 2008. *Women Offender Case Management Model*. Washington, DC: National Institute of Corrections, U.S. Department of Justice.
- Van Dieten, Marilyn. 2011. From zero sum to win-win: How research on women advances our work in corrections. Plenary address to the International Community Corrections Association, Cincinnati, OH.
- Van Dieten, Marilyn and Patricia MacKenna. 2001. *Moving On Facilitator's Guide*. Toronto, Ontario, Canada: Orbis Partners.
- Van Voorhis, Patricia. 2009. Next steps in gender-responsive classification. *Women, Girls, and Criminal Justice*, 10: 81–88.
- Van Voorhis, Patricia. 2011. *Validation of the Women's Risk/Needs Assessment (WRNA) in a Large Prison System*. Paper presented to the annual meeting of the American Society of Criminology, Washington, DC.

- Van Voorhis, Patricia, Ashley Bauman, Emily M. Wright, and Emily Salisbury. 2009. Implementing the Women's Risk/Needs Assessment (WRNAs): Early lessons from the field. *Women, Girls, and Criminal Justice*, 10: 81, 82: 89–91.
- Van Voorhis, Patricia, Francis Cullen, and Brandon Applegate. 1995. Evaluating interventions with violent offenders: A guide for practitioners and policymakers. *Federal Probation*, 59: 1–11.
- Van Voorhis, Patricia and Brittany Groot. 2010. *Predictive Validity of Women's COMPAS Scales Among Incarcerated Women in California—Final Report*. Cincinnati, OH: Center for Criminal Justice Research.
- Van Voorhis, Patricia and Lois Presser. 2001. *Classification of Women Offenders: A National Assessment of Current Practices*. Washington, DC: National Institute of Corrections, U.S. Department of Justice.
- Van Voorhis, Patricia, Emily Salisbury, Emily M. Wright, and Ashley Bauman. 2008. *Achieving Accurate Pictures of Risk and Identifying Gender Responsive Needs*. Washington, DC: National Institute of Corrections, U.S. Department of Justice.
- Van Voorhis, Patricia, Emily M. Wright, Emily Salisbury, and Ashley Bauman. 2010. Women's risk factors and their contributions to existing risk/needs assessment: The current status of gender responsive assessment. *Criminal Justice and Behavior*, 34: 261–288.
- Van Wormer, Katherine. 2001. *Counseling Female Offenders and Victims: A Strengths-Restorative Approach*. New York: Springer.
- Vidaver, Regina M., Bonnie Lafleur, Cynthia Tong, Robynne Bradshaw, and Sherry A. Marts. 2000. Women subjects in NIH-funded clinical research literature: Lack of progress in both representation and analysis by sex. *Journal of Women's Health & Gender-Based Medicine*, 9: 495–504.
- Wainer, Howard and Linda S. Steinberg. 1992. Sex differences in performance on the mathematics section of the scholastic aptitude test: A bidirectional validity study. *Harvard Educational Review*, 62: 323–336.
- Wright, Emily M., Emily Salisbury, and Patricia Van Voorhis. 2007. Predicting the prison misconducts of women offenders: The importance of gender responsive needs. *Journal of Contemporary Criminal Justice*, 23: 310–340.
- Wright, Emily M., Patricia Van Voorhis, Emily Salisbury, and Ashley Bauman. 2009. Gender-responsive prisons: Lessons from the NIC/UC Gender-Responsive Classification Project. *Women, Girls, and Criminal Justice*, 10: 85–87, 95–96.

Court Case Cited

Sharif v. New York State Education Department, 709 F. Supp. 345, 362 (S.D.N.Y. 1989).

Statutes Cited

National Institute of Health Revitalization Act, P. L. 103–43, 103rd Congress (1993).

Prison Rape Elimination Act, P. L. 108–79, 108th Congress (2003).

Violence against Women Act, H.R. 3355, 103rd Congress (1994).

Patricia Van Voorhis, is a Professor of Criminal Justice at the University of Cincinnati. She received her doctorate degree in Criminal Justice from the State University of New York at Albany. Dr. Van Voorhis has published extensively in the leading criminology and criminal justice journals and is the author of *Psychological Classification of the Adult, Male Prison Inmate*, and lead author of *Correctional Counseling and Rehabilitation*, currently in its 7th edition. She has provided expertise to federal, state and local agencies on topics pertaining to correctional effectiveness, program implementation, evaluation techniques, women offenders, risk assessment and correctional classification. She has directed numerous federal and state-funded research projects on the same topics. She recently concluded a federally funded, multisite study of the risk factors for female recidivism.

VOLLMER AWARD

V O L L M E R A W A R D C O M M E N T A R Y

Patricia Van Voorhis

Have vision, will travel

Emily J. Salisbury

Portland State University

Meda Chesney-Lind

University of Hawai'i at Manoa

Patricia Van Voorhis is a scholar who has invested much of her career working directly with correctional agencies to improve the management and treatment of offenders, most importantly, women offenders. Her work has been a key part of an important paradigm shift that involved scholars who conducted rigorous research and then traveled across the United States encouraging correctional administrators toward evidence-based policies and practices. Her research on offender classification and cognitive-behavioral programming has allowed administrators the flexibility to move beyond risk containment to need-based strategies of supervision, leading to safer, more humane, and more effective management practices. Although many noteworthy scholars have contributed to the discussion of the importance of evidence-based practices, Pat stands out for having the courage to extend the question of “what works?” to women offenders and to incorporate the important feminist scholarship conducted on women’s offending into the instruments currently in use.

Our commentary is written from the perspectives of two feminist scholars. The first comes from a former student and mentee who personally observed Pat’s daily dedication to the field and profession. The second is offered from a contemporary colleague, and it offers a broader vision of Pat’s contributions to feminist criminology. We both have been positively influenced in many ways by her research, as individual scholars and as

The authors express their thanks to Merry Morash, Professor of Criminal Justice, Michigan State University, for sharing her letter of nomination of Professor Van Voorhis for the Vollmer Award. We also sincerely thank Maureen Buell and Phyllis Modley from the National Institute of Corrections for their reflections on Professor Van Voorhis’s impact on the correctional field. Direct correspondence to Emily J. Salisbury, Hatfield School of Government, Division of Criminology and Criminal Justice, Portland State University, 506 SW Mill St., 570E Urban Center, P.O. Box 751-JUST, Portland, OR 97207-0751 (e-mail: salisbury@pdx.edu).

criminologists embedded in a field of study that all too often ignores the realities of women.

Reflections from a Mentee

It is a tremendous honor for me to have the opportunity to reflect on the numerous contributions from my academic mentor and friend, Pat Van Voorhis, who is otherwise known as “PVV” or “Patty V” to her many mentored students. When I first met Pat, I have to admit I was extremely nervous. My anxiousness went far beyond the typical fears of a newly admitted doctoral student. Prior to my arrival at the University of Cincinnati, I served as managing editor of *Criminal Justice and Behavior* and suggested revisions to one of her manuscript submissions. Although the editorial exchange between us was successful and resulted in an accepted publication (thank goodness!), I still worried she might immediately feel the need to assert her academic power over me for having been in that role.

In reality, Pat was more than welcoming and showed genuine interest in me as a student precisely when I needed it. She and I worked well together because she was a natural fit for me as a mentor for many reasons. I am deeply grateful for all that she has taught me and for the numerous opportunities she has given me. Most importantly, I cannot thank her enough for opening my eyes to the gendered perspective. But enough about me; this is about PVV.

Pat began her academic career in secondary education as an English and social studies teacher for 7 years in Massachusetts. When reflecting back on this experience, Pat stated, “[P]ublic school teaching was the hardest work I ever did. I enjoyed it, but it was more exhausting than graduate school, getting tenure, or meeting unrealistic deadlines” (P. Van Voorhis, personal communication, January 27, 2012). Fortunately, Pat’s desire to continue to challenge herself intellectually led to pursuit of her Ph.D. at SUNY–Albany. Subsequently, she spent 3 years at Indiana State University before transitioning to the University of Cincinnati’s School of Criminal Justice. Although she has been teaching at the University of Cincinnati for 27 years, given how much she crisscrosses the country consulting agencies, she probably has not spent more than a few years actually in her office. She and her work are in high demand, and there is good reason for it.

Although Pat understood early in her career the importance of “disaggregating by gender,” the foundation of her scholarship was established within traditional male-based offender assessment and programming interventions. Her work is reflected in numerous top-ranking, peer-reviewed journal publications and in book form, including *Psychological Classification of the Adult, Male Prison Inmate* (Van Voorhis, 1994) and an edited text, now in its seventh edition, *Correctional Counseling and Rehabilitation* (Van Voorhis, Braswell, and Lester, 2009). She was among a troubadour of scholars in the 1990s disseminating the body of research supporting the “what works” to reduce offending (i.e., risk-need-responsivity [RNR]) policies established originally by Canadian correctional psychologists but subsequently enhanced by American correctional scholars, including Pat.

More than mere speaking engagements, these were applied learning workshops providing technical assistance to state and local correctional practitioners through partnerships with the Community Corrections Division of the National Institute of Corrections (NIC). Applied work such as this involves a tremendous amount of travel, to sometimes less-than-desirable places, to deliver the message to staff that essentially their work as they have been doing it is ineffective but can improve. It is, quite frankly, exhausting. Yet the rewards of shaping the field on a ground level to enhance the professionalization of corrections, improve the lives of offenders, and increase overall public safety is one of the reasons I suspect Pat continues to engage in this work.

From the beginning of the shift to the “what works/RNR” policy initiative, there was a clear message from practitioners and scholars working with women that the recommended policy changes were not as relevant to women offenders (P. Van Voorhis, personal communication, January 27, 2012). Pat recognized and listened to these generalizability concerns and worked with NIC’s Women Offender Inter-Divisional Team to discern the particular aspects of the “what works” research that did and did not adequately address women’s criminality (M. Buell and P. Modley, personal communication, January 27, 2012). At a time when agencies were hearing conflicting ideas around what works for women offenders, Pat synthesized the issues and assisted NIC program managers on how to communicate effectively the “what works,” gender-neutral findings with the emerging women offender pathways research (e.g., Arnold, 1990; Chesney-Lind and Rodriguez, 1983; Daly, 1992; Gilfus, 1992; Owen, 1998; Richie, 1996; Smart, 1976).

This assistance led to Pat’s research collaboration with NIC beginning in the late 1990s to develop and validate risk/needs assessments tailored to women offenders. This cooperative agreement was embedded within a larger gender-responsive policy initiative at NIC that focused on asking, “What would evidence-based correctional strategies look like if we started with women offenders in mind, rather than as an afterthought?” These women’s risk/needs assessments (WRNAs) are now in a revalidation phase of development and have confirmed much of what the pioneering qualitative evidence with women offenders originally suggested: Many criminogenic needs relevant to women are not being assessed and are, therefore, not being treated within the normative, male-based correctional field (e.g., mental health, traumatic victimization, parenting responsibilities, and dysfunctional intimate relationships; see Salisbury, Van Voorhis, and Spiropoulos, 2009; Van Voorhis, Wright, Salisbury, and Bauman, 2010; Wright, Salisbury, and Van Voorhis, 2007). Leaving these needs unaddressed has pervasive social consequences for public safety, public health, and child welfare.

Thus, Pat’s traveling continues. By building off the results and implications from the WRNAs, she remains committed to providing technical assistance and training to correctional administrators to improve their management strategies for women offenders, a population that has grown at an unprecedented rate nationally as a result of “get tough” legislation (Frost, Greene, and Pranis, 2006). Nevertheless, the gender-responsive policy

initiative is still in an awakening phase, in part because scientific knowledge is constructed within a social structure that is male defined (Raffell Price and Sokoloff, 2001). Yet, were it not for Pat's tireless energy and research, "gender" within correctional practice might still be ignored altogether.

From a scientific perspective, Pat's work highlights that while the "what works"/RNR policy agenda is accurately classified as evidence based, we run the risk of "knowledge destruction" (Cullen and Gendreau, 2001) if we assume that the "what works" perspective is the only correctional evidence that science has to offer (see Van Voorhis, 2012, this issue). In other words, policy agendas researching ideas beyond "what works" also should qualify as evidence-based when they accumulate a body of empirical support. Attempting to answer the questions "What works with women offenders? What works with women of color? Men of color?" and so on are valid empirical investigations that each contribute to evidence-based corrections.

Finally, Pat's career has created a stronger foundation in the academy for the incoming generation of scholars to unquestionably dedicate their academic careers to the study of marginalized offender populations and ideas. Although the foundation is not entirely secure, it is all the more tough to tear down when well-respected researchers such as Pat Van Voorhis have had such a powerful role in building it. Personally, her career has allowed me to have absolutely no second thoughts about pursuing a research agenda focused on women offenders.

Reflections from a Colleague

Feminist criminologists have long stressed that "gender matters" in crime causation and that a woman's gender clearly plays a role in her involvement in crime as well as her treatment at the hands of the justice system. For decades, though, the correctional establishment and many criminologists who work closely with that field went out of their way to ignore these perspectives. Like a practitioner I once worked with, they believed that there was virtue in a worldview that stated that "an inmate is an inmate is an inmate" and that equity in treatment required that women be treated as if they were men.

Not so, Pat Van Voorhis. As the author of the National Institute of Corrections/University of Cincinnati Women's Risk Need Assessments, Pat developed a set of correctional assessment tools that specifically incorporate gender-responsive needs, such as trauma, mental health, parental stress, dysfunctional relationships, and poverty, as well as strengths such as self-efficacy, family support, and parental involvement. These rigorously validated assessments stand in stark contrast to the standard approaches for classifying women offenders, which are based primarily on research on male offenders and recommend targeting risk factors that are less relevant to women's than men's pathways to crime.

Perhaps even more important, these assessments have proven highly relevant to the field, contrary to constructions of feminist criminology as unscientific and overly partisan. Currently, the assessments have been implemented in 12 states and several smaller

jurisdictions, and they are under consideration in an additional 3 states. A pretrial version of the assessment also is used in two large courts systems as a tool for diverting pretrial women (and men in one of the jurisdictions) from criminal processing to services partnering mental health and substance abuse agencies.

As the United States embarked on mass incarceration, the number of women in prison in the United States soared, increasing eightfold (Frost et al., 2006). As a consequence, Pat's contributions could not have come at a more opportune time, and they have reshaped how practitioners and policy makers respond to incarcerated women. For example, the widespread application of the well-validated assessments have directed attention to the pervasive overclassification of incarcerated women, where women are supervised in more restrictive conditions than is necessary. Pat's work has demonstrated also that many current custody classification systems are actually invalid for women offenders (Van Voorhis, 2012). Thus, some correctional facilities for women have been managerially restructured by redefining maximum custody to reflect women's lower levels of institutional violence more appropriately and have shifted minimum custody women to community residential settings. By using the assessments, front-line and high-level practitioners learned about the need for gender-responsive programs and services for women and delivered them.

Practitioners and policy makers have shown their view of the high value of Pat's work by repeatedly having her share her knowledge. For instance, Pat delivered plenary addresses at the International Community Corrections Association, at the American Psychological Association's Division 41 meeting of the American Psychology-Law Society, and at the meeting of the American Bar Association. Sponsored by the National Institute of Corrections, Pat played a major role in developing a week-long institutional assessment process to evaluate women's facilities on multiple dimensions (e.g., leadership, culture, classification and assessments, and services). States use these assessments to spark statewide strategic planning to improve services to women offenders. She consults with the National Institute of Corrections on numerous types of policy and program development, some of which pertain to women but that also include the promotion of effective interventions for high-risk offenders and the Transition from Prison to Community Initiative.

Although there is breadth to Pat's dissemination of research knowledge, there is also depth; as a social scientist, she is extraordinarily committed to system change and willing to engage in the "nitty gritty" as well as the high-profile keynote. As an example, she is a research partner to the Georgia Department of Corrections. In addition to having completed two statewide evaluations, currently she is engaged in annual assessments of program quality and implementation in 30 demonstration sites located throughout the state of Georgia. Evaluations show program improvement and reduced offender recidivism.

Finally, Pat has played a major role in establishing structures that will perpetuate improvement and the application of knowledge in corrections into the future. She was co-founder of the Division of Corrections and Sentencing of the American Society of Criminology. Additionally, she participated in founding, and until 2009 directed,

the University of Cincinnati Corrections Institute, which disseminates best practices to communities, facilities, and agencies seeking to change offender behavior. This institute works at the federal, state, and local levels to provide technical assistance, staff training, distance learning, and research and development.

Those who do feminist criminology understand that it is our task not simply to conduct research and publish papers. Instead, it is to understand that gender is a key organizing principle in all contemporary society, and to do work that not only incorporates this insight but also seeks justice and a better world for all girls and women.

References

- Arnold, Regina. 1990. Processes of victimization and criminalization of Black women. *Social Justice*, 17: 153–166.
- Chesney-Lind, Meda and Noelle Rodriguez. 1983. Women under lock and key. *The Prison Journal*, 53: 47–65.
- Cullen, Francis T. and Paul Gendreau. 2001. From nothing works to what works: Changing professional ideology in the 21st century. *The Prison Journal*, 81: 313–338.
- Daly, Kathleen. 1992. Women's pathways to felony court: Feminist theories of lawbreaking and problems of representation. *Southern California Review of Law and Women's Studies*, 2: 11–52.
- Frost, Natasha, Judith Greene, and Kevin Pranis. 2006. *Hard Hit: The Growth in the Imprisonment of Women, 1977–2004*. New York: Women's Prison Association.
- Gilfus, Mary E. 1992. From victims to survivors to offenders: Women's routes of entry and immersion into street crime. *Women & Criminal Justice*, 4: 63–90.
- Owen, Barbara. 1998. *In the Mix: Struggle and Survival in a Women's Prison*. Albany: State University of New York Press.
- Raffell Price, Barbara and Natalie Sokoloff. 2001. *The Criminal Justice System and Women: Offenders, Prisoners, Victims, and Workers*. New York: McGraw-Hill.
- Richie, Beth E. 1996. *Compelled to Crime: The Gender Entrapment of Black Battered Women*. New York: Routledge.
- Salisbury, Emily J., Patricia Van Voorhis, and Georgia V. Spiropoulos. 2009. The predictive validity of a gender-responsive risk/needs assessment: An exploratory study. *Crime & Delinquency*, 55: 550–585.
- Smart, Carol. 1976. *Women, Crime, and Criminology: A Feminist Critique*. London, U.K.: Routledge and Kegan Paul.
- Van Voorhis, Patricia. 1994. *Psychological Classification of the Adult, Male Prison Inmate*. Albany: State University of New York Press.
- Van Voorhis, Patricia. 2012. On behalf of women offenders: Women's place in the science of evidence-based practice. *Criminology & Public Policy*. This issue.
- Van Voorhis, Patricia, Michael Braswell, and David Lester. 2009. *Correctional Counseling and Rehabilitation*, 7th Edition. Cincinnati, OH: Anderson.

- Van Voorhis, Patricia, Emily M. Wright, Emily Salisbury, and Ashley Bauman. 2010. Women's risk factors and their contributions to existing risk/needs assessment: The current status of a gender-responsive supplement. *Criminal Justice and Behavior*, 37: 261–288.
- Wright, Emily M., Emily J. Salisbury, and Patricia Van Voorhis. 2007. Predicting the prison misconducts of women offenders: The importance of gender-responsive needs. *Journal of Contemporary Criminal Justice*, 23: 310–340.
-

Emily J. Salisbury is Assistant Professor of Criminology and Criminal Justice in the Hatfield School of Government at Portland State University. Her primary research interests include women's pathways to crime and recidivism, as well as gender-responsive correctional assessment and treatment intervention strategies. Her research has appeared in top academic journals including *Crime & Delinquency* and *Criminal Justice and Behavior*. Recently, Dr. Salisbury implemented an identification and diversion process for youth victims of sex trafficking in Clark County Juvenile Detention (Washington). Her most current research focuses on implementing and sustaining EPICS (Effective Practices in Correctional Supervision) in the state of Oregon, in part by collaborating with probation staff and holding a small caseload of probationers.

Meda Chesney-Lind is Professor of Women's Studies at the University of Hawai'i at Manoa. Nationally recognized for her work on women and crime, her books include *Girls, Delinquency and Juvenile Justice* (Wadsworth, 1992), *The Female Offender: Girls, Women and Crime* (Sage, 1997), *Female Gangs in America* (Lakeview Press, 1999), *Invisible Punishment* (New Press, 2002), *Girls, Women and Crime* (Sage, 2004), and *Beyond Bad Girls: Gender Violence and Hype* (Routledge, 2008). She recently finished an edited collection on trends in girls' violence, entitled *Fighting for Girls: Critical Perspectives on Gender and Violence* (2010) published by SUNY Press.

VOLLMER AWARD

V O L L M E R A W A R D C O M M E N T A R Y

“Every Time a Bell Rings an Angel Gets His Wings”

Commentary on Patricia Van Voorhis’s Receipt of the 2011 Vollmer Award

Bonita M. Veysey

Rutgers, The State University of New Jersey

This past November, Patricia Van Voorhis (2012, this issue) was awarded the American Society of Criminology’s August Vollmer Award. This award is given to a member whose scholarship has “contributed to justice or to the treatment or prevention of criminal or delinquent behavior” (American Society for Criminology, 2012: para. 1) either through a single piece of work or through the contributions of a lifetime of scholarship. I would like to begin by saying how deeply honored I feel to have been asked to write this award commentary. I have been fortunate indeed to know Pat over the years and to work with her on issues related to women in the criminal justice system.

As I write this commentary, the midwinter holiday season is approaching. Not surprising, this is the time of the year one is most likely to watch Jimmy Stewart in *It’s a Wonderful Life*. As you may recall, the premise of the story is how a good and decent man who finds himself in desperate straits wishes that he had never been born. His guardian angel, Clarence, grants him his wish, and we see, in stark contrast, a mean and unforgiving place in which his many friends and family members, and in fact his whole town, suffer. In the absence of one good man, the destiny of hundreds of people is changed for the worse.

The story asks, “What would life be like in Bedford Falls had George Bailey never been born?” I want to ask a similar question, “What would criminology and criminal justice practice be like without the work of Patricia Van Voorhis?” Over her long and distinguished career, Pat has touched the lives of many people. She is well known in both the academic and corrections worlds. She has devoted her professional life to rigorous research on issues

Direct correspondence to Bonita M. Veysey, School of Criminal Justice, Rutgers, The State University of New Jersey, 123 Washington Street, Newark, NJ 07102 (e-mail: veysey@andromeda.rutgers.edu).

that bridge theory and practice. In fact, she is one of the few researchers who can translate her scholarship into improved policies and practices in the field: a rare talent indeed. And she has done this with heart and humor. She is passionate about her work, and no one can dispute her deep commitment to improving the lives of people in the justice system. In this alone, one could claim that Pat has made substantial contributions.

Among all of the possible subjects I could discuss, I want to focus on Pat's more recent work on gender-specific risk assessment and programs for women in the criminal justice system: what I believe to be Pat's enduring legacy to the field of criminology and to criminal justice practice. Pat has accomplished three things: She has (a) refined our understanding of women offenders; (b) influenced how many correctional agencies assess, treat, and supervise women; and (c) trained and supported a new generation of scholars. In accomplishing these three things, she has changed the lives of women (and men) in the criminal justice system, corrections administrators and line staff, and criminologists.

When Pat began her work in this area, correctional supervision, services, programming, and even architectural design had been developed with men in mind—not surprising, given that the number of men under correctional supervision far exceeded that of women. Corrections agencies across the United States and the federal National Institute of Corrections (NIC) struggled with what to do with women in custody. At the same time, feminist researchers and theorists began to demonstrate how women differed from men challenging assumptions of gender-neutral responses to current practices. A subtle but important paradigm shift began to emerge across disciplines around this time.

The logic of this shift, and the basis on which Patricia Van Voorhis' gender-specific risk assessment is built, is exemplified by Carol Gilligan (1982) in her groundbreaking work, *In a Different Voice: Psychological Theory of Women's Development*. In her analysis of the various theories of psychological and moral development, she claimed that in all cases girls and women are an afterthought at best. That is, the theories themselves were constructed on observations of typical male patterns of development. When applied to females, the only conclusion that could be drawn was that girls and women were flawed in some essential way. Interestingly, the solution to this problem was suggested by Piaget (1970). As summarized by Gilligan (1982: 18):

Piaget (1970), challenging the common impression that a developmental theory is built like a pyramid from its base in infancy, points out that a conception of development instead hangs from its vertex of maturity, the point toward which progress is traced.

Thus, she implicitly asked the question, "What would psychological and/or moral development look like if we started from the point of a mature well-adjusted adult woman?"

It has been argued that existing correctional policies, procedures, and practices are gender-neutral; that is, they apply equally well to men and women. This assumption is no different from those made in the developmental theory that Gilligan (1982) highlighted

in her critique. In keeping with Gilligan's challenge, the central question is, "What would correctional policies, procedures, and practices look like if we started with the female offender?" Decades of research have demonstrated that women offenders are different from their male counterparts, but little rigorous research has been dedicated to investigate whether women and men are affected differentially by standard correctional procedures or practices.

Patricia Van Voorhis is one of the few to take on this challenge, and much of her work in the past decade has focused on empirical investigations elucidating the effects of gender and, more specifically, on how risk-assessment protocols could be improved by taking into account women-specific factors. In the late 1990s, Pat entered into a cooperative agreement with the NIC to conduct a baseline study of the state and federal corrections agencies' classification of women. The primary findings of this report were that few states incorporated known differences between women and men into their classification processes and that although respondents perceived women as less dangerous than men in general, women tended to be overclassified by the instruments in use. That is, they were placed in higher security settings than their true dangerousness warranted (Van Voorhis and Presser, 2000).

This preliminary study set the stage for continued work with the NIC to improve classification for women offenders. Across four participating jurisdictions, Colorado, Hawaii, Minnesota, and Missouri, data were collected on women in prison, on probation, and in prerelease settings allowing for analyses of different risks, outcomes, and settings. Using static and dynamic factors that are present in the current generation of risk/need assessments, the first step was to confirm gender-neutral factors, that is, those factors that predict criminal behavior or disciplinary infractions for both men and women. The second step was to demonstrate that, by the addition of gender-specific factors, predictive accuracy could be increased significantly (see, e.g., Van Voorhis, 2009; Van Voorhis, Wright, Salisbury, and Bauman, 2010).

Over the next 10 years, Pat and her colleagues developed, tested, and validated women-specific risk- and needs-assessment instruments with wide applications. These instruments, the women's risk/needs assessments (WRNAs), take two forms: (a) a complete independent risk and needs assessment for women and (b) a supplement to be added to existing dynamic instruments, such as the Level of Service Inventory-Revised (Andrews and Bonta, 1995) or the COMPAS (Brennan, Dieterich, and Oliver, 2006). In addition to these critical advancements in risk and needs assessment, Pat also has expanded the knowledge base of woman-specific, evidence-based programming and services.

In this one aspect of her career, Patricia Van Voorhis has changed how we think about women offenders, how we treat them, and what we can expect as a result. Three groups of people have benefited directly from Pat's work: criminologists, corrections administrators and line staff, and women under correctional supervision.

As criminologists, we are the beneficiaries of Pat's scholarship. Her detailed and consistent attention to this set of ideas has produced a substantial literature. Ultimately,

the work that Patricia Van Voorhis has undertaken is the groundwork for a fundamental shift in how we understand, supervise, and treat women in the criminal justice system. Pat has given us three critical findings that support this shift. First, as she has demonstrated that women-specific risk-assessment produces superior results to gender-neutral ones. Although women and men share some risk factors for criminal behavior, women have additional experiences that put them at risk for future criminal involvement. Simply stated, women are different than men both in their pathways in and their pathways out of criminality. Second, assuming we continue to use risk/need concepts as a framework for identification and intervention, Pat's work underscores the need to attend to low-risk, high-need women. Particularly in community settings, addressing the extensive needs of high-need women reduces the likelihood of their future involvement in crime. Third, women offenders benefit from woman-specific supervision practices, treatment, services, and supports.

In addition to the intellectual contributions we have reaped from Patricia Van Voorhis' research, our community has benefited by her support and mentorship of younger colleagues. In her tenure as director of the Corrections Institute at the University of Cincinnati, as a faculty member, and as a colleague, she has been generous with her time and expertise. She often publishes with her current and former students, and she has guided several students through the doctoral process and on to productive careers in this area. In addition to her intellectual contributions, her impact can be measured in the scholarship of those she has mentored.

As stated, not only has Pat conducted rigorous studies of risk assessments and programs, she also has worked with the federal government and many states and local jurisdictions to apply the findings of these studies to practical problems. She has worked across the United States implementing the WRNAs and consulting on related topics. As a result, she has changed the way many jurisdictions conduct business. If indeed women's risks and needs are identified and treated appropriately, then direct line staff will witness improvements in women's behavior and general wellness as well as reduced staff and inmate injuries. This improvement translates into greater institutional and community safety, reduced costs, and reclaimed lives.

The impact of these enhanced practices affects not only corrections practitioners but also those they supervise. Several years ago, a mutual colleague of ours who worked with female offenders sent us an e-mail pondering the rearrest of a woman she had supervised. She reflected, "[This event] really got me thinking. I have known this woman for many, many years. I had supervised her, . . . , knew her family and her early history. . . . I saw her as she was entering the criminal justice system, saw her when she was beginning to dig her way out, and when she would fall again hard. I saw how the system dealt with the issues she brought with her. . . . All the time I knew her I was always amazed and intrigued by her strength and resilience as she got in deeper and deeper. What has been on my mind for some time now is, if [she] had been in a system that adequately addressed her risk and needs

in a way that recognized the complexity of her issues, would she have progressed through her life differently? Would she be in shackles [now]?” (Anonymous, 2007).

In the absence of proper identification of the needs of this woman and gender-responsive services and supports, we know the outcome: a lifetime in and out of jails and prisons and, ultimately, a wasted life. Would things have been different had this woman had the advantage of Pat’s research, had she been properly assessed and supported in her path toward wellness? Quite possibly. Moreover, this story is from but one woman. Applied to hundreds of thousands of women nationwide, the impact of Pat’s work is profound and transforming.

What would criminology and criminal justice practice be like without the work of Patricia Van Voorhis? To answer this question, we need only to look at where we were 15 years ago. Today, all of us, criminologists, corrections practitioners, and women in the criminal justice, are enriched because Patricia Van Voorhis is here with us. Like George Bailey, without her, many people’s lives would be all the poorer.

References

- American Society of Criminology. 2012. ASC Website, Nominations for August Vollmer Award. Retrieved from asc41.com/awards/VollmerAward.html.
- Andrews, Don A. and James A. Bonta. 1995. *Level of Service Inventory-Revised*. North Tonawanda, NY: Multi-Health Systems.
- Anonymous. 2007. Personal communication.
- Brennan, Tim, William Dieterich, and William L. Oliver. 2006. *COMPAS: Technical Manual and Psychometric Report Version 5.0*. Traverse City, MI: Northpointe Institute.
- Gilligan, Carol. 1982. *In a Different Voice: Psychological Theory of Women’s Development*. Cambridge, MA: Harvard University Press.
- Piaget, Jean. 1970. *Structuralism*. New York: Basic Books.
- Van Voorhis, Patricia. 2009. Next steps in gender-responsive classification. *Women, Girls and Criminal Justice*, 10: 81, 88.
- Van Voorhis, Patricia. 2012. On behalf of women offenders: Women’s place in the science of evidence-based practice. *Criminology & Public Policy*. This issue.
- Van Voorhis, Patricia and Lois Presser. 2000. *Classification of Women Offenders: A National Assessment of Current Practices*. Washington, DC: National Institute of Corrections.
- Van Voorhis, Patricia, Emily M. Wright, Emily Salisbury, and Ashley Bauman. 2010. Women’s risk factors and their contributions to existing risk/needs assessment: The current status of a gender-responsive supplement. *Criminal Justice and Behavior*, 37: 261–288.

Bonita M. Veysey is a professor in the School of Criminal Justice at Rutgers University. Dr. Veysey’s research focuses primarily on behavioral health and justice issues, including police interactions with persons with mental illnesses; mental health and substance abuse

treatment in jails and prisons; diversion and treatment services for youth and adults with behavioral health problems; characteristics of justice-involved girls and women, the effects of early childhood trauma and conditions of confinement; and re-entry and continuity of care issues. Dr. Veysey also works with state and local agencies to evaluate correctional programs and policies, including substance abuse treatment, re-entry and sex offender issues.

EDITORIAL INTRODUCTION

HIGH POINT DRUG MARKET INTERVENTION

The Impact of Drug Market Pulling Levers Policing on Neighborhood Violence

An Evaluation of the High Point Drug Market Intervention

Philip J. Cook

Duke University

In 2004, the Police Department of High Point, NC, initiated an innovative intervention to close down the open-air drug market operating in its West End neighborhood and to reduce the violence that was associated with that market. They first identified the drug dealers operating in this area (a dozen or so), developed cases against each of them through undercover buys and surveillance methods, and in the case of four, deemed the most serious, arrested them. An important innovation was that the other dealers were *not* arrested, but they were notified in person that the police had built rock-solid cases against them and were then confronted by authorities and community members at a call-in session. The West End intervention was deemed successful, and the High Point Police Department (HPPD) followed up over the subsequent three years with similar interventions in three other neighborhoods.

From early on, the “High Point” model was widely publicized as a method for closing down drug markets and erasing the neighborhood damage (including crime) associated with them—importantly, a method that economized on use of prosecution and prison terms because the personalized threat was enough to get dealers to desist, and thereby recruited the community’s support. Several other jurisdictions have implemented this model, but to my knowledge, the Corsaro, Hunt, Kroovand Hipple, and McGarrell (2012, this issue) article is the first comprehensive and arms-length evaluation of the consequences of this program on violent crime in High Point itself. It is fair to say that if the criminal-justice community takes the new results to heart, the effect will be to diminish somewhat the high hopes for the “High Point” model.

Direct correspondence to Philip J. Cook, Sanford School of Public Policy, Duke University, PO Box 90245, Durham, NC 27708 (e-mail: pcook@duke.edu).

David Kennedy, in his important book, *Deterrence and Crime Prevention* (2009), laid out the conceptual underpinnings of the High Point Drug Market Intervention (DMI). In fact, he was a close consultant to the HPPD for several years and worked with criminal-justice officials there to develop the intervention, using the “pulling levers” approach that he had helped devise in the Boston Ceasefire antiviolence program of the 1990s. His thinking was shaped by extensive experience in the field, and his “focused deterrence” idea makes good sense. In his book, he noted some indicators of success of the High Point DMI:

There are no remaining overt drug markets in High Point. The quality of life in the affected neighborhoods has improved dramatically. “Most important, these changes are almost entirely self-sustaining,” says Chief Fealy. “We continue to work in these neighborhoods, but an active community consensus now stands against drug-dealing.” (pp. 157–158)

Kennedy then reported evidence that violence rates dropped dramatically in the West End, and that all four sites were successful.

Although not a flat-out contradiction, the results of the Corsaro et al. (2012) evaluation surely convey a different tone. Their careful evaluation of the four neighborhood interventions finds that the overall effect was to reduce violent crime counts by perhaps 12%. That result, plus or minus, is reported by the authors based on two distinct and reputable evaluation methods. It suggests that, overall, the “High Point” program was modestly effective, quite possibly cost-effective, but not the sort of thing that would transform a neighborhood. Furthermore, the authors report some evidence that the success was confined to the interventions in the first two neighborhoods, and especially the first (West End). It is also noteworthy that for the city as a whole (approximately 100,000 residents), the initiation of this program coincided with a surge in violent crime, with a rate in 2007 approximately 80% higher than in 2004. There is no evidence that the DMI was responsible for this city-wide surge, but one wants to know more about this dynamic context and how police activity may or may not have played a role.

In any event, the Corsaro et al. (2012) article is a careful, nuanced evaluation of an intervention that has taken on great importance in shaping criminal-justice policy. There are close parallels with the Chicago Ceasefire story, which was the subject of a symposium in this journal last year (Ferrier and Ludwig, 2011; Papachristos, 2011; Wilson and Chermak, 2011). The quest for a miracle cure for crime and violence sometimes leads to an early or excessive embrace of unproven technology. A more prudent policy path would follow from a skeptical approach that preserves a broad portfolio of policy interventions until a miracle has actually been documented. The good news is that some replications of “High Point” have been or will be evaluated, and if the results continue to be positive, then some version of this approach should become a permanent part of that portfolio.

Corsaro et al. (2012) do an excellent job of assessing and interpreting the possible implications of their findings. Both policy essays carry the discussion forward in important

ways. The essay by Anthony Braga (2012, this issue) provides an additional review of the literature on focused deterrence and points out that the “High Point” model is much more than a simple “deterrence” intervention. The fact that the worst offenders were locked up, and that the communities were enlisted in the effort, are both suggestive of the complexity of possible mechanisms. The other essay by Peter Reuter and Harold Pollack (2012, this issue) discusses the distinction between drug-related violence and drug-market-related violence (a distinction that was on David Kennedy’s mind from the beginning), noting that the current evaluation could usefully be supplemented with data on drug use. They go on to contemplate whether “High Point” could work in a city the size of, say, Chicago, where the drug-dealing gangs are large and fully capable of extending into new neighborhoods.

The most pressing conceptual challenge for the High Point model, to my mind, is that the focused-deterrence approach is indeed focused on known dealers operating in a particular neighborhood—dealers who may, at least under some circumstances, be replaceable. Indeed, the traditional law-enforcement approach to curtailing the supply of drugs, which focuses on locking up the dealers, has presumably failed because they are so readily replaced. For the “High Point” approach to be effective, current dealers must desist (either because they are locked up or deterred by the personalized threat) *and* other youths must somehow be discouraged from taking their place. In the worst case, the desistance of current dealers will engender violent conflict over their abandoned territory. The actual consequences of a “High Point” intervention may differ from neighborhood to neighborhood, and that seems to have been true even within High Point itself.

Whether the High Point DMI would “work” at a particular time and place may well have an answer in the form of “it depends.” A better understanding of when and how the DMI is effective may actually be forthcoming. The National Institute of Justice is supporting a comprehensive evaluation covering 12 sites, each of which is to receive technical assistance in the DMI from the Bureau of Justice Assistance.¹ I predict that the findings from this evaluation will be quite varied, and my hope for this commendable exercise is to learn something about that heterogeneity. That requires we learn as much as possible about the mechanisms involved (Ludwig, Kling, and Mullainathan, 2011). If an intervention is successful in reducing open-air drug dealing at a particular site, what is the evidence for deterrence of the “call-in” drug dealers who were operating at baseline? Incapacitation of drug dealers operating at baseline who were immediately prosecuted and locked up? Deterrence of new entrants through police activities? And prevention of new entrants through community efforts? If the DMI also has an effect on rates of violence, then by what mechanisms? And if there is no evidence of displacement, then why not, given that there are presumably still customers in the general vicinity, looking for sellers?

1. The DMI has been operationalized by BJA into a series of nine discrete steps: see www1.cj.msu.edu/~outreach/psn/DMI/dmiresources9basicsteps.pdf.

Thus, in addition to evaluating specific packages of interventions, the research agenda should emphasize gaining a better understanding of drug markets, the deterrence process, and community efficacy. Such knowledge provides the building blocks for cost-effective law-enforcement innovations of the future. In the meantime, I commend you to the informative analysis and discussion of the Corsaro et al. (2012) article.

References

- Braga, Anthony A. 2012. Getting deterrence right? Evaluation evidence and complementary crime control mechanisms. *Criminology & Public Policy*. This issue.
- Corsaro, Nicholas, Eleazer D. Hunt, Natalie Kroovand Hipple, and Edmund F. McGarrell. 2012. The impact of drug market pulling levers policing on neighborhood violence: An evaluation of the High Point Drug Market Intervention. *Criminology & Public Policy*. This issue.
- Ferrier, Megan and Jens Ludwig. 2011. Crime policy and informal social control. *Criminology & Public Policy*, 10: 1029–1036.
- Kennedy, David. 2009. *Deterrence and Crime Prevention: Reconsidering the Prospect of Sanction*. New York: Routledge.
- Ludwig, Jens, Jeffrey R. Kling, and Sendhil Mullainathan. 2011. Mechanism experiments and policy evaluations. *Journal of Economic Perspectives*, 25: 17–38.
- Papachristos, Andrew V. 2011. Too big to fail: The science and politics of violence prevention. *Criminology & Public Policy*, 10: 1053–1061.
- Reuter, Peter and Harold A. Pollack. 2012. Good markets make bad neighbors: Regulating open-air drug markets. *Criminology & Public Policy*. This issue.
- Wilson, Jeremy M. and Steven Chermak. 2011. Community-driven violence reduction programs: Examining Pittsburgh's One Vision One Life. *Criminology & Public Policy*, 10: 993–1027.

Philip J. Cook, Ph.D., is ITT/Sanford Professor of Public Policy, Economics and Sociology, at Duke University. He has active research programs on several topics, including truancy prevention, crime prevention through private action, and alcohol control policy. His most recent books are *Controlling Crime: Strategies and Tradeoffs* (co-edited with Jens Ludwig and Justin McCrary: University of Chicago Press, 2011) and of *Paying the Tab* (Princeton University Press, 2007). Dr. Cook is a member of the Institute of Medicine of the National Academy of Sciences, and a Fellow in the American Society of Criminology, as well as a research associate of the National Bureau of Economic Research. He serves as co-director of the NBER Working Group on the Economics of Crime.

EXECUTIVE SUMMARY

HIGH POINT DRUG MARKET INTERVENTION

Overview of: “The Impact of Drug Market Pulling Levers Policing on Neighborhood Violence: An Evaluation of the High Point Drug Market Intervention”

Nicholas Corsaro

University of Cincinnati

Eleazer D. Hunt

High Point Police Department

Natalie Kroovand Hipple

Edmund F. McGarrell

Michigan State University

Research Summary

Pulling levers policing draws upon the focused deterrence framework, which has shown considerable promise when directed at youth, gun, and gang offenders. However, much less is known about the viability of pulling levers when applied to different contexts as well as to diverse groups of offenders. We examine the High Point (North Carolina) Drug Market Intervention (DMI), the first site to use pulling levers as a place-based policing approach to disrupt a series of open-air drug markets across the city. Eleven years of longitudinal data are analyzed by using difference-in-difference panel regression analyses combined with finite mixture estimation as a means to test for divergence in violent crime patterns. Several key, although inconsistent, findings are presented. First, we found a statistically significant reduction in violent offenses in specific high-crime places (i.e., high-trajectory census blocks) located across the different targeted neighborhoods compared with the remainder of High Point, and relative to comparable nontargeted areas. Second, the citywide violent crime rate actually increased after a series of interventions unfolded, which may suggest limitations with

the approach. Finally, trend analyses indicated the strategy had different levels of violent crime impact throughout unique geographic contexts.

Policy Implications

Rather than arresting every offender identified as having participated in illicit drug trafficking across various geographic contexts within the city, officials in High Point decided to invite low-risk drug offenders to community notification sessions in order to change their perceived risk of punishment as well as to mobilize community members across the different targeted neighborhoods. The suggestive evidence of potential, although limited, violent crime impact illustrates that this type of policing strategy may hold considerable promise. This interpretation gains credence when considered with prior evaluations of the DMI approach that illustrated the potential for reducing drug-related crime and in light of reports of improved police–community relations. The inconsistent findings across all locations and the overall city increase in violent crime toward the end of the study period, however, raise several concerns when interpreting study results. Additionally, our findings suggest that further replications should include systematic problem-identification, process measures, and more precise research designs.

Keywords

pulling levers policing, focused deterrence, violent crime, longitudinal design, drug markets

RESEARCH ARTICLE

HIGH POINT DRUG MARKET INTERVENTION

The Impact of Drug Market Pulling Levers Policing on Neighborhood Violence

An Evaluation of the High Point Drug Market Intervention

Nicholas Corsaro

University of Cincinnati

Eleazer D. Hunt

High Point Police Department

Natalie Kroovand Hipple

Edmund F. McGarrell

Michigan State University

“Pulling levers” interventions draw on the problem-oriented policing framework where officials from multiple agencies (i.e., police, prosecution, probation and parole, social service providers, and community leaders) use data-driven approaches to craft specific responses in order to disrupt high-crime locations and to target repeat offenders (Goldstein, 1979, 1990; Weisburd, Telep, Hinkle, and Eck, 2010). Pulling levers strategies are based upon the doctrine of specific deterrence by informing chronic and persistent offenders of the sanctions available to criminal justice personnel that can be used as leverage in order to obtain compliance and reduce the risk of future offending (Kennedy, 1997). Kennedy (2009) provides evidence that informing high-risk offenders through specially convened public notification sessions that expedient arrest, prosecution, and enhanced sanctions will result if future criminal activity occurs can substantively change the perceived risk of punishment among those notified.

This project was supported by Grant 2008-DD-BX-0338 awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime. The points of view or opinions in this document are those of the authors and do not represent the official position or policies of the U.S. Department of Justice. We would like to thank the anonymous reviewers, Philip Cook, Rod Brunson, Cynthia Lum, and Daniel Nagin for their thoughtful suggestions and feedback throughout the various phases of this study. Direct correspondence to Nicholas Corsaro, School of Criminal Justice, University of Cincinnati, 637 Dyer Hall, Clifton Avenue, P.O. Box 210389, Cincinnati, OH 45221 (e-mail: nicholas.corsaro@uc.edu).

The initial pulling levers policing strategy that relied on this type of focused deterrence framework occurred in Boston where citywide levels of youth homicide significantly declined by roughly two-thirds after implementation (Braga, Kennedy, Waring, and Piehl, 2001). Although some have questioned the magnitude of the direct effect of the Boston Ceasefire strategy on levels of homicide and gun violence within the city (see Rosenfeld, Fornango, and Baumer, 2005; Wellford, Pepper, and Petrie, 2005), several additional settings have since replicated the approach, and a series of evaluations have provided further evidence of a significant violent crime impact (Braga, 2008; Braga, Pierce, McDevitt, Bond, and Cronin, 2008; Corsaro and McGarrell, 2010; Engel, Tillyer, and Corsaro, in press; McGarrell, Chermak, Wilson, and Corsaro, 2006; Papachristos, Meares, and Fagan, 2007). To date, most of these strategies and subsequent evaluations have focused predominantly on reducing youth, gang, and gun violence (Kennedy, 2009; Lum, Koper, and Telep, 2011). However, in early 2004, High Point Police Department (HPPD) officials in North Carolina decided to extend their traditional use of problem-oriented policing approaches used to identify and address local crime problems (see Goldstein, 1979, 1990) by drawing specifically on the pulling levers framework in an effort to disrupt offense patterns associated with a series of open-air drug markets distributed throughout the city.

Boyum and Reuter (2005) estimated the imprisonment risk per drug transaction to be roughly 1 in 4,500 for dealers that average nearly 1,000 transactions per year. Thus, many street-level drug dealers across various contexts perceive the risk of criminal justice sanctions to be negligible, at best. In response, Professor David Kennedy (John Jay College of Criminal Justice), who helped develop the strategy in Boston, similarly worked with the HPPD to design and implement a focused deterrence strategy that identified key offenders responsible for illicit drug distribution while integrating community members within the targeted neighborhoods into the overall notification process. The definition of a successful strategic intervention in High Point centered on two key outcomes: (a) “shutting down” open-air drug markets in specific (i.e., targeted) neighborhoods (see Kennedy, 2009: 155–156); and (b) reducing the heightened levels of violence associated with those markets (Kennedy, 2009: 158–159). A series of subsequent reports and evaluations were conducted that focused on the High Point implementation processes, overall impact on neighborhood crime, and residents’ perceptions of effectiveness across the different targeted neighborhoods. These studies indicated that the strategy seemed to be well received by most of the community members interviewed (Frabutt, Gathings, Jackson, and Buford, 2005), undercover narcotics officers (as well as confidential informants) were much less successful in purchasing illicit drugs on the streets after the notification sessions occurred (Kennedy and Wong, 2009: 16–17), and ultimately the intervention appeared to correspond with a reduction in violent crime within the targeted communities (Frabutt, Gathings, Hunt, and Loggins, 2004; Hunt, Sumner, Scholten, and Frabutt, 2008; Kennedy, 2009; Kennedy and Wong, 2009).

As a result of the exposure of the High Point model, the Bureau of Justice Assistance (BJA), the Community Oriented Policing Services (COPS), and the National Urban League have either provided or helped facilitate training and technical assistance opportunities for additional jurisdictions interested in replicating the High Point initiative. Among other sites, Nashville (TN) and Rockford (IL) have replicated the High Point strategy, and preliminary evaluation results have been encouraging (Corsaro, Brunson, and McGarrell, 2010, in press). The Office of Justice Programs (OJP) and the National Institute of Justice (NIJ) also recently allocated up to \$3 million in 2010 to conduct research on drug market intervention programs implemented across a total of seven sites (i.e., Jacksonville, FL; Gary, IN; Guntersville, AL; Flint, MI; Montgomery County, MD; New Orleans, LA; and Roanoke, VA) that closely followed the High Point initiative.

Although prior High Point evaluations indicated a likely change in residents' perceptions of crime, and narcotics officers seemed to notice considerable reductions in the availability of drug purchases, the substantive impact of the various High Point strategies on neighborhood violence remains less clear. Importantly, Weisburd, Lum, and Petrosino (2001) and Welsh, Peel, Farrington, Elffers, and Braga (2011) found that more rigorous research designs are generally less likely to report desirable criminal justice treatment effects. Indeed, the multiple neighborhood-based strategies implemented in High Point have not been evaluated independently and thoroughly in terms of relying on a more stringent quasi-experimental methodological design (Cook and Campbell, 1979).

The purpose of the current study is to examine the specific effect of the various strategies that were implemented across different targeted neighborhoods on the violent crime trends within targeted neighborhoods as well as within the overall city of High Point.¹ In this study, we first describe the deterrence-based framework that served as the foundation of the High Point strategy and outline the processes of program implementation. Next, we use a variety of longitudinal methods to compare violent crime trends in targeted areas with similar nontargeted areas in the city before, during, and after implementation in an effort to isolate potential program impact. Finally, we discuss the relevant theoretical and policy implications based on our multimethod analyses, offer suggestions for future sites interested in replicating the strategy, and conclude with recommendations for future studies.

1. Between 1998 and 2003, the Uniform Crime Reports (UCR) Program violent crime rate for all large U.S. cities (100K or larger) was slightly greater than 709 per 100,000 residents. Between 2004 and 2008, this same population of cities experienced a very slight overall decline of less than 1% (violent crime rate = 701.8 per 100,000). During the same period (i.e., after the implementation of several pulling levers strategies within the city), High Point experienced a decline of roughly 14.9% in UCR violent crime (844.8 to 721 violent crimes per 100,000 people). We therefore propose that the greatest reductions should be observed within the targeted communities where the strategies were directed if indeed the focused deterrence initiatives were at least partially responsible for the citywide decline in violence.

Background

Deterrence Theory

Deterrence theory assumes human beings are rational, consider the consequences of their actions, and are likely to be influenced by potential consequences (Kennedy, 2009). The deterrence framework proposes that certainty, severity, and celerity of punishment will deter high-risk individuals from engaging in continual patterns of offending (Gibbs, 1975; Nagin, 1998; Paternoster, 1987; Zimring and Hawkins, 1973). In a recent review of the deterrence literature, Paternoster (2010: 784) illustrated that these three punishment properties operate across two distinct levels: an objective level and a subjective level. At the objective level, certainty, severity, and celerity of punishment are contingent on how criminal justice agencies actually respond to illegal behavior (e.g., increase actual risks by adding additional law enforcement officers to an area or use enhanced sentencing). At the subjective (i.e., perceptual) level, high-risk individuals must be made aware of the sanctions through specific communication.

At the objective deterrence level, a growing level of empirical support shows that proactive policing has the capacity to reduce levels of urban violence. Sampson and Cohen (1988) found that large U.S. cities with higher levels of proactive policing (i.e., arrest per offense ratios for driving under the influence offenses and disorderly crimes) had lower rates of robbery, and the authors' subsequently concluded that the police-driven deterrent effects on urban violence were likely a result of a specific focus on highly visible crime problems. MacDonald (2002) also found that cities with enhanced proactive policing had lower homicide rates, controlling for other structural correlates of urban violence. Kubrin, Messner, Deane, McGeever, and Stuckey (2010) recently extended this research by examining longitudinal changes in violence among large U.S. cities between 2000 and 2003, and their results indicated that proactive policing was an exogenous correlate of robbery rates, net of other important static and dynamic structural factors.

At the subjective deterrence level, Kennedy (2006) has illustrated that pulling levers initiatives with a directed focus on networks of illicit youth gang members responsible for high rates of gun crime have shown a fairly consistent "light switch" (i.e., an immediate and sustained) impact. A recent synthesis of "evidence-based" policing evaluations that had a restricted focus of quasi-experimental or experimental research designs and relied on the "Scientific Methods Scale" (see Sherman et al., 1997) indicated that highly proactive pulling levers strategies that use unique tactics targeted at specific offenders seem to be promising in terms of a consistent crime reduction impact (Lum et al., 2011; see also Braga and Weisburd, in press). The pulling levers approach was also a core foundation for the Project Safe Neighborhoods (PSN) national initiative to reduce gun and gang violence across the country, and the initial results assessing the program demonstrated a statistically significant negative relationship between those sites that fully implemented the PSN model with

urban violent crime rates (McGarrell, Corsaro, Hipple, and Bynum, 2010).^{2,3} Finally, and perhaps most importantly from the subjective deterrence level, Papachristos et al. (2007) found that the offender notification sessions (measured as the percentage of offenders who attended formal notification forums) had the strongest influence on reductions in community violence relative to increased prosecutions and supply-side gun seizures in the Chicago PSN intervention strategy. This finding lends support that the specific deterrence element of the model was likely the major driving mechanism that led to lower rates of violent victimization (Nagin, 1998). Combined with the observed effects of “proactive policing” on rates of robbery and homicide, a growing body of evidence shows deterrence-based policing approaches have the potential to mediate violence across different urban environments. The city of High Point was the first setting specifically to use a focused deterrence framework to disrupt a series of illicit street drug markets. A more detailed review of the program processes and strategies follows.

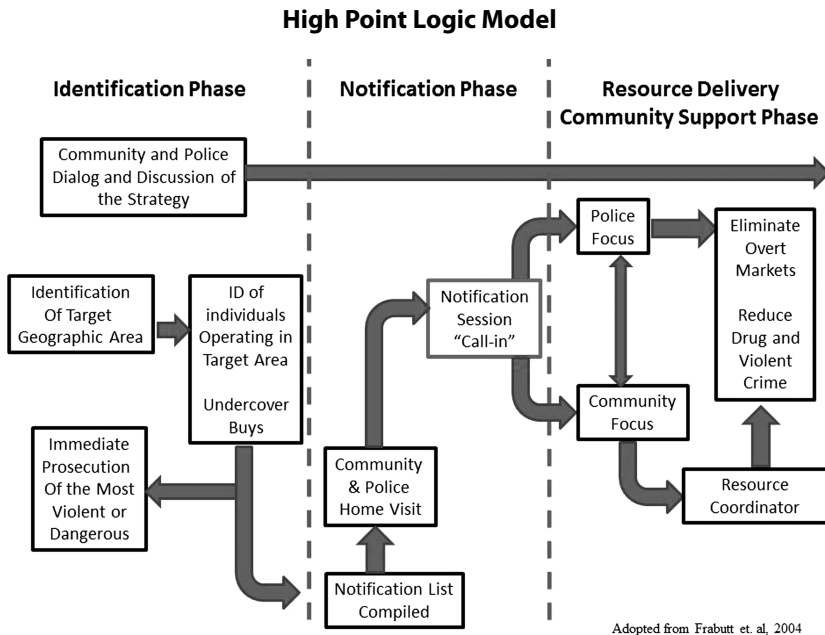
The High Point Drug Market Intervention

High Point, NC, is a mid-sized city with an area slightly larger than 50 square miles and a population of roughly 104,000 residents (as of 2010 according to the U.S. Census Bureau). As a study setting, it is one of the smaller urban sites to implement pulling levers as a strategic policing approach to decrease levels of violent crime. Key law enforcement personnel were particularly interested in eliminating overt drug markets across the city and in reducing the following crime problems associated with them: homicide, gun assault, sexual assault, and other forms of serious violence (Kennedy and Wong, 2009: v). Hunt et al. (2008: 398) demonstrated that High Point officials and researchers did not attempt simply to identify where open-air drug markets were located, but rather were interested in recognizing the geographic environments where a clear nexus existed between illicit street drug dealing and rates of violent, weapon, and sex crimes. Task force members in High Point crafted an operational plan that focused on identifying and shutting down each problematic drug market “one at a time” (Hunt et al., 2008; Kennedy and Wong, 2009: 7).

The drug markets in High Point have previously been described as relatively small “walk-up” markets that appeared to serve individuals from within and around the neighborhood (Hunt et al., 2008: 402). Historical examinations revealed that for more than 30 years, many markets were resistant to standard law enforcement methods, including undercover buys and arrests, drug sweeps, and targeted patrols; in addition, levels of violence in these

-
2. It is important to note that McGarrell et al. (2010) were unable to control for potential PSN site “selection mechanisms” that may have confounded the estimated PSN impact on violent crime.
 3. The High Point Police Department is also an early adopter of the focused deterrence model, conducting its first notification session in 1998. In addition, it has been a member of the Project Safe Neighborhoods program since its inception, and through December 2010 notified more than 873 individuals responsible for violent felony offenses.

FIGURE 1



areas remained consistently higher than in other parts of the city. Frabutt et al. (2004: 2) illustrated that the logic model of the High Point intervention centered on three specific phases: the identification phase, the notification phase, and resource delivery (Figure 1). Following recommendations outlined by Eck et al. (2005: 28), researchers identified the high-density violent crime areas that were influenced by coterminous drug markets. Within each targeted area, narcotics investigators collaborated with probation and parole officers, reviewed prior drug incident reports, and conducted detailed surveillance, including the use of video-recorded purchases, for at least 1 month (and sometimes up to 3 months) where they identified key offenders within each site. The project team also worked to construct resolute cases to have the capacity to prosecute established and chronic drug dealers.

The notification phase centered on the “call-in” sessions. The High Point team focused its intensive efforts in unique geographic contexts at distinct points in time, which included a call-in session in the West End Neighborhood in May 2004, in the Daniel Brooks Neighborhood in April 2005, in the Southside Neighborhood in June 2006, and in the East Central area in August 2007. As Kennedy (2009) illustrated, pulling levers strategies require agencies and community groups to work together to change norms and perceptions among chronic offenders as well as among inhabitants in disadvantaged communities. Thus, identified offenders are either arrested based on their violent criminal histories (felony convictions) or called-in to notification sessions (nonviolent, nonfelony convictions). This

decision depends largely on the criteria of those involved in each localized program. In terms of the enforcement and focused deterrence component of each local strategy, officials identified 16 dealers in the West End program (4 were arrested and 12 were called-in), 13 in Daniel Brooks (4 arrested and 9 called-in), 26 in Southside (6 arrested and 20 called-in), and 28 in East Central (6 arrested and 22 called-in).

Regarding resource delivery, notified offenders completed a “needs assessment” the night of the call-in session, and they were subsequently assigned to local social service providers and community outreach officials for extensive follow-up. The HPPD also followed the Boston model by attempting to improve communication strategies (e.g., information sharing during police–community meetings) with local neighborhood groups and leaders to bridge and sustain partnerships (Bursik and Grasmick, 1993; Carr, 2005) as well as to bolster perceptions of procedural justice within the targeted areas (Tyler, 1990).

Research Purpose

The purpose of our study is to examine the impact of the various place-based pulling levers interventions that were implemented in High Point. Additional research within this area is necessary to improve our understanding of the geographic contexts where pulling levers strategies may influence local crime rates, and to estimate the potential duration of violent crime impact. As noted, most initiatives have targeted networks of chronic, violent, and gang offenders. Importantly, Kennedy (2006) contends that focused deterrence holds promise across different types of specialized offenders (e.g., drug market dealers, domestic violence offenders, or group/gang offenders).

Also, it is important to consider that no study to date has examined the potential effects of a “rolling” or multi-site strategic approach implemented across different neighborhoods within the same city over time. Indeed, where agencies have used multiple notification sessions within a single city, the subsequent impact of the intervention has been estimated at the city level (Braga, 2008; Braga et al., 2001; Braga, Pierce, McDevitt, Bond, and Cronin, 2008; McGarrell et al., 2006). In addition, all prior evaluations of pulling levers initiatives have been modeled as singular time-series designs, although some citywide evaluations have examined changes in comparable trend data from similar cities in order to improve study validity (Cook and Campbell, 1979). Similarly, where agencies have directed and targeted their intervention efforts within specific high-risk neighborhoods, the estimated change in crime within those targeted areas have also been examined as a singular time-series design with the supplement of similar geographic contexts within the same city to serve as comparison sites (Corsaro et al., 2010; Papachristos et al., 2007).

To model the potential impact in a more dynamic fashion, two conditions were necessary. First, a setting had to employ a series of pulling levers strategies in discrete areas over a sustained time period. The HPPD implemented this type of approach between 2004 and 2007 that focused specifically on reducing levels of violence associated with illicit

street drug markets (Kennedy and Wong, 2009).⁴ Second, it was equally important both to examine the changes in violent crime within the specific targeted areas at the time of each intervention as well as to compare the magnitude of change across similar environments. In essence, the dynamic effects of each localized strategy were modeled against crime trends from comparable geographic contexts that were not the focus of pulling levers (at a given point in time) in order to isolate the potential impact that each intervention may have had on the citywide violent crime trend. To conduct this type of analysis, we drew upon longitudinal research methods that have been used primarily to model dynamic changes over the lives of individuals (Nagin, 2005; Piquero, 2008). This was possible because group-based trajectory models have become increasingly used within environmental criminology to understand the unique pathways of crime trends at specific places within cities (Griffiths and Chavez, 2004; Weisburd, Bushway, Lum, and Yang, 2004).

Data and Methods

We relied on official incident data from the HPPD between 1998 and 2008. We focused our analyses on violent crime incidents given that the various strategies were specifically designed to reduce rates of violence correlated with illicit street drug markets throughout the city (Blumstein and Rosenfeld, 1998; Jacobs and Wright, 2006; Zimring and Hawkins, 1997). Citywide violent incidents comprised homicides (<1%), rape and sexual offenses (11%), assaults (60.9%), and robberies (27.2%). The total number of violent crime events for the entire city of High Point during this period was 11,270 incidents, which were disaggregated to specific geographic contexts (i.e., census blocks with complete census data).⁵ Figure 2 displays the average number of violent incidents between 1998 and 2008 measured as the number of incidents per year divided by the total number of census blocks in the city. Further descriptive analyses revealed that roughly 15.8% of all violent incidents between 1998 and 2003 (i.e., the pre-DMI intervention period) occurred in the four targeted neighborhoods.⁶ In addition, Figure 2 shows that although a general negative trend in violent crime occurred until 2005 across the city, violence steadily increased in the latter 3 years (i.e., 2006–2008).

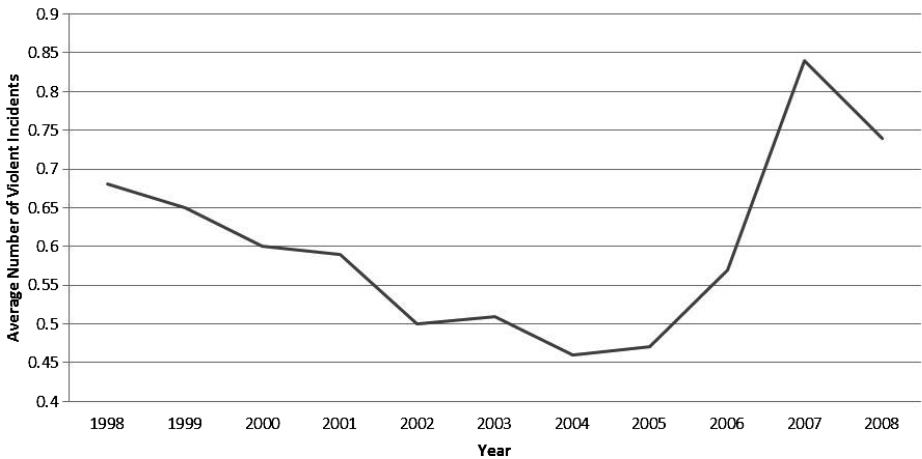
The primary unit of analysis was census blocks ($N = 1,705$), which are a relatively small geographic designation. Weisburd, Bruinsma, and Bernasco (2008) demonstrated the

4. The High Point Drug Market Initiative continued into 2010 with the implementation in a fifth market—Washington Drive. This fifth area was not included because the intervention was less than a year old at the time of the study. Thus, sufficient post intervention data were not available to include the strategy in the subsequent impact assessment.

5. The city of High Point services 1,835 census blocks, and complete census data and violent incidents (including a majority of locations with zero incidents) were obtained for 1,705 census blocks (92.3% coverage).

6. The census blocks located in the four target communities comprised roughly 6.6% of all census blocks within High Point. In addition, roughly 3.7% of census blocks in the city were immediately contiguous, or adjacent, to the blocks housed within the targeted neighborhoods.

FIGURE 2

Average Number of Violent Incidents in High Point (1998–2008)

importance regarding the selection of the unit of analysis for studies that focus on the relationship between crime and place.⁷ The choice of census blocks was based on several theoretical, methodological, practical, and policy considerations. First, patterns in street-level violence have been shown to be somewhat distinctive at geographic contexts that are smaller than census tracts (Tita, Cohen, and Engberg, 2005). Worden, Bynum, and Frank (1994) also revealed that drug markets often transcend several streets at a time, which further illuminates the practical application of census blocks for this study. In urban areas, a census block is often a single city block because of population concentration. Second, the various High Point strategies (i.e., suppression, notification sessions, and resource development) were directed in specific areas within the city, and thus, it was possible to identify the census blocks housed within the unique neighborhood boundaries where the strategies unfolded.⁸ Finally, prior studies that have distinguished the distinct pathways of crime within cities have demonstrated relatively consistent patterns across different-sized units of analysis. Specifically, the ebbs and flows in overall citywide violence are driven almost extensively

7. Weisburd et al. (2008) ultimately demonstrated that the most “appropriate” level of aggregation depends primarily on the social processes being studied. For example, Sherman, Gartin, and Buerger (1989) studied “hotspots” at specific addresses; Eck and Weisburd (1995) focused on addresses, buildings, and street segments when explaining routine activities and rationale choice theories; and Sampson, Raudenbush, and Earls (1997) focused on neighborhood clusters in Chicago when exploring the relationship between social disorganization, collective efficacy, and local crime rates.

8. The overall size of the different target neighborhoods ranged from 31 to 43 census blocks across the four sites. The use of census block groups also was possible, but this approach is limited in that we could not examine distinctive patterns in violence at a more micro-level, which is important because the initiative was targeted at very specific places in the city (see Eck, 1995).

by the small number of chronic, high-rate trajectory crime places, whether they are street segments (Weisburd et al., 2004; Weisburd, Morris, and Groff, 2009),⁹ census block groups (Yang, 2010), or census tracts (Griffiths and Chavez, 2004).¹⁰

The analytical strategy proceeded in two complimentary phases. First, we relied on difference-in-difference panel regression estimation (Cook and Tauchen, 1982, 1984) to compare the average rate of change in violent incidents between those geographic areas (i.e., census blocks) that were the target of the focused deterrence strategy relative to the average rate of change for areas in High Point that did not receive the intervention. Second, we examined the relationship between the timing of the strategies with potential deviations in violence within distinctive geographic pathways of violence. Here, we assessed to what degree pulling levers policing may have altered trajectories of chronic, moderate, and low violent crime places (Nagin, 2005: 118). Our ultimate purpose was to isolate the specific, unique, and cumulative effects of the various initiatives on the overall trend in violence within the city.

Difference-in-Difference Poisson Regression Models

We used a difference-in-difference (DD) panel regression design to assess whether the rate of change in violence in the targeted areas was significantly different than the rest of the city between the preintervention and postintervention periods (see Brooks, 2008; Cook and MacDonald, 2011). All DD panel regression models of event counts were estimated by generalized linear modeling using the Poisson distribution (Berk and MacDonald, 2008; Osgood, 2000). Similar to Brooks (2008) and Cook and MacDonald (2011), our regressions incorporated a block-specific, time-varying postintervention dummy variable that assumes value 1 from the year in which the focused deterrence strategy was implemented in those blocks housed within the specified target areas. Figure 3 displays the aggregated number of violent crime incidents for each targeted area as well as the year of program implementation for each specific site.

In all DD panel regression analyses, we included both place-based fixed effects estimates (i.e., dummy variables for each census block – 1) as a means to control for unobserved, block-specific static factors that correlate with local violent crime rates. We also incorporated

9. In addition, Braga, Papachristos, and Hureau (2010) used standard growth curve models to distinguish the trajectories in gun assault incidents across street segments in Boston. Although the authors did not use group-based modeling specifically, they made an a priori decision to distinguish offense trajectories into quartiles (i.e., somewhat similar to a four-group trajectory model assuming an even distribution across each quartile), and their results similarly indicated that the highest quartile street segments drove citywide levels of gun assaults over time.

10. It is important to note that Groff, Weisburd, and Yang (2010) found that larger geographic units often mask the variability in street-to-street variability in longitudinal crime trends. Although the strategies employed in High Point were targeted in relatively small geographic units (i.e., hot spot areas within neighborhoods), future studies examining the impact of place-based policing would do well to focus on more street-level policing strategies, where appropriate.

FIGURE 3

Violent Incidents by Target Area (1998–2008)

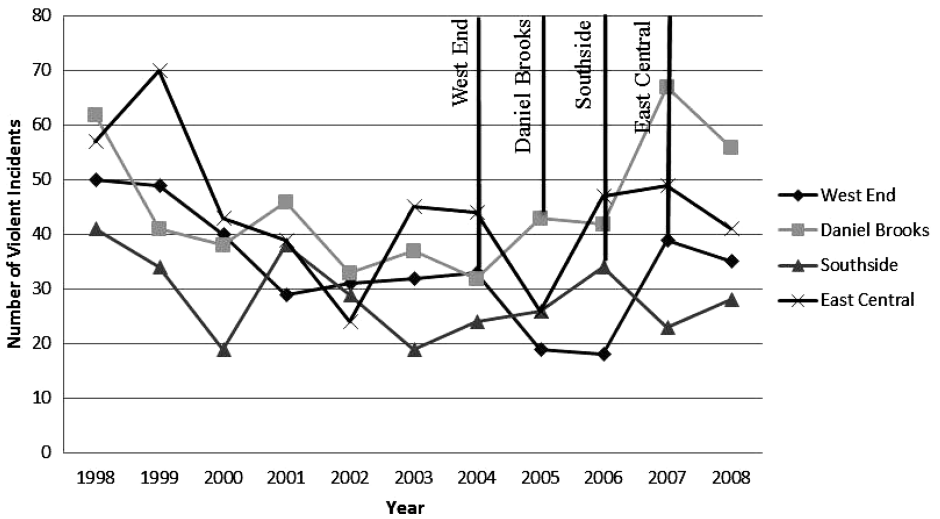


TABLE 1

DD Poisson Regression Results of Violent Incidents (Full Sample)^a

Measure	IRR	Coefficient	SE	Z	P > Z	95% CI	
						Lower	Upper
Targeted areas	0.819	−0.199	0.056	−3.51	<.001	−0.310	−0.087
Intercept	—	0.286	0.278	1.03	.305	−0.260	0.832

^a *N* = 18,755. Census block (1,705 − 1) and annual (11 − 1) fixed effects estimated but not shown.

time-varying, fixed-effects estimates (i.e., dummy variables for each year − 1) to minimize the influence of year-to-year fluctuations in violent crime patterns (Figure 2). Conveniently, the DD approach also allowed us to compare initial target areas (i.e., West End neighborhood) with census blocks in the areas that used the strategy at a later onset date (i.e., Daniel Brooks, Southside, and East Central), at least until the year when these specific location(s) implemented the intervention. STATA 11.0 (StataCorp, College Station, TX) software was used for all DD panel regression models.

Table 1 contains the postintervention *target area interaction estimate that includes 1,705 census blocks for 11 years (1998–2008) of observations (*n* = 18,755). The 0.819 incident rate ratio (IRR) indicated that the relative change between the preintervention and postintervention periods in violent incidents within targeted areas was roughly 18.0% less

T A B L E 2

DD Poisson Regression Results—Spillover Effects Model^a

Measure	IRR	Coefficient	SE	Z	P > Z	95% CI	
						Lower	Upper
Adjacent areas	1.138	0.136	0.093	1.46	.144	−0.046	0.319
Intercept	—	0.093	0.310	0.30	.762	−0.514	0.702

^a *N* = 17,413. Census block (1,583 – 1) and annual (11 – 1) fixed effects estimated but not shown.

than changes in violent crime patterns observed in the remaining census blocks in High Point.

In addition, we wanted to examine whether there was a potential “spillover” effect in the form of violent crime displacement or a potential diffusion of crime benefits (see Clarke, 1992). We examined the rate of change in violent crime in the nearest neighbors to the targeted crime places (i.e., those census blocks immediately contiguous to the targeted areas across the city). We removed the 122 census blocks that comprised the 4 distinct targeted areas and reestimated the primary fixed-effects regression by modeling the violent crime count change for the 59 nearest neighbors relative to the remainder of the city. The results displayed in Table 2 suggest that rather than displacing violence, the series of pulling levers strategies likely had no significant discernible effect on violence in the surrounding neighborhoods ($B = 0.136, p = .144$). We conclude there was little empirical evidence of violent crime displacement in nearby areas given that the estimated 13.8% increase in these locations was not significantly divergent to changes in violence observed in the remainder of the city.

Matching Targeted Areas with Comparable Nontargeted Areas

It is important to note that fixed-effects estimation assumes that implementation selectivity is contingent on time-invariant rather than on dynamic neighborhood structural and social influences (Allison and Waterman, 2002). To address the potential influence of time-varying causes of focused deterrence neighborhood selection, we used propensity score matching (nearest-neighbor analysis with replacement) to compare those census blocks in targeted neighborhoods that received the focused deterrence intervention with a restricted group of nontargeted census blocks in an effort to assess whether target area violent crime declined relative to comparable high-risk geographic areas. This comparison is important because many open-air drug markets operate without facilitating higher rates of neighborhood violence (Jacques, 2010; Jacques and Wright, 2008). Prior research consistently has indicated that aggregated rates of violence cross-correlates with higher levels of neighborhood concentrated disadvantage, population density, residential instability, and high-risk populations (Krivo and Peterson, 2000; Land, McCall, and Cohen, 1990;

TABLE 3

Balancing Target and Nontarget Areas through Propensity Score Matching

Measure	Unmatched Sample (N = 1,705)				Matched Sample (N = 218)			
	Target	Control	P > T	Bias	Target	Control	P > T	Bias
Male	45.12	36.74	<.001	43.5	45.12	45.95	.656	-4.3
Female homes	17.91	6.02	<.001	85.4	17.91	17.48	.841	3.1
Black	63.70	18.98	<.001	143.5	63.70	41.18	<.001	72.2
18–21 years old	5.43	3.14	<.001	47.2	5.43	4.46	.107	20.0
Renter occupied	64.62	25.96	<.001	132.5	64.62	65.22	.861	-2.1

TABLE 4

DD Poisson Regression Results of Violent Incidents (Matched Sample)^a

Measure	IRR	Coefficient	SE	Z	P > Z	95% CI	
						Lower	Upper
Targeted areas	0.872	-0.137	0.07	-1.97	.049	-0.273	-0.001
Intercept	—	-17.404	1,929.40	0.01	.993	3,798.9	3,764.2

^a N = 2,398. Census block (218 - 1) and annual (11 - 1) fixed effects estimated but not shown.

Lee, 2000). Thus, we culled the following measures from the 2000 U.S. Census for each census block in the city: percent Black, percent male, percent 18–21 years old, percent female-headed households, and the percent renter-occupied units. Table 3 shows the prematching and postmatching *t*tests, corresponding *p*values, and standardized bias statistic that represents the mean difference as a percentage of the average standard deviation between the groups (Rosenbaum and Rubin, 1985). In the matched sample, most corresponding *p*values were higher than .05 (with the exception of percentage of Black residents, an established factor associated with many drug market policing strategies (see Beckett, Nyrop, and Pfingst, 2006), and bias statistics typically were less than 20.0 (i.e., a general “rule of thumb” for balanced groups).

Table 4 presents the results from the restricted comparison group DD Poisson regression models comparing the change in violent offenses between targeted areas with comparable areas absent the intervention. Consistent with prior results, violent offenses significantly declined, by roughly 12.8%, after the strategies were implemented in specific neighborhoods relative to any observed changes in the matched nontargeted areas. Thus, potential selectivity bias that might have been influenced by neighborhood social and structural conditions did not seem to be a major factor in the estimated effect of program impact, although we do note that the decline was slightly less (by roughly 6%) with the restricted comparison group

model ($IRR = 0.872$) compared with the results observed in the full sample displayed earlier in Table 1 ($IRR = 0.819$).

Although the panel regression models indicate a statistically significant decline of between 12% and 18% in violent incidents in the targeted areas relative to nontargeted areas that corresponded with the timing of the various focused deterrence intervention strategies, the DD estimates do not provide detailed information as to whether the various neighborhood-based strategies may have had a different impact in specific areas within the city. Thus, we relied on trajectory analysis to examine whether there may have been differential program effects across distinct violent incident trajectory classifications.

Group-Based Trajectory Analyses

The second phase in our analytic strategy relied on group-based trajectory analysis (GBTA), which is an application of finite mixture modeling that has been used to distinguish developmental patterns of individual criminal offending (Nagin, 2005; Nagin and Land, 1993; Piquero, 2008). Recent studies have extended GBTA to approximate distinctive longitudinal crime trajectories across geographic space (Weisburd et al., 2004).¹¹ Related to the current investigation, the GBTA approach assumes that patterns of neighborhood violence are best approximated by a finite and discrete number of trajectories (Griffiths and Chavez, 2004; Weisburd et al., 2004; Yang, 2010). The use of trajectory groups primarily allowed us to estimate group-specific treatment effects at discrete points in time (Haviland and Nagin, 2005; Nagin, 2005, ch.7), which is important given that neighborhood-based policing initiatives are usually implemented in chronically violent crime areas. In essence, this approach allowed us to examine how the focused deterrence strategy may have varied in terms of potential impact across blocks with distinct developmental histories of violence, and to compare areas subjected to the intervention with similar nontreatment areas because “trajectory groups can be thought of as latent equivalency classes for the history of the outcome variable” (Haviland and Nagin, 2005: 559).

To assess the variation in violent crime trend patterns across the 11-year measurement period (1998–2008), we relied on the Proc Traj procedure in SAS version 9.1 (SAS Institute, Inc., Cary, NC; Jones, Nagin, and Roeder, 2001). In essence, latent growth curves were operationalized from counts of officially documented violent crimes that were predicted by a set number of trajectories. We followed the procedures outlined by Nagin (2005) regarding the selection of the parametric form, the functional form of the trajectories over

11. We note that GBTA is but one of many longitudinally-based methodological approaches that has been used to estimate different developmental processes over time (e.g., standard growth curve modeling or latent curve analysis). We chose GBTA to remain consistent with recent studies that have focused on place-based differences in longitudinal patterns of crime and violence (Griffiths and Chavez, 2004, Weisburd et al., 2004). Also, it is well established within the literature that specific geographic contexts have significant long-term clustering of crime (Sherman et al., 1989), making the use of GBTA more appropriate.

TABLE 5

Descriptive Trajectory Information and Diagnostic Statistics

Group	#Blocks	#Violent Incidents	Average # of Violent Incidents	Estimated Group Probability	Average Posterior Probability	OCC
1	71.96	14.51	1.33	0.710	0.978	18.03
2	22.05	40.20	12.05	0.231	0.959	77.86
3	5.98	45.29	50.04	0.058	0.969	507.60

time, and the most parsimonious number of groups. We used the Poisson distribution to estimate the frequency in violent crime counts over the measurement period (Osgood, 2000; Weisburd et al., 2004).¹² In addition, we found that the polynomial (i.e., quadratic) function was the most appropriate, relative to linear or cubic models (i.e., fit estimates did not substantively improve when moving from the quadratic to the cubic model). In terms of group identification, we compared the Bayesian information criterion (BIC) across models, which is particularly useful because the BIC can be interpreted as an approximated standardized measure because it penalizes when an increase in the number of trajectory groups (k) are estimated.

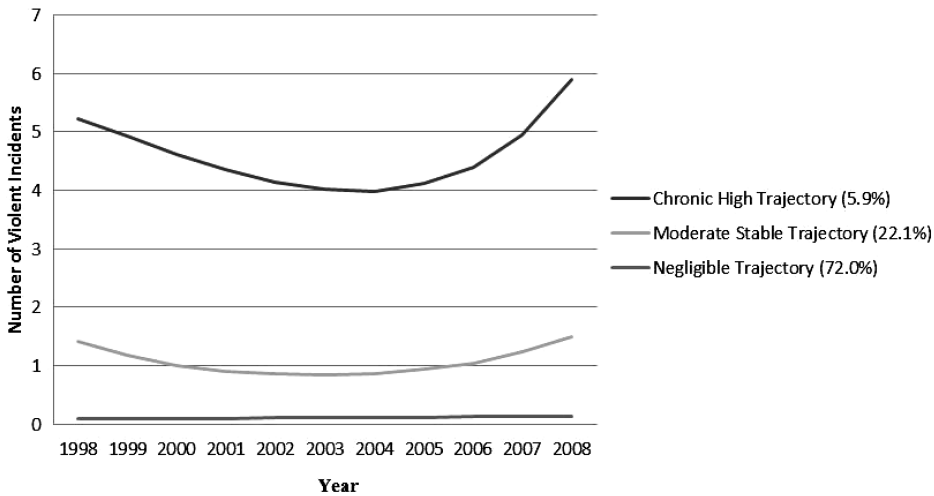
Table 5 provides descriptive and diagnostic information for the estimated violent crime trajectories within High Point. After fitting an increasing number of groups to the data and assessing model fit by relying on several diagnostic tests, we found the three-group solution to be the most representative of the longitudinal data. In terms of diagnostics, we examined the posterior probabilities for each group, which are the averaged probabilities that a particular census block (i) will be classified into a given trajectory group (j). Nagin (2005) suggested that average posterior probabilities greater than .70 are acceptable, although values closest to 1.0 are ideal. Table 5 shows that all trajectory groups had an average posterior probability of .95 or greater. Nagin (2005: 89) also specifically indicated that the odds of a correction classification (OCC) for each group should have an estimated value greater than 5.0 to achieve high assignment accuracy (i.e., low residual deviation), which was observed in the three-group model.

Figure 4 shows the plotted trajectories for the three-group solution. Consistent with prior research, we found a concentration of violence in specific geographic contexts (see Sherman and Weisburd, 1995). The Chronic High Trajectory group comprised less than 6% of the census blocks within the city, but it accounted for more than 45% of all violent

12. We reestimated our final models using the zero-inflated Poisson (ZIP) distribution to account for the observed overdispersion in the raw (i.e., untransformed) count data. Results mirrored those estimated by the simple Poisson distribution. Given the controversy that a simple correction parameter for over dispersion can be inherently problematic (Berk and MacDonald, 2008) particularly when modeling the difference between short- and long-term longitudinal changes (Bushway, Thornberry, and Krohn, 2003), we present the results from the Poisson models here.

FIGURE 4

Three Trajectories of Criminal Violence in High Point



incidents between years 1998 and 2008. The Moderate Stable Trajectory group accounted for 22% of all census blocks within the city and for more than 40.2% of the violent crime incidents. Both the Chronic High and Moderate Stable Trajectory groups followed a clear polynomial distribution where the observed decline in violence inflected after 2006. Finally, the Negligible Trajectory group accounted for more than 71% of all census blocks, but it averaged only 3.1 violent crime incidents for every 100 offenses that occurred within the Chronic High Trajectory groups.

The resulting trajectories effectively clustered census blocks located within targeted areas with geographic contexts that had similar histories of violence (Haviland and Nagin, 2007: 68). We also compared targeted and nontargeted areas within trajectory groups using the same structural and social census block indicators used in the earlier propensity score models (see the appendix for more details). In essence, this approach provided the opportunity to estimate place-based treatment effects using time-varying covariates with balanced comparison areas, at least over the lagged outcomes (see also Apel et al., 2007). Figure 5 displays the three-group trajectories designated by the various neighborhood boundaries. Results indicate that a large number of comparable geographic contexts existed beyond the areas within the targeted neighborhoods, which were ultimately used as within trajectory group comparison areas.

The addition of indicator variables, such as those that denote location-based treatment (i.e., geographic focus of pulling levers policing), can be incorporated into trajectory models, and estimates are interpreted like those included in conventional regression models, which measure change in the response variable associated with change in explanatory variables

FIGURE 5

High Point Target Areas and Census Blocks by Trajectory Group Classification



(Nagin, 2005: 121–140; Nagin, Pagani, Tremblay, and Vitaro, 2003). We incorporated a dummy variable (0 = nontargeted areas, 1 = targeted areas) within each trajectory group that corresponded with the timing of each place-based pulling levers strategy.¹³ Table 6 displays the results of the estimated treatment effects by trajectory group, and the

13. Similar to the DD panel regression models, census blocks in West End = 0 in 1998–2003, and = 1 in 2004–2008. Blocks in Daniel Brooks = 0 in 1998–2004, and = 1 in 2005 thereafter; and so on for the Southside and East Central areas. All remaining census blocks located outside targeted areas within the city = 0 for 1998–2008.

TABLE 6

Treatment Effect Estimates within Trajectory Groups

Trajectory Group	Treatment Coefficient	SE	Z	P > Z
Negligible	0.667	0.178	3.74	.001
Moderate Stable	-0.116	0.078	-1.49	.137
Chronic High	-0.185	0.085	2.16	.031

findings illustrate that the timing and location of the pulling levers notifications correlated with a statistically significant divergence within the Chronic High Trajectory group. More specifically, target area census blocks within the Chronic High Trajectory experienced a statistically significant decline of roughly 16.8% (coefficient = -0.185, $p = .031$) above and beyond the dynamic changes in violence experienced by nontarget areas within the same trajectory.¹⁴ Interestingly, the significant divergence in violence that corresponded with the pulling levers strategies was predominantly within the Chronic High Trajectory group. Targeted areas within the Moderate Stable Trajectory group experienced a more modest (and nonsignificant) decline of 10.9%, although violence in the Negligible Trajectory group actually experienced a statistically significant increase in the number of violent incidents (although in the latter case we note this equated to less than one additional violent incident per year, given its onset point). These predicted distinctions were not likely a result of exposure differences because census blocks housed within targeted areas comprised 17.6% of Chronic High Trajectory group and 16.2% of the Moderate Stable Trajectory group.¹⁵

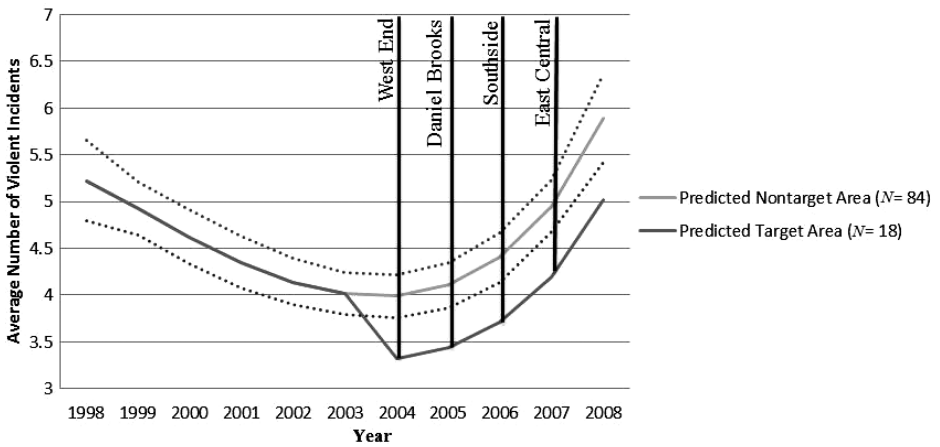
Figure 6 shows the difference in the estimated violence trends between the target and nontargeted areas situated within the Chronic High Trajectory group. Ultimately, we found that the significant decline observed within the targeted neighborhoods predominantly occurred in census blocks that had the longest and most chronic histories of violence. In addition, and as a way to control for the possibility that the targeted and nontargeted areas may have been inherently different at baseline (i.e., the preintervention period), we examined the average number of violent incidents for the census blocks within the Chronic High Trajectory group, delineated by treatment/nontreatment areas. The trend results mirrored those observed in Figure 3, which indicates the greatest substantive difference between targeted and nontargeted areas within the high violence trajectory appeared in years 2004 and 2005.

14. The 16.8% decline is based off the exponentiation of the logged coefficient [$\text{Exp}(-0.185) = 0.831 - 1.0 = -0.168$] given the reliance on the logarithmic transformation used in the Poisson distribution.

15. The DMI target areas comprised only 3.5% of the blocks ($n = 43 / 1,227$) within the Negligible Trajectory group, which was expected because the focus of the strategies was to reduce offenses in high violent crime areas. However, the estimated impact of focused deterrence on violence levels in places assigned to the Negligible Trajectory group was influenced by low statistical power, and the results should be interpreted accordingly.

FIGURE 6

Predicted Impact of Pulling Levers within the Chronic High Trajectory Group



Sensitivity Analysis

Finally, this type of policy-oriented intervention often is subjected to different types of selection biases. Although we noted earlier that the primary selection of targeted neighborhoods was based on extensive crime and hotspot mapping combined with intelligence-led policing (displayed in Figure 1) and we controlled for the bias regarding divergence in violent crime between targeted areas relative to comparable nontargeted areas through the use of propensity score matching (displayed in Tables 3 and 4), there also was the likelihood that officials selected specific neighborhoods that experienced immediate short-term increases in violence immediately before the series of strategies were implemented. Thus, the use of standard pre/post panel regression analyses would likely overestimate program impact when in fact a regression to the mean effect was actually occurring (Piquero, 2005). Ideally, the timing and estimated impact of the various interventions should be exogenous to such short-term fluctuations in violence. By following a similar approach conducted by Cook and MacDonald (2011: 454), we created a series of dynamic dummy variables around the intervention measure (i.e., the postintervention estimate) across each site for -2, -1, 0, +1, and +2 years. All measures were included within a population-based DD panel regression model using the full population of census blocks within the city.

The results displayed in Table 7 suggest there may have been a modest, although nonsignificant, increase in violence in the targeted areas the year immediately preceding the intervention (“Year - 1”) as indicated by the positive estimate in relation to the negative estimate that was observed 2 years before the intervention (“Year - 2”) and during the same year the intervention unfolded (“postintervention”). Thus, the driving force behind the decline in violence during the postintervention period seemed to be driven primarily by the

Table 7

DD Poisson Regression Results—Sensitivity Model^a

Measure	Coefficient	SE	Z	P > Z
Postintervention	-0.271	0.109	-2.48	.013
Year - 2	-0.143	0.107	-1.42	.155
Year - 1	0.058	0.091	0.65	.518
Year 0	0.255	0.129	1.98	.048
Year + 1	-0.101	0.132	-0.76	.445
Year + 2	-0.009	0.133	-0.07	.945

^aN = 18,755. Census block (1,705 - 1) and annual (11 - 1) fixed effects estimated but not shown.

rate of reduction within the targeted areas the year of implementation. When comparing this effect with the relative increase in violence the year prior to implementation, there does not seem to be a major empirical threat to the validity of our findings; however, we do note that the immediate increase in violence (as noted by the positive coefficient) the year immediately prior to implementation should slightly temper conclusions regarding just how much of an exact decline may be attributed to the overall intervention.¹⁶

Discussion

The purpose of this study was to examine whether deterrent-based police strategies that drew on the pulling levers framework had a substantive impact on violent crime when the series of interventions were directed at offenders who were involved in illicit street drug markets (Kennedy, 2006, 2009). Although pulling levers has shown potential when focused on gangs and groups involved with networks of chronic, violent offenders (Braga, 2008; Braga et al., 2001, 2008; Corsaro and McGarrell, 2010; Engel et al., in press; McGarrell et al., 2006; Papachristos et al., 2007), far less is known about its capacity to diminish violent crime associated with locally operated street drug markets. Reuter (2009) outlined different forms of violence often facilitated by illicit drug markets, which frequently include instances of retaliation, competition between dealers, disciplinary violence, and the influence of social context where dealing occurs; thus, disrupting a series of street drug markets could have a tangible effect on trajectories of violent crime incidents within the city.

Competing Interpretations

We relied on multiple longitudinal methods (i.e., bivariate trend analyses, DD Poisson regressions, and GBTA estimation) that were designed to test for potential program effects within the targeted neighborhoods as well as to contrast the relative divergence in crime

16. It is equally important to note that the observed increase in violence the year preceding program implementation also was specifically calibrated with target-area selection (see Hunt et al., 2008).

trends with comparable nontargeted areas. At first glance, the trend graphs showed that overall violent crime rates across the city actually increased as a series of pulling levers strategies were implemented in high-crime geographic contexts. Given that problem-identification demonstrated that the selected target areas were experiencing heightened violent crime rates, which corresponded with locally operated open-air drug markets, one could reasonably assert that trends in the city certainly should not have increased in any meaningful way if the multiple interventions were indeed successful. Critics of strategic policing initiatives would likely cite such an increase as continued evidence that “police do not prevent crime” (Bayley, 1994: 3).

A more thorough inspection of the trend data, however, showed that neighborhood violence in the four targeted areas was not exceedingly disproportionate. Between 1998 and 2003 (i.e., the cumulative preintervention period), 15.8% of all violent crime incidents occurred within these four targeted areas that comprised roughly 6.6% of the overall city; conversely, between 2004 and 2008 (i.e., the cumulative postintervention period), these four sites were responsible for 13.7% of citywide violence. In sum, the remainder of the city experienced an increase in violence of roughly 7.8%, although incidents in the targeted areas declined by 7.9% during the same period. In addition, the regression models examining a potential spillover in violent crime in those census blocks that were immediately contiguous to the four intervention sites indicated a minor, although nonsignificant, increase in violent crime, thus providing little empirical basis for displacement (Weisburd and Green, 1995).

The DD regression-based estimates indicated that violent crime significantly declined in targeted areas after the implementation of the various focused deterrence strategies relative to the remainder of the overall city (an estimated change of -18.0%). A more conservative assessment showed that trends in violence within the targeted areas significantly diverged by roughly 12.8% relative to similar geographic contexts, at least in terms of comparable structural indicators shown to influence macrolevel patterns of violence (i.e., matched case-control regression models). Proponents of strategic and problem-oriented policing, and pulling levers policing specifically, might well point to the proportional decline in violent crime incidents combined with the significant negative regression estimates as evidence that police agencies should continue “evolving” by relying on similar crime prevention strategies to reduce victimization risk (see Kelling and Moore, 1988).

Finally, GBTA models controlled for similarities on lagged (i.e., preintervention) outcome measures using trajectory modeling (Haviland and Nagin, 2005, 2007). The treatment effects estimation of within-group trajectories indicated a modest and statistically significant decline in violent crime of roughly 16.8% within the Chronic High Trajectory among those census blocks located within target neighborhoods relative to nontargeted, although persistently violent, geographic areas. However, the same degree and level of divergence in violence was not observed in targeted areas within the Moderate Stable group. And the Negligible group actually experienced a statistically significant yet very minor increase (of less than one incident per year) in violence relative to nontargeted areas in

the same groups. On the one hand, these findings suggest pulling levers policing had a moderate impact on crime in the most volatile targeted areas; on the other hand, however, the degree of potential impact may vary by place- and market-specific characteristics. Given that substantial heterogeneity is found in terms of the nature of open-air drug markets as well as the interactions between users and dealers (Jacques and Wright, 2008), mixed findings across different areas within the targeted neighborhoods might well be expected.

Synthesizing the Results

As noted, the High Point pulling levers interventions were intended to abate problems associated with open-air drug markets across the city and to reduce corresponding rates of violence within identified areas (Kennedy, 2009; Kennedy and Wong, 2009). Although prior evaluations in High Point have examined the former two goals, the current study was designed to focus explicitly on the impact on violent crime. Our interpretation of the cumulative results presented here indicates a likely violent crime impact, in specific contexts, at least for a short-term follow-up period. More specifically, although violence in High Point was increasing, the proportion of overall violent incidents accounted for by the combined target areas in the citywide total actually decreased over this same period. In addition, the DD panel regression estimates consistently indicated a significant decline in the postintervention period for targeted areas relative to nontargeted areas in the city. However, given that the initial target locations experienced a longer postintervention exposure period, it was important to examine unique changes in violent crime at each location.

Bivariate trend analyses highlighted the fact the apparent reduction in the pooled average number of violent crimes across the targeted areas corresponded with the 2004 (i.e., West End) pulling levers intervention, although the latter sites experienced more mixed effects (i.e., stability, decreases, and increases). Do these disparities in violent crime impact reflect short-term effects combined with the difficulty of sustaining these types of interventions? Or is it suggestive that the different characteristics of the markets, offenders within the markets, and geographic contexts were unique across the different locations. Tillyer, Engel, and Lovins (in press) posited that focused deterrence initiatives often have immediate effects with diminishing returns rather than long-range and sustainable success as a result of institutional constraints and resource limitation issues (i.e., organizational difficulties). They argued that such constraints seem to preclude law enforcement officials from fully responding to every violation that follows each subsequent notification session, particularly as the number of “notified offenders” within a city increases.

Throughout the postintervention period, the HPPD continued to commit a specific detective to monitor, track, and follow-up all DMI notified individuals within the city. In addition, efforts were made by officials to inform notified offenders whenever someone “failed” the program (i.e., recidivated and were subsequently charged). However, the degree that local community residents created and maintained reciprocal partnerships

with law enforcement is less known.¹⁷ Future studies that evaluate pulling levers policing that treat each of the strategies as dynamic and cumulative (rather than as a one-group pre/postassessment) have the ability to enhance our understanding of these potential social, organizational, and community-level processes. In addition to assessing the changes in neighborhood crime patterns, we recommend the use of surveys to capture the perceived risk of punishment among notified offenders (as an example, see Wright, Caspi, Moffitt, and Paternoster, 2004) in addition to changes in community dynamics over time and across different geographic contexts.

We also contend that the results of the High Point drug market intervention were particularly consistent with the environmental criminology framework. The promise of place-based treatment seems to be constrained to the relatively small number of chronic, violent blocks housed within the much larger targeted geographic areas. Reisig (2010) illustrated that problem-oriented policing has historically drawn on theories of criminal opportunity (i.e., routine activity and rational choice theories) to achieve a substantive crime-reduction impact (see also Clarke, 1992). Within this framework, Cornish and Clarke (2008) suggested it is possible to alter environmental conditions in specific places by elevating risks of punishment, which indeed may be accomplished through the use of offender notification sessions (Kennedy, 2009; Nagin, 1998; Papachristos et al., 2007). This position also is consistent with the growing body of research that shows that higher rates of deterrence-based policing seems to have a significant mediating influence on violence across large U.S. cities (Kubrin et al., 2010; MacDonald, 2002; Sampson and Cohen, 1988). The findings from High Point add to the growing literature that shows that targeting high-risk offenders can reduce rates of violence; but, there also seems to be a “ceiling effect” because a large percentage of remaining crime is committed by nonchronic offenders with less extensive criminal histories (see Cook, Ludwig, and Braga, 2005). As evidenced by the linear violence trend in High Point, the magnitude of the specific reduction in incidents within the areas that experienced a decline was not robust enough to lead to a citywide change in violence during the cumulative postintervention period. However, given the strategy was not designed as a citywide violence reduction initiative but rather was intended to shut down neighborhood-based drug markets and their influence on local crime patterns, this interpretation should be tempered accordingly.

From a neighborhood perspective, the literature indicates that geographically focused strategies that are perceived to be procedurally fair by residents in high-crime communities have the potential to bolster informal social control mechanisms, making whatever gains that may originate from policing interventions more sustainable (Kubrin and Weitzer,

17. Given that the average number of renter-occupied units across all four targeted areas was roughly 64.6%.

2003; Tyler, 2003). This indication is perhaps more likely to be true when the focus of the initiatives are on illicit street drug markets, which is something local residents may actually observe more acutely relative to the different types of violence associated with networks of gang offenders across an entire city. However, intensive surveillance alone and punitive responses by law enforcement in high-risk areas can strain police–community relationships (Brunson, 2007). Indeed, the promise of the DMI approach is that it seeks to combine surveillance, deterrence, and procedural fairness.

Carr (2005) demonstrated that police have the capacity to strengthen neighborhood informal social control where such mechanisms have been attenuated by linking strained communities with public resources, which in turn can lead to enhanced community surveillance (i.e., a new form of parochial informal social control). In addition, a recent investigation of the effects of procedural justice examined through a series of randomized experimental trials highlighted that citizens are more likely to cooperate with law enforcement when police behave with heightened levels of dignity, respect, neutrality, and display trustworthy motives (Mazerolle, Antrobus, Tyler, and Bennett, 2011). Cooperation with police may be particularly important in drug market contexts because surveillance is something the police are unable to do independently for an extended period of time (Skogan and Hartnett, 1997). The divergence in violence between treatment and nontreatment areas might well suggest that procedural justice and legitimacy mechanisms are a part of focused deterrence policing (see Corsaro et al., 2010); however, more explicit designs that measure changes in residents' behavior regarding patterns of surveillance, cooperation with, and perceptions of police would be a far more suitable test of this thesis.

The current study has several limitations that should be considered when interpreting results and drawing conclusions. First, our analytical framework assumes the street drug markets were quite similar across the different High Point neighborhoods. Jacques and Wright (2008) revealed that the intricate causes of violence as well as the peaceful behavior (i.e., peaceful resource exchange and peaceful social control) associated with drug markets are complex, dynamic, and situational depending on the surrounding context. Although the composite violent crime outcome measure was operationalized in a manner that was consistent with the stated goals and tenants of the High Point initiatives (Kennedy and Wong, 2009: v), information regarding offender motivation and victim–offender relationships were not incorporated into our statistical models.

It was evident that the sheer number of offenders that were identified, arrested, and called into the notification sessions were substantively different across the intervention sites. In particular, roughly 15 individuals on average were identified in West End and Daniel Brooks areas compared with an average of 27 offenders in the Southside and East ceCentral communities. The differences in the number of high-risk offenders may serve as a proxy that violent crime patterns where the latter initiatives were focused were more complex related

to the surrounding environment.¹⁸ We wanted to examine whether the offenders at each site had different propensities toward violence, as approximated by their violent criminal histories. We constrained our period of examination to 6 years prior to each notification session for standardization purposes. Although there seemed to be a substantive difference in the average number of prior violent offenses per notified offender across each site (West End = 1.5, Daniel Brooks = 2.5, Southside = 4.2, and East Central = 4.4), comparative group estimates did not indicate the differences were statistically significant.¹⁹ Thus, these findings imply the sheer size of the drug markets may have been more of a salient factor in the diminished returns over time than distinctions in violent histories among identified offenders. When this is the case, resiliency and the commitment to problem solving by using a diverse set of strategies is likely to be the most salient feature of successful strategic policing initiatives (Goldstein, 1979).

Also, one year after the Southside initiative was implemented, officials in High Point supplemented the notification sessions with a secondary suppression strategy because new drug houses were being established just outside the border of the targeted neighborhood, which influenced crime in the Southside area. The continual use of data by local researchers and monitoring by law enforcement led to the evolution of the Southside strategy. As indicated in the literature, general levels of violence seem to be caused by several factors facilitated by communities that spiral into decline, which can be observed in places where there are larger and more prolific open-air drug markets (Skogan, 1990). Also, it is possible that focused deterrence programs that are integrated with situational crime prevention strategies and misdemeanor arrests (i.e., general deterrence) may have a more immediate and direct impact within these contexts (see Braga and Bond, 2008; Cook et al., 2005).

Second, we did not take into account the potential influence of the Violent Crime Task Force (VCTF) initiative that has been used in High Point for over a decade. The use of citywide notification sessions began as part of the Project Safe Neighborhood program. Hundreds of high-risk offenders have been called into dozens of sessions since 1998, and the density and distribution of these offenders may lead to disproportionate violent crime rates within different neighborhoods.²⁰ Thus, the models presented here assume an even

18. Also, it is important to note that the East Central geographic area was clearly identified (and subsequently targeted) as a drug crime hotspot across a larger geographic context and had a less "natural" neighborhood boundary than the other sites.

19. Between-group variation was not significantly greater than the within-group variation based on one-way analysis of variance results ($F = 2.12, p = .107$).

20. Violent offenders were selected for inclusion by their criminal records only. Geographic distribution and location of residence and location of offending patterns were not considered by the VCTF given the citywide focus.

distribution of this citywide initiative between targeted and nontargeted areas within the distinctive developmental pathways.

Finally, Groff et al. (2010) recently found significant street-to-street variability in crime levels within census blocks that are unrelated to adjacent streets segments. Although census blocks were selected primarily because the initiatives were directed across larger contexts, theories of environmental criminology are best studied at an even more refined micro-level (i.e., street segments, intersections, and specific addressees) of examination (Eck, 1995). Thus, when similar approaches are directed solely within unique street segments, hotspots, or drug houses, a more refined geographic analysis would be appropriate.

Conclusion

Our examination of the High Point DMI highlights several important policy and research considerations. On balance, the results presented here suggest that overall the strategies had a significant, although modest, impact on violent crime that was particularly driven by the observed decline within the initial two targeted areas. We believe this important finding adds to the growing body of research illustrating the prospects associated with pulling levers policing as a promising problem-oriented policing approach (Braga and Weisburd, in press). At the same time, the inconsistent findings presented in sites three and four are equally important in terms of underscoring the need to conduct replications and evaluations beyond an initial pilot area. The heterogeneous nature of the markets, offenders, and overall neighborhood contexts are clearly important considerations when evaluating program impact. Combined with the results of prior DMI evaluations, we propose these strategies may be limited in terms of violent crime impact to the most “out of control” locations labeled herein as the “Chronic High Trajectory” areas. If interventions are only assessed at extreme locations, then the cautionary evidence produced by examining additional sites might well be missed.

Realistically, until further research evaluations include rigorous experimental designs, measure program dosage in a systematic manner, examine changes in perceptions of risk among offenders, and test for potential changes in cooperation with police as well as perceptions of crime and violence among citizens in targeted areas, interpretation of the types of empirical results presented in this study will most likely be influenced by the particular vantage point of the interpreter. Critics can point to an increase in overall violence across the city in the postintervention period or to the observed increase in violence in Low Trajectory target areas as supportive evidence that the strategy may have been unsuccessful. Conversely, proponents can argue that the pattern of variation in violence seems to correspond with a short-term reduction in some intervention sites and trajectory groups although similar nontargeted areas failed to experience the same reduction in crime. Finally, a moderate interpretation of the findings would likely illustrate that the results are somewhat mixed: certainly not supportive of a cure-all intervention strategy that seems to work immediately, for the long term, and across all targeted locations; nor, should the significant decline

in violence be ignored or dismissed. Further replications coupled with more extensive evaluations will help refine our understanding of the strengths, limitations, and intervening mechanisms associated with pulling levers DMI policing strategies.

References

- Allison, Paul D. and Richard P. Waterman. 2002. Fixed-effects negative binomial regression models. *Sociological Methodology*, 32: 247–265.
- Apel, Robert, Shawn D. Bushway, Robert Brame, Amelia M. Haviland, Daniel S. Nagin, and Raymond Paternoster. 2007. Unpacking the relationship between adolescent employment and antisocial behavior: A matched samples comparison. *Criminology*, 45:67–97.
- Bayley, David. 1994. *Police for the Future*. New York: Oxford University Press.
- Beckett, Katherine, Kris Nyrop, and Lori Pflingst. 2006. Race, drugs, and policing: Understanding disparities in drug delivery arrests. *Criminology*, 44: 105–137.
- Berk, Richard and John M. MacDonald. 2008. Overdispersion and Poisson regression. *Journal of Quantitative Criminology*, 24: 269–284.
- Blumstein, Alfred and Richard Rosenfeld. 1998. Explaining recent trends in US homicide rates. *Journal of Criminal Law and Criminology*, 88: 1175–1216.
- Boyum, David and Peter Reuter. 2005. *An analytic assessment of US Drug Policy*. Washington, DC: The AEI Press.
- Braga, Anthony A. 2008. Pulling levers focused deterrence strategies and the prevention of gun homicide. *Journal of Criminal Justice*, 36: 332–343.
- Braga, Anthony A. and Brenda J. Bond. 2008. Policing crime and disorder hot spots: A randomized controlled trial. *Criminology*, 46: 577–607.
- Braga, Anthony A., David M. Kennedy, Elin J. Waring, and Anne M. Piehl. 2001. Problem-oriented policing, deterrence, and youth violence: An evaluation of Boston's Operation Ceasefire. *Journal of Research in Crime and Delinquency*, 38: 195–226.
- Braga, Anthony A., Andrew V. Papachristos, and David Hureau. 2010. The concentration and stability of gun violence at micro-places in Boston, 1980–2008. *Journal of Quantitative Criminology*, 26: 33–53.
- Braga, Anthony A., Glenn L. Pierce, Jack McDevitt, Brenda J. Bond, and Shea Cronin. 2008. The strategic prevention of gun violence among gang-involved offenders. *Justice Quarterly*, 25: 132–162.
- Braga, Anthony A. and David Weisburd. In press. The effects of focused deterrence strategies on crime: A systematic review and meta-analysis of the empirical evidence. *Journal of Research in Crime and Delinquency*.
- Brooks, Leah. 2008. Volunteering to be taxed: Business improvement districts and the extra-governmental provision of public safety. *Journal of Public Economics*, 92: 388–406.
- Brunson, Rod K. 2007. Police don't like black people: African American young men's accumulated police experiences. *Criminology & Public Policy*, 6: 71–102.
- Bursik, Robert J. and Harold G. Grasmick. 1993. *Neighborhoods and Crime: The Dimensions of Effective Community Control*. New York: Lexington Books.
- Bushway, Shawn D., Terence P. Thornberry, and Marvin D. Krohn. 2003. Desistance as a developmental process: A comparison of static and dynamic approaches. *Journal of Quantitative Criminology*, 19: 129–153.

- Carr, Patrick J. 2005. *Clean Streets: Controlling Crime, Maintaining Order, and Building Community Activism*. New York: New York University Press.
- Clarke, Ronald V. 1992. *Situational Crime Prevention: Successful Case Studies*. Albany, NY: Harrow and Heston.
- Cook, Philip J., and George Tauchen. 1982. The effect of liquor taxes on heavy drinking. *The Bell Journal of Economics*, 13: 379–390.
- Cook, Philip J., and George Tauchen. 1984. The effect of minimum drinking age legislation on youthful auto fatalities, 1970–1977. *Journal of Legal Studies*, 13: 169–190.
- Cook, Philip J., Jens Ludwig, and Anthony A. Braga. 2005. Criminal records of homicide offenders. *JAMA*, 294: 623–624.
- Cook, Philip J. and John MacDonald. 2011. Public safety through private action: An economic assessment of BIDS. *The Economic Journal*, 121: 445–462.
- Cook, Thomas D. and Donald T. Campbell. 1979. *Quasi-Experimentation: Design and Analysis for Field Settings*. Boston, MA: Houghton-Mifflin.
- Cornish, Derek B. and Ronald V. Clarke. 2008. The rational choice perspective. In (Richard Wortley and Lorraine Mazerolle, eds.), *Environmental Criminology and Crime Analysis*. Devon, U.K.: Willan.
- Corsaro, Nicholas, Rod K. Brunson, and Edmund F. McGarrell. 2010. Evaluating a policing strategy intended to disrupt an illicit street-level drug market. *Evaluation Review*, 34: 513–548.
- Corsaro, Nicholas, Rod K. Brunson, and Edmund F. McGarrell. In press. Problem-oriented policing and open-air drug markets: Examining the Rockford pulling levers deterrence strategy. *Crime & Delinquency*.
- Corsaro, Nicholas and Edmund F. McGarrell. 2010. Reducing homicide risk in Indianapolis between 1997 and 2000. *Journal of Urban Health*, 87: 851–864.
- Eck, John E. 1995. Examining routine activity theory: A review of two books. *Justice Quarterly*, 12: 783–797.
- Eck, John E., Spencer Chainey, James G. Cameron, Michael Leitner, and Ronald E. Wilson. 2005. *Mapping Crime: Understanding Hot Spots*. Washington, DC: Office of Justice Programs, U.S. Department of Justice.
- Eck, John E. and David Weisburd. 1995. Crime places in crime theory. In (John E. Eck and David Weisburd, eds.), *Crime and Place*. Monsey, NY: Criminal Justice Press.
- Engel, Robin S., Marie S. Tillyer, and Nicholas Corsaro. In press. Reducing gang violence using focused deterrence: Evaluating the Cincinnati Initiative to Reduce Violence (CIRV). *Justice Quarterly*.
- Frabutt, James M., M.J. Gathings, Damie T. Jackson, and Anne P. Buford. 2005. *A Strategy to Reduce Drug-Related Crime and Violence: The High Point Daniel Brooks Initiative*. Greensboro: Center for Youth, Family, and Community Partnerships, University of North Carolina.
- Frabutt, James M., M.J. Gathings, Eleazer D. Hunt, and Tamela J. Loggins. 2004. *High Point West End Initiative: Project Description, Log, and Preliminary Impact Analysis*. Greensboro: Center for Youth, Family, and Community Partnerships, University of North Carolina.
- Gibbs, Jack P. 1975. *Crime, Punishment, and Deterrence*. New York: Elsevier.
- Goldstein, Herman. 1979. Improving policing: A problem-oriented approach. *Crime & Delinquency*, 25: 236–258.

- Goldstein, Herman. 1990. *Problem-Oriented Policing*. New York: McGraw-Hill.
- Griffiths, Elizabeth and Jorge M. Chavez. 2004. Communities, street guns, and homicide trajectories in Chicago, 1980–1995: Merging methods for examining homicide trends across space and time. *Criminology*, 42: 941–978.
- Groff, Elizabeth R., David Weisburd, and Sue-Ming Yang. 2010. Is it important to examine crime trends at a local “micro” level? A longitudinal analysis of street to street variability in crime trajectories. *Journal of Quantitative Criminology*, 26: 7–32.
- Haviland, Amelia M. and Daniel S. Nagin. 2005. Causal inference with group-based trajectory models. *Psychometrika*, 70: 557–578.
- Haviland, Amelia M. and Daniel S. Nagin. 2007. Using group-based trajectory modeling in conjunction with propensity scores to improve balance. *Journal of Experimental Criminology*, 3: 65–82.
- Hunt, Eleazer D., Marty Sumner, Thomas J. Scholten, and James M. Frabutt. 2008. Using GIS to identify drug markets and reduce drug-related violence. In (Yonette F. Thomas, Douglas Richardson, and Ivan Cheung, eds.), *Geography and Drug Addiction*. New York: Springer.
- Jacobs, Bruce A. and Richard Wright. 2006. *Street Justice: Retaliation in the Criminal Underworld*. New York: Cambridge University Press.
- Jacques, Scott. 2010. The necessary conditions for retaliation: Toward a theory of non-violent and violent forms. *Justice Quarterly*, 27: 186–205.
- Jacques, Scott and Richard Wright. 2008. The relevance of peace to studies of drug market violence. *Criminology*, 46: 221–253.
- Jones, Bobby L., Daniel S. Nagin, and Kathryn Roeder. 2001. A SAS procedure based on mixture models for estimating developmental trajectories. *Sociological Methods and Research*, 29:374–393.
- Kelling, George L. and Mark H. Moore. 1988. From political to reform to community. The evolving strategy of police. In (Jack Greene and Stephen Mastrofski, eds.), *Community Policing: Rhetoric or Reality?* Monsey, NY: Criminal Justice Press.
- Kennedy, David. 1997. Pulling levers: Chronic offenders, high-crime settings, and a theory of prevention. *Valparaiso University Law Review*, 31: 449–484.
- Kennedy, David. 2006. Old wine in new bottles: Policing and the lessons of pulling levers. In (David Weisburd and Anthony Braga, eds.), *Police Innovation: Contrasting Perspectives*. New York: Cambridge University Press.
- Kennedy, David. 2009. *Deterrence and Crime Prevention: Reconsidering the Prospect of Sanction*. New York: Routledge.
- Kennedy, David M. and Sue-Lin Wong. 2009. *The High Point Drug Market Intervention Strategy*. Washington, DC: Office of Community Oriented Policing Services, U.S. Department of Justice.
- Krivo, Lauren J. and Ruth D. Peterson. 2000. The structural context of homicide: Accounting for racial differences in process. *American Sociological Review*, 65: 547–559.
- Kubrin, Charis E., Steven F. Messner, Glenn Deane, Kelly McGeever, and Thomas D. Stuckey. 2010. Proactive policing and robbery rates across U.S. cities. *Criminology*, 48: 57–97.
- Kubrin, Charis E. and Ronald Weitzer. 2003. New directions in social disorganization theory. *Journal of Research in Crime and Delinquency*, 40: 374–402.

- Land, Kenneth C., Patricia McCall, and Lawrence E. Cohen. 1990. Structural covariates of homicide rates: Are there any invariances across time and social space? *American Journal of Sociology*, 95: 922–963.
- Lee, Matthew R. 2000. Concentrated poverty, race, and homicide. *The Sociological Quarterly*, 41: 189–206.
- Lum, Cynthia, Christopher S. Koper, and Cody W. Telep. 2011. The evidence-based policing matrix. *Journal of Experimental Criminology*, 7: 3–26.
- MacDonald, John M. 2002. The effectiveness of community policing reducing urban violence. *Crime & Delinquency*, 48: 592–618.
- Mazerolle, Lorraine, Emma Antrobus, Tom R. Tyler, and Sarah Bennett. 2011. How positive encounters shape perceptions of police: Findings from the Queensland community engagement trial. Submitted for publication.
- McGarrell, Edmund F., Steven Chermak, Jeremy M. Wilson, and Nicholas Corsaro. 2006. Reducing homicide through a “lever-pulling” strategy. *Justice Quarterly*, 23:214–231.
- McGarrell, Edmund F., Nicholas Corsaro, Natalie K. Hipple, and Timothy S. Bynum. 2010. Project safe neighborhoods and violent crime trends in U.S. cities: Assessing violent crime impact. *Journal of Quantitative Criminology*, 26: 165–190.
- Nagin, Daniel S. 1998. Criminal deterrence research at the outset of the twenty-first century. In (Michael Tonry, ed.), *Crime and Justice: A Review of Research*. Chicago, IL: University of Chicago Press.
- Nagin, Daniel S. 2005. *Group-Based Modeling of Development*. Cambridge, MA: Harvard University Press.
- Nagin, Daniel S. and Kenneth C. Land. 1993. Age, criminal careers, and population heterogeneity: Specification and estimation of a nonparametric, mixed Poisson model. *Criminology*, 31: 327–362.
- Nagin, Daniel S., Linda Pagani, Richard Tremblay, and Frank Vitaro. 2003. Life course turning points: A case study of the effect of school failure on interpersonal violence. *Development and Psychopathology*, 15: 343–361.
- Osgood, D. Wayne. 2000. Poisson-based regression analysis of aggregate crime rates. *Journal of Quantitative Criminology*, 16: 21–43.
- Papachristos, Andrew V., Tracey L. Meares, and Jeffery Fagan. 2007. Attention felons: Evaluating Project Safe Neighborhoods in Chicago. *Journal of Empirical Legal Studies*, 4:223–272.
- Paternoster, Raymond. 1987. The deterrent effect of the perceived certainty and severity of punishment: A review of the evidence and issues. *Justice Quarterly*, 4: 173–218.
- Paternoster, Raymond. 2010. How much do we really know about criminal deterrence? *Journal of Criminal Law and Criminology*, 100: 765–823.
- Piquero, Alex R. 2005. Reliable information and rational policy decisions: Does gun research fit the bill? *Criminology & Public Policy*, 4: 779–798.
- Piquero, Alex R. 2008. Taking stock of developmental trajectories of criminal activity over the life course. In (Akiva Liberman, ed.), *The Long View of Crime: A Synthesis of Longitudinal Research*. New York: Springer.
- Reisig, Michael D. 2010. Community and problem-oriented policing. *Crime and Justice: A Review of Research*, 39: 2–53.
- Reuter, Peter. 2009. Systemic violence in drug markets. *Crime, Law, and Social Change*, 52: 275–284.

- Rosenbaum, Paul R. and Donald B. Rubin. 1985. Constructing a control group using multivariate matched sampling methods that incorporate the propensity score. *The American Statistician*, 39: 33–38.
- Rosenfeld, Richard, Robert Fornango, and Eric Baumer. 2005. Did Ceasefire, Compstat, and Exile reduce homicide? *Criminology & Public Policy*, 4: 419–450.
- Sampson, Robert J. and Jacqueline Cohen. 1988. Deterrent effects of the police on crime: A replication and theoretical extension. *Law & Society Review*, 22: 163–189.
- Sampson, Robert J., Stephen Raudenbush, and Felton Earls. 1997. Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, 277: 918–924.
- Sherman, Lawrence W., Patrick Gartin, and Michael Buerger. 1989. Hot spots of predatory crime: Routine activities and the criminology of place. *Criminology*, 27: 27–55.
- Sherman, Lawrence W., Denise Gottfredson, Doris MacKenzie, John Eck, Peter Reuter, and Shawn D. Bushway. 1997. *Preventing Crime: What Works, What Doesn't, What's Promising: A Report to the United States Congress*. Washington, DC: Office of Justice Programs, U.S. Department of Justice.
- Sherman, Lawrence W. and David Weisburd. 1995. General deterrent effects of police patrol in crime “hot spots”: A randomized, controlled trial. *Justice Quarterly*, 12: 625–648.
- Skogan, Wesley G. 1990. *Disorder and Decline: Crime and the Spiral Decay in American Cities*. New York: Free Press.
- Skogan, Wesley G. and Susan M. Hartnett. 1997. *Community Policing: Chicago Style*. New York: Oxford University Press.
- Tillyer, Marie S., Robin S. Engel, and Brian Lovins. In press. Beyond Boston: Applying theory to understand and address sustainability issues in focused deterrence initiatives for violence reduction. *Crime & Delinquency*.
- Tita, George, Jacqueline Cohen, and John Engberg. 2005. An ecological study of the location of gang “set space.” *Social Problems*, 52: 272–299.
- Tyler, Tom R. 1990. *Why People Obey the Law*. New Haven, CT: Yale University Press.
- Tyler, Tom R. 2003. Procedural justice, legitimacy, and the effective rule of law *Crime and Justice: A Review of Research*, 30: 431–505.
- Weisburd, David, Shawn D. Bushway, Cynthia Lum, and Sue-Ming Yang. 2004. Trajectories of crime at places: A longitudinal study of street segments in the city of Seattle. *Criminology*, 42: 283–321.
- Weisburd, David, Gerben J.N. Bruinsma, and Wim Bernasco. 2008. Units of analysis in geographic criminology: Historical development, critical issues, and open questions. In (David Weisburd, Wim Bernasco, and Gerben J. N. Bruinsma, eds.), *Putting Crime in Its Place: Units of Analysis in Spatial Crime Research*. New York: Springer.
- Weisburd, David and Lorraine Green. 1995. Measuring immediate spatial displacement: Methodological issues and problems. In (John Eck and David Weisburd, eds.), *Crime and Place Crime Prevention Studies. Vol. 4*. Monsey, NY: Criminal Justice Press.
- Weisburd, David, Cynthia M. Lum, and Anthony Petrosino. 2001. Does research design affect study outcomes in criminal justice? *The ANNALS of the American Academy of Political and Social Science*, 578: 50–70.
- Weisburd, David, Nancy Morris, and Elizabeth R. Groff. 2009. Hot spots of juvenile crime: A longitudinal study of street segments in Seattle, Washington. *Journal of Quantitative Criminology*, 24: 443–467.

- Weisburd, David, Cody W. Telep, Joshua C. Hinkle, and John Eck. 2010. Is problem-oriented policing effect in reducing crime and disorder? Findings from a Campbell systematic review. *Criminology & Public Policy*, 9: 139–172.
- Wellford, Charles, John V. Pepper, and Carol Petrie. 2005. *Firearms and Violence: A Critical Review*. Washington, DC: The National Academies Press.
- Welsh, Brandon C., Meghan E. Peel, David P. Farrington, Henk Elffers, and Anthony A. Braga. 2011. Research design influence on study outcomes in crime and justice: A partial replication with public area surveillance. *Journal of Experimental Criminology*, 7: 183–198.
- Worden, Robert, Timothy S. Bynum, and James Frank. 1994. Police crackdowns on drug abuse and trafficking. In (Doris MacKenzie and Craig D. Uchida, eds.), *Drugs and crime: Evaluating policy initiatives*. Thousand Oaks, CA: Sage.
- Wright, Bradley R.E., Avshalom Caspi, Terrie E. Moffitt, and Raymond Paternoster. 2004. Does the perceived risk of punishment deter criminally prone individuals? Rational choice, self-control, and crime. *Journal of Research in Crime and Delinquency*, 41: 180–213.
- Yang, Sue-Ming. 2010. Assessing the spatial-temporal relationship between disorder and violence. *Journal of Quantitative Criminology*, 26: 139–163.
- Zimring, Frank E. and Gordon Hawkins. 1973. *Deterrence: The Legal Threat in Crime Control*. Chicago, IL: University of Chicago Press.
- Zimring, Frank E. and Gordon Hawkins. 1997. *Crime Is Not the Problem: Lethal Violence in America*. New York: Oxford University Press.

Nicholas Corsaro is an Assistant Professor in the School of Criminal Justice at the University of Cincinnati. His research interests include strategic approaches to reducing crime, environmental criminology, program evaluation, and research methodology. His recent research appears in *Justice Quarterly*, *Crime and Delinquency*, *Evaluation Review*, *Journal of Quantitative Criminology*, *Journal of Urban Health*, and *Journal of Experimental Criminology*.

Eleazer D. Hunt is a Crime Analyst for the High Point (North Carolina) Police Department. Prof. Hunt's main area of research involves the integration and evaluation of data-driven strategies that draw on the problem-oriented policing framework. He has published in several scholarly outlets in criminology and criminal justice, substance abuse, and urban geography.

Natalie Kroovand Hipple is a Research Specialist and the Coordinator of Online Programs in the School of Criminal Justice at Michigan State University. Her research interests include restorative justice, drug markets, gun crime, arrestee drug abuse monitoring, and re-entry. She has publications in the *Journal of Quantitative Criminology*, *Policing, Justice Quarterly*, *International Journal of Comparative and Applied Criminal Justice*, and *Justice Research and Policy* as well as an edited book and numerous book chapters.

Edmund F. McGarrell is a Professor and Director of the School of Criminal Justice at Michigan State University. His research interests are in communities and crime with particular emphasis on studying problem-solving responses to gun, gang, and drug market crime and violence. Recent articles appear in *Evaluation Review*, *Journal of Urban Health*, *Criminology and Public Policy*, *Journal of Quantitative Criminology*, *British Journal of Criminology*, *Crime and Delinquency*, *Journal of Criminal Justice*, and *Journal of Experimental Criminology*.

A P P E N D I X

Pooled Census Block Averages of Structural Characteristics and Baseline Violence Indicators by Trajectory Classification

Trajectory Group	# of Blocks	% Black	% Male	% 18 to 21	% Female-Headed Home	% Renter Occupied
Overall chronic high	102	45.56	40.47	4.49	17.82	59.23
Target areas	18	73.98	49.46	4.91	29.53	76.99
Nontarget areas	84	39.47	38.54	4.39	15.31	55.42
Overall moderate stable	376	42.17	43.47	5.17	11.71	50.66
Target areas	61	70.15	46.37	5.71	18.24	69.49
Nontarget areas	315	36.76	42.91	5.07	10.45	47.00
Overall negligible	1,227	14.23	35.23	2.63	4.46	19.45
Target areas	43	50.23	41.49	5.23	12.55	52.51
Nontarget areas	1,184	12.91	35.00	2.52	4.16	18.25

POLICY ESSAY

HIGH POINT DRUG MARKET INTERVENTION

Getting deterrence right?

Evaluation evidence and complementary crime control mechanisms

Anthony A. Braga

*Rutgers University
Harvard University*

In recent years, scholars have begun to argue that police interventions provide an effective approach for gaining both special and general deterrence against crime. A series of experimental and quasi-experimental studies has shown that the police can be effective in preventing crime (Braga, 2001, 2005; Skogan and Frydl, 2004; Weisburd and Eck, 2004), and that such crime prevention benefits are not offset by displacement of crime to areas near to police interventions (Braga, 2001; Weisburd et al., 2006). Durlauf and Nagin (2011: 14) drew from this literature to argue that, “Increasing the visibility of the police by hiring more officers and by allocating existing officers in ways that heighten the perceived risk of apprehension consistently seem to have substantial marginal deterrent effects.” Indeed, they concluded that crime prevention in the United States would be improved by shifting resources from imprisonment to policing.

A recent innovation in policing that capitalizes on the growing evidence of the effectiveness of police deterrence strategies is the “focused deterrence” framework, which is often referred to as “pulling-levers policing” (Kennedy, 1998, 2008). Pioneered in Boston as a problem-oriented policing project to halt serious gang violence during the 1990s (Braga, Kennedy, Waring, and Piehl, 2001), the focused deterrence framework has been applied in many U.S. cities through federally sponsored violence-prevention programs such as the Strategic Alternatives to Community Safety Initiative and Project Safe Neighborhoods (PSN) (Dalton, 2002). Focused deterrence strategies honor core deterrence ideas, such as increasing risks faced by offenders, while finding new and creative ways of deploying

Direct correspondence to Anthony A. Braga, John F. Kennedy School of Government, Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138 (e-mail: anthony_braga@harvard.edu).

traditional and nontraditional law enforcement tools to do so, such as communicating incentives and disincentives directly to targeted offenders (Kennedy, 1998, 2008). The High Point Drug Market Intervention (DMI) applied focused deterrence principles to overt drug market problems and Corsaro, Hunt, Kroovand Hipple, and McGarrell (2012, this issue) report positive crime control gains associated with the approach.

The evaluation evidence on the crime control value of the focused deterrence approach, particularly its first application to control gang violence in Boston known as Operation Ceasefire, has received some healthy skepticism (see, e.g., Fagan, 2002; Rosenfeld, Fornango, and Baumer, 2005). In a recent article in *The New Yorker* (Seabrook, 2009: 37), well-respected deterrence scholar Professor Franklin Zimring lamented the lack of rigorous evaluations of this new crime control strategy and, when assessing the Boston experience, stated, "Ceasefire is more of a theory of treatment rather than a proven strategy." Although there has been some scholarly support for the potential efficacy of these new approaches (see, e.g., Cook and Ludwig, 2006; Durlauf and Nagin, 2011), many critics seem to be unaware of the growing body of evidence showing that focused deterrence strategies, such as Boston's Ceasefire and High Point's DMI, do indeed generate noteworthy crime control benefits.

The evaluation evidence, however, needs further development. Most concerning is that the available evaluation literature does not provide much insight on why these programs seem to work in practice. Even a casual reader of the various focused deterrence program descriptions would note that there seems to be additional crime control mechanisms at work beyond straight-up deterrence. Corsaro et al. (2012) explicitly acknowledge the possibility that other prevention frameworks, such as community social control and procedural fairness, might help explain the observed impacts of the High Point DMI on violent crime. As such, this policy essay briefly summarizes the existing evaluation evidence and explores some complementary mechanisms that might account for some of the observed crime reduction effects.

The Existing Evaluation Evidence

The available scientific evidence on the crime reduction value of focused deterrence strategies has been characterized previously as "promising" but "descriptive rather than evaluative" (Skogan and Frydl, 2004: 241) and as "limited" but "still evolving" (Wellford, Pepper, and Petrie, 2005: 10) by the U.S. National Research Council's Committee to Review Research on Police Policy and Practices and the Committee to Improve Research Information and Data on Firearms, respectively. A recently completed Campbell Collaboration systematic review identified 11 evaluations of focused deterrence strategies that used comparison groups (Braga and Weisburd, 2011); nine of these evaluations were completed after the National Research Council reports were published. Six studies evaluated the crime reduction effects of focused deterrence strategies on serious violence generated by street gangs or criminally

active street groups (Boston, Cincinnati, Indianapolis, Los Angeles, Lowell, and Stockton). Two studies evaluated strategies focused on reducing crime driven by street-level drug markets (Nashville and Rockford), and three evaluated crime reduction strategies that were focused on individual repeat offenders (Chicago, Honolulu, and Newark). Ten evaluations used quasi-experimental research designs of varying rigor, and only one used a randomized controlled trial design. A better-developed base of scientific evidence now exists to assess whether crime prevention impacts are associated with this approach.

Ten of eleven eligible studies reported strong and statistically significant crime reductions associated with the focused deterrence strategy. The Campbell review meta-analysis suggested that focused deterrence strategies are associated with an overall statistically significant, medium-sized crime reduction effect. Only one study did not report a notable crime prevention benefit. In Newark, NJ (Boyle, Lanterman, Pascarella, and Cheng, 2010), a quasi-experimental evaluation reported a non-statistically significant reduction in gunshot injuries associated with a strategy that blended the law enforcement actions developed by the Boston Ceasefire pulling levers strategy with the public health violence prevention activities developed by CeaseFire Chicago (Skogan, Hartnett, Bump, and DuBois, 2008). Although it is not clear why the Newark program failed to generate larger impacts on gun violence, growing evaluation evidence suggests that the CeaseFire Chicago community-driven violence reduction approach, with its premium on gang violence mediation and negotiation work by “violence interrupters,” might not produce the desired violence prevention benefits (see Papachristos, 2011).

The High Point DMI quasi-experimental evaluation (Corsaro et al., 2012) joins this developing body of evaluation evidence.¹ The Campbell review identified two other quasi-experimental evaluations of the DMI approach. Corsaro, Brunson, and McGarrell (2010) reported that a DMI strategy targeting an illegal drug market operating in the McFerrin Park neighborhood of Nashville, TN, was associated with statistically significant reductions in drug and property offenses. The evaluation also suggested that the DMI intervention was associated with a noteworthy diffusion of crime control benefits to adjoining areas beyond the McFerrin Park target neighborhood. The same research team also evaluated a DMI program focused on an illegal drug market in the Delancey Heights neighborhood of Rockford, IL, and reported statistically significant reductions in property, drug, and nuisance crimes (Corsaro, Brunson, and McGarrell, 2009).

Similar to other investigations of prevention effects reported by crime and justice studies (Weisburd, Lum, and Petrosino, 2001; Welsh, Peel, Farrington, Elffers, and Braga, 2011), Braga and Weisburd (2011) also found that the strongest program effect sizes were generated by evaluations that used the weakest quasi-experimental research designs.

1. The High Point DMI evaluation (Corsaro et al., 2012) was not available when the search for eligible strategies was completed for the Campbell Collaboration review. It will be included when the review is updated.

However, positive effect sizes were evidenced in those studies using strong comparison groups (e.g., Papachristos, Meares, and Fagan, 2007) and in the sole randomized controlled trial (Hawken and Kleiman, 2009).² Even if we assume that the observed effects contained some degree of upward bias, it seems that the overall impact of such programs is noteworthy. These findings are certainly encouraging and point to the promises of the focused deterrence approach.

The positive outcomes of the existing body of evaluations indicate that additional experimental evaluations, however difficult and costly, are warranted. The potential barriers are real, especially in regard to identifying valid treatment and comparison areas. But existing evidence is strong enough to warrant a large investment in multisite experiments (Weisburd and Taxman, 2000). Such experiments could solve the problem of small numbers of places in single jurisdictions and would allow for examination of variation in effectiveness across contexts.

Complementary Crime Control Mechanisms

In his discussion of pulling levers strategies, David M. Kennedy (1998: 8) suggested, “remarkably, it may be that a key aspect of getting the deterrence equation right is simply communicating directly with the last group that is usually considered for inclusion in crime control strategies: offenders themselves.” The available research has suggested that deterrent effects are ultimately determined by offender perceptions of sanction risk and certainty (Nagin, 1998). Focused deterrence strategies are targeted on specific behaviors by a relatively small number of chronic offenders who are highly vulnerable to criminal justice sanctions. The approach directly confronts offenders and informs them that continued offending will not be tolerated and how the system will respond to violations of these new behavior standards. Face-to-face meetings with offenders are an important first step in altering their perceptions about sanction risk (Horney and Marshall, 1992; Nagin, 1998). As McGarrell, Chermak, Wilson, and Corsaro (2006) suggested, direct communications and affirmative follow-up responses are the types of new information that might cause offenders to reassess the risks of committing crimes.

2. The Hawaii Opportunity with Probation Enforcement (HOPE) intervention was a community supervision program aimed at substance-abusing probationers (Hawken and Kleiman, 2009). The program relied on a mandate to abstain from illicit drugs, backed by swift and certain sanctions for drug test failures and preceded by a clear and direct warning. Probationers were sentenced to drug treatment only if they continued to test positive for drug use or if they requested a treatment referral. The deterrence-based HOPE intervention differs significantly from typical drug court operations as it economizes on treatment and court resources. As Hawken and Kleiman (2009) suggested, HOPE does not mandate formal treatment for every probationer and does not require regularly scheduled meetings with a judge; probationers appear before a judge only when they have violated a rule. HOPE is often linked to the DMI approaches as a related application of focused deterrence (see, e.g., Boyum, Caulkins, and Kleiman, 2011) as well as gang- and group-based pulling levers focused deterrence based on the common strategy of certain punishment for offenders (Durlauf and Nagin, 2011).

Although the results of the Campbell Collaboration review (Braga and Weisburd, 2011) and the new Corsaro et al. (2012) evaluation are supportive of deterrence principles, it seems likely that other complementary crime control mechanisms are at work in the focused deterrence strategies described here that need to be highlighted and better understood. In Durlauf and Nagin's (2011) article, the focus is on the possibilities for increasing perceived risk and deterrence by increasing police presence. Although this conclusion is warranted by the data and represents an important component of the causal mechanisms that have increased the effectiveness of focused deterrence strategies, it might miss an important part of the story. In the focused deterrence approach, the emphasis is not only on increasing the risk of offending but also on decreasing opportunity structures for violence, deflecting offenders away from crime, increasing the collective efficacy of communities, and increasing the legitimacy of police actions. Indeed, it seems likely that the observed crime control gains come precisely from the multifaceted ways in which this program influences criminals.

Several scholars have focused on the mechanism of "discouragement" when discussing the crime prevention benefits of interventions (see, e.g., Clarke and Weisburd, 1994). Discouragement emphasizes decreasing the opportunities for crime and increasing the alternative opportunity structures for offenders. In this context, situational crime prevention techniques often are implemented as part of the core pulling levers work in focused deterrence strategies (Braga and Kennedy, 2012; Skubak Tillyer and Kennedy, 2008). For instance, the Cincinnati Initiative to Reduce Violence gang-violence-reduction-focused deterrence strategy used civil forfeiture techniques to close down a highly problematic bar that generated recurring serious violence (Engel, Corsaro, and Skubak Tillyer, 2010). Extending guardianship, assisting natural surveillance, strengthening formal surveillance, reducing the anonymity of offenders, and using place managers can greatly enhance the range and the quality of the varying enforcement and regulatory levers that can be pulled on offending groups and key actors in criminal networks. The focused deterrence approach also seeks to redirect offenders away from violent crime through the provision of social services and opportunities. In all the gang/group interventions reviewed by Braga and Weisburd (2011), gang members were offered job training, employment, substance abuse treatment, housing assistance, and a variety of other services and opportunities.

Some aspects of "broken windows" theory also may be relevant for our understanding of how and why focused deterrence programs reduce crime (Wilson and Kelling, 1982). Broken windows theory argues that intensive efforts by police to reduce social and physical disorder can reverse the breakdown of community social controls that accompanies untended and unrestrained violations of social order. Thus, crime is reduced in part because of efforts by the police and in part because of increased vigilance by community members. Kleiman and Smith (1990: 88) described the potential benefits of an intensive police effort to reduce drug crime and disorder by noting "a dramatic police effort may call forth increased

neighborhood efforts at self-protection against drug dealing activity; given police resources such self-defense may be essential to long-run control of drug dealing.”

Sampson, Raudenbush, and Earls (1997) emphasized the capacity of a community to realize common values and to regulate behavior within it through cohesive relationships and mutual trust among residents. They argued that the key factor determining whether crime will flourish is a sense of the “collective efficacy” of a community. A community with strong collective efficacy is characterized by “high capacities for collective action for the public good” (St. Jean, 2007: 3). Focused deterrence enhances collective efficacy in communities by emphasizing the importance of engaging and enlisting community members in the strategies developed. The High Point DMI strategy, for example, drew on collective efficacy principles by engaging family, friends, and other “influential” community members in addressing the criminal behaviors of local drug dealers (Corsaro et al., 2012).

Finally, the focused deterrence approach takes advantage of recent theorizing regarding procedural justice and legitimacy. The effectiveness of policing is dependent on public perceptions of the legitimacy of police actions (Skogan and Frydl, 2004; Tyler, 1990, 2004). Legitimacy is the public belief that there is a responsibility and obligation to accept voluntarily and defer to the decisions made by authorities (Tyler, 1990, 2004). Recent studies have suggested that when procedural justice approaches are used by the police, citizens not only will evaluate the legitimacy of the police more highly but also will be more likely to obey the law in the future (see, e.g., Paternoster et al., 1997). Advocates of focused deterrence strategies argue that targeted offenders should be treated with respect and dignity (Kennedy, 2008), reflecting procedural justice principles. The Chicago PSN strategy, for instance, sought to increase the likelihood that the offenders would “buy in” and comply voluntarily with the prosocial, antiviolence norms being advocated by interacting with offenders in ways that enhance procedural justice in their communication sessions (Papachristos et al., 2007).

At this point, the Chicago PSN quasi-experiment is the only evaluation that has attempted to isolate the effects of key program elements that comprised a focused deterrence strategy (Papachristos et al., 2007). The research team analyzed the overall effects of the PSN treatment as well as the four interventions that made up the PSN treatment:

1. Increased federal prosecutions for convicted felons carrying or using guns
2. The length of sentences associated with federal prosecutions
3. Supply-side firearm policing activities (gun recoveries by police gun teams)
4. Social marketing of deterrence and social norms messages through justice-style offender notification meetings

In these offender notification meetings, randomly selected gun- and gang-involved, recently released former prison inmates returning to the treatment districts were informed of their vulnerability as felons to federal firearms laws, with stiff mandatory minimum

sentences; were offered social services; and were addressed by community members and ex-offenders.

Papachristos et al. (2007) found that the overall PSN treatment was associated with a statistically significant 37% reduction in the number of homicides in the treatment district relative to the control districts. The specific PSN intervention that generated the largest, statistically significant effect on decreased homicide in the treatment districts relative to control districts was the offender notification forums. In short, the greater the proportion of offenders who attended the forums, the greater the decline in treatment district levels of homicide. Increased federal prosecutions and the number of guns recovered by the gun teams were associated with modest but statistically significant declines in homicides in the treatment districts relative to the control districts. Getting more guns off the street and prosecuting more offenders federally for gun crimes were associated with small but meaningful homicide decreases. The length of sentences associated with federal prosecutions was not associated with the observed homicide decreases.

Concluding Remarks

Focused deterrence strategies, such as High Point's DMI and Boston's Ceasefire, are a recent addition to the existing scholarly literature on crime control and prevention strategies. Although the evaluation evidence needs to be strengthened and the theoretical underpinnings of the approach need refinement, jurisdictions suffering from gang violence, overt drug markets, and repeat offender problems should add focused deterrence strategies to their existing portfolio of prevention and control interventions. The existing evidence suggests these new approaches to crime prevention and control generate crime reductions.

At the same, however, jurisdictions looking to implement focused deterrence programs need guidance on the key operational elements of these varied approaches. The Chicago PSN evaluation suggested that direct communications with offenders in a procedurally just manner and maintaining an enforcement environment that increases the risk of apprehension and prosecution are important elements. It seems likely that there are other key elements. As evaluation evidence and practical experience continues to accumulate, a premium must be placed on identifying these complementary crime control mechanisms and on isolating their impacts on targeted crime problems.

References

- Boyle, J. Douglas, Jennifer Lanterman, Joseph Pascarella, and Chia-Cherng Cheng. 2010. The impact of Newark's Operation Ceasefire on trauma center gunshot wound admissions. *Justice Research and Policy*, 12: 105–123.
- Boyum, David A., Jonathan P. Caulkins, and Mark A.R. Kleiman. 2011. Drugs, crime, and public policy. In (James Q. Wilson and Joan Petersilia, eds.), *Crime and Public Policy*. New York: Oxford University Press.

- Braga, Anthony A. 2001. The effects of hot spots policing on crime. *The ANNALS of the American Academy of Political and Social Science*, 578: 104–125.
- Braga, Anthony A. 2005. Hot spots policing and crime prevention: A systematic review of randomized controlled trials. *Journal of Experimental Criminology*, 1: 317–342.
- Braga, Anthony A. and David M. Kennedy. 2012. Linking situational crime prevention and focused deterrence strategies. In (Graham Farrell and Nick Tilley, eds.), *The Reasoning Criminologist: Essays in Honour of Ronald V. Clarke*. London, U.K.: Taylor and Francis.
- Braga, Anthony A., David M. Kennedy, Elin J. Waring, and Anne M. Piehl. 2001. Problem-oriented policing, deterrence, and youth violence: An evaluation of Boston's Operation Ceasefire. *Journal of Research in Crime and Delinquency*, 38: 195–225.
- Braga, Anthony A. and David L. Weisburd. 2011. The effects of focused deterrence strategies on crime: A systematic review and meta-analysis of the empirical evidence. *Journal of Research in Crime and Delinquency*. [E-pub ahead of print, September 13.]
- Clarke, Ronald V. and David L. Weisburd. 1994. Diffusion of crime control benefits: Observations on the reverse of displacement. *Crime Prevention Studies*, 2: 165–184.
- Cook, Philip J. and Jens Ludwig. 2006. Aiming for evidence-based gun policy. *Journal of Policy Analysis and Management*, 48: 691–735.
- Corsaro, Nicholas, Rod K. Brunson, and Edmund F. McGarrell. 2009. Problem-oriented policing and open-air drug markets: Examining the Rockford pulling levers deterrence strategy. *Crime & Delinquency*. [Epub ahead of print, October, 14.]
- Corsaro, Nicholas, Rod K. Brunson, and Edmund F. McGarrell. 2010. Evaluating a policing strategy intended to disrupt an illicit street-level drug market. *Evaluation Review*, 34: 513–548.
- Corsaro, Nicholas, Eleazer D. Hunt, Natalie Kroovand Hipple, and Edmund F. McGarrell. 2012. The impact of drug market pulling levers policing on neighborhood violence: An evaluation of the High Point Drug Market Intervention. *Criminology & Public Policy*. This issue.
- Dalton, Erin. 2002. Targeted crime reduction efforts in ten communities: Lessons for the Project Safe Neighborhoods initiative. *U.S. Attorney's Bulletin*, 50: 16–25.
- Durlauf, Steven and Daniel S. Nagin. 2011. Imprisonment and crime: Can both be reduced? *Criminology & Public Policy*, 10: 13–54.
- Engel, Robin S., Nicholas Corsaro, and Marie Skubak Tillyer. 2010. *Evaluation of the Cincinnati Initiative to Reduce Violence (CIRV)*. Cincinnati, OH: University of Cincinnati Policing Institute.
- Fagan, Jeffrey. 2002. Policing guns and youth violence. *The Future of Children*, 12: 133–151.
- Hawken, Angela and Mark A.R. Kleiman. 2009. *Managing Drug Involved Probationers with Swift and Certain Sanctions: Evaluating Hawaii's HOPE*. Final report submitted to the National Institute of Justice, U.S. Department of Justice.
- Horney, Julie and Ineke H. Marshall. 1992. Risk perceptions among serious offenders: The role of crime and punishment. *Criminology*, 30: 575–594.
- Kennedy, David M. 1998. Pulling levers: Getting deterrence right. *National Institute of Justice Journal*, 236: 2–8.

- Kennedy, David M. 2008. *Deterrence and Crime Prevention: Reconsidering the Prospect of Sanction*. London, U.K.: Routledge.
- Kleiman, Mark A.R. and Kerry D. Smith. 1990. State and local drug enforcement: In search of a strategy. In (Michael Tonry and James Q. Wilson, eds.), *Drugs and Crime, Crime and Justice: A Review of Research*, Vol. 13. Chicago, IL: University of Chicago Press.
- McGarrell, Edward, Steven Chermak, Jeremy Wilson, and Nicholas Corsaro. 2006. Reducing homicide through a “lever-pulling” strategy. *Justice Quarterly*, 23: 214–229.
- Nagin, Daniel S. 1998. Criminal deterrence research at the outset of the twenty-first century. In (Michael Tonry, ed.), *Crime and Justice: A Review of Research*, Vol. 23. Chicago, IL: University of Chicago Press.
- Papachristos, Andrew. 2011. Too big to fail: The science and politics of violence prevention. *Criminology & Public Policy*, 10: 1053–1061.
- Papachristos, Andrew, Tracey Meares, and Jeffrey Fagan. 2007. Attention felons: Evaluating Project Safe Neighborhoods in Chicago. *Journal of Empirical Legal Studies*, 4: 223–272.
- Paternoster, Raymond, Robert Brame, Ronet Bachman, and Lawrence Sherman. 1997. Do fair procedures matter? The effect of procedural justice on spouse assault. *Law & Society Review*, 31: 163–204.
- Rosenfeld, Richard, Robert Fornango, and Eric Baumer. 2005. Did Ceasefire, Compstat, and Exile reduce homicide? *Criminology & Public Policy*, 4: 419–450.
- Sampson, Robert, Stephen Raudenbush, and Felton Earls. 1997. Neighborhoods and violent crime. *Science*, 277: 918–924.
- Seabrook, John. 2009. Don’t shoot: A radical approach to the problem of gang violence. *The New Yorker*. June 22, pp. 32–39.
- Skogan, Wesley and Kathleen Frydl (eds.). 2004. *Fairness and Effectiveness in Policing: The Evidence*. Committee to Review Research on Police Policy and Practices. Washington, DC: The National Academies Press.
- Skogan, Wesley, Susan Hartnett, Natalie Bump, and Jill DuBois. 2008. *Evaluation of CeaseFire-Chicago*. Evanston, IL: Northwestern University, Institute for Policy Research.
- Skubak Tillyer, Marie and David M. Kennedy. 2008. Locating focused deterrence approaches within a situational crime prevention framework. *Crime Prevention & Community Safety*, 10: 75–84.
- St. Jean, Peter K.B. 2007. *Pockets of Crime: Broken Windows, Collective Efficacy, and the Criminal Point of View*. Chicago, IL: University of Chicago Press.
- Tyler, Tom R. 1990. *Why People Obey the Law: Procedural Justice, Legitimacy, and Compliance*. New Haven, CT: Yale University Press.
- Tyler, Tom R. 2004. Enhancing police legitimacy. *The ANNALS of the American Academy of Political and Social Science*, 593: 84–99.
- Weisburd, David L. and John E. Eck. 2004. What can police do to reduce crime, disorder and fear? *The ANNALS of the American Academy of Political and Social Science*, 593: 42–65.

- Weisburd, David L., Cynthia Lum, and Anthony Petrosino. 2001. Does research design affect study outcomes in criminal justice? *The ANNALS of the American Academy of Social and Political Sciences*, 578: 50–70.
- Weisburd, David L. and Faye S. Taxman. 2000. Developing a multi-center randomized trial in criminology: The case of HIDTA. *Journal of Quantitative Criminology*, 16: 315–339.
- Weisburd, David L., Laura Wyckoff, Justin Ready, John E. Eck, Joshua Hinkle, and Frank Gajewski. 2006. Does crime just move around the corner? A controlled study of spatial displacement and diffusion of crime control benefits. *Criminology*, 44: 549–592.
- Wellford, Charles F., John V. Pepper, and Carol V. Petrie (eds.). 2005. *Firearms and Violence: A Critical Review*. Committee to Improve Research Information and Data on Firearms. Washington, DC: The National Academies Press.
- Welsh, Brandon C., Meghan E. Peel, David P. Farrington, Henk Elffers, and Anthony A. Braga. 2011. Research design influence on study outcomes in crime and justice: A partial replication with public area surveillance. *Journal of Experimental Criminology*, 7: 183–198.
- Wilson, James Q. and George L. Kelling. 1982. Broken windows: The police and neighborhood safety. *Atlantic Monthly*, March, pp. 29–38.
-

Anthony A. Braga is a professor in the School of Criminal Justice at Rutgers University and a senior research fellow in the Program in Criminal Justice Policy and Management at Harvard University's John F. Kennedy School of Government. He is the current president of the Academy of Experimental Criminology and a former visiting fellow at the U.S. National Institute of Justice. His research focuses on working with criminal justice agencies to develop crime prevention strategies to deal with urban problems such as gang violence, illegal gun markets, and violent crime hot spots. He received his M.P.A. from Harvard University and his Ph.D. in criminal justice from Rutgers University.

Good Markets Make Bad Neighbors

Regulating Open-Air Drug Markets

Peter Reuter

University of Maryland

Harold A. Pollack

University of Chicago

In their manuscript, Corsaro, Hunt, Kroovand Hipple, and McGarrell (2012, this issue) provide a valuable contribution to the literature regarding focused deterrence with an econometric evaluation of the High Point Drug Market Intervention (DMI). By employing a difference-in-difference Poisson panel regression framework, as well as group-based trajectory analyses, these authors examine the High Point DMI's likely impact on neighborhood violence.

In their main result, Corsaro et al. (2012) find an incidence rate ratio of 0.854 in violent crime incidence within the targeted intervention areas—roughly speaking, a 14% decline. These authors also find no statistically significant change (indeed some decline) in nearby neighborhoods associated with the intervention, allaying concerns that the DMI simply displaced criminal activity from targeted areas to nearby communities. These findings seem statistically credible. Point estimates are robust to a variety of sensitivity analyses.

The Corsaro et al. (2012) article provides a valuable contribution to the literature regarding an important specific intervention, as well as to the broader conversation regarding innovative approaches to drug policy exemplified by the High Point DMI. Both drug policy hawks and drug policy doves have special reason to embrace this intervention. To hawks, such interventions represent an effective strategy to maximize law enforcement leverage to disrupt drug markets and reduce violent offending. To doves, seeking to soften the individual and community harms associated with severe sanctions for drug offenses, interventions such as the High Point DMI are especially attractive because they offer the promise of improving

Direct correspondence to Peter Reuter, School of Public Policy, 2101 Van Munching Hall, University of Maryland, College Park, MD 20742 (e-mail: preuter@umd.edu).

public safety while gaining the support of local communities, without requiring large or indiscriminating increases in incarceration for nonviolent drug crimes.

Although High Point has attracted widespread attention (Kleiman, 2009), the Corsaro et al. (2012) article provides the most careful econometric analysis to date of the intervention's likely impact on neighborhood violence. The focus on violence is important. Previous research has demonstrated the utility of focused policies in maximizing the deterrent effect of criminal justice policies, and in minimizing the punitive measures required to achieve significant disruption of drug markets (Kleiman, 2009). Corsaro et al. demonstrate that the High Point DMI is associated with an important, statistically significant, albeit modest, decline in violent crime.

These findings from the Corsaro et al. (2012) article also provide a welcome opportunity to examine the broader applicability of this focused-deterrence model. In particular: Can this approach be employed in large cities, where, *inter alia*, community organizations may be weaker, and where drug markets may be much larger? How much can violent crime be curbed through more effective regulation and suppression of open-air drug markets, given the declining violence of the drug trade generally? When and why should authorities focus on specific *places* in which drugs are sold, as opposed to particular drug buyers and sellers, or particular substances being sold?

Open-air Drug Markets: What Are They, and Why Do They Merit Special Attention?

Illicit drugs are consumer goods, which are frequently provided through markets. Markets for illicit drugs have distinctive characteristics with implications for social welfare and for drug policy choices. For example, illicit drugs are enormously valuable per unit weight. So smugglers can afford to employ sophisticated methods to conceal and transport modest quantities. The markets also are generally characterized by small, short-lived, vertically unintegrated, and technologically unsophisticated sole proprietorships that can generate great violence and disorder. For a recent review of drug market characteristics, see Caulkins and Reuter (2010).

Suppressing (or implicitly regulating) these markets is a distinctive responsibility for local police. The market should be shrunk, thus reducing the extent of drug use, itself a crime. Yet police also seek to reduce the adverse consequences of drug use and selling; some of those harms are not driven by the extent of drug use or by the frequency of drug sales (MacCoun and Reuter, 2001).

An interesting feature of the High Point DMI—and of similar local law enforcement interventions—is that these efforts do not particularly seek to suppress the overall drug market, or even the market for substances in a specific community. Rather, these interventions seek to suppress particular *marketplaces* where drug-related commerce brings especially severe social costs.

Thus, the High Point DMI is not primarily concerned with reducing the number of buyers and sellers, let alone with eliminating the drug market in that community. No indicators of drug use are offered in this evaluation or in any of the supporting documents that we have seen, although some reduction should occur as a result of making it more difficult for sellers and buyers to come together.

The real goal of such interventions is to eliminate concentrated drug selling and accompanying disorder and crime at a small number of specific locations where a relative handful of active street-level dealers especially disrupt the life of surrounding communities. Some drug users who formerly purchased cocaine in High Point's West End neighborhood may have stopped using illicit drugs when their preferred open-air marketplace was suppressed. Presumably, though, most simply found new locations that were less socially disruptive or that were less vulnerable to intercession by the police,

The intervention's success is mainly measured in terms of the location and associated crime, not in terms of the total gram-weight of a particular drug sold. This enterprise is different from those pursued by (say) the Drug Enforcement Administration and border authorities in their efforts to disrupt the overall market by interdicting the flow of drugs into the country.

Local police focus on specific places for one simple reason: Good drug marketplaces tend to be bad neighbors, facilitating disorder and crime. These places are good ones for offenders to meet each other and, in some cases, to find victims in the form of intoxicated purchasers, who are poorly situated to seek the assistance of police. Some purchasers are likely to be aggressive and violent. The very existence of the marketplace signals a local failure of law enforcement and perhaps of informal social control—and hence signals a lower risk of apprehension for various crimes. *The Corner* (the book that generated the classic television series *The Wire*) by Simon and Burns (1998) provides an eloquent description of just that phenomenon. Gang struggles for turf, theft by users, and the general menace originating from the presence of so many addicted and impulsive individuals overwhelmed an already-challenged, low-income Baltimore neighborhood.

Not all drug transactions occur in well-defined marketplaces, and not all illicit drug marketplaces are as problematic as those addressed in the High Point DMI. Many marijuana users purchase from friends or acquaintances in settings that are part of their routine life (Caulkins and Pacula, 2006). College dormitories have long been the location of many such transactions, without any particular menace or accompanying police interest. Even if one were to believe that marijuana is a dangerous drug whose use should be subject to intense enforcement, most transactions occur in settings that do not create the same adverse neighborhood and community consequences one associates with open-air marketplaces for heroin or cocaine. An increasing share of cocaine transactions may, as a result of improved communication technologies, occur in private locations (apartments, restaurants, offices) that are agreed to by the buyer and the seller. Poor or unsophisticated heroin and cocaine

users still frequently transact in exposed locations, chosen precisely because they facilitate the coming together of buyers and sellers.

The High Point DMI seeks to suppress open-air marketplaces through a comprehensive effort. Through intensive surveillance, community engagement, and intelligence gathering, High Point law enforcement authorities sought to comprehensively identify *every* street-level dealer who was actively selling drugs within a particular open-air marketplace. To that extent, it is universal, within a specific population: active sellers in a specific area. In that respect, the High Point DMI is unlike the Boston Cease Fire, which focused just on the leaders and the most violent gang members.

Evidence, particularly video surveillance footage, is accumulated sufficient to convict each offender. Once these sellers are identified and sufficiently evidence is collected, authorities immediately seek to incarcerate the most dangerous offenders who have serious records or a propensity to violence. Less violent offenders are shown the evidence against them, but they are told that they can avoid incarceration if they immediately cease their drug-selling activities. By applying overwhelming police pressure to *every person* within this relatively small number of drug sellers, the High Point DMI seeks to suppress quickly a local marketplace.

This project is ambitious. Its generalizability to larger cities remains a tantalizing possibility but also unproven. High Point, NC, has a population of roughly 100,000. An open-air drug marketplace in (say) that city's West End community involves 16 identified individuals who account for most illicit drug sales in a particular location. In contrast, Chicago, IL, has a population roughly 30 times as large. Since 1999, High Point homicide rates averaged less than 8 per 100,000 (city-data.com, 2011). Chicago's rate over the same period exceeded 17 per 100,000.

Chicago and other large cities have been plagued with open-air drug markets since the mid-1980s at least. It remains unclear how one could define local drug marketplaces in a consistent, operationally helpful way. For example, in April 1987, the *Washington Post* reported that the Metropolitan Police Department had identified 39 locations as open-air markets in Washington, DC, compared with 70 twelve months earlier. By 1988, the number was said to be 91. This kind of instability in short periods suggests that the measure itself is not well determined. Ten years later, the number had not apparently declined much; the front page of the *Post* said that, despite substantial progress in reducing the city's drug problem, 60 locations still could be labeled open-air drug markets (Lengel, 2000).

We know of no explicit, standardized criteria for police to use in determining whether a location should be classified as an "open-air drug market." The idea is a transparent one, a place to which a drug user can go with fair confidence of finding a willing seller, perhaps even one whom he or she does not know. But the size and geographic boundaries of such areas are highly variable. Lengel referred to a market as being a "two or three block" area. Weisburd and Green (1994: 64), in their analysis of Jersey City drug markets, referred to a much tighter concept, the "intersection area . . . [linking] each of the 1,553 intersections in

Jersey City with its related four street segments or blocks.” Eck (1995) used an address as the basic unit in his analysis of San Diego drug-selling locations.

Weisburd and Green (1994) found that places are specific markets; i.e., arrest records indicate that only one drug is sold at most markets and that very few of the same persons are arrested in adjacent markets. Most persons with multiple arrests are apprehended in only one marketplace. Few of those with multiple arrests were apprehended in more than one location.

In considering the generalizability of the High Point DMI model, it is useful to consider whether and when big-city illicit drug marketplaces offer similar opportunities for regulation, disruption, or suppression. In one frame, a large city’s larger population simply implies that localized interventions must be applied in many more places. Chicago’s larger population might create 30 times the number of illicit drug marketplaces and require 30 times the manpower required in High Point. Yet the basic challenge remains the same.

A more troubling possibility is that big-city illicit drug marketplaces may qualitatively differ from those targeted by the High Point DMI. Chicago’s highest crime communities display homicide rates greater than 50 per 100,000. Moreover, some of Chicago’s most contested and violent locations are large spaces located along the boundaries between large, hierarchical gang organizations. It is not clear that the arrest or rehabilitation of a relative handful of street-level dealers will be sufficient in suppressing these marketplaces.

For a sense of what drug-selling gangs consist of in large cities, consider the Levitt and Venkatesh (2000) analysis of a drug-selling gang active in the 1990s in Chicago. They described the hierarchy of the total gang as consisting of 16 central leaders, 100 local leaders, 300 officers, and 3,000 foot soldiers. Localized gangs consist of 1 local leader, 3 officers, 25–75 foot soldiers, and between 60 and 200 rank and file; the latter are much more part-time participants than the “soldiers,” perhaps users who occasionally sell.

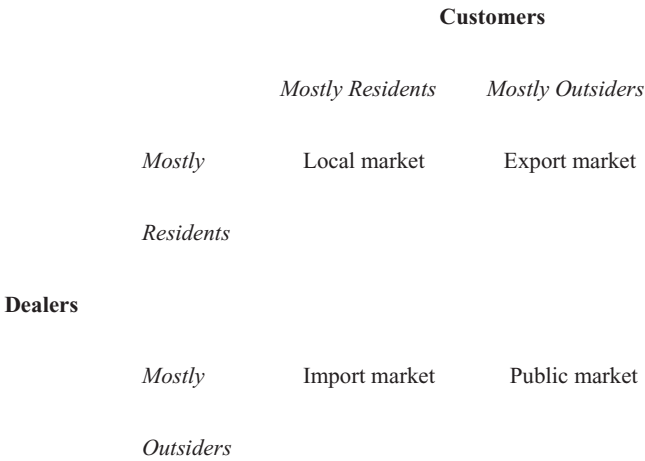
Another city-level study from the late 1980s, when cocaine and crack markets were probably at their height, also showed very high numbers of drug dealers, making it unlikely that discreet markets would have had only a few dozen dealers. Reuter, MacCoun, and Murphy (1990) examined data on arrests for drug selling in the District of Columbia. During the 3-year period 1985–1987, 14,500 different persons were charged with drug selling; approximately 4,000 of those were charged more than once with that offense.

Some of those charged were not guilty. No doubt there was, even within the 3-year period, some replacement of dealers who were incarcerated. However, some drug sellers were never arrested. Overall, these figures suggest that there were a few thousand individuals selling drugs in Washington at that time. If a local drug market could be as small as 16 individuals, there were hundreds of such drug markets in a city of 550,000. We return to the issue of scale in our concluding section.

Moreover, the High Point DMI seems especially effective in promoting the rehabilitation of relatively young, low-level street sellers with relatively nonviolent offending histories. Younger offenders may be especially responsive to the entreaties of family members,

FIGURE 1

Types of Illicit Drug Markets



Source: Reuter and MacCoun, 1992.

community leaders, and social service providers. When open-air drug marketplaces are operated by large organizations whose street dealers are somewhat older and have relatively severe offending histories, an intervention may acquire a more punitive dimension than was observed in the High Point DMI.

Types of Drug Markets

All street drug marketplaces have certain features in common. (For simple consistency with common nomenclature, we will refer to these marketplaces as, simply, “markets” in what follows.) In each, cash leaves the neighborhood via payments to drug importers and producers. Markets differ in the flow of cash for retail sales and in the economic effect, the violence they engender, and in their responsiveness to policy interventions. The typology presented here from Reuter and MacCoun (1992) was an early effort to suggest distinctions that may be useful for enforcement decisions.

Figure 1 classifies markets according to whether buyers and sellers come from the neighborhood or elsewhere. Those characterized by mostly resident dealers and customers are labeled *local markets*. These markets are unlikely to produce a net economic gain for the neighborhood. But precisely because they meet a local demand, buyers and sellers know each other and can readily communicate the re-establishment of the market at a new location. These markets may be particularly difficult for the police to suppress.

Export markets are ones in which residents of the neighborhood sell drugs to nonresidents. These markets bring certain gross economic advantages to at least some

neighborhood residents, even if on balance the net local economic consequences are negative. Fagan (1992: 26) noted that, in such markets, “since neighborhood residents benefit from the secondary economic demand generated by drug selling, this undercuts efforts at formal and informal social control. Residents are likely to be less willing to disrupt drug selling when they directly benefit from it.” Although neighborhoods may exert some social control over the manner in which such drug sales occur, there is obvious motivation for at least some tacit neighborhood resistance to police interventions that seek to suppress these export markets.

Markets where mostly nonresident dealers sell to local residents are characterized here as *import markets*; a more apt, if value-laden label, would be “parasitic markets.” Finally, markets where both sellers and customers are mostly nonresidents are labeled here as *public markets* because they tend to occur at large public locations like parks, trains or bus stations, or school yards. The effect of import and public markets on neighborhoods is likely to be particularly insidious—a net outflow of cash and other resources.

As suggested, these classes of markets may differ systematically in their vulnerability to enforcement. We hypothesize the following descending order of vulnerability: export, public, import, and local. This vulnerability represents the ease with which buyers and sellers can signal to each other that a new place has been found. In export markets, not only are buyers and sellers from different communities but also they have no natural foci, or “Schelling” points, around which to coalesce once the market is disturbed.

In contrast, public markets, although they also involve separated buyers and sellers, are simply selecting from a small number of potential locations that all share the same characteristics of easy access by outsiders and weak surveillance by police. Import markets may have natural nodes within the buyer community, for example, the exit ramps of highways. The most confident prediction is that local markets will be the hardest to suppress.

The typology also may be relevant to the harmfulness of markets. Very speculatively, on the one hand, local markets may be the least harmful precisely because the participants are well acquainted and violence risks retribution. On the other hand, import markets may be the most violent because sellers have more anonymity.

Our point here is not to argue for a particular typology or a particular set of hypotheses about harmfulness. Rather, it is to demonstrate the utility of considering multiple dimensions of a market. Research can show which kinds of markets cause most damage (by drug, time of day, or residence of buyers/sellers) and which are most vulnerable to various types of enforcement, including the kind of focused deterrence illustrated by DMI.

It’s an awkward notion that the police might strategically determine that a particular marketplace is best left to persist in particular locations rather than targeted for tough enforcement. This trade-off is not acceptable in enforcing measures against violent and property crimes. Yet the reality is that drug marketplaces bring different harms in different locations, and that such marketplaces also present different opportunities for effective law enforcement.

The High Point DMI offers other useful lessons as well. Perhaps most important, the intervention was relatively discriminating in its approach to *specific individuals*. By seeking to assist low-level drug-sellers, and by reserving the most punitive measures to the most recalcitrant or the most violent offenders, law enforcement authorities are more likely to win support from local communities. Moreover, some of the intervention's most effective approaches would prove valuable even if authorities do not focus on specific marketplaces as the focus of intervention.

Concluding Comments

Some readers may be disappointed to find that an innovative intervention that successfully disrupted local illicit drug marketplaces only reduced violent crime by roughly 14% within target areas. We think that it is in fact an important positive finding. Such results must be considered in light of a changing market for illicit drugs and in light of the diverse factors that promote violent crime. Two decades ago, a large fraction of urban homicides were directly linked to the illicit drug trade. Today, though hardly peaceful, drug markets seem to generate many fewer killings or shootings.

Our work and the work of others has suggested that the population of frequent users of expensive drugs (cocaine, heroin, and methamphetamine) has aged (Pollack, Sevigny, and Reuter, 2011). The sellers, most of whom are themselves frequent users of these drugs, have aged at a similar pace. Aging slows violent crime rates, even for cocaine- and heroin-dependent individuals. At one intervention site, police officers noted that "most of the violence occurring in the area was domestic violence and not crime resulting from drug activity in the neighborhood" (Frabutt, Shelton, Di Luca, Harvey, and Hefner, 2009: 36). In many communities, violence originates from interpersonal conflicts, domestic or otherwise, and other motives not directly linked with the operation of drug markets. One's expectations regarding the violence-reduction potential of drug marketplace interventions should be correspondingly tempered.

The issue of scale especially concerns us. All markets in which the DMI operated were apparently small. Even outside of High Point, in the replications funded by the National Institute of Justice, the largest number of identified dealers has been 50. It may be that patterns of illicit drug-selling have sufficiently changed that the numbers from earlier studies, such as those from Reuter et al. (1990) of Washington in the mid-1980s or those from Levitt and Venkatesh (2000) of Chicago, no longer describe the central realities of drug markets. It also may be that the High Point DMI is valuable in addressing some kinds of drug markets, and not others. Therefore, it is especially important to specify the contexts in which such interventions are most likely to be effective.

Interventions are readily oversold and thus found wanting when subject to rigorous evaluation. That cycle of hype and disappointment should be resisted. In involving community residents in law enforcement efforts, in implementing focused deterrence, and in concentrating law enforcement efforts, the High Point DMI offers valuable lessons

for drug policy. It modestly but significantly reduced violent offending and (at least locally) suppressed the most socially harmful forms of the open drug trade. The intervention accomplished these goals while minimizing many of the social harms associated with enforcement itself.

Policy makers and researchers face many challenges in extending this promising model to the full range of big-city illicit drug markets. Perhaps the first order of business, then, is to conduct a broader range of rigorous trials to examine the generalizability of the model in different settings. A large metropolitan area such as Chicago, New York, or Los Angeles includes several dozen open-air drug marketplaces of varying sizes, locations, and other marketplace characteristics. Site-randomized trials could shed light on the model's true applicability to large-scale urban settings, as did Sherman et al.'s (1995) study of a randomized trial of crack house raids.

Such trials would be costly and labor-intensive but no more so than the actual application of the High Point model on a similar scale. On the demand side of the illicit drug trade, different modalities of substance abuse treatment are rightly held to rigorous standards of clinical medicine. Regulating the supply side of the same markets, we should hold enforcement efforts to comparable standards of rigor.

References

- Caulkins, Jonathan P. and Rosalie Liccardo Pacula. 2006. Marijuana markets: Inferences from reports by the household population. *Journal of Drug Issues*, 36: 173–200.
- Caulkins, Jonathan P. and Peter Reuter. 2010. How drug enforcement affects drug prices. *Crime and Justice: A Review of Research*, 39: 213–271.
- city-data.com. 2011. Crime in High Point, North Carolina (NC): Murders, rapes, robberies, assaults, burglaries, thefts, auto thefts, arson, law enforcement employees, police officers Retrieved November 8, 2011 from city-data.com/crime/crime-High-Point-North-Carolina.html.
- Corsaro, Nicholas, Eleazer D. Hunt, Natalie Kroovand Hipple, and Edmund F. McGarrell. 2012. The impact of drug market pulling levers policing on neighborhood violence: An evaluation of the High Point Drug Market Intervention. *Criminology & Public Policy*. This issue.
- Eck, John E. 1995. A general model of the geography of illicit drug marketplaces. In (John E. Eck and David Weisburd, eds.), *Crime and Place*. Monsey, NY: Criminal Justice Press.
- Fagan, Jeffrey A. 1992. Drug selling and licit income in distressed neighborhoods: The economic lives of street-level drug users and dealers. In (George E. Peterson & Adelle V. Harrell, eds.), *Drugs, Crime and Social Isolation: Barriers to Urban Opportunity* Washington DC: Urban Institute Press, 1992.
- Frabutt, James M., Terri L. Shelton, Kristen L. Di Luca, Lynn K. Harvey, and Mary K. Hefner. 2009. *A Collaborative Approach to Eliminating Street Drug Markets through Focused Deterrence*. Washington, DC: National Institute of Justice.

- Kleiman, Mark A. R. 2009. *When Brute Force Fails: How to Have Less Crime and Less Punishment*. Princeton, NJ: Princeton University Press.
- Lengel, Allan. 2000. Struggle with a stubborn drug trade: Closing D.C. open-air markets isn't easy. *Washington Post*. January 31, p. 1.
- Levitt, Steven D. and Sudhir Alladi Venkatesh. 2000. An economic analysis of a drug-selling gang's finances. *Quarterly Journal of Economics*, 115: 755–789.
- MacCoun, Robert J. and Peter Reuter. 2001. *Drug War Heresies: Learning from other Times, Vices and Places*. New York: Cambridge University Press.
- Pollack, Harold, Eric L. Sevigny, and Peter Reuter. 2011. If drug treatment works so well, why are so many drug users incarcerated? In (Philip J. Cook, Jens Ludwig, and Justin McCrary, eds.), *Controlling Crime: Strategies and Trade-offs*. Chicago, IL: University of Chicago Press.
- Reuter, Peter and Robert J. MacCoun. 1992. Street drug markets in inner-city neighborhoods: Matching policy to reality. In (James Steinberg, David W. Lyon, and Mary E. Vaiana, eds.), *Urban America*. Santa Monica, CA: RAND.
- Reuter, Peter, Robert J. MacCoun, and Patrick Murphy. 1990. *Money from Crime: A Study of the Economics of Drug Dealing in Washington, DC*. Santa Monica, CA: RAND.
- Sherman, Lawrence W., Dennis Rogan, Timothy Edwards, Rachel Whipple, Dennis Shreve, Daniel Witcher, William Trimble, The Street Narcotics Unit, Robert Velke, Mark Blumberg, Anne Beatty, and Carol Bridgeforth. 1995. Deterrent effects of police raids on crack houses: A randomized, controlled experiment. *Justice Quarterly*, 12: 755–781.
- Simon, David and Edward Burns. 1998. *The Corner: A Year in the Life of an Inner-City Neighborhood*. New York: Broadway Books.
- Weisburd, David and Lorraine Green. 1994. Defining the street level drug market. In (Doris L. MacKenzie and Craig D. Uchida, eds.), *Drugs and Crime: Evaluating Public Policy Initiatives*. Thousand Oaks, CA: Sage.

Peter Reuter is Professor in the School of Public Policy and in the Department of Criminology at the University of Maryland. He is Director of the Program on the Economics of Crime and Justice Policy at the University and also Senior Economist at RAND. From 1981 to 1993 he was a Senior Economist in the Washington office of the RAND Corporation. He founded and directed RAND's Drug Policy Research Center.

Harold A. Pollack is the Helen Ross Professor of Social Service Administration at the University of Chicago, where he also co-directs the University of Chicago Crime Lab. His recent substance abuse research has appeared in *Addiction*, *Health Economics*, *Health Services Research*, and other publications.

EDITORIAL INTRODUCTION

EARLY INTERVENTION BETWEEN SCHOOLS AND LAW ENFORCEMENT

Editorial Introduction

Alex R. Piquero

University of Texas at Dallas

Decades of research on antisocial, delinquent, and criminal offending over the life course consistently documents a strong linkage across behaviors within persons (Piquero et al., 2003). And although it is true that some offenders desist absent any specific formal intervention or prevention effort, it is also true that some offenders can be aided in the desistance process. It is not surprising, then, to learn that there is both an academic and a policy-relevant interest in crime prevention and that some subset of these interventions occurs as early in the life course as possible.

Evidence-based crime prevention and intervention programs that can reduce the early formation of antisocial and criminal careers are especially important because that may stymie continued pathways of offending. Contrary to some views, solid evidence documents that several such programs are effective in reducing not only antisocial behavior but also related adverse outcomes (Cohen et al., 2010), and even stronger evidence documents that the public does indeed support crime prevention—often over their support of more punitive policies (Nagin et al., 2006). Thus, it is critically important that theorists, researchers, and policy makers continue to design, implement, and evaluate such programs, and to do so as early as possible when the prospects for change are quite open.

Toward this end, Wright, McMahon, Daly, and Haney (2012, this issue) provide us with the first set of analyses designed to evaluate an early intervention program developed and administered by the Family Service Division of the District Attorney's Office in Louisiana's 16th Judicial District. The program was mainly interested in addressing the immediate behavior problems of young children whose antisocial behavior was not serious enough to warrant more official reactions but was of enough consequence that it was in need of attention. In a methodologically rigorous three-group comparison, with a focus on whether the involvement of the District Attorney's Office provided value above and beyond the

Direct correspondence to Alex R. Piquero, Program in Criminology, University of Texas at Dallas, 800 W. Campbell Road, GR31, Richardson, TX, 75080 (email: apiquero@utdallas.edu).

early intervention program, Wright et al. found that children participating in the district attorney's program evinced significant reductions in problem behaviors as well as significant improvement in school and social functioning. That these findings emerged within a juvenile justice context and with the involvement of the District Attorney's Office offer some hope that early and effective intervention efforts do not always have to exist outside of the system.

The three policy essays by scholars and researchers who have devoted a considerable portion of their careers to the development and evaluation of crime prevention programs follow suit—and all of them provide unique perspectives on the Louisiana study. Farrington (2012, this issue) focuses on other existing successes in early intervention programs and encourages active participation of the juvenile justice system in such efforts. Greenwood (2012, this issue) highlights the importance of efficacy and appropriateness within the context of the Louisiana program and intervention efforts more broadly. And Welsh (2012, this issue) makes a strong case for early prevention based on the pillars of public support, research on brain development and early predictors of offending, evidence-based programs, and economic return.

The essayists also differ with respect to how they view the Louisiana program. Farrington (2012) is most encouraging, touting its positive outcomes; Greenwood (2012), although still encouraging, questions whether another early intervention program had to be developed from scratch when many other successful, evidence-based ones already exist; and Welsh (2012) considers the Louisiana program more broadly within the promise of early prevention theory, research, and policy initiatives. At the same time, all three essays converge on the critical point that we do know quite a bit about crime prevention and that early intervention can work at preventing crime and reducing other adverse problems. In this regard, all three essayists strongly believe that prevention policy efforts enacted as early in the life course as possible are a concrete, actionable step that should be high priority. More generally, they continue to remind us of the hope and promise that all is not lost and that there is always the opportunity for change among persons who are starting to evince problem behavior.

References

- Cohen, Mark A., Alex R. Piquero, and Wesley G. Jennings. 2010. Estimating the costs of bad outcomes for at-risk youth and the benefits of early childhood interventions to reduce them. *Criminal Justice Policy Review*, 21: 391–434.
- Farrington, David P. 2012. Should the juvenile justice system be involved in early intervention? *Criminology & Public Policy*. This issue.
- Greenwood, Peter. 2012. New standards for demonstrating program effectiveness. *Criminology & Public Policy*. This issue.
- Nagin, Daniel S., Alex R. Piquero, Elizabeth S. Scott, and Laurence Steinberg. 2006. Public preferences for rehabilitation versus incarceration of juvenile offenders: Evidence from a contingent valuation survey. *Criminology & Public Policy*. 5: 627–652.

-
- Piquero, Alex R., David P. Farrington, and Alfred Blumstein. 2003. The criminal career paradigm. In (Michael Tonry, ed.), *Crime and Justice: A Review of Research*, Volume 30. Chicago, IL: University of Chicago Press.
- Welsh, Brandon C. 2012. The case for early crime prevention. *Criminology & Public Policy*. This issue.
- Wright, Jon Paul, Pamela M. McMahon, Claire Daly, and J. Phil Haney. 2012. Getting the law involved: A quasi-experiment in early intervention involving collaboration between schools and the district attorney's office. *Criminology & Public Policy*. This issue.
-

Alex R. Piquero is the Ashbel Smith Professor of Criminology in the School of Economic, Political and Policy Sciences at the University of Texas at Dallas; an adjunct professor in the Key Centre for Ethics, Law, Justice, and Governance, Griffith University Australia; and a co-editor of the *Journal of Quantitative Criminology*. He has written widely on criminal careers, criminological theory, and quantitative research methods and has received several teaching, research, and service awards. He is a fellow of both the American Society of Criminology and the Academy of Criminal Justice Sciences.

EXECUTIVE SUMMARY

EARLY INTERVENTION BETWEEN SCHOOLS AND LAW ENFORCEMENT

Overview of: “Getting the Law Involved a Quasi-Experiment in Early Intervention Involving Collaboration Between Schools and the District Attorney’s Office”

John Paul Wright

University of Cincinnati

Pamela M. McMahon

*Research Director/Pediatric Residency Program Our Lady of the Lake
Hospital Baton Rouge, LA*

Claire Daly

Family Services Division 16th Judicial District State of Louisiana

J. Phil Haney

District Attorney 16th Judicial District State of Louisiana

Research Summary

Precursors to serious and chronic delinquency often emerge in childhood, stimulating calls for early interventions. Most intervention efforts rely solely on social service programs—often to the exclusion of the juvenile justice system. The juvenile justice system has been reluctant to become involved in the lives of relatively young children fearing net widening or further straining resources that could be used for older youth with documented delinquency histories. We report here the results of an early intervention program sponsored by and housed in a district attorney’s office in Louisiana. Using a quasi-experimental design, we examined outcomes associated with program involvement as well as whether the obvious involvement of the prosecutor’s office was associated with further reductions in problem behavior.

- 1: The results revealed that significant reductions in problem behaviors of young children could be attributed to program participation.*
- 2: The obvious involvement of the district attorney’s office, however, was associated with limited, albeit significant, reductions in specific problem behaviors.*

- 3: *These findings show that successful early intervention efforts can be made part of the juvenile justice system and that in some limited situations prosecutorial involvement can result in positive outcomes.*

Policy Implications

The expansion of early intervention programming into the juvenile justice system offers opportunities to address early problem behavior. Our study and its results have the following policy implications.

- 1: *Closely coupled partnerships between schools and the juvenile justice system can effectively address, mitigate, and perhaps prevent an early onset of antisocial behavior.*
- 2: *Even so, coupling early intervention efforts to the mission of the juvenile justice system warrants debate. Net-widening, resource diffusion, and the potential for officials to rely too heavily on the deterrent characteristics of the justice system represent serious threats to the integrity of effective early intervention programs.*
- 3: *We suggest substantial debate and consideration is given before coupling early intervention efforts to the juvenile justice system.*

Keywords

Early intervention, juvenile justice, prosecutorial involvement, early onset problem behavior

RESEARCH ARTICLE

EARLY INTERVENTION BETWEEN SCHOOLS AND LAW ENFORCEMENT

Getting the Law Involved

A Quasi-Experiment in Early Intervention Involving Collaboration Between Schools and the District Attorney's Office

John Paul Wright

University of Cincinnati

Pamela M. McMahon

*Research Director/Pediatric Residency Program
Our Lady of the Lake Hospital
Baton Rouge, LA*

Claire Daly

*Family Services Division
16th Judicial District
State of Louisiana*

J. Phil Haney

*District Attorney
16th Judicial District
State of Louisiana*

Criminological evidence has breathed new interest into early intervention programs for at least three reasons. First, numerous studies have found that early misbehavior is a substantive predictor of later misbehavior (Beaver and Wright, 2007; Campbell, Shaw, and Gilliom, 2000; Caspi, Roberts, and Shiner, 2005). Evidence garnered from multiple samples, age periods, and cultures shows remarkable levels of cross-time and cross-situation continuity in problem behaviors, especially when associated with an early age of onset (DeLisi, Beaver, Wright, and Vaughn, 2008; Mazerolle, Brame, Paternoster, Piquero, and Dean, 2000; Tremblay et al., 1999). Second, the early manifestation of problem behaviors is frequently comorbid with a host of other risk factors, including

The authors would like to recognize the contributions of Virginia Harrison, Krystal Summers, Anna Babbineax, staff from the District Attorney's office, and the various parish schools. Direct correspondence to John Paul Wright, School of Criminal Justice, University of Cincinnati, 600 Dyer Hall, Clifton Ave., P.O. Box 210389, Cincinnati, Ohio 45221-0389 (e-mail: wrightww@ucmail.uc.edu).

academic deficiencies, truancy, and general noncompliance (Gottfredson and Hirschi, 1990). Indeed, research evidence indicates that factors once thought to be of minor predictive importance, such as truancy, are usually substantive indicators of behavioral maladjustment or of problematic home environments of young children (Kokko, Tremblay, Lacourse, Nagin, and Vitaro, 2006). Third, early conduct problems seem to set in motion a series of cascading negative responses, some of which may exacerbate or entrench behavioral problems. Children, for example, who are behaviorally disruptive in school are substantially more likely to be suspended or expelled (Duchesne, Larose, Guay, Vitaro, and Tremblay, 2005). These negative chains of events can, in certain instances, further isolate behaviorally disruptive children from prosocial models, can negatively stigmatize and label the child, and can substantiate an antisocial worldview for the child.

Children who demonstrate age-inappropriate behavioral problems are thus at an increased risk of living a life marred by educational failure, by involvement in crime and drug use, by poor quality adult relationships, and by limited employment opportunities (Farrington and West, 1990; Nagin and Farrington, 1992). For these reasons, and more, focus has turned to intervening increasingly earlier in the lifecourse. However, the early manifestation of problem behavior poses a problem for the justice system. As noted by the Office of Juvenile Justice and Delinquency Prevention's (OJJDP) Study Group on Young Offenders, indicators of problem behavior generally emerge years prior to involvement in the juvenile justice system (Wasserman et al., 2003). The jurisdiction of the juvenile court, although broad, has historically not been extended to address early onset problem behaviors in children. Juvenile courts, moreover, are leery to move in the direction of expanded responsibility, especially for childhood behaviors that are not violent or do not involve substantial loss of property. Although the risk factors for involvement in crime and disrepute sometimes seem to begin at very young ages, justice system responses have been reserved primarily for adolescents and adults.

Justice professionals have therefore been placed in a position of "waiting" for a child to reach an age where officials believe involvement of the juvenile court to be appropriate, or they "wait" for the youth to commit a crime serious enough to trigger justice system intervention. This is not to say that intervention efforts to assist children are unavailable. Many jurisdictions have at their disposal a variety of intervention programs offered through local schools, social service agencies, and private and religious organizations. Early intervention programs, however, have not traditionally been offered through the criminal or juvenile justice systems (Wasserman et al., 2003).

Yet we have reason to believe that a focused justice system response may bring benefits not attached to traditional methods of service delivery. In this article, we cite three possible benefits. First, the most obvious possible benefit from a justice system response to early misbehavior comes in the form of the message it sends to parents and their children. Having the justice system involved may send parents a message that their cooperation is expected and that they will be held accountable for their behavior and the behavior of their

children. Second, the involvement of the legal system may provide the leverage necessary to address the problems associated with noncompliant parents. Many, but not all, parents of behaviorally difficult children are antisocial or lack the motivation to carry through with the expectations set out by schools and social service providers (Farrington, 2005). Third, the involvement of the justice system may increase the range of services available to at-risk families, or it may allow for the extension of service delivery beyond the time limits imposed typically by social service providers.

Caution clearly has to be exercised, however, in any effort to deliver services to at-risk children. The involvement of the justice system could lead to “net-widening” or to situations where government intrusion into the lives of parents and their children is unwarranted. Moreover, bureaucratic entanglements among schools, service providers, and the justice system could result in fewer services delivered to at-risk children. It remains to be seen whether collaborative efforts involving schools, service providers, and the justice system can intervene effectively in the lives of at-risk children and their families.

In this article, we report the results of an evaluation of such a collaborative process involving a quasi-random design. The results provide a mixture of evidence showing that a well-designed and well-implemented program housed in a prosecutor’s office can work to reduce early behavioral problems. The results also reveal that the involvement of the legal system, in this case, a district attorney’s office, brings with it measurable, albeit limited, benefits. We address the details of the program, the analysis and results, as well as program implementation in the subsequent pages.

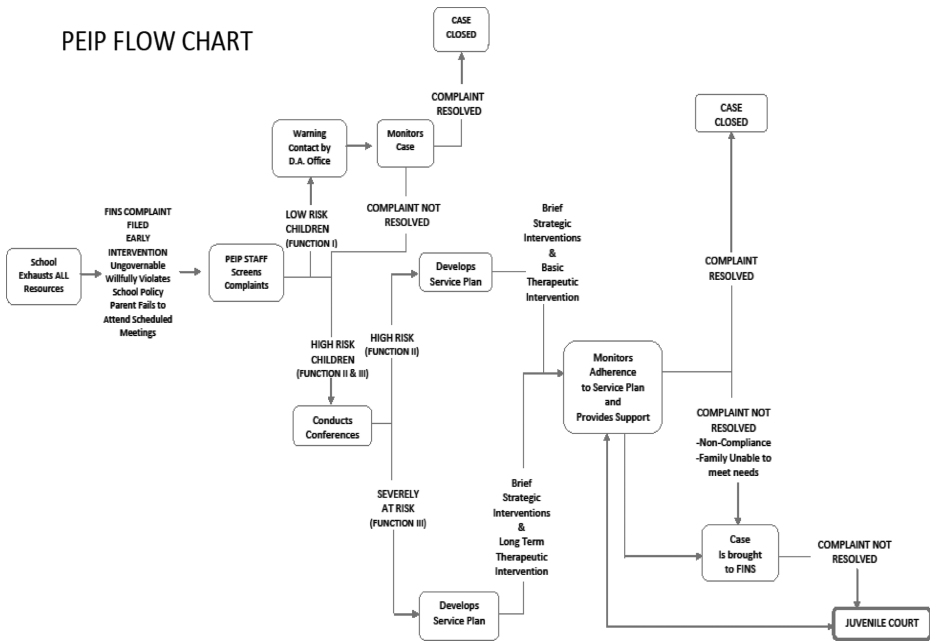
The Prosecutor’s Early Intervention Program

The Family Service Division of the District Attorney’s Office in Louisiana’s 16th Judicial District developed the Prosecutor’s Early Intervention Program (PEIP) to address the behavioral problems of children in prekindergarten through the sixth grade. The design of the PEIP was informed by research into effective early intervention programming, with a strong emphasis on using “best practices.” The PEIP also was informed by research into the onset and development of serious problem behavior in young children. As such, PEIP administrators sought to produce a program backed by a strong reliance on prior research. A pilot test of the program occurred in September 2000. PEIP was subsequently expanded to all grade schools (Pre-K–6) in the judicial district in August 2002. Figure 1 provides a pictorial description of the PEIP program and its important programmatic decision points.

According to Lipsey, Howell, Kelly, Chapman, and Carver (2010: 24), a large body of research reveals that effective programs improve youth behavior by “facilitating personal development through improved skills, relationships, insight and the like,” and that programs that offer counseling and skill building, and that offer multiple services to at-risk families are associated with better youth outcomes. Consistent with Lipsey et al.’s (2010) conclusions,

FIGURE 1

Flowchart of the Prosecutor’s Early Intervention Program



development of the PEIP program focused on three treatment components geared toward the personal development of referred youth: case management and the coordination of multiple services, individual and group counseling, and targeted wraparound interventions. Through collaborative agreements with a variety of community organizations, youth referred to PEIP were provided access to a range of community-based services.

Increasingly, analysts are recognizing that effective programs require active supervision and management of treatment specialists and providers. Active monitoring and supervision helps to make certain that staff actually delivers appropriate services and that rules and regulations established by the program are followed. Step-by-step processes and procedures were put in place to guide staff in all phases of the PEIP intervention processes, including receiving referrals, screening for level of risk, determining level of program involvement, assessing the youth and family, conducting a conference, developing informal family service plans, monitoring and support of youth and families, referring cases to Families In Need of Services (FINS) and/court (if needed), as well as revising plans and case closure. Accountability systems also were developed to ensure that staff follows established protocols and procedures.

To monitor fidelity to the PEIP process, process elements were reviewed by PEIP counselors, who served as supervisors for “teams” of two to three case managers. Counselors/supervisors were required to sit in on at least one Informal Family Service Plan Conference per month with each case manager on his or her team and were required to meet monthly with each case manager to process cases, review charts, and discuss case manager performance. Forms were developed to help institutionalize adherence to program fidelity, and detailed program manuals were created.

Program administrators also provided feedback to team leaders and case managers through a report generated monthly by case managers. Reports provided information to supervisors and case managers concerning the performance of children in their case loads. This information, for example, included the percentage of children showing improvements in grades or who had shown improvements in behavior. The report also provided staff with the following information in each case manager’s caseload: the percentage of youth sent to court, the percentage of services referred that were received, the average number of schools days missed, and the number of monitoring contacts made on behalf of all youth.

Two criteria were used to establish eligibility for PEIP. First, a violation of the FINS statute had to be documented. FINS statutes provide the state, through the juvenile court, the legal ability to intervene in the life of a child under specific situations. Such situations may include when a child repeatedly violates school rules, when a child is ungovernable, when a parent or guardian repeatedly fails to attend school meetings, or when a parent contributes directly to the child’s problem. In the PEIP process, a FINS complaint triggered an assessment of child and family dynamics. The assessment was then used to direct specific services to the family.

Second, schools could nominate children for entrance into PEIP. However, to avoid schools nominating children unnecessarily, they had to document that efforts had been made to remedy the child’s behavior and had failed. They had, for example, to document multiple instances of child misbehavior, various attempts to address the misbehavior, and instances of parental negligence or parental refusal or failure to attend school requested meetings about the child. Case managers employed by the District Attorney’s Office in Louisiana’s 16th Judicial District and housed at the schools screened the cases referred from school officials to determine whether the child met the statutory requirements for admission into PEIP. If so, the case manager assessed the child’s level of risk using the Complaint Assessment form and the Classroom Behavior Inventory (CBI; information on these assessments can be found in the Methods section). Children were assessed through a system developed by the Louisiana State University Office of Social Service Research and Development. A child was classified as high risk if on the CBI he or she revealed a pattern of responses consistent with a pattern of pervasive problem behaviors. Other risk factors leading to the classification of the child as high risk included a history of grade failure, a history of truancy, or whether the teacher was aware of known family problems—such

as domestic violence, child abuse, parental neglect, or parental mental health problems. A child with any one of the above-mentioned risk factors was classified as high risk.

The outcome of the risk assessment determined the level of program involvement. Prior research has shown that low-risk youth are best served through the least intrusive interventions, and that intensive interventions should be reserved for high-risk families (Lipsey and Wilson, 1998). A child assessed as low risk for future problems had a letter sent to the parent(s) on district attorney letterhead asking the parent to contact the school regarding a problem with their child. The case manager monitored low-risk cases to determine whether the parent was able to resolve the problem without further intervention. If the parent was able to resolve the problem, the case was closed and no other interventions were employed. If the parent was unable to resolve the problem, the child's risk was upgraded.

The parent was sent a letter scheduling an Informal Family Conference if the child was assessed as high risk. The conference was held at school with the principal, the case manager, the parent(s), and the child (when appropriate). The purpose of the conference was threefold:

1. To discuss the behavioral or school performance problems the child was experiencing as well as related family issues
2. To identify potential solutions and services that would address these problems
3. To link the child and his or her family to these services

The information collected during the conference was used to develop a contract, referred to as the Informal Family Service Plan (Service Plan).

The Service Plan was an agreement among the parent(s), school officials, and the case manager and was signed by all parties. It outlined and authorized specific services offered by various public and private service agencies and the school that would address the current situation. Case managers had access to information contained in the CBI, all school records, and a survey completed by the parent or guardian that assessed, among other things, parenting styles, parental mental health, and prior parental criminal behavior. They then used a matrix of services developed by the program to guide case managers in selecting specific targeted interventions that matched the child's risks and needs. Specific goals for the youth, the youth's guardians, school staff, and service providers were listed and agreed to and became part of the accountability structure built into the Informal Family Service Plan.

Depending on the needs of the child and the family, referrals to services were made by the PIEP case manager. Programs provided by the Family Service Division in partnership with other agencies included *Parenting Wisely* (Kacir and Gordon, 1997), *Strengthening Families Program* (Kumpfer, 1982), *Incredible Years Training Series*, *Student Created Aggression Replacement Education* (SCARE; Hermann and McWhirter, 2001), *Mentoring Moms*, in-home counseling, tutoring, and psychological evaluations. Many of these programs had evidence of their effectiveness with high-risk youth. In addition, youth and families also

were referred to additional community-based services dependent on their identified needs. For example, families were linked to available charities, to housing assistance programs, or to transportation services. Children needing counseling services were referred to the Family Service Division counselors, who were school based and conducted individual and group sessions for youth participating in PEIP. All Family Service Division counselors were licensed, certified, or supervised by a licensed supervisor. Counselors worked with classroom teachers and parents to develop strategies to help children resolve problems. They had the flexibility to work with parents at the school or in the home as needed. Counselors also conducted maintenance sessions with children who met their goals but needed added support.

If the family was compliant, the case manager monitored the case until the presenting problems had been resolved or until 90 *school days* (approximately 6 months) had lapsed. At that point, teachers completed the CBI a second time, serving as a posttest. CBI pretest and posttest scores were compared. Conduct grades and school performance data also were collected from teachers. If the objectives for the child had been achieved, the case manager closed the case. Based on the families' changing needs or circumstances, the case manager could modify the Service Plan to include additional service referrals. At the end of the 90 school days, the case manager was required to close the case, except under rare circumstances.

If the original complaint were not resolved through the PIEP process and the behavioral problem persisted, then a referral to the FINS committee, a committee comprising personnel from the school system, the LA Office of Behavioral Health, and the LA Department of Child and Family Services, occurred. The FINS committee gave prosecutors' early intervention cases top priority. If a case were referred to FINS, the case manager had the opportunity to present the original FINS complaint to the FINS chairman prior to the hearing and to make recommendations to the committee during the hearing. The FINS committee also worked with the PEIP staff when more intensive or prolonged services for a child were required. As a last resort, the District Attorney's Office in Louisiana's 16th Judicial District petitioned the juvenile court requesting judicial involvement. The court could order children and families to attend classes or to receive services appropriate to the complaint. Juvenile judges also could levy sanctions against parents or guardians if they continued to fail to comply with state law. Case managers could testify at the sentencing phase, if needed.

The evaluation of the PEIP program sought to answer three broad questions: First, did the PEIP reduce the targeted behavioral and academic problems of young children? The stated aims of the PEIP were highly focused—that is, to reduce or eliminate the problems responsible for the initial referral. Second, did the obvious involvement of the District Attorney's Office in Louisiana's 16th Judicial District facilitate the successful closure of cases above the involvement in programming alone? Finally, did the PEIP produce additional benefits outside of its stated aims? Did the PEIP, for example, also reduce oppositional behavior or reduce impulsive behavior?

Methods

Subjects

A total of 639 students in prekindergarten through sixth grade from 64 schools in five parishes in southern Louisiana participated in the evaluation. Sixty-eight percent of the sample was Black, and 72% was male. The mean age of participants was 8.5 years. The median per capita income for the participating parishes ranged from \$13,399 to \$16,051 in 2007 as compared with the median per capita income of \$21,587 in the United States for the same year (U.S. Census Bureau, 2009).

Evaluation Design

The effect of the program in general and the specific effect of the involvement of the District Attorney's Office in Louisiana's 16th Judicial District were evaluated with the following quasi-experimental design involving three groups of children. One of the key features of this study involved the randomization of children in schools within this district into one of two groups. Using a random-number generator, children were randomly sorted into the PEIP group or were sorted into the Early Intervention Program (EIP) group. Moreover, to help reduce biases associated with personnel working with the parents and youth, case managers also were randomly sorted into the two groups. The intervention groups participating in the evaluation are described as follows.

The first group was composed of those receiving the full intervention, including the obvious involvement of the District Attorney's Office. This group, called the PEIP group, received all of the services discussed; however, the involvement of the District Attorney's Office was made obvious to children and their guardians. Letters to parents, for example, were sent on the district attorney's letterhead, case managers wore badges identifying them as employees of the District Attorney's Office, and it was made clear in conferences that legal consequences were possible if the original complaint was not resolved. Case managers also could make an unlimited number of attempts to contact the family regarding behaviors associated with the complaint and with compliance to the Service Plan, including home visits. This group was composed of 240 children.

The second group was composed of those receiving the EIP without the obvious involvement of the District Attorney's Office in Louisiana's 16th Judicial District. This group, called the EIP group, received the same services as the PEIP group. However, letters to parents were sent on School Services Program letterhead, case managers wore badges identifying them as employees of the School Services Program, and there was no discussion of potential legal consequences. Case managers in this group were not allowed to contact parents more than three times in cases where the parents failed to show to a scheduled meeting, as the activities of the case managers in this group were designed to mimic case management activities typically associated with preexisting school and community-based programs where participation of clients, although encouraged, was totally voluntary.

Managers also were not allowed to make home visits to request the participation of the parents. This group contained 217 children.

The final group of children came from schools not yet offering the program and was drawn from two parishes outside the 16th Judicial District. These children served as a control group. This group received no special services, nor took part in discussions of potential legal consequences. Subjects were assessed using the instruments used to assess PEIP families. To be in the control group, children had to meet the same criteria as PEIP children—that is, a formal FINS complaint had to be lodged and the school had to provide evidence that it tried repeatedly to remedy the situation but was unsuccessful. Teachers and school officials completed the same forms as those used in the other two groups. This group contained 182 children.

Measures

First, school personnel in all three groups completed the Complaint Form for students who exhibited behavioral problems or school performance problems. Information was provided on whether the child was in special education, the types of disciplinary actions already taken, the number and types of contacts with the family to resolve the problem, the conduct and core subject grades, and the number of absences. Additionally, the school reported if the child was willfully and repeatedly violating lawful school rules, was ungovernable, and whether the caretaker had failed to attend meetings with school personnel to discuss the child's repeated violation of school rules or other serious educational issues. We used items from the Complaint Form, namely, the number of excused and unexcused absences and teacher-reported conduct grades, as outcomes because service plans almost always used these items as benchmarks to determine child behavioral progress.

Second, the CBI was a modified assessment form developed by the Office of Social Service Research and Development/School of Social Work/Louisiana State University for use in Louisiana's Truancy Assessment Center. The modified version used by PEIP included a list of 57 problem behaviors. Using the CBI, the teacher estimated the frequency with which each problem behavior occurred. The psychometric properties of the CBI were evaluated through factor analyses. By using the results of the factor analyses, we created a series of scales that measured the various aspects of child school and social behavior, including oppositional behavior, violent behavior, callous/unemotional behavior, and developmental problems. Scale items and properties are displayed in the Appendix.

Third, at the closure of a case, typically 60–90 school days (approximately 6 months) after the case was referred, the case manager assigned to the student completed a Closure Form. This form required the case manager to collect information from teachers on the conduct of the child. Information also was collected from the school on the number of excused and unexcused absences of the child, and on the number of in-school and out-of-school suspensions of the child. Again, this form was completed in all three groups.

In the control group, case managers completed the Closure Form during the time period corresponding to the average closure time for similar cases in the PEIP and EIP groups.

Determining Success or Failure

We note that the procedures for closing cases and for determining “success” were identical across the EIP and PEIP groups. First, teachers had to note improvements in the original problem that caused the referral. Second, the student had to show measured improvements from Time 1 to Time 2 in teacher-assessed conduct, in their school performance, and in their attendance. If the child met these standards, the case manager, with the approval of a supervisor, closed the case and labeled it as a success. If not, the case was categorized as unsuccessful.

We applied the same objective standards post hoc to control group children. However, we first “matched” control group children to intervention children based on their initial risk classification and on their initial FINS complaint. Average times in the PEIP program were calculated based on prior year data so that control group children would be comparable with intervention children in their length of time in the study. After matching, we labeled control group children as “successful” or as “unsuccessful” based on the same objective criteria used to determine success or failure in the PEIP and EIP groups.

Plan for Analysis

Our central aim was to assess the degree of behavioral change in children from Time 1, when children were first placed in the PEIP, to Time 2 when their cases were closed, for a series of dependent variables. We followed the lead of Pogarsky, Piquero, and Paternoster (2004) by creating residual change scores (RCS). For each dependent variable, we estimated an ordinary least-squares regression equation

$$Y_i = \alpha_i + \beta_i X_i \quad (1)$$

where Y_i equals the child’s score on the Time 2 dependent variable and X_i equals the child’s score on the same Time 1 dependent variable. By using the parameter estimates from Equation 1, we calculated the predicted values for Y_i and subtracted the predicted values from the actual values of Y_i for each dependent variable. The equation for the RCS thus becomes

$$\text{RCS}_{ij} = Y_{ij} - (\text{Pred})Y_{ij} \quad (2)$$

The RCS allows us to estimate the degree of behavioral change from Time 1 to Time 2 that is not attributable to levels of the Time 1 dependent measure. Each equation also contained controls for race, sex, and age. In subsequent analyses, we calculated an RCS for each dependent measure for our two contrast groups. The first contrast group contained the control group and EIP group. The second contained the control group and the PEIP group. This strategy allowed us to examine the consistency of the results between the EIP

TABLE 1

Sample Descriptive Data with *F*Test

Variables	Sample				<i>F</i> Test	Significance
	Total	Control	EIP	PEIP		
Age	8.5	8.7	8.4	8.5	0.82	0.443
Sex (1 = male)	0.72	0.70	0.79	0.80	0.32	0.729
Grade level	3.39	3.4	3.5	3.5	0.32	0.726
Race (1 = Black)	0.68	0.59	0.69	0.76	5.50*	0.004
Risk level	1.98	1.93	2.00	2.00	2.50	0.080

* $p < .05$.

and PEIP groups and allowed us to assess whether the slopes varied significantly across the EIP and PEIP groups.

Our final analyses involved analysis of variance (ANOVA) tests with Tukey's honestly significant difference (HSD) post hoc analyses of indicators used to label officially a case as "successful" or "unsuccessful." Whereas the RCS equations assessed the degree of change in certain measured constructs associated with program participation, our final tests focused solely on whether program participation was associated with "successful" or "unsuccessful" case termination.

Results

Group Differences

Descriptive data are presented in Table 1. The results show no significant differences among the groups in age, sex, risk level, or grade level. A significant difference in race across the three groups was detected with Blacks more likely to be in the EIP (69%) and PEIP groups (76%) than in the control group (59%). This difference is likely a result of demographic differences among the student populations from which the control and two intervention groups were drawn. Race, moreover, was not significantly related to risk scores. The three groups also were analyzed extensively for other pre-test differences. ANOVA results revealed significant between-group differences in pre-test levels of unexcused absences ($F = 5.47, p < .001$), and in pretest levels of in-school ($F = 23.86, p < .001$) and out-of-schools suspensions ($F = 17.39, p < .001$). In each case, the averages were significantly *higher* in the control group than in the two intervention groups. No other significant pretest differences were detected, nor were any pretest differences detected between the EIP and PEIP groups highlighting the efficiency of random assignment. Outside of the already noted differences, numerous comparisons across a variety of measures revealed substantial similarity among the groups.

Case workers were allowed to override the results of the random assignment to the EIP group if, in their professional judgment, the risk presented by the child or parents warranted

TABLE 2

Overall Program Effects on Child Outcomes (PEIP and EIP Groups Combined)

Outcome Variable	b/B	R ²	n
School absences	-3.67/-0.19* (0.779)	0.05	608
School suspensions	-1.07/-0.18* (0.236)	0.07	609
Conduct grades	0.517/0.16* (0.175)	0.04	320
Oppositional behavior	-3.28/-0.08* (1.760)	0.03	402
Violent behavior	-0.345/-0.02 (0.770)	0.03	586
Callous/unemotional	-1.88/-0.08* (0.925)	0.03	585
Developmental	-2.77/-0.15* (0.104)	0.06	354
Composite	-10.52/-0.08* (5.240)	0.04	570

Notes. Standard errors are presented in parentheses. All analyses control for race, sex, and age. * $p < .05$, one-tailed.

placement into the PEIP group. Overrides were reviewed and approved by supervisory staff. Only 11 cases were subject to overrides. For comparative purposes, we placed those 11 cases in the EIP group and considered them as an “intention to treat.” With the 11 cases placed in the EIP group, no significant differences were detected between the EIP and PEIP groups in levels of risk. Moreover, whether the 11 cases were included in the EIP or PEIP group had no substantive effect on the statistical outcomes associated with the program.

Overall, 4.5% of the parents in the EIP group refused services ($n = 11$) whereas 13% of the parents in the PEIP group refused services ($n = 28$). Consequently, because of their refusal, PEIP group parents could have had their case moved to a FINS committee or they could have had their case heard in juvenile court. Only 7% of parents had their cases brought before a FINS committee, and only 3% were brought before a juvenile court judge. Cases subjected to override were significantly more likely to be sent to court (chi-square = 6.6, $p < .01$). Override status did not affect referrals to FINS. Parents in the EIP group were not subject to these arrangements. Cases in which parents refused services or were recalcitrant were simply labeled as “unsuccessful.”

Program Effects

The overall results of the RCS analyses are shown in Table 2. Across seven of the eight outcome measures, participation in the program was associated with significant reductions in problem behaviors or with significant increases in positive behaviors. Participation in the program significantly reduced school absences, school suspensions, oppositional behavior, callous-unemotional behavior, and developmental problems, and it was associated with net overall reductions in problem behavior. Participation in the program also was significantly and positively associated with school conduct grade. The only outcome not associated with program participation was violent behavior. This measure tapped into bullying, hitting teachers, and other forms of highly antisocial conduct. Nonetheless, it seems that the

program participation was associated with a range of improvements in child, school and social functioning.

In Table 3, we present the results of the comparisons made between the EIP and the control group, and between the PEIP and the control group. Recall that the only difference between the two groups was the obvious involvement of the District Attorney's Office in Louisiana's 16th Judicial District. We first examined program effects on school absences, which reflected a combination of excused and unexcused absences. The results reveal that program participation was associated with significant reductions in school absences for the EIP ($\beta = -0.16$) and PEIP groups ($\beta = -0.23$). The same pattern held for the measure of school suspensions. EIP ($\beta = -0.26$) and PEIP ($\beta = -0.15$) children experienced significant reductions in school suspensions compared with the control group. A slightly different pattern emerged, however, for the measure of school conduct grades. Teachers assigned each student a conduct grade, ranging from 0 = "F" to 5 = "A." Participation in the EIP was not statistically associated with changes in conduct grades. However, participation in the PEIP was associated with significant increases in teacher-evaluated conduct ($\beta = 0.28$).

EIP participation also was associated with significant reductions in oppositional behavior in children ($\beta = -0.10$) but was not in the PEIP program ($\beta = -0.07$). Similar to the results presented in Table 2, violent behavior was not significantly reduced in either group. Significant reductions, however, were found in callous-unemotional behaviors ($\beta = -0.14$) but only for the EIP group. Finally, developmental problems were significantly improved only in the PEIP group ($\beta = -0.14$), whereas overall reductions in problem behavior were associated only with the EIP group ($\beta = -0.13$).

To remind the reader, program policy allowed EIP and PEIP group cases to be classified as a "success" if they met strict, objective criteria. Teachers, for example, had to agree that the problems that generated the original complaint had been remedied, and students had to show improvements from Time 1 to Time 2 in conduct, school performance, and attendance. Again, the same objective standards were applied post hoc to control group children. We conducted a series of ANOVA tests with associated Tukey's HSD contrasts on outcomes associated with successful case closure.

The results, shown graphically in Figure 2, reveal the existence of several significant mean differences among the control, EIP, and PEIP groups in the proportion of youth who met the criteria for success. Significant *F* tests were detected for all outcome variables except unexcused absences. Where overall mean differences were significant, Tukey's HSD provided appropriate contrasts among each of the groups. The results are revealing. First, children in the EIP group were significantly more likely to be classified as "successful" than controls on assessments of improvement in excused absences, in in-school suspensions, in academic grades, and in teacher-assessed conduct. Contrasts between the control group and the PEIP group revealed substantial congruency in the pattern of results. Children in the PEIP group also were significantly more likely to be classified as successful in out-of-school suspensions and on meeting cumulative outcome criteria.

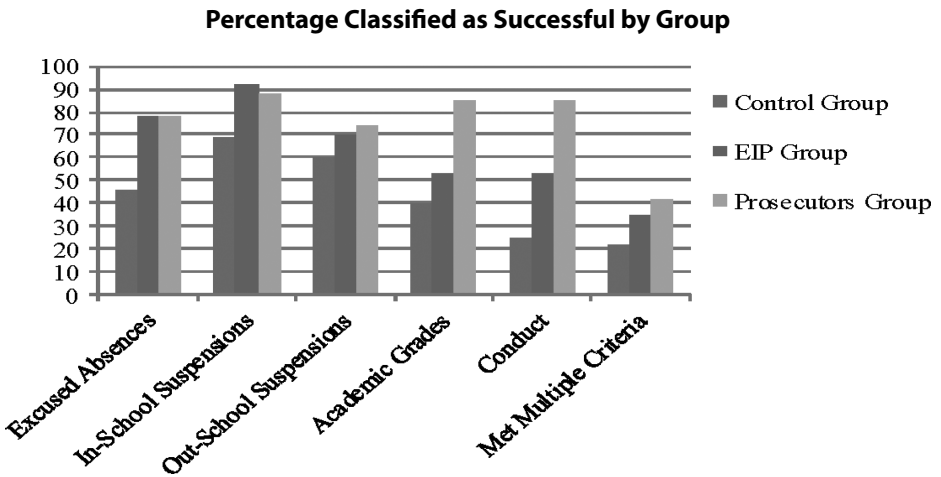
T A B L E 3

Program Effectiveness by Intervention Group Compared with Controls

Intervention	Dependent Variables														
	Absences			Suspensions			Conduct Grade			Oppositional					
	EIP b/β	PEIP b/β	EIP b/β	PEIP b/β	EIP b/β	PEIP b/β	EIP b/β	PEIP b/β	EIP b/β	PEIP b/β	EIP b/β	PEIP b/β			
Intervention	-3.05/-0.16*	-4.08/-0.23*	-1.28/-0.26*	-0.910/-0.15*	0.255/0.10	0.744/0.28*	-3.73/-0.10*	-2.70/-0.07	(0.963)	(0.883)	(0.245)	(0.30)	(0.185)	(1.91)	(1.94)
R ²	0.05	0.07	0.12	0.07	0.04	0.10	0.04	0.03				0.04	0.03		
n	370	396	370	397	181	190	360	385	Dependent Variables						
	Violent			Callous/Unemotional			Developmental			Composite					
	EIP b/β	PEIP b/β	EIP b/β	PEIP b/β	EIP b/β	PEIP b/β	EIP b/β	PEIP b/β	EIP b/β	PEIP b/β	EIP b/β	PEIP b/β			
Intervention	-0.95/-0.06	0.200/0.01	-2.50/-0.14*	-1.29/-0.06	-0.373/-0.06	-0.275/-0.14*	-13.64/-0.13*	-7.70/-0.07	(0.793)	(0.868)	(0.964)	(1.05)	(5.77)	(5.93)	
R ²	0.04	0.05	0.05	0.03	0.07	0.06	0.05	0.04				0.06	0.05	0.04	
n	359	387	358	387	347	349	347	380	Dependent Variables						

Notes. Standard errors are presented in parentheses. All equations control for race, sex, and age. * $p < .05$, one-tailed.

FIGURE 2



Conclusions and Discussion

Intervention efforts targeted at young children have traditionally operated outside the domain of the juvenile justice system. Although the reasons are varied, the involvement of the juvenile justice system has likely been limited because many early predictors of later problem behaviors involve no serious harm to others, no significant loss of property, and are committed by children younger than 12 years of age. It may be time, however, to reconsider this arrangement. We offer four reasons. First, a wealth of studies find that relatively minor problem behaviors, when demonstrated at an early age, predict a variety of problem behaviors later in life, including adult mental health problems (Gregory et al., 2007; Koenen, Moffitt, Poulton, Martin, and Caspi, 2007), criminal behavior (Petrosino, Farrington, and Sherman, 2003; Tremblay et al., 2004), and drug-use and unemployment (Brook and Newcomb, 1995). Second, early intervention programs have been found to reduce a range of problem behaviors in childhood (Farrington and Welsh, 2007; Piquero, Farrington, Welsh, Tremblay, and Jennings, 2009; Piquero, Jennings, and Farrington, 2010). Although these efforts have been varied, successful programs have adhered to a “what works” agenda—that is, they target high-risk youth and families, they address criminogenic needs, they are sensitive to differences between children and families, and they employ cognitive-behavioral approaches (Farrington, 2005; Farrington and Welsh, 2007; Lipsey and Wilson, 1998).

Third, efforts to intervene early in the life course of at-risk children enjoy widespread public and political support (Cullen et al., 1998; Piquero, Cullen, Unnever, Piquero, and Gordon, 2010) and have been shown to be relatively cost effective when compared against the costs of incarceration (Greenwood, Model, Rydell, and Chiesa, 1998). Finally, many parents of at-risk children are themselves antisocial or, at a minimum, unresponsive to the

needs of their children (Farrington, 2005). Schools and voluntary social service agencies typically do not have the “leverage” necessary to compel such parents to address the specific needs of their youth. A juvenile-justice–sponsored approach may provide the leverage necessary to coax parental responsiveness.

The PEIP of the 16th Judicial District in Louisiana represents an effort, spearheaded by officers in the juvenile justice system, to build a research-backed intervention program targeting at-risk children. The program infused much of what is known about screening for risk, about effectively intervening in the lives of at-risk youth and their families, and about program management, including continual feedback and adherence to programmatic aims. The program, moreover, applied uniform criteria to determine whether the child and family were successful. The results of this evaluation indicate that the efforts of the 16th Judicial District were measurably positive. Overall, children who participated in the program did significantly better than controls on all but one outcome—that is, a measure of violent behavior.

A unique aspect of the research design allowed us to test whether the obvious involvement of the District Attorney’s Office in Louisiana’s 16th Judicial District had any effect on child behavior, or whether the intervention components were primarily associated with child outcomes. We interpret the pattern of results as congruent with the idea that the interventions efforts, and not necessarily the obvious involvement of the District Attorney’s Office, were primarily responsible for the behavior changes we detected. Children in the EIP group, those who received the services with no obvious involvement of the prosecutor’s office and no discussion about legal consequences for failure to comply, scored significantly better than children in the control group on a range of outcome measures, including assessments of school attendance and school behavior. When a uniform assessment of “success” was employed, EIP group children were significantly more likely to have been classified as “successful.” The pattern of results associated with the PEIP groups was less clear. PEIP participants enjoyed significantly better teacher-assessed school conduct grades, demonstrated significantly less developmental problems over time, and were significantly more likely than the control or EIP group to be classified as a “success.”

We draw two conclusions from these findings. First, children who participated in the program sponsored by the District Attorney’s Office in Louisiana’s 16th Judicial District witnessed significant improvement in school and social functioning—at least over the short term. Thus, early intervention programs housed in and hosted by the juvenile justice system seem more than capable of addressing the immediate behavior problems of young children. In an effort to extend the length of follow-up and to assess whether program participation reduced future recidivism, we were able to obtain data on juveniles who had been in the district attorney’s program and who had been processed 3 to 4 years later by the juvenile justice system. Data were only available for the EIP and PEIP groups as data on the control group were not accessible. A total of 40 youth had gone on to be adjudicated by the local juvenile justice system. Eighteen had participated in the EIP

group and 22 in the PEIP group. To date, the proportion of youth who had entered the juvenile justice system was 8.5% for the EIP group and 8.9% for the PEIP group. The difference is not statistically significant. Although the proportions are likely to increase over time, it seems that the obvious involvement of the District Attorney's Office did not result in any longer term net-widening. The evidence thus indicates that programs targeting very early problem behaviors can successfully be housed and hosted by juvenile justice authorities.

Second, the obvious involvement of the District Attorney's Office in Louisiana's 16th Judicial District was associated with some positive outcomes, but the evidence of a widespread additional deterrent or treatment effect is limited. For methodological reasons, we conducted an intent-to-treat analysis and retained 11 cases in the EIP group in which case managers had approved professional overrides for into the PEIP group. Although statistically and methodologically more efficient, the reality on the ground was that the PEIP group contained children and families that were at higher risk of behavioral problems. Even so, PEIP youth were more likely to be classified as "successful" than either the EIP or the control group. Caution should be exercised before reaching any firm conclusion about the obvious role of a district attorney's office in changing child behavioral problems beyond what is offered through clinical and service interventions. Even so, we believe it prudent to note that structured observations of PEIP client interactions highlighted the frequent difficulties PEIP personnel had in soliciting even limited compliance of some parents. The district attorney's involvement does not seem to be the operative mechanism that facilitates behavioral change in children, but it did, in some limited situations, compel parents and guardians to address the behavioral problems of their child.

Policy Implications

The results of this study provide empirical support for the EIP of the 16th Judicial District. As Farrington and Welsh (2007) noted, several programs have been found to reduce problem behavior effectively in young children and that more programs are needed for children younger than 12 years of age. Even so, early intervention programs are no panacea for the problems of young children. Because these programs target very young children and their parents for intervention, they may require substantial financial and human capital resources. Moreover, early intervention programs may have to meet very high levels of program integrity to be effective. The early intervention program of the 16th Judicial District strongly adhered to the principles of effective intervention, to effective risk assessment, to the matching of clients to specific interventions, and to constant evaluation of child behavior. Supervisory staff reviewed intake information as well as service plans to ensure that case managers had developed plans that would address identified risks/needs. Supervisory staff was in constant contact with case managers and provided detailed feedback and guidance to them across the length of the study. It thus remains to be seen whether this program can be replicated across sights with the same level of program integrity.

Relatedly, relatively neutral labels such as “moderate risk” or “high risk” do not adequately capture the level of functioning and motivation presented by many of the intervention parents and children. Program participants, with several exceptions, were frequently of limited intellectual functioning, frequently lacked the motivation to change, and frequently experienced severe and prolonged social, economic, and personal problems. Motivating these parents and their children to address sometimes basic social expectations, such as arriving at school clean or meeting with case managers on time, was a considerable challenge. Moreover, although difficult to quantify, a large minority of parents were at least initially openly hostile to intervention efforts of any kind. We mention these observations not to stigmatize EIP and PEIP recipients but to convey to the reader the scope and depth of the problems case managers had to overcome. For their part, case managers seemed highly motivated and frequently went beyond what the program required to assist program participants. They met children at their homes, during school hours, on playgrounds, and at places frequented by the child. They also implemented unique problem-solving strategies as many parents were intellectually limited. For instance, several parents could not, for a variety of reasons, administer correct doses of medication to their children at correct time intervals. Therefore, sometimes children did not take their medication for days or weeks. Case managers purchased simple alarm clocks to tell parents when to give their child necessary medication, and they created simple dispensers so that parents would know which medication to give their child. Through their best efforts that sometimes involved motivational interviewing, cajoling, and even teaching basic skills to parents, case managers seem to have made at least a temporary impact on the functioning of young children.

A growing chorus of voices calls for early intervention programs to be given greater priority in anticrime efforts (Farrington and Welsh, 2007). Although we believe that research to date shows that early intervention programs can reduce problem behavior in young children, we also believe that we should proceed with caution. Juvenile justice policy is littered with intervention efforts that ultimately failed. As we discussed, it would be a mistake to underestimate the degree and scope of problems presented by young children and their parents/guardians. Early intervention is not a panacea, and it likely requires strong program implementation and substantial program integrity. Moreover, although the results of this study are encouraging, the field should examine the proper role of the juvenile justice system in early intervention programs, especially those involving children younger than 12 years of age. We caution against accepting the simplistic notion that having a district attorney’s office involved in intervention efforts will automatically affect the behavior of young children and their parents for the better.

At least two possible arguments, however, favor the involvement of the juvenile justice system in early intervention efforts. The first is the legal and psychological leverage associated with “official” justice system interventions in the life of a child. Many families in the program were accustomed to traditional social welfare rules and methods of operation. They were not accustomed, however, to having the weight of the legal system accompany efforts of case

managers to intervene. Passive or active resistance to authority is a hallmark characteristic of parents of juvenile delinquents (Sherman, 1993). To thwart this resistance effectively, the “strong arm of the law” may be required. Second, the involvement of the District Attorney’s Office in Louisiana’s 16th Judicial District extended the range of intervention efforts. Parents, for example, who were petitioned to court through the PEIP were frequently assisted by the court through mandated attendance with service providers. Moreover, the court also could extend the receipt of services beyond the time frame established by PEIP guidelines. Contrary to a purely punitive model, the local court functioned to hold parents accountable, and to impress upon them the need to utilize available services in order to address their child’s problems. The FINS Committee functioned in much the same way.

Still, although the evidence indicates that early intervention may effectively reduce school-related problems, including behavioral problems, we believe that substantial debate should occur prior to an expansion of the juvenile justice system into this area. The possibility of “net-widening” should be seriously considered, as the potential exists under an “early intervention” model to increase inadvertently the number of families within the system. Without clear, empirically driven guidelines and a focus on data-informed decision making, any positive effect associated with an intervention may be diluted, or worse, offset by real and unanticipated consequences.

References

- Beaver, Kevin M. and John Paul Wright. 2007. A child effects explanation for the association between family risk and involvement in an antisocial lifestyle. *Journal of Adolescent Research*, 22: 640–664.
- Brook, Judith S. and Michael D. Newcomb. 1995. Childhood aggression and unconventionality: Impact on later academic achievement, drug use, and workforce involvement. *The Journal of Genetic Psychology*, 156: 393–410.
- Campbell, Susan B., Daniel S. Shaw, and Miles Gilliom. 2000. Early externalizing behavior problems: Toddlers and preschoolers at risk for later maladjustment. *Development and Psychopathology*, 12: 467–488.
- Caspi, Avshalom, Brent W. Roberts, and Rebecca L. Shiner. 2005. Personality development: Stability and change. *Annual Review of Psychology*, 56: 453–484.
- Caspi, Avshalom. 2007. Early childhood factors associated with the development of post-traumatic stress disorder: Results from a longitudinal birth cohort. *Psychological Medicine*, 37: 181–192.
- Cullen, Francis T., John Paul Wright, Shayna Brown, Melissa M. Moon, Michael B. Blankenship, and Brandon K. Applegate. 1998. Public support for early intervention programs: Implications for a progressive policy agenda. *Crime & Delinquency*, 44: 187–204.
- DeLisi, Matt, Kevin M. Beaver, John Paul Wright, and Michael G. Vaughn. 2008. The etiology of criminal onset: The enduring salience of nature and nurture. *Journal of Criminal Justice*, 36: 217–223.

- Duchesne, Stephane, Simon Larose, Frederic Guay, Frank Vitaro, and Richard Tremblay. 2005. The transition from elementary to high school: The pivotal role of mother and child characteristics in explaining trajectories of academic functioning. *International Journal of Behavioral Development*, 29: 409–417.
- Farrington, David P. 2005. Early identification and preventive intervention: How effective is this strategy? *Criminology & Public Policy*, 4: 237–248.
- Farrington, David P. and Brandon C. Welsh. 2007. *Saving children from a life of crime: Early risk factors and effective interventions*. New York: Oxford University Press.
- Farrington, David P. and Donald J. West. 1990. The Cambridge study in delinquent development: A long-term follow-up of 411 London males. In (H. J. Kerner and G. Kaiser, eds.), *Criminality: Personality, Behaviour and Life History*. Berlin: Springer-Verlag.
- Gottfredson, Michael R. and Travis Hirschi. 1990. *A General Theory of Crime*. Stanford, CA: Stanford University Press.
- Greenwood, Peter W., Karyn Model, C. Peter Rydell, and James Chiesa. 1998. *Diverting Children from a Life of Crime: Measuring Costs and Benefits*. Santa Monica, CA: RAND.
- Gregory, Alice M., Avshalom Caspi, Terrie E. Moffitt, Karestan Koenen, Thalia C. Eley, and Richie Poulton. 2007. Juvenile mental health histories of adults with anxiety disorders. *American Journal of Psychiatry*, 164: 301–308.
- Hermann, D. Scott and J. Jeffries McWhirter. 2001. *The Scare Program: Student Created Aggression Replacement Education*. Dubuque, IA: Kendall Hunt.
- Kacir, Christopher D. and Donald A. Gordon. 1997. Interactive videodisk parent training for parents of difficult pre-teens. *Child and Family Behavior Therapy*, 21: 1–22.
- Koenen, Karestan C., Terrie E. Moffitt, Richie Poulton, Judith Martin, and Kokko, Katja, Richard E. Tremblay, Eric Lacourse, Daniel S. Nagin, and Frank Vitaro. 2006. Trajectories of prosocial behavior and physical aggression in middle childhood: Links to adolescent school dropout and physical violence. *Journal of Research on Adolescence*, 16: 403–428.
- Kumpfer, Karol L. 1982. *The Strengthening Families Program*. Bethesda, MD: National Institute of Drug Abuse.
- Lipsey, Mark W., James C. Howell, Marion R. Kelly, Gabrielle Chapman, and Darin Carver. 2010. Improving the effectiveness of juvenile justice programs: New perspectives on evidence-based practices. Retrieved December 1, 2011 from cjjr.georgetown.edu/pdfs/ebp/ebppaper.pdf.
- Lipsey, Mark W. and David B. Wilson. 1998. Serious and violent juvenile offenders: Risk factors and successful interventions. In (Rolf Loeber and David P. Farrington, eds.), *Effective Intervention for Serious Juvenile Offenders: A Synthesis of Research*. Thousand Oaks, CA: Sage.
- Mazerolle, Paul, Robert Brame, Ray Paternoster, Alex R. Piquero, and Charles Dean. 2000. Onset age, persistence, and offending versatility: Comparisons across gender. *Criminology*, 38: 1143–1172.
- Nagin, Daniel S. and David P. Farrington. 1992. The stability of criminal potential from childhood to adulthood. *Criminology*, 30: 235–260.

- Petrosino, Anthony, David P. Farrington, and Lawrence W. Sherman. 2003. Special report: The Campbell collaboration crime and justice group: Early development and progress. *Journal of Offender Rehabilitation*, 38: 5–18.
- Piquero, Alex R., Francis T. Cullen, James D. Unnever, Nicole L. Piquero, and Jill A. Gordon. 2010. Never too late: Public optimism about juvenile rehabilitation. *Punishment and Society*, 12: 187–207.
- Piquero, Alex R., David P. Farrington, Brandon C. Welsh, Richard Tremblay, and Wesley G. Jennings. 2009. Effects of early family/parenting training programs on antisocial behavior and delinquency. *Journal of Experimental Criminology*, 5: 83–120.
- Piquero, Alex R., Wesley G. Jennings, and David P. Farrington. 2010. On the malleability of self-control: Theoretical and policy implications regarding a general theory of crime. *Justice Quarterly*, 27: 803–834.
- Pogarsky, Greg, Alex R. Piquero, and Ray Paternoster. 2004. Modeling change in perceptions about sanction threats: The neglected linkage in deterrence theory. *Journal of Quantitative Criminology*, 20: 343–369.
- Sherman, Lawrence W. 1993. Defiance, deterrence, and irrelevance: A theory of the criminal sanction. *Journal of Research on Crime and Delinquency*, 30: 453–459.
- Tremblay, Richard E., Christa Japel, Daniel Perusse, Pierre McDuff, Michel Boivin, Mark Zoccolillo, et al. 1999. The search for the age of “onset” of physical aggression: Rousseau and Bandura revisited. *Criminal Behaviour and Mental Health*, 9: 8–23.
- Tremblay, Richard E., Daniel S. Nagin, Jean R. Séguin, Mark Zoccolillo, Philip D. Zelazo, Michel Boivin, et al. 2004. Physical aggression during early childhood: Trajectories and predictors. *Pediatrics*, 114: e43–e50.
- Wasserman, Gail A., Kate Keenan, Richard E. Tremblay, John D. Coie, Todd I. Herrenkohl, Rolf Loeber, et al. 2003. Risk and protective factors of child delinquency. *Child Delinquency Bulletin Series*. Washington, DC: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention.
- U.S. Census Bureau. *QuickFacts*. 2009. Retrieved December 1, 2011 from census.gov/.

John Paul Wright is associate professor of criminal justice at the University of Cincinnati, School of Criminal Justice. He has published widely on the development of violence, on juvenile delinquency, and on biological and genetic influences associated with problem behavior.

Pamela M. McMahon is Research Director of the Pediatric Residency Program at Our Lady of the Lake Hospital. She was formerly a Senior Scientist at the Centers for Disease Control and Prevention in the Division of Violence Prevention. Her publications focus on a variety of facets of violence and its prevention.

Claire Daly is the director of the Family Services Division of the 16th Judicial District in Louisiana. Mrs. Daly helped to develop and administer the Prosecutor’s Early Intervention Program.

J. Phil Haney is the District Attorney for the 16th Judicial District, Louisiana.

A P P E N D I X

Scale Statistics		
Measure	Pretest	Posttest
Oppositional Behavior	$\alpha = 0.95$	$\alpha = 0.96$
How many times per week child:	Mean = 52.9	Mean = 46.3
Argues with authorities	SD = 22.5	SD = 22.6
Inappropriate response to correction	N = 637	N = 597
Throws a tantrum		
Sneaky		
Distorts the truth		
Blames others for own behavior		
Refuses to Listen		
Will not obey commands		
Demands teacher's attention		
Disrupts class		
Talks at inappropriate times		
Annoys others		
Invades others space		
Others complain about student		
Developmental Problems	$\alpha = 0.92$	$\alpha = 0.92$
Harms self intentionally	Mean = 36.4	Mean = 32.0
Sexually acts out	SD = 27.0	SD = 24.0
Inappropriate touching	N = 638	N = 588
Suspected use-abuse of drugs		
Risky physical behaviors		
Steals		
Sucks thumb		
Urinates		
Defecates		
Falls asleep in class		
Eating problems		
Speech language problems		
Hostile Emotionality	$\alpha = 0.87$	$\alpha = 0.89$
Mean hateful	Mean = 21.2	Mean = 18.3
Seeks revenge	SD = 11.9	SD = 11.0
Lacks empathy	N = 639	N = 597
Open hostility		
Flat affect		
Lacks joy		
Callous		
Violent Behavior	$\alpha = 0.86$	$\alpha = 0.88$
Violent Behavior	Mean = 15.6	Mean = 13.8

Continued

APPENDIX (Continued)

Measure	Scale Statistics	
	Pretest	Posttest
Hits teacher	SD = 9.9	SD = 9.1
Uses obscene language	N = 639	N = 598
Bullies students		
Hits peers		
Kicks others		
Breaks things		

POLICY ESSAY

EARLY INTERVENTION BETWEEN SCHOOLS AND LAW ENFORCEMENT

New Standards for Demonstrating Program Effectiveness

Peter W. Greenwood

Advancing Evidence Based Practice

The Prosecutor's Early Intervention Program (PEIP), which was developed by The Family Service Division of the District Attorney's Office in Louisiana's 16th Judicial District, provides an excellent example of how local stakeholders can respond, in an evidence-based manner, to the perceived need for early prevention efforts in juvenile justice, and the standards they must meet to have their program recognized as one "that works" on various clearinghouse lists. The motivation for developing the program is said to have grown out of recognition that although most of the young children the court comes into contact with have not yet committed offenses that would warrant formal court intervention, many of them have exhibited behavioral problems that were predictive of future court involvement.

Wright, McMahon, Daly, and Haney (2012, this issue) claim that PEIP was designed "to address the behavioral problems of children in prekindergarten through the sixth grade." Also, they claim that the design of the PEIP was "informed" by research into effective early intervention programming and that there was a strong emphasis on using "best practices." In addition, PEIP was to be "informed" by research into the onset and development of serious problem behavior in young children.

It turns out that the prosecutor's people probably knew a lot about the development of early delinquency and the kinds of intervention that were effective in dealing with it after reading several related references (DeLisi, Beaver, Wright, and Vaughn, 2008; Farrington and West, 1990; Gottfredson and Hirschi, 1990; Mazerolle, Brame, Paternoster, Piquero, and Dean, 2000; Nagin and Farrington, 1992; Tremblay et al., 1999; Wasserman et al., 2003). They performed the kind of due diligence background research that many of us did before designing new programs back in the good old 1980s and 1990s.

Direct correspondence to Peter W. Greenwood (e-mail: peter.greenwood@sbcglobal.net).

One thing that makes this particular prevention program different is that the local prosecutor stepped up to launch the program rather than the school system, probation, or social services. What do prosecutors know about early intervention? Educators and social workers can be expected to know more because they are usually involved in many such efforts. The prosecutor's rationale for getting involved in early prevention, as stated in the Wright et al. (2012) article, included three considerations:

1. Involvement of the prosecutor's office would help deliver the message to the family that this was a serious matter.
2. Involvement of the prosecutor might provide some leverage over noncompliant parents.
3. Involvement of the prosecutor might leverage more services from overburdened service providers.

From the Wright et al. (2012) article, we do not know exactly what references the prosecutor's staff used in designing the program. Because Wright et al. cite Lipsey, Howell, Kelly, Chapman, and Carver (2010), we may infer that they were familiar with Lipsey and Wilson's (1998) previous meta-analysis work.

At the time that PEIP was being developed, the individuals in the District Attorney's Office responsible for the program had several options, in addition to reading the Lipsey and Wilson (1998) meta-analyses. If Wright et al. (2012) had gone to the Blueprints for Violence Prevention website (colorado.edu/cspv/blueprints/), they would have found approximately a dozen programs that were considered proven effective because they had demonstrated positive effects on targeted outcomes, after the youth had left the program, in at least two separate field trials with rigorous evaluation designs (Elliot, 1997). Another 20 or so programs listed on the website were considered promising on the basis of a single rigorous evaluation showing positive outcomes.

If Wright et al. (2012) had been able to select one of the proven models such as the Incredible Years or PATHS, then they would have received all the training and technical assistance materials they needed to launch the program, but they would have had to expend considerable resources to get their staff trained in the model, and for continued technical assistance. However, none of the Blueprint's proven models seem to meet the requirements of a prosecutor attempting to deal with such a wide age range.

If Wright et al. had examined any of the Promising Programs such as Behavioral Monitoring and Reinforcement, the Good Behavior Game, or Strengthening Families, which are programs that also provide access to training materials, they would have found that such programs focus on youth in either school or preschool, but not both.

In taking the option chosen by Wright et al. (2012), of designing their own program from scratch, based on their own knowledge of the research literature, they obligated themselves to not only designing and testing the program but also to developing all the training and technical assistance materials to make sure it was implemented with a high degree of fidelity. We are now learning that successful implementation of a new program,

even an “off the shelf one,” is a challenging process and can take several years before maximum effectiveness is achieved (Fixsen, Naoom, Blase, Friedman, and Wallace, 2005). Multidimensional Treatment Foster Care is a proven Blueprint model that also uses a case manager to coordinate a variety of services for each family and expends considerable effort helping new sites figure out who to hire for such positions, and then training them to perform their functions (Greenwood, 2006).

When a program such as PEIP succeeds in accomplishing all the goals that it set out to meet, it provides the rest of us with a gift, over and above whatever it has done for the children, families, and communities it served. It provides others with a blueprint for a program that works—something we now have few of.

So, the central questions about the article by Wright et al. (2012) are whether the PEIP program designed by The Family Service Division of the District Attorney’s Office in Louisiana’s 16th Judicial District has actually improved the lives of the children it has served and whether it provides a useful model for others to follow. The first question is one of efficacy. The second is one of appropriateness.

Let us begin with the outcome measures used in the evaluation: the Complaint Form, the Classroom Behavior Inventory, and the case closure status. All three are said to assess the domains they cover with a fair degree of reliability. The problem is that all these measures are drawn from periods prior to or while the youth remains in the program. They do not measure the lasting effects on outcomes after program termination, as is required by Blueprints for “proven” status.

A second reason to question the positive findings of the study by Wright et al. (2012) is that the subjects were not randomly assigned to the various treatment conditions, increasing the likelihood of false-positive findings and decreasing the likelihood of detecting the absence of any effects (Weisburd, Lum, and Petrosino, 2001). For these two reasons, we remain uncertain as to the ultimate impacts of the program, no matter what the findings of the analysis.

Standards they are a changing. Thirty years ago, Susan Turner and I published an evaluation of a program known as Vision Quest that had a weaker design than the one in this study (Greenwood and Turner, 1987). Yet that evaluation still provides the basis for VisionQuest being listed on several evidence-based program lists.

For programs hoping to make the more discriminating lists of effective programs, it is just about essential to publish the results of a randomized control trial (RCT) in a respected peer-reviewed journal. The best medical journals will not even consider your article for publication unless you registered your RCT before it began. This policy is designed to guard against drug companies running multiple trials on a drug of questionable efficacy and cherry picking the findings by publishing only those that are positive.

Even if we choose to ignore the reported findings in regard to impacts, because of the problems discussed previously, there is still another way we might estimate the likely effectiveness of such a program. Based on the meta-analyses of the hundreds of

evaluations of juvenile justice programs in his files, Professor Mark Lipsey, Director of the Peabody Research Institute at Vanderbilt University, has developed a scheme for dividing all delinquency prevention programs into approximately six basic categories, and then identifying the characteristics associated with those programs that are the most effective within each category.

To score a particular program on the Standardized Program Evaluation Protocol (SPEP) scale of 0 to 100, with 100 representing the best score, we must decide into which of the major categories, representing different intervention methods, the program falls, and then provide information about how the program was implemented. The program scoring form for Lipsey’s SPEP is shown in Figure 1.

After earning up to 40 points on the basis of what services the program is supposed to provide, the remaining 60 points get distributed on the basis of how well the design was implemented: up to 25 points for meeting dosage (hours of service) and duration targets; 20 points for a high percentage of youth with risk levels at or above the targeted risk level; and 15 points for treatment quality.

From the description of PEIPs provided in Wright et al. (2012), we can deduce the following:

Primary Service	Family counseling, Individual counseling	35
Supplemental Service	Wraparound case manager	5
Treatment Amount	Neither target nor actual amount reported	
Treatment Quality	Not reported	
Youth Risk Level	Neither target nor actual amount reported	
Total SPEP Score	Could be anywhere from 50 to 100	

It can easily be argued that PEIP includes several specific programs, depending on the age of the juvenile and the programs to which he or she is referred. There is no reason to believe that a referral to an Incredible Years program should be equally as effective as a case manager trying to arrange an improved individualized education plan from a school. Increasing heterogeneity in the sample also increases random noise and, thus, reduces the chances of finding positive effects. This result suggests looking at impacts by specific age groups within the sample.

In conclusion, we can say that PEIP demonstrates the role that prosecutors and other community stakeholders can play in initiating evidence-based prevention programs for high-risk youth. The outcome data suggest that the multiple services provided had some positive effects on behavior at the time of discharge but that little additional deterrent effect was provided by making the prosecutor’s role in the program more obvious to parents. Unfortunately, the weak evaluation design does not make it likely that PEIP will be added to the Blueprints “promising” list, and the lack of either targeted or actual dosage and the duration make it impossible to assess the program’s likely impact with the Lipsey SPEP instrument. Program evaluators need to become familiar with these minimum data requirements if their intention is to add to the cumulative knowledge of what works in juvenile justice.

FIGURE 1

Standardized Program Evaluation Protocol (SPEP) for Services to Probation Youth

Standardized Program Evaluation Protocol (SPEP) for Services to Probation Youth		
	Possible Points	Received Points
Primary Service:	35	
High average effect service (35 points) Moderate average effect service (25 points) Low average effect service (15 points)		
Supplemental Service:		
Qualifying supplemental service used (5 points)		
Treatment Amount:	10	
Duration: % of youth that received target number of weeks of service or more: 0% (0 points) 60% (6 points) 20% (2 points) 80% (8 points) 40% (4 points) 100% (10 points)		
Contact Hours: % of youth that received target hours of service or more: 0% (0 points) 60% (9 points) 20% (3 points) 80% (12 points) 40% (6 points) 100% (15 points)		
Treatment Quality:	15	
Rated quality of services delivered: Low (5 points) Medium (10 points) High (15 points)		
Youth Risk Level:	20	
% of youth with the target risk score or higher: 25% (5 points) 75% (15 points) 50% (10 points) 99% (20 points)		
Provider's Total SPEP Score:		
	100	[INSERT SCORE]

In regard to the issue of whether the prosecutor should take the lead in developing such programs, recent experience with the design and implementation of a number of early intervention programs suggest that it is better to bring all of the key stakeholders to the table in developing and implementing the program to build political support and ensure that services are rendered by those in the best position to provide them (Fixsen et al., 2005; Hawkins et al., 2008, 2009).

References

- DeLisi, Matt, Kevin M. Beaver, John Paul Wright, and Michael G. Vaughn. 2008. The etiology of criminal onset: The enduring salience of nature and nurture. *Journal of Criminal Justice*, 36: 217–223.
- Elliot, Delbert. 1997. *Blueprints for Violence Prevention*. Boulder, CO: Center for the Study and Prevention of Violence.
- Farrington, David P. and Donald J. West. 1990. The Cambridge study in delinquent development: A long-term follow-up of 411 London males. In (H. J. Kerner and G. Kaiser, eds.), *Criminality: Personality, Behaviour and Life History*. Berlin: Springer-Verlag.
- Fixsen, Dean L., Sandra F. Naoom, Karen A. Blase, Robert M. Friedman, and Frances Wallace. 2005. *Implementation Research: A Synthesis of the Literature*. Tampa: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network.
- Gottfredson, Michael R. and Travis Hirschi. 1990. *A General Theory of Crime*. Stanford, CA: Stanford University Press.
- Greenwood, Peter W. 2006. *Changing Lives: Delinquency Prevention as Crime Control Policy*. Chicago, IL: University of Chicago Press.
- Greenwood, Peter W. and Susan Turner. 1987. *The VisionQuest Program: An Evaluation*. Chicago, IL: RAND.
- Hawkins, J. David, Eric C. Brown, Sabrina Oesterle, Michael W. Arthur, Robert D. Abbott, and Richard F. Catalano. 2008. Early effects of Communities That Care on targeted risks and initiation of delinquent behavior and substance use. *Journal of Adolescent Health*, 53: 15–22.
- Hawkins, J. David, Sabrina Oesterle, Eric C. Brown, Michael W. Arthur, Robert D. Abbott, Abigail A. Fagan, and Richard F. Catalano. 2009. Results of a type 2 translational research trial to prevent adolescent drug use and delinquency: A test of Communities That Care. *Archives of Pediatrics and Adolescent Medicine*, 163: 789–798.
- Lipsey, Mark W., James C. Howell, Marion R. Kelly, Gabrielle Chapman, and Darin Carver. 2010. Improving the effectiveness of juvenile justice programs: New perspectives on evidence-based practices. Retrieved December 1, 2011 from cjjr.georgetown.edu/pdfs/ebp/ebppaper.pdf.
- Lipsey, Mark W. and Wilson, David B. 1998. Serious and violent juvenile offenders: Risk factors and successful interventions. In (Rolf Loeber and David P. Farrington, eds.), *Effective Intervention for Serious Juvenile Offenders: A Synthesis of Research*. Thousand Oaks, CA: Sage.
- Mazerolle, Paul, Robert Brame, Ray Paternoster, Alex R. Piquero, and Charles Dean. 2000. Onset age, persistence, and offending versatility: Comparisons across gender. *Criminology*, 38: 1143–1172.
- Nagin, Daniel S. and David P. Farrington. 1992. The stability of criminal potential from childhood to adulthood. *Criminology*, 30: 235–260.
- Tremblay, Richard E., Christa Japel, Daniel Perusse, Pierre McDuff, Michel Boivin, Mark Zoccolillo, et al. 1999. The search for the age of “onset” of physical aggression: Rousseau and Bandura revisited. *Criminal Behaviour and Mental Health*, 9: 8–23.

-
- Wasserman, Gail A., Kate Keenan, Richard E. Tremblay, John D. Coie, Todd I. Herrenkohl, Rolf Loeber, et al. 2003. Risk and protective factors of child delinquency. *Child Delinquency Bulletin Series*. Washington, DC: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention.
- Weisburd, David, Cynthia M. Lum, and Anthony Petrosino. 2001. Does research design affect study outcomes in criminal justice? *ANNALS of the American Academy of Political and Social Science*, 578: 50–70.
- Wright, John Paul, Pamela M. McMahon, Claire Daly, and J. Phil Haney. 2012. Getting the law involved: A quasi-experiment in early intervention involving collaboration between schools and the district attorney's office. *Criminology & Public Policy*. This issue.
-

Peter W. Greenwood is a nationally recognized expert in the fields of juvenile justice, delinquency prevention and sentencing policy. He is a Fellow of the Academy of Experimental Criminology and recipient of the August Volmer Award from the American Society of Criminology. His most recent book, published by the University of Chicago Press, is titled *Changing Lives: Delinquency Prevention as Crime Control Policy*.

He has served on Advisory Boards for the Blueprints Project and the California Attorney General, and was the founding Director of the RAND Corporation's Criminal Justice Program. He currently serves as the Executive Director of the Association for Advancement of Evidence Based Practice, maintains a private consulting practice, and sits on the Board of VisionQuest, a service provider with programs in 7 states.

Dr. Greenwood is a graduate of the US Naval Academy and earned a PhD at Stanford in Industrial Engineering.

POLICY ESSAY

EARLY INTERVENTION BETWEEN SCHOOLS AND LAW ENFORCEMENT

The Case for Early Crime Prevention

Brandon C. Welsh

Northeastern University

Netherlands Institute for the Study of Crime and Law Enforcement

Early prevention is an important component of an overall strategy to reduce crime. Striking a greater balance among early prevention, treatment, and punishment can go a long way toward building a safer, more sustainable society. Getting there is another thing altogether. Early prevention faces several unique challenges, including concerns by politicians that they will be labeled soft on crime for their support of prevention and the short-time horizons of politicians. The good news is that these and other challenges are not insurmountable, and some scholars and policy experts have been writing about and working to implement concrete solutions (see Greenwood, 2012; Ludwig, 2012). The other good news is that a growing body of research demonstrates the importance and effectiveness of early prevention. As this policy essay shows, a strong case can be made for intervening in the early years to prevent delinquency and later criminal offending. Moreover, some of this research has been making inroads with policy and practice in the United States and in other Western countries.

It is within this wider context of the accumulation of research in support of early prevention that the article by Wright, McMahon, Daly, and Haney (2012, this issue) is a welcomed addition. That it was an early intervention program that involved a component of the juvenile justice system is especially intriguing. For sure, we must be mindful that the Prosecutor's Early Intervention Program (PEIP) is no panacea, as Wright et al. remind us on several occasions. Importantly, readers also are reminded that this is just one evaluation and the generalizability of the results is unknown at this time. But this program and its collaborative approach could become another important piece of research evidence that broadens and strengthens the case for early crime prevention.

Direct correspondence to Brandon C. Welsh, School of Criminology and Criminal Justice, Northeastern University, Churchill Hall, 360 Huntington Avenue, Boston, MA 02115 (e-mail: b.welsh@neu.edu).

Public Support

Widespread public support exists in the United States for early prevention programs and prevention more generally compared with punitive measures (Cullen, Vose, Jonson, and Unnever, 2007). This support comes in the form of conventional polls that ask people to identify the most effective responses to crime (from a range of approaches) and the more recently adopted contingent valuation method that surveys people's willingness to pay some dollar amount—sometimes in the form of increased taxes—for a specified reduction in crime in their community (again, from a range of approaches).

One study is particularly noteworthy. As a study of public preferences for responses to juvenile offending in Pennsylvania, Nagin, Piquero, Scott, and Steinberg (2006) found that the public values early prevention as well as offender treatment significantly more than increased incarceration. Households were willing to pay an average of \$126 in additional taxes on nurse home visitation programs to prevent delinquency or \$98 for offender treatment compared with \$81 on longer sentences. At the state level, public support for the prevention option translated into \$601 million that could be used hypothetically to prevent delinquency compared with \$387 million for longer sentences for juvenile offenders.

Brain Development and Early Predictors of Offending

Landmark studies in neuroscience have demonstrated that experiences in the early years of the life course shape brain maturation and architecture. According to Knudsen, Heckman, Cameron, and Shonkoff (2006: 10,159), “the capacity of the brain to make fundamental architectural changes guided by experience appears to be limited to a sensitive period in early life.” These findings are highly concordant with developmental theory, which postulates that the early years of life are most influential in shaping later experiences. As noted by Duncan and Magnuson (2004: 102–103), “early childhood may provide an unusual window of opportunity for interventions because young children are uniquely receptive to enriching and supportive environments. . . . As individuals age, they gain the independence and ability to shape their environments, rendering intervention efforts more complicated and costly.”

Importantly, after decades of rigorous study in the United States and across the Western world—using prospective longitudinal studies—a great deal is now known about the early risk factors for delinquency and later criminal offending. Early risk factors that are associated most strongly with delinquency and offending can be found at the individual, family, and environmental levels. Among the most important individual factors that predict offending are low intelligence and attainment, personality and temperament, empathy, and impulsiveness. The strongest family factor that predicts offending is usually criminal or antisocial parents. Other strong and replicable family factors that predict offending are large family size, poor parental supervision, parental conflict, and disrupted families. At the environmental level, the strongest factors that predict offending are growing up in a low socioeconomic status household, associating with delinquent friends, attending high-delinquency-rate schools, and living in deprived areas (Farrington and Welsh, 2007).

Evidence-Based Programs

A growing body of high-quality scientific evidence demonstrates the effectiveness of early prevention programs designed to tackle the most important risk factors for delinquency and later offending. Many early intervention trials have reached the point at which delinquency can be measured, and others have carried out long follow-ups. In addition, recent systematic reviews and meta-analyses of early intervention programs demonstrate that a wide range of programs in different domains (individual, family, school, and community) can be effective and others promising in preventing delinquency and later offending.

Some general conclusions were reached in a recent study on the effectiveness of early crime prevention (Farrington and Welsh, 2007). Some of the more specific findings, with updates, include the following. At the individual level, preschool intellectual enrichment and child skills training programs are effective in preventing delinquency and later offending. The results also are highly favorable and robust for impacts on other important life-course outcomes, such as education, government assistance (e.g., welfare), employment, income, substance abuse, and family stability.

At the family level, general parent education in the context of home visiting and day care, as well as parent management training programs, are effective in preventing delinquency and later offending. Both types of programs also produce a wide range of other important benefits for families: improved school readiness and school performance on the part of the children, greater employment and educational opportunities for parents, and greater family stability in general. At the environmental level, several school-based programs and community-based mentoring are effective in preventing delinquency. Some school programs produce benefits in other areas, such as alcohol and drug use, and other problem behaviors in general. The potential future addition of PEIP to this list of evidence-based programs would be welcomed, especially because not one of these programs involves collaboration with the justice system.

Economic Return

One of the most influential sources of support for early prevention is the economic return that this approach can generate for the government and taxpayers. Benefit–cost analyses of individual programs provide important insight into the economic efficiency of early intervention. What is perhaps a more pressing issue facing policy makers today is an understanding of the economic efficiency of competing policy options; that is, compared with other crime prevention and control strategies, which one provides the best economic return for society?

Greenwood, Model, Rydell, and Chiesa (1998) investigated this crucial policy question by assessing the cost-effectiveness (i.e., serious crimes prevented per \$1 million spent, using 1993 dollars) of California's new three-strikes law compared with four prevention and intervention strategies with demonstrated efficacy in reducing crime: a combination of home visits and day care, parent training, graduation incentives, and monitoring and supervising

delinquent youths. Each of these alternatives was based on well-known experiments with small to moderately large sample sizes. The modeling process incorporated several factors to ensure like-with-like comparisons among the interventions.

The study found that graduation incentives and parent training were the most cost-effective of the five programs, whereas home visiting/day care was the least cost-effective. The number of serious crimes prevented per \$1 million was estimated at 258 for graduation incentives, 157 for parent training, 72 for delinquent supervision, 60 for the three strikes law, and 11 for home visiting/day care. The small number of crimes prevented per \$1 million by the home visiting/day care program is attributable to two key factors (a third one is discussed subsequently): first, the long-term delay in realizing an impact on crime and, second, the high cost of delivering the services, particularly the day care component, which was estimated at \$6,000 per child per year over a 4-year period.

In another important study, Donohue and Siegelman (1998) investigated whether the “social resources that will be expended a decade or more from now on incarcerating today’s youngsters could instead generate roughly comparable levels of crime *prevention* if they were spent today on the most promising social programs” (p. 31). These programs included a range of early prevention programs, and most of the estimates were based on well-known experiments or quasi-experiments with small-to-large sample sizes.

The first step involved estimating the crime reduction and cost associated with a continuation of U.S. prison policy. Based on a 50% increase in the prison population over a 15-year period (assumed from the level in December 1993 and trends at the time), it was estimated that this policy would cost \$5.6 to \$8 billion (in 1993 dollars) and result in a 5% to 15% decrease in crime. The next steps involved estimating the percentage of the cohort of 3-year-olds who could be served by allocating the saved prison costs (the \$5.6 to \$8 billion) to the different social programs and then estimating the crime-reduction benefits that could be achieved by selected programs under a range of targeting conditions (i.e., the worst 6% of delinquents, males only, and young Black males only). Two early prevention programs were selected: the Perry Preschool project (Schweinhart, Barnes, and Weikart, 1993) and the Syracuse University Family Development Research program (Lally, Mangione, and Honig, 1988). At this stage, the authors apply a scaling-up penalty of 50% to each program to account for expected attenuation of program effects. The study by Greenwood et al. (1998) used a similar procedure.

In the final analysis, it was found that both early prevention programs could achieve reductions in crime that were within the range of what was expected from a continuation of the prison policy of the day (5% to 15%) even if they were allocated the lower bound amount that would have been spent on prisons (\$5.6 billion). This was considered the worst-case scenario. In the best-case scenario, which did not include the scaling-up penalty and allocated the upper bound amount of prison spending (\$8 billion), the Perry and Syracuse programs produced crime reductions of 21% and 26%, respectively. In a more recent benefit–cost analysis, Donohue (2009) concluded that, “there is reason to believe

that alternatives to incarceration might well be more socially attractive than our current reliance on incarceration as the predominant crime-fighting strategy” (p. 308).

Nagin (2001) reexamined the studies by Greenwood et al. (1998) and Donohue and Siegelman (1998). Although he praised their innovative methods, one of his main concerns was that they failed to consider the full potential benefits of the early prevention programs. By its nature, developmental prevention is designed to improve individual functioning across multiple domains. Indeed, this is precisely what evaluations of the included programs showed. But Greenwood et al. and Donohue and Siegelman considered only the benefits from lower rates of delinquent and criminal activity. Educational, employment, family, health, and other important benefits were not taken into account, which had the effect of greatly reducing the true economic return to society.

The inclusion of these additional outcomes is a key feature of the most important body of new research in this area: Washington State Institute for Public Policy’s comparative benefit–cost model (Drake, Aos, and Miller, 2009). This policy research initiative is already paying substantial dividends to the state government, local governments, and taxpayers in Washington State. This is not because the state has decided to focus solely on early crime prevention. Rather, it is because it has decided to follow the research evidence, invest in early crime prevention, and search for the right balance among prevention, treatment, and punishment.

References

- Cullen, Francis T., Brenda A. Vose, Cheryl N. L. Jonson, and James D. Unnever. 2007. Public support for early intervention: Is child saving a “habit of the heart”? *Victims & Offenders*, 2: 109–124.
- Donohue, John J. 2009. Assessing the relative benefits of incarceration: Overall changes and the benefits on the margin. In (Steven Raphael and Michael A. Stoll, eds.), *Do Prisons Make Us Safer? The Benefits and Costs of the Prison Boom*. New York: Russell Sage.
- Donohue, John J. and Peter Siegelman. 1998. Allocating resources among prisons and social programs in the battle against crime. *Journal of Legal Studies*, 27: 1–43.
- Drake, Elizabeth K., Steve Aos, and Marna G. Miller. 2009. Evidence-based public policy options to reduce crime and criminal justice costs: Implications in Washington State. *Victims & Offenders*, 4: 170–196.
- Duncan, Greg J. and Katherine Magnuson. 2004. Individual and parent-based intervention strategies for promoting human capital and positive behavior. In (P. Lindsay Chase-Lansdale, Kathleen Kiernan, and Ruth J. Friedman, eds.), *Human Development Across Lives and Generations: The Potential for Change*. New York: Cambridge University Press.
- Farrington, David P. and Brandon C. Welsh. 2007. *Saving Children from a Life of Crime: Early Risk Factors and Effective Interventions*. New York: Oxford University Press.
- Greenwood, Peter W. 2012. Keeping up with the jurisdiction next door: Access to and use of evidence regarding effective prevention programs for high-risk families. In

- (Richard Rosenfeld, Kenna Quinet, and Crystal Garcia, eds.), *Contemporary Issues in Criminological Theory and Research: The Role of Social Institutions*. Belmont, CA: Wadsworth.
- Greenwood, Peter W., Karyn E. Model, C. Peter Rydell, and James Chiesa. 1998. *Diverting Children from a Life of Crime: Measuring Costs and Benefits*, 2nd edition. Santa Monica, CA: RAND.
- Knudsen, Eric I., James J. Heckman, Judy L. Cameron, and Jack P. Shonkoff. 2006. Economic, neurobiological, and behavior perspectives on building America's future workforce. *Proceedings of the National Academy of Sciences*, 103: 10,155–10,162.
- Lally, J. Ronald, Peter L. Mangione, and Alice S. Honig. 1988. The Syracuse University Family Development Research Program: Long-range impact of an early intervention with low-income children and their families. In (D. R. Powell, ed.), *Parent Education as Early Childhood Intervention*. Norwood, NJ: Ablex.
- Ludwig, Jens. 2012. Cost-effective crime prevention. In (Richard Rosenfeld, Kenna Quinet, and Crystal Garcia, eds.), *Contemporary Issues in Criminological Theory and Research: The Role of Social Institutions*. Belmont, CA: Wadsworth.
- Nagin, Daniel S. 2001. Measuring economic benefits of developmental prevention programs. In (Brandon C. Welsh, David P. Farrington, and Lawrence W. Sherman, eds.), *Costs and Benefits of Preventing Crime*. Boulder, CO: Westview Press.
- Nagin, Daniel S., Alex R. Piquero, Elizabeth S. Scott, and Laurence Steinberg. 2006. Public preferences for rehabilitation versus incarceration of juvenile offenders: Evidence from a contingent valuation survey. *Criminology & Public Policy*, 5: 627–652.
- Schweinhart, Lawrence J., Helen V. Barnes, and David P. Weikart. 1993. *Significant Benefits: The High/Scope Perry Preschool Study Through Age 27*. Ypsilanti, MI: High/Scope Press.
- Wright, John Paul, Pamela M. McMahon, Claire Daly, and J. Phil Haney. 2012. Getting the law involved: A quasi-experiment in early intervention involving collaboration between schools and the district attorney's office. *Criminology & Public Policy*. This issue.
-

Brandon C. Welsh is a professor in the School of Criminology and Criminal Justice at Northeastern University and a senior research fellow at the Netherlands Institute for the Study of Crime and Law Enforcement. His research interests include the prevention of delinquency and crime, with an emphasis on developmental and situational approaches, and evidence-based crime policy. He has written nine books, including *The Oxford Handbook of Crime Prevention* (Oxford University Press, 2012, with David Farrington) and *The Future of Criminology* (Oxford University Press, 2012, with Rolf Loeber).

POLICY ESSAY

EARLY INTERVENTION BETWEEN SCHOOLS AND LAW ENFORCEMENT

Should the Juvenile Justice System be Involved in Early Intervention?

David P. Farrington

Cambridge University

Until the late 1960s, the American juvenile justice system was concerned not only with juvenile offenders but also with problem children, and it aimed to act in the child's best interests and according to the child's needs. However, the President's Commission on Law Enforcement and Administration of Justice (1967) recommended that the juvenile court should be the agency of last resort and that juvenile delinquency should be prevented through early intervention and services *outside* the juvenile justice system. The federal Juvenile Justice and Delinquency Prevention Act of 1974 incorporated these recommendations and severely restricted the ability of the juvenile court to handle status offenders, nonoffenders, child delinquents, and dependent and neglected children (see, e.g., Howell, 1997, 2001). Thus, the juvenile court became more like the criminal court and was allowed little scope to intervene early in children's lives to prevent the escalation of child problems into serious juvenile offending.

The Office of Juvenile Justice and Delinquency Prevention (OJJDP) Study Group on Very Young Offenders summarized knowledge about offenders up to age 12 (see Loeber and Farrington, 2000, 2001). This Study Group concluded that the current methods of dealing with child delinquents were inadequate and recommended that early intervention was essential. A survey of practitioners at the 26th National Conference on Juvenile Justice in Minneapolis (MN) in 1999 found that most (88%) respondents said that there was an acute problem for juvenile courts in dealing with child delinquents (see Loeber and Farrington, 2000: 750). Nearly three quarters (71%) of practitioners thought that there were effective methods of dealing with child delinquents to reduce their risk of offending

Special thanks to Leena K. Augimeri and James C. (Buddy) Howell for providing helpful materials. Direct correspondence to David P. Farrington, Institute of Criminology, Cambridge University, Sidgwick Avenue, Cambridge CB3 9DA, U.K. (e-mail:dpf1@cam.ac.uk).

in the future. However, only between 3% and 6% thought that current juvenile court procedures were effective in achieving this aim, that current mental health programs were effective, or that current child welfare, dependency, and neglect programs were effective.

A major problem is that the juvenile court typically does not intervene until several years after delinquency careers have begun. For example, the OJJDP Study Group found that the average age of onset of minor problem behaviors by males was 7.0 years, for serious problem behaviors it was 9.5, and for serious delinquency it was 11.9 years, but the average age of the first referral to the juvenile court for an index crime was 14.5 years (Loeber, Farrington, and Petechuk, 2003). These findings, together with the Study Group's conclusion that an early onset of offending predicts a high risk of escalation into a later criminal career, indicate that intervention to prevent criminal careers should begin before age 12.

Against this background, the program described and evaluated by Wright, McMahon, Daly, and Haney (2012, this issue) should surely be welcomed as a brave attempt to deal effectively with child delinquents in the juvenile justice system. In commenting on the article, I will address four issues:

1. How useful was the involvement of the district attorney's office in reducing child problem behavior?
2. How does this Louisiana program compare with previous prosecutor-based intervention programs for child delinquents?
3. What is currently the best developed and validated method of assessing and dealing with child delinquents?
4. To what extent can early intervention programs prevent later serious offenses, especially homicide?

How Useful Was Prosecutor Involvement?

Wright et al. (2012) describe a randomized experiment designed to compare the Prosecutor's Early Intervention Program (PEIP) and Early Intervention Program (EIP) conditions. However, Wright et al. rarely report findings from this comparison. Instead, they compare all three groups (PEIP, EIP, and control), PEIP with control, EIP with control, or combined PEIP/EIP with control. It is important to demonstrate, of course, that both the PEIP and EIP programs are better than the control (no special services) condition in preventing child problem behavior, although these conclusions are based on quasi-experimental analyses.¹ This finding confirms prior results showing that the kinds of programs used here (The Incredible Years, Strengthening Families, and so on) are likely to be effective (see, e.g., Farrington and Welsh, 2007). It is also important to investigate whether an EIP would be

1. Because it is drawn from a different district, the control group does not seem to be comparable with the EIP and PEIP groups. For example, the control group contained a significantly smaller percentage of African American children than the other two groups.

more effective if it were organized by the district attorney's office rather than by schools, and it is particularly impressive to study this in a randomized controlled trial.

With the numbers involved in this trial (240 PEIP and 217 EIP), a percentage difference between the groups of approximately 9% would be significant at $p = .05$ (two-tailed), and a difference of approximately 8% would be significant at $p = .05$ (one-tailed).² It is perfectly justifiable to use one-tailed tests where there are directional predictions, as in the study by Wright et al. (2012). Interestingly, 13% of parents in the PEIP group refused services compared with only 4.5% of parents in the EIP group, which may have been a significant difference. Service refusal, together with the system of over-rides (moving EIP cases to the PEIP group), meant that fewer than 100% in each group received the intended treatment and, hence, that the effects of PEIP compared with EIP are probably underestimated in this article.

Was the PEIP treatment more effective than the EIP treatment? Wright et al. (2012:241–243) seem dubious:

We interpret the pattern of results as congruent with the idea that the intervention efforts, and not necessarily the obvious involvement of the District Attorney's Office, were primarily responsible for the behavior changes we detected. . . . [T]he obvious involvement of the District Attorney's Office in Louisiana's 16th Judicial District was associated with some positive outcomes, but the evidence of a widespread additional deterrent or treatment effect is limited. . . . The district attorney's involvement does not seem to be the operative mechanism that facilitates behavioral change in children, but it did, in some limited situations, compel parents and guardians to address the behavioral problems of their child. . . . We caution against accepting the simplistic notion that having a district attorney's office involved in intervention efforts will automatically affect the behavior of young children and their parents for the better.

In my opinion, Wright et al.'s (2012) conclusions are too cautious. Impressively, the PEIP and EIP conditions were compared in a randomized experiment. The intent-to-treat analysis should have eliminated selection effects. Figure 2 in Wright et al. shows comparisons between the PEIP and EIP groups. The PEIP group was much more successful than the EIP group on academic grades and teacher-assessed conduct; in both cases, approximately 85% of the PEIP children were successful, compared with slightly more than 50% of

2. Chi-squared = 3.84 in a 2×2 table is significant at $p = .05$ (two-tailed). r is the square root of chi-squared/ N (Lipsey and Wilson, 2001: 201), so the corresponding $r = .09$. r is also approximately the difference in proportions in a 2×2 table (Farrington and Loeber, 1989), so a difference between the groups of approximately 9% would be significant at $p = .05$, two-tailed. (The "correction for continuity" makes little difference to this argument.)

the EIP children. These effects are strong and would be highly significant. The PEIP and EIP children were not significantly different on excused absences (are these deviant?) or suspensions. Nevertheless, two significant and two nonsignificant differences suggests to me that the PEIP condition was better than the EIP condition and, therefore, that the involvement of the District Attorney's Office in Louisiana's 16th Judicial District had additional benefits over and above the (successful) EIP treatment.

Were Previous Prosecutor-Based Early Intervention Programs Effective?

The best-known pioneering, prosecutor-based early intervention program is the Delinquents Under 10 program of Hennepin County, MN, described by Howell (2001). This program began in 1996 but was later terminated because of budget cuts. It was led by the Hennepin County Attorney's Office. A Risk Factor checklist was used to screen cases. Interventions included an admonishment letter to parents from the county attorney, referrals to child protection services and other agencies, diversion programs, Children in Need of Protection or Services (CHIPS) petitions, and Targeted Early Intervention (TEI) for the children considered to be at highest risk for future delinquency.

The first program evaluation report by Stevens, Owen, and Lahti-Johnson (1999) was optimistic but identified various system and family barriers to program delivery and made several recommendations for improved agency performance intended to enhance program effectiveness. The most important outcome evaluation was completed by Gerrard and Owen (2000). They compared 33 children (with an average age on offending of 8.8 years) who received TEI and 34 control children with similar risk factor scores who were referred to the County Attorney's Office in 1993–1995 prior to the development of the program. A 2-year follow-up showed that the TEI children committed only half as many offenses as the controls, whereas the controls were twice as likely to miss school. These results, although based on a quasi-experimental evaluation with small numbers, were encouraging.

The Delinquents Under 10 program in Hennepin County, MN, inspired the All Children Excel (ACE) program for delinquents under 10 in Ramsey County (MN) (Beuhring and Melton, 2002), founded in 1999 and still continuing. The ACE program was not led by prosecutors but by a combination of county agencies (public health, mental health, child protection, and corrections) including the County Attorney's Office. The ACE program also used a Risk Factor screening instrument to identify which early onset delinquents were at high risk of escalating into serious, violent, or chronic offending (Beuhring, 2003). High-risk children received long-term intervention (LTI: intensive case-management services and skill-building activities for children and families), and low-to-moderate risk children received existing community interventions. The average intake age was 8.5.

An independent quasi-experimental evaluation of the ACE program compared LTI children with a comparison group of children who had been screened and found eligible for LTI but not selected for it (Professional Evaluation Services and Professional Data Analysis,

Inc., 2006). A survival graph showed that between ages 10 and 13, 47% of the LTI group who received intensive case management were charged compared with 69% of the LTI group who received after-school programs and 78% of comparison children. The intensive case management group did significantly better. Again, these results are encouraging.

What Is the Best Developed Program for Child Delinquents?

The best developed and validated programs for child delinquents (ages 6–11) are the Stop Now and Plan (SNAP) Under 12 Outreach Project (ORP) for boys and the corresponding Girls Connection (GC) implemented in Toronto, Ontario, Canada (see Augimeri, Walsh, Liddon, and Dassinger, 2011; Augimeri, Walsh, and Slater, 2011). Both are based on well-developed risk-assessment instruments: the Early Assessment Risk Lists for Boys (EARL-20B) and Girls (EARL-21G) (see Augimeri, Enebrink, Walsh, and Jiang, 2010). In conjunction with the Toronto police, Augimeri et al. (2010) established a city-wide referral system (the Toronto Centralized Protocol for Children in Conflict with the Law) that allowed an immediate response to high-risk children engaging in antisocial behaviors. This community mobilization project brought together Toronto police and fire services, child welfare agencies, school boards, and other children's service agencies to establish a single-entry access point through a central intake line housed at the Child Development Institute, where the assessments and treatments were conducted.

The EARL-20B and EARL-21G are used to identify risks and needs and to select interventions. The main intervention is SNAP, which is a cognitive-behavioral, self-control, and problem-solving strategy that helps children and parents to regulate angry feelings by getting them to stop, think, and plan desirable alternatives rather than acting impulsively and aggressively. In addition, the program includes individual befriending, parent training, academic tutoring, and other components (e.g., victim restitution and school advocacy) where appropriate. The gender-specific GC also includes Girls Growing Up Healthy, which is a group for mothers and daughters that focuses on building healthy relationships and includes topics such as physical and sexual health, intimate relationships, puberty, female role models, and girls in the media. Both the ORP and GC programs are fully manualized and are in various stages of replication in Canada, the United States, and Europe.

The ORP was evaluated in a small-scale randomized experiment by Augimeri, Farrington, Koegl, and Day (2007). Sixteen pairs of children (average age 8.9 years) were matched on age, gender, and severity of delinquency, and they were assigned randomly either to the ORP or to a control group that received less intensive treatment. The results showed that the scores on the Delinquency and Aggression scales of the Child Behavior Checklist (CBCL: completed by parents) of the ORP children decreased significantly more than those of the controls. Fewer ORP children had convictions up to the 18th birthday (31% compared with 57%), but this difference was not statistically significant. Follow-up analyses showed a dose–response relationship between the number of ORP components received and CBCL change scores (Koegl, Farrington, Augimeri, and Day, 2008).

An independent evaluation of the ORP was completed in Hamilton, Ontario, Canada, by Lipman et al. (2008). More than 200 boys aged 6–11 with conduct problems were assigned randomly either to the ORP or to a waiting list control group and had pretest and posttest data. The results showed that the ORP children improved significantly on the Aggression, Conduct Problems, and Rule Breaking scales of the CBCL, but that there were no corresponding changes in teacher-rated outcomes. Nevertheless, these results, in a large-scale independent randomized evaluation, are encouraging.

The GC was evaluated by assigning 80 girls randomly to treatment or waiting-list control groups (Pepler et al., 2010). The results showed that the GC girls had significantly lower scores on all CBCL scales (completed by parents) at follow-up than the control girls. Also, teacher ratings showed that the GC girls improved significantly on the CBCL Aggression, Delinquency, and Social Problems scales. Another randomized experiment on the ORP and GC is being conducted in Pittsburgh, PA, but the results are not yet available. All of these findings suggest that the Toronto assessment and treatment program for child delinquents is effective.

To What Extent Can Early Intervention Programs Prevent Later Serious Offenses, Especially Homicide?

Many studies show that early intervention can be effective in preventing later offending. For example, Farrington and Welsh (2003) conducted a meta-analysis of family-based programs and found that the weighted average effect size (standardized mean difference) for delinquency outcomes was 0.32. This result corresponds approximately to a 16% decrease in recidivism (e.g., from 50% in a control condition to 34% in an intervention condition), which is a big effect. However, it is less clear that early intervention can prevent later serious crimes.

Beth Ebel, Frederick Rivara, Rolf Loeber, and Dustin Pardini estimated the extent to which the U.S. homicide rate might be reduced by implementing early childhood programs on a national basis (see Loeber and Farrington, 2011). They focused especially on Nurse Home Visiting (Eckenrode et al., 2010), the Perry Preschool Project (Schweinhart et al., 2005), and Multisystemic Therapy (Sawyer and Borduin, 2011). They estimated the effects of these programs on arrests for violence, combined this information with data from the Pittsburgh Youth Study on the probability of violence being followed by a homicide conviction, and scaled up to national U.S. homicide figures. The effectiveness of the programs was scaled down by half to allow for the attenuation of effects from a demonstration project to national implementation (see Welsh, Sullivan, and Olds, 2010).

Based on 2002 figures, it was estimated that these three early intervention programs, implemented nationally and consecutively, could prevent one third of all homicides in the United States. The programs might save 4,200 lives and nearly 80,000 years of potential life lost. Furthermore, they might save almost 225,000 person-years of incarceration and more

than \$5 billion per year. Therefore, there is great scope for early intervention to prevent not only common crimes but also the most serious and uncommon crimes, such as murder.

Conclusions

It is important to implement effective interventions with children aged 6–11 who get into trouble, to prevent them escalating into serious, violent, and chronic juvenile offenders. Such interventions should be based on an assessment of risks and needs. Currently, service provision for these children in the United States is inadequate. Wright et al. (2012) show that an early intervention program with these children is effective and that a prosecutor-led program is even more effective. It is a little worrying that the prosecutor-led program seemed to arouse more resistance from parents, although the authors concluded that net-widening did not occur and that the “strong arm of the law” might be useful in overcoming resistance.

The time is ripe to build on the experiences of using early intervention programs in Louisiana, Minnesota, and especially Toronto to develop and test improved methods of assessing and intervening with child delinquents aged 6–11. These programs would prevent many serious crimes at later ages, and their benefits would outweigh their costs. And yes, the juvenile justice system (along with other agencies) should be involved in early intervention!

References

- Augimeri, Leena K., Pia Enebrink, Margaret Walsh, and Depeng Jiang. 2010. Gender-specific childhood risk assessment tools: Early Assessment Risk Lists for Boys (EARL-20B) and Girls (EARL-21G). In (Randy K. Otto and Kevin S. Douglas, eds.), *Handbook of Violence Risk Assessment*. New York: Routledge.
- Augimeri, Leena K., David P. Farrington, Christopher J. Koegl, and David M. Day. 2007. The SNAP Under 12 Outreach Project: Effects of a community based program for children with conduct problems. *Journal of Child and Family Studies*, 16: 799–807.
- Augimeri, Leena K., Margaret M. Walsh, Angela D. Liddon, and Carla R. Dassinger. 2011a. From risk identification to risk management: A comprehensive strategy for young children engaging in antisocial behavior. In (David W. Springer and Albert R. Roberts, eds.), *Juvenile Justice and Delinquency*. Sudbury, MA: Jones and Bartlett.
- Augimeri, Leena K., Margaret M. Walsh, and Nicola Slater. 2011b. Rolling out SNAP an evidence-based intervention: A summary of implementation, evaluation and research. *International Journal of Child, Youth and Family Studies*, 2: 330–352.
- Beuhring, Trisha. 2003. *Risk Factor Profile Instrument, Ramsey County ACE Program*. Minneapolis: University of Minnesota, ACE Research and Evaluation.
- Beuhring, Trisha and Hope Melton. 2002. *All Children Excel (ACE): Promoting Resiliency in Children at Risk for Serious and Violent Delinquency: Preliminary Outcome Evaluation Study*. Minneapolis: University of Minnesota, Institute on Community Integration.
- Eckenrode, John, Mary Campa, Dennis W. Luckey, Charles R. Henderson, Robert Cole, Harriet Kitzman, et al. 2010. Long-term effects of prenatal and infancy nurse home

- visitation on the life course of youths: 19-year follow-up of a randomized trial. *Archives of Pediatrics and Adolescent Medicine*, 164: 9–15.
- Farrington, David P. and Rolf Loeber. 1989. Relative improvement over chance (RIOC) and phi as measures of predictive efficiency and strength of association in 2×2 tables. *Journal of Quantitative Criminology*, 5: 201–213.
- Farrington, David P. and Brandon C. Welsh. 2003. Family-based prevention of offending: A meta-analysis. *Australian and New Zealand Journal of Criminology*, 36: 127–151.
- Farrington, David P. and Brandon C. Welsh. 2007. *Saving Children from a Life of Crime: Early Risk Factors and Effective Interventions*. Oxford, U.K.: Oxford University Press.
- Gerrard, Michelle D. and Greg Owen. 2000. *Delinquents Under 10: Targeted Early Intervention. Phase 2 Evaluation Summary*. Saint Paul, MN: Wilder Research Center.
- Howell, James C. 1997. *Juvenile Justice and Youth Violence*. Thousand Oaks, CA: Sage.
- Howell, James C. 2001. Juvenile justice programs and strategies. In (Rolf Loeber and David P. Farrington, eds.), *Child Delinquents: Development, Intervention, and Service Needs*. Thousand Oaks, CA: Sage.
- Koegl, Christopher J., David P. Farrington, Leena K. Augimeri, and David M. Day. 2008. Evaluation of a targeted cognitive-behavioral program for children with conduct problems—the SNAP Under 12 Outreach Project: Service intensity, age and gender effects on short and long term outcomes. *Clinical Child Psychology and Psychiatry*, 13: 419–434.
- Lipman, Ellen L., Meghan Kenny, Carrie Sniderman, Susanne O’Grady, Leena Augimeri, Sarah Khayutin, et al. 2008. Evaluation of a community-based program for young boys at risk of antisocial behavior: Results and issues. *Journal of the Canadian Academy of Child & Adolescent Psychiatry*, 17: 12–19.
- Lipsey, Mark W. and David B. Wilson. 2001. *Practical Meta-Analysis*. Thousand Oaks, CA: Sage.
- Loeber, Rolf and David P. Farrington. 2000. Young children who commit crime: Epidemiology, developmental origins, risk factors, early interventions, and policy implications. *Development and Psychopathology*, 12: 737–762.
- Loeber, Rolf and David P. Farrington, eds. 2001. *Child Delinquents: Development, Intervention, and Service Needs*. Thousand Oaks, CA: Sage.
- Loeber, Rolf and David P. Farrington. 2011. *Young Homicide Offenders and Victims: Risk Factors, Prediction, and Prevention from Childhood*. New York: Springer.
- Loeber, Rolf, David P. Farrington, and David Petechuk. 2003. *Child Delinquency: Early Intervention and Prevention*. Washington, DC: U.S. Office of Juvenile Justice and Delinquency Prevention.
- Pepler, Debra, Margaret Walsh, Amy Yuile, Kathryn Levene, Depeng Jiang, Alice Vaughan, et al. 2010. Bridging the gender gap: Interventions with aggressive girls and their parents. *Prevention Science*, 11: 229–238.
- President’s Commission on Law Enforcement and Administration of Justice. 1967. *The Challenge of Crime in a Free Society*. Washington, DC: U.S. Government Printing Office.

- Professional Evaluation Services and Professional Data Analysis, Inc. 2006. *Final Report on the 2005–06 Evaluation of the Ramsey County ACE Program*. Minneapolis, MN: Author.
- Sawyer, Aaron M. and Charles M. Borduin. 2011. Effects of multisystemic therapy through midlife: A 21.9-year follow-up to a randomized clinical trial with serious and violent juvenile offenders. *Journal of Consulting and Clinical Psychology*, 79: 643–652.
- Schweinhart, Lawrence J., Jeanne Montie, Zongping Xiang, W. Steven Barnett, Clive R. Belfield, and Milagros Nores. 2005. *Lifetime Effects: The High/Scope Perry Preschool Study Through Age 40*. Ypsilanti, MI: High/Scope Press.
- Welsh, Brandon C., Christopher J. Sullivan, and David L. Olds. 2010. When early crime prevention goes to scale: A new look at the evidence. *Prevention Science*, 11: 115–125.
- Wright, John Paul, Pamela M. McMahon, Claire Daly, and J. Phil Haney. 2012. Getting the law involved: A quasi-experiment in early intervention involving collaboration between schools and the district attorney's office. *Criminology & Public Policy*. This issue.
-

David P. Farrington, O.B.E., is a professor of psychological criminology at the Institute of Criminology, Cambridge University, and an adjunct professor of psychiatry at Western Psychiatric Institute and Clinic, University of Pittsburgh. He is co-chair of the U.S. National Institute of Justice Study Group on Transitions from Juvenile Delinquency to Adult Crime and co-chair of the U.S. Centers for Disease Control Expert Panel on Protective Factors against Youth Violence. His major research interest is in developmental criminology, and he is director of the Cambridge Study in Delinquent Development, which is a prospective longitudinal survey of more than 400 London males from age 8 to age 48. He has been president of the American Society of Criminology, president of the European Association of Psychology and Law, president of the British Society of Criminology, president of the Academy of Experimental Criminology, chair of the Division of Forensic Psychology of the British Psychological Society, vice chair of the U.S. National Academy of Sciences Panel on Violence, and co-chair of the Campbell Collaboration Crime and Justice Group. In addition to nearly 550 published journal articles and book chapters on criminological and psychological topics, he has published 82 books, monographs, and government publications.

EDITORIAL INTRODUCTION

CRIME REDUCTION THROUGH A REGULATORY APPROACH

Crime as Pollution

Lessons from Environmental Regulation

Daniel S. Nagin

Carnegie Mellon University

The point of departure of this provocative article by John and Emily Eck (2012, this issue) is a striking empirical regularity uncovered by Sherman, Gartin, and Buerger (1989). Sherman et al. found that only 3% of addresses and intersections (“places,” as they were called) in Minneapolis produced 50% of all calls to the police. Weisburd and Green (1995) found that 20% of all disorder crime and 14% of crimes against persons in Jersey City, NJ, originated from 56 drug crime hot spots. Twenty five years later in a study of Seattle, WA, Weisburd, Bushway, Lum, and Yang (2004) reported that between 4% and 5% of street segments in the city accounted for 50% of crime incidents for each year over a 14-year period. Other more recent studies finding comparable crime concentrations include Brantingham and Brantingham (1999), Eck, Gersh, and Taylor (2000), and Roncek (2000).

The observation that crime is concentrated at a discrete location gave rise to what has come to be called “place-based” policing in which police are deployed and managed to prevent crime at specific locations. The quintessential example of place-based policing is greatly increasing police presence at crime hot spots. Braga’s (2008) informative review of hot spots policing summarizes the findings from nine experimental or quasi-experimental evaluations. The studies were conducted in five large U.S. cities and one suburb of Australia. Crime-incident reports and citizen calls for service were used to evaluate impacts in and around the geographic area of the crime hot spot. The targets of the police actions varied. Some hot spots were generally high-crime locations, whereas others were characterized by specific crime problems like drug trafficking. All but two studies found evidence of significant reductions in crime. Furthermore, no evidence was found of material crime

Direct correspondence to Daniel S. Nagin, H. John Heinz III College, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213-3890 (e-mail: dn03 ±@andrew.cmu.edu).

displacement to immediately surrounding locations. On the contrary, some studies found evidence of crime reductions, not increases, in the surrounding locations—a “diffusion of crime-control benefits” to nontargeted locales.

Pollution is another environmental hazard that is disproportionately generated at fixed locations, mostly from electric power plants and manufacturing facilities such as refineries. Eck and Eck (2012) argue that crime and pollution also have another common feature—they both impose costs on innocent bystanders. In economics, such costs are called “externalities.” Just as polluters do not bear the full economic, social, and environmental cost of their activities, the proprietors of crime-generating places, such as problem bars, do not bear the full costs of the safety hazards to their patrons and even more importantly to the residents in the immediate vicinity.

For decades, environmental policy makers and policy analysts have been devising schemes for effective and efficient regulation of pollution. Regulatory strategies can be broadly categorized under two headings—nonmarket and market approaches. Examples of nonmarket approaches are requiring polluters to install pollution control equipment or forbidding the use of raw materials that heavily pollute the environment. Examples of market-based policies are taxing discharges or creating markets for the sale and purchase of a limited supply of emission-rights permits. The innovation of the Eck and Eck article (2012) is that they describe how such policies might be applied to crime control.

This thoughtful article is accompanied by five comparably thoughtful essays. Black and Park (2012, this issue) point out that in his seminal study on the economic approach to crime, Becker (1968) emphasized that the socially optimum amount of crime is not necessarily zero because the social cost of prevention may exceed the social benefits of the crimes averted. This raises an important practical question of how the determination should be made of the amount of crime that should be “permitted” at each location. Black and Park also point out that already poor neighborhoods may be particularly disadvantaged by the policies laid out by Eck and Eck (2012). Sparrow’s (2012, this issue) essay begins with the observation that the police are an example of an agency with a risk control function that is principally accomplished by constraining the behavior of citizens and industry. He is sympathetic to widening the quiver of enforcement instruments to include not only coercion but also positive incentives. However, he goes on to point out important practical and political constraints to the use of some of the positive incentives suggested by Eck and Eck. Mazerolle and Ransley (2012, this issue) are also sympathetic with the place-based regulatory emphasis espoused by Eck and Eck but dispute the assumption that governments bear the greatest share of the burden of fighting crime. They correctly point out that private parties already make significant investments in crime prevention, for example, in their use of private security guards. Also, like Sparrow, they comment on implementation obstacles to the Eck and Eck policy recommendations and make useful observations on other regulatory approaches to crime control. The Tilley (2012, this issue) essay is again sympathetic to the Eck and Eck argument for nonoffender-based, regulatory approaches to crime prevention.

He echoes aspects of the themes of Mazerolle and Ransley in his engaging discussion of how automobile manufacturers have been incentivized to produce cars that are harder to steal. Weisburd (2012, this issue) steps back from the Eck and Eck article and offers a thoughtful commentary on bringing social disorganization theory back into the discussion of the criminology of places. Combined, the five policy essays complement the fresh and innovative perspective on place-based crime prevention offer by Eck and Eck by providing useful cautionary notes and valuable extensions of the basic themes of the Eck and Eck article.

Innovative ideas often flounder on the realities of implementation. This does not mean that the innovation is inherently flawed but only that successful implementation requires comparable ingenuity and insight as the core idea itself. The innovative ideas of Eck and Eck (2012) and of the commentators on their article are not exempt from this hard reality. Key obstacles to successful implementation include organizational, political, and analytic challenges. These include questions such as should police take on the institutional role of establishing levels of permitted crime on a location by location basis? If a market for tradable crime permits were established, should the police or some other institution be responsible for regulating this market? By what analytic method should permissible crime levels be established? What role should elected political officials like mayors and city council members play in this process?

These, of course, are just a small set of the issues that would have to be addressed to implement the innovations suggested by Eck and Eck (2012). Notwithstanding, the challenges they pose should not be taken as indicative of fatal flaws in the conception they lay out. Some aspects of their proposals may indeed turn out to be unworkable, but their argument for broadening conventional sanction and coercion-based policies to crime prevention to include also regulatory-based strategies is unassailable.

References

- Becker, Gary, 1968. Crime and punishment: An economic approach. *Journal of Political Economy*, 76: 169–217.
- Black, Dan A. and Kyung Park. 2012. Some problems with place-based crime policies. *Criminology & Public Policy*. This issue.
- Braga, Anthony A. 2008. *Police Enforcement Strategies to Prevent Crime in Hot Spot Areas*. Crime Prevention Research Review (No. 2). Washington, DC: Office of Community Oriented Policing, U.S. Department of Justice.
- Brantingham, Patricia L. and Paul J. Brantingham. 1999. Theoretical model of crime hot spot generation. *Studies on Crime and Crime Prevention*, 8: 7–26.
- Eck, John E. and Emily B. Eck. Crime place and pollution: Expanding crime reduction options through a regulatory approach. *Criminology & Public Policy*. This issue.
- Eck, John E., Jeffrey S. Gersh, and Charlene Taylor. 2000. Finding crime hot spots through repeat address mapping. In (Victor Goldsmith, Philip G. McGuire, John

- H. Mollenkopf, and Timothy A. Ross, eds.), *Analyzing Crime Patterns: Frontiers of Practice*. Thousand Oaks, CA: Sage.
- Mazerolle, Lorraine and Janet Ransley. 2012. Crime, place, and pollution: Expanding crime reduction options through a regulatory approach. *Criminology & Public Policy*. This issue.
- Roncek, Dennis W. 2000. Schools and crime. In (Victor Goldsmith, Philip G. McGuire, John H. Mollenkopf, and Timothy A. Ross, eds.), *Analyzing Crime Patterns: Frontiers of Practice*. Thousand Oaks, CA: Sage.
- Sherman, Lawrence W., Patrick Gartin, and Michael E. Buerger. 1989. Hot spots of predatory crime: Routine activities and the criminology of place. *Criminology*, 27: 27–55.
- Sparrow, Malcolm K. 2012. Joining the regulatory fold. *Criminology & Public Policy*. This issue.
- Tilley, Nick. 2012. Crime reduction: Responsibility, regulation, and research. *Criminology & Public Policy*. This issue.
- Weisburd, David. 2012. Bringing social context back into the equation: The importance of social characteristics of places in the prevention of crime. *Criminology & Public Policy*. This issue.
- Weisburd, David, Shawn Bushway, Cynthia Lum, and Sue-Ming Yang. 2004. Trajectories of crime at places: A longitudinal study of street segments in the city of Seattle. *Criminology*, 42: 283–321.
- Weisburd, David and Lorraine Green. 1995. Policing drug hot spots: The Jersey City Drug Market Analysis Experiment. *Justice Quarterly*, 12: 711–735.
-

Daniel S. Nagin is Teresa and H. John Heinz III University Professor of Public Policy and Statistics in the Heinz College, Carnegie Mellon University. He is an elected Fellow of the American Society of Criminology and of the American Society for the Advancement of Science and is the 2006 recipient of the American Society of Criminology's Edwin H Sutherland Award. His research focuses on the evolution of criminal and antisocial behaviors over the life course, the deterrent effect of criminal and non criminal penalties on illegal behaviors, and the development of statistical methods for analyzing longitudinal data.

EXECUTIVE SUMMARY

CRIME REDUCTION THROUGH A REGULATORY APPROACH

Overview of: “Crime Place and Pollution: Expanding Crime Reduction Options Through a Regulatory Approach”

John E. Eck

University of Cincinnati

Emily B. Eck

Dalhousie University

Research Summary

Crime reduction policy has focused almost exclusively on offenders. Recent studies and evaluations show that expanding our policy portfolio to include places may be highly productive. We show that there is considerable research showing that crime is concentrated at a relatively few locations, that high-crime places are stable, that changing places can reduce crime, that displacement is not only far from inevitable but also less likely than the diffusion of crime prevention benefits, and that owners of high-crime places can be held accountable for the criminogenic conditions of their locations. We link these findings to environmental policy, where environmental scientists, economists, and regulators have developed a broad set of regulatory options. The core of this article describes a portfolio of environmental policy instruments directly applicable to crime places. We also discuss major decisions local governments will need to make to implement various forms of regulation, and we list challenges that governments must anticipate in planning for such implementation. We argue that a regulatory approach to crime places has the potential to lower the cost to taxpayers of reducing crime by shifting costs from governments to the relatively few place owners whose actions create crime-facilitating conditions.

Policy Implications

Taking a regulatory approach to crime places substantially expands the crime policy options under consideration. Regulatory options may increase local governments' effectiveness at reducing crime while reducing governments' costs. This is because

regulatory approaches have the potential to shift some portion of the financial burden for crime fighting to owners of criminogenic locations. Policy makers can select between means-based anticrime regulations that focus on how place owners manage their locations and ends-based regulations that focus on the number of crimes allowed at places. Both of these approaches contain several alternative regulatory instruments, each with its own set of advantages and disadvantages. Experimenting with various regulatory instruments could lead to the development of a range of new crime reduction policies. In addition, a regulatory approach has implications for the funding of policy research. Means-based regulatory instruments require governments to develop evidence that the means they regulate have the desired impact on crime. Ends-based regulatory instruments shift this burden to the regulated places.

Keywords

Crime places, crime policy, crime prevention, environmental policy, place management, police, regulation

RESEARCH ARTICLE

CRIME REDUCTION THROUGH A REGULATORY APPROACH

Crime Place and Pollution

Expanding Crime Reduction Options Through a Regulatory Approach

John E. Eck

University of Cincinnati

Emily B. Eck

Dalhousie University

Beyond Offender Centrism

On May 16, 2010, in the Club Ritz nightclub, Jerry Scott shot Dexter Burroughs dead. This was the second killing in the bar since 1998. Five years earlier, four people were shot near the club, one by the police and three in a separate incident. Four years earlier, a fight at the club resulted in a car chase that killed Philiant Johnson and wounded three others. On Valentine's Day 2010, three people were shot in the club's parking lot (Baker, 2010; Horst, 2010). After the killing of Burroughs, the club closed for several months but then reopened. Police state that since reopening, "14 arrests for disorderly conduct or drug possession have been made at the club, plus 10 assaults, four domestic violence incidents, a robbery and carjacking" (Whitaker, 2011). The owner of the club stated: "It's not our fault. Nightclubs do not kill people. People kill people" (Nightclub and Bar, 2010).

Just as the owner of the Club Ritz implies they should, current crime policies focus exclusively on offenders. We suggest he is wrong—crime reduction policies also should focus

We thank the following individuals (in alphabetical order) who sparked our thinking on the subject of regulating crime places using environmental policy instruments, responded to our requests for help, provided good ideas by chance, gave us feedback on drafts of this article, commented on presentations related to the article, conducted literature searches, surprised us with new and useful books, or discussed regulation implementation over beers: Jim Bueermann, Jennifer Burke, Sujung Cho, Melvin Cross, Frank Cullen, Graham Farrell, Katie Gallagher, Peter Grabosky, Robert Hahn, Maris Herold, Yulia Kotlyarova, Tamara Madensen, Lorraine Mazerolle, Daniel Nagin, Graham Newman, Troy Payne, Karin Schmerler, Michael Scott, Malcolm Sparrow, Jennifer Stucker, Julie Wartell, Katie Werner, numerous criminal justice graduate students, members of the Crime and Place Working Group, and three anonymous reviewers. Readers should hold them harmless for any errors in our work. Direct correspondence to John E. Eck, School of Criminal Justice, University of Cincinnati, P.O. Box 210389, Cincinnati, OH 45221-0389 (e-mail: john.eck@uc.edu).

on places. Research has established that crime is concentrated at places; yet to date, policy makers and criminologists have focused most of their attention on two policy prescriptions: use coercion to deter or remove offenders, use forms of social assistance to divert potential offenders from crime, or convince active offenders to pursue legitimate activities (Weisburd, Telep, and Braga, 2010).

Consider the main articles published in two crime policy journals. From its first issue in 2001 to the last issue in 2010, *Criminology & Public Policy* published 148 research papers.¹ Of these, approximately 60% addressed policies toward offenders: 42% discussed policies that applied forms of coercion, and 19% discussed policies to assist potential or active offenders. Only 8% examined methods for blocking criminal opportunity (mostly by addressing firearms). The remaining 31% of the articles examined administrative issues, perspectives criminologists might take, technology, and descriptions of criminal behavior. None addressed places. When we surveyed articles in *Criminal Justice Policy Review* over the same time, we found very similar results.² If these two journals are an indication, policy makers almost never discuss blocking opportunities at places, although it has been almost a decade and a half since Weisburd (1997) drew attention to the need to focus on the context of crime and over two decades since Sherman, Gartin, and Buerger (1989) drew attention to the concentration of crime at places.

Both coercive and assistance policies take for granted a very large governmental role in paying for crime control. The central organizations applying these policies are elements of the “crime response complex” (Ruth and Reitz, 2003: 6): police, prosecution, courts, and corrections. Nevertheless, governments largely fund even nongovernmental organizations that implement offender-based policies. Government contracts or grants, for example, often fund private prisons and offender treatment providers. In a time when conservatives are joining with liberals to question the wisdom of correctional spending (Clear, 2011), and local governments are looking for ways to reduce policing costs (Wilson, 2010), we should look for crime reduction options that reduce government spending.

Furthermore, it is not clear how much of the money governments expend on fighting crime actually reduces crime. After a decade of enquiry, for example, researchers cannot confidently attribute the dramatic decline in U.S. crime during the 1990s to any government policy: police hiring, police practices, incarceration policies, or other criminal justice strategies. There is nothing close to persuasive evidence—only tantalizing possibilities—that any government policy was a substantial cause of the improvement in public safety in the 1990s (Blumstein and Wallman, 2006; Zimring, 2007).

1. We exclude editorials, instructions, award addresses, and policy essays in response to main articles.

2. Of the 230 articles published from 2001 through 2010, 53% of the articles dealt with offender policies (33% coercive and 20% assistance), 8% addressed opportunity policies, and 41% dealt with other issues. No articles described policies toward crime places.

In this article, we challenge two assumptions: first, the assumption that offender-centric policies should be the sole focus of governments' efforts to reduce crime; and second, the assumption that governments' obligations to fight crime requires them to bear the full cost of the burden for the fight. We offer another set of policies—a portfolio of regulatory policies designed to encourage owners of crime places to prevent crime.

We base our regulatory approach to crime places on four empirically tested ideas. The first idea comes from theories and research demonstrating that crime reduction gains can be made by paying attention to crime opportunities: situations that facilitate offending rather than suppress it (Clarke, 1980; Felson and Boba, 2010). The second idea is that places create crime opportunities or crime barriers, depending on the actions taken by place managers. There is substantial evidence that crime concentrates at places (Eck, Clarke, and Guerette, 2007; Sherman et al., 1989; Weisburd, Bushway, Lum, and Yang, 2004). Importantly, there is considerable stability in this concentration: Hot places tend to stay hot. Yet there is also good evidence that places with crime concentrations can be made safer when place managers change their practices (Eck, 2002; Eck and Guerette, 2012). Third, there is evidence that these practices do not usually displace crime; indeed, they often improve the safety of nearby places (Guerette and Bowers, 2009; Weisburd et al., 2006).

These three ideas naturally lead to the fourth idea: *We can treat crime at places, and sometimes in the immediate vicinity of places, as a form of pollution* (Farrell and Roman, 2006; Newman, 2011). That is, places can emit crime just as a coal-fired power plant can emit sulfur dioxide. Once we consider places and crime opportunities in this light, we can apply regulatory policies designed to control pollution to crime places.

We divide our article into seven sections. In the next section, we examine the first three of the four ideas just described. We review the considerable evidence implicating places in the production of crime, and the evidence showing that changing place management practices can increase or decrease crime. The third section joins these ideas with the insights of Farrell and Roman (2006) to suggest that some places emit crime, much like some factories emit pollution. This opens up a portfolio of regulatory policy options. We describe the contents of this portfolio in the fourth section, where we draw on the environmental policy and regulation literature to describe four different regulatory approaches and compare their strengths and weaknesses. Questions regarding the administration of regulations are touched on in the fifth section. We highlight five challenges to taking a regulatory approach to crime places in the sixth section. Our final section summarizes our argument. Ultimately, we urge policy makers to experiment with these approaches to determine whether they work to reduce crime as they work to reduce pollution.

Places and Opportunities for Crime

Our proposed alternative approaches to crime policy have their roots in the late 1980s and 1990s. Two threads of research coalesced during that time. Although we describe them

separately, in reality, there was considerable cross fertilization. The first thread is the idea of crime opportunities. The second is the idea of crime places.

Crime Opportunities

Rather than consider crime as the result of a few people with constant high propensities to offend—as is typically assumed in assistance and coercive crime policies—the opportunity perspective focuses on proximal situations: People choose whether to offend. The sound bite version of this perspective is “opportunity makes the thief” (Felson and Clarke, 1998). If people who offend have stable propensities, they cannot act on them unless there is an opportunity to do so. If people have unstable propensities to offend, proximal circumstances not only provide opportunities but also can trigger offending by providing temptations. In either case, the immediate situation matters.

Several theories form the core of the opportunity perspective—also known as environmental criminology and more recently as crime science (Laycock, 2005): the rational choice perspective, routine activity theory, crime pattern theory, and situational crime prevention. The rational choice perspective asserts that people choose whether to engage in crime, when to commit crimes, and how to commit crimes (Cornish, 1994; Cornish and Clarke, 1986a). It claims that offenders are boundedly rational (Cornish and Clarke, 2008) and that like nonoffenders, they make rough-and-ready decisions based on limited information (Gigerenzer and Selten, 2002). Offenders also try to avoid risky situations and those that require a great deal of effort and seek out situations that are easy and rewarding. Unlike traditional deterrence theory, which also assumes that offenders make at least bounded rational choices, followers of the Cornish and Clarke (1986a) rational choice perspective place more emphasis on the immediate context of crime—proximate situational cues create stronger influences on offenders than distal signals like risk and punishment.

Routine activity theory describes crime situations as originating from the intersections of normal social routines (Cohen and Felson, 1979). When offenders and targets converge at the same place at the same time, in the absence of anyone who can control the offender, a crime is likely. There are several possible controllers. Originally, Cohen and Felson (1979) focused on guardians—people who could protect targets. But later Felson (1986) suggested handlers could divert possible offenders from crime, and Eck (1994) claimed that managers could arrange places to protect against crime. Because places are central to our thesis, place managers also are central: They often control the immediate context of a possible crime, the context that provides cues to potential offenders (Madensen and Eck, 2008).

Crime pattern theory is also a theory of intersections, but instead of focusing on the routines of targets and controllers, Brantingham and Brantingham (1981) focused on how offenders search for targets. According to this theory, offenders look for targets near locations and around routes with which they are familiar, in much the same way nonoffenders shop for everyday goods and services (Brantingham and Brantingham, 2008).

The final core theory of the opportunity perspective is situational crime prevention (Clarke, 1995). It describes the types of situational changes that are likely to prevent crime. Situational crime prevention lists five forms of crime disincentives: increasing risk, increasing effort, decreasing rewards, decreasing provocations, and decreasing excuses (Clarke, 2008). It also suggests that determining which disincentive to apply depends on the particular details of each situation. Typically, when situational crime prevention is applied at places, it is the owner of the place, or her employees, that implement it.

Crime Places

While environmental criminology theories were being developed and tested, other researchers were calling attention to the importance of places. Until the 1990s, the main geographical unit for studying crime was the neighborhood. Sherman et al.'s (1989) article was groundbreaking in showing how a relatively few addresses had the majority of the crime, and how most places had little or no crime (see also Pierce, Spaar, and Briggs, 1988). This was true no matter how they disaggregated crime. Later, Eck et al. (2007) showed that the same concentration occurred when places were disaggregated into homogeneous categories—facilities, such as apartment buildings, bars, juvenile facilities, schools, and others. This type of distribution is so common that Wilcox and Eck (2011: 476) have called it the “iron law of troublesome places.” Weisburd et al. (2004) have shown that street segments have the same pattern: Most have little or no crime, and a few have most of the crime. Interestingly, city-wide crime declines may be a result of drops in crime at a relatively few high-crime street segments. This raises the possibility that the national decline in crime during the 1990s may have been a result of improvements in a relatively few high-crime places (Weisburd et al., 2004).

How stable are high-crime places? If the high-crime place this year is a low-crime place the next, and if safe places routinely experience crime spikes to become high-crime places, then the discovery of crime concentration at places would not matter very much: Over time, all places would be moderately involved in crime. However, there is considerable evidence that high-crime places tend to stay that way. Spelman (1995), examining high schools, housing projects, subway stations, and parks from 1977 through 1980, found that places generating high volumes of calls to the police showed considerable stability over time, although there was some random variation.

More recent studies, over longer periods, also show high levels of stability. Weisburd et al. (2004) and Groff, Weisburd, and Yang (2010) looked at Seattle street segments for 13 and 16 years, respectively, and found that high-crime places were remarkably stable. Braga, Papachristos, and Hureau (2010) came to the same conclusions for gun violence on Boston street segments from 1980 to 2008. This was also true for robberies in Boston over the same period (Braga, Hureau, and Papachristos, 2011). Finally, Andresen and Malleson (2011) examined temporal stability for crimes in Vancouver, Canada (1991–2001), and found that crime concentrations at places were stable throughout this period.

We must add some important qualifications here. First, with the exception of Spelman (1995), these studies examined the stability of street segments and corners. Thus, it is possible, but probably unlikely, that crime could randomly move up and down a street segment over time, thus preserving the high-crime status of the segment but making no particular address exceptionally problematic. Second, even though these studies found considerable stability, that does not mean that there are no changes—the top-ranking crime place in one year might be ranked fifth the next year, second the third year, and so on. But we can say that if a particular place has a serious crime problem in one year, it is likely to have a serious problem in subsequent years. Conversely, a place with little or no crime in one year is likely to have few, if any, crimes in subsequent years.

The relatively stable concentration of crime at a relatively few addresses, street segments, or small geographic hot spots spurred interest in the development of police interventions. Concentrating patrolling or enforcement at these small geographic areas seems to be far more effective at reducing crime and disorder than spreading police resources over wider areas (Braga, 2001; National Research Council, 2004; Weisburd and Eck, 2004). And other place-based prevention seems effective (Eck, 2002). Most of these place interventions, outside police patrolling and enforcement, are applications of situational crime prevention (Eck and Guerette, 2012).

Displacement and Diffusion of Benefits

When place-based crime prevention was first proposed, a commonly expressed concern was that it would only displace crime to nearby unprotected places. Five reviews of the empirical literature have been conducted to investigate this concern (Barr and Pease, 1990; Cornish and Clarke, 1986b; Eck, 1993; Guerette and Bowers, 2009; Hesseling, 1994). All came to the same conclusion: Spatial displacement can occur, but it is not inevitable, and if it occurs, it does not overwhelm the crime reduction effects. These findings are consistent with the opportunity perspective on crime: Places that provide opportunities for crime are relatively rare so offenders will have difficulty relocating their deviant activities. The sole experiment designed to test whether displacement could be induced confirmed this conclusion (Weisburd et al., 2006). Importantly, Weisburd et al. (2006) suggested that spatial displacement may not be the most common form: If displacement does occur, it is more likely to be method displacement (i.e., offenders do not shift geographically, but they change the way they commit crimes at the same location).

Furthermore, Clarke and Weisburd (1994: 167) pointed out that prevention can spread. They called this the “diffusion of crime prevention benefits.” Guerette and Bowers (2009) also investigated the diffusion of benefits and found that such diffusion may be more common than the displacement of crime to surroundings. That is, preventing crime at places often protects surrounding places from crime. In the context of other research on places, this finding makes sense.

Several earlier studies had shown that some locations seemed to promote crime in their surrounding areas. Wilcox and Eck (2011) identified 14 such studies, describing the criminogenic effects of 13 different types of places on their surroundings. If some facilities increase crime in their surroundings, then it is plausible that their removal would lower crime nearby. In summary, there is considerable research indicating that specific high-crime places not only host crime but also create crime in their immediate vicinity, and that when the high crime at these places is reduced, crime declines in their vicinity.

Place Management

There are several explanations for the concentration of crime at a few places, but routine activity theory suggests that it cannot be just offenders or just targets: Crime events require both at a place. Place managers have the capability of regulating the presence of targets and offenders, and the situations that make targets tempting to potential offenders (Clarke and Bichler-Robertson, 1998). Experiments on drug places reveal that when place managers are pressured to change their practices, they can reduce drug dealing and associated crime at the places they manage (Eck and Wartell, 1998; Green, 1995; Mazerolle, Roehl, and Kadleck, 1998). Studies of bar violence and disorder show similar results (Anderson, Whelan, Hughes, and Bellis, 2009; Felson, Berends, Richardson, and Veno, 1997; Graham and Homel, 2008; Homel, Hauritz, Wortley, McIlwain, and Carvolth, 1997; Jones et. al., 2011; Putnam, Rockett, and Campbell, 1993). Thus, theoretically and experimentally, we have reason to believe management practices influence crime at places.

Do high-crime neighborhoods cause bad places? If this were the case, then bad places would be highly clustered separately from clusters of low- and no-crime places. Sherman et al. (1989) showed that high-crime places are clustered but that these clusters are not separated from low-crime-place clusters. Madensen and Eck (2008) showed that in Cincinnati, high-crime bars were collocated near low- and no-crime bars, even in high-crime neighborhoods. The Chula Vista Police (2009) analysis of problem motels showed that the high-crime motels were in the same blocks and neighborhoods as the low-crime motels. More evidence for the strength of places relative to neighborhoods comes from results reported in a path-breaking set of studies of Seattle street segments (Weisburd et al., 2004). Street segments are much smaller than neighborhoods, and they are made up of addresses. Weisburd and his colleagues demonstrated that low- and high-crime street segments coexist in close proximity, and that in the same larger area, one can find street segments that are getting safer, segments that are getting worse, and segments that are remaining constant.

More research on the relationship between places and their contexts is needed, but at this stage, it is reasonable to conclude that a major reason for crime concentrations at particular places is the characteristics of these places, in general, and place management practices, in particular. We have good evidence—including two randomized experiments and numerous quasi-experiments—that high-crime places can be improved without changing

their neighborhoods. This evidence gives us considerable confidence that our line of enquiry is plausible.

Places and Pollution

To date, academics advocating a place-focused approach to crime reduction have concentrated their attention on policing: either as a method for allocating patrol resources to reduce crime or as a guiding principle of pursuing innovative police efforts along the lines of problem-oriented policing (Braga and Weisburd, 2010). But it is possible to envision another set of policies if we draw on another field: environmental policy toward pollution.

Graham Farrell and John Roman (2006) and Graeme Newman (2011) have suggested that crime is a form of pollution. This very important idea has major implications for addressing high-crime places. To understand why, we need to explain a term from economics: externalities. In any transaction, the involved parties make an exchange: money for goods or services. An externality is any benefit or cost that accrues to nonparticipants. When individuals buy a set of tires, they pay for the labor, materials, shipping, and marketing that make those tires available for purchase. They do not pay for the air, water, or ground pollution from production and shipping. That pollution is a negative externality. If our neighbor buys low-noise tires, we benefit from less street noise. Because we have not chipped in to help purchase the tires, we get a positive externality.

Any exchange that produces externalities is economically inefficient. If there are negative externalities, the full cost of the goods or services are not “internalized” by consumers, who receive a subsidy that allows them to consume more than they would if they bore the full cost (Baldwin and Cave, 2010). If there are positive externalities, the full benefits of the goods or services are not internalized by producers, so producers provide less of the goods or services than they would if they got the full benefits. In the case of the tires, fully internalizing the costs of pollution would raise the costs of the tires and drivers would purchase fewer of them. If we shared the costs of our neighbor’s low-noise tires, then he would replace his noisy tires sooner.

Crime places create four types of negative externalities. The first is the victimization of third parties. A bar patron assaulted by a drunk who was served too many drinks is bearing a share of the costs of the way the bar owner operates the bar. A resident of an apartment building whose car is broken into because of inadequate security in the building’s parking lot is bearing some of the costs of the building owner’s decision not to install better security. To the extent that a place manager’s business practices create opportunities for the crime, the manager is externalizing costs to victims.

Second, crime victimization can result in costly official responses that are not born by the place manager or the victim. These externalized costs may involve the police, medical institutions, medical examiners, prosecutors, courts, public defenders, correctional

institutions, probation, and parole. All of these services are paid for by taxpayers, who end up subsidizing the cost of high-crime places.

The third form of negative externality comes from the crimes that high-crime places facilitate in their surroundings. The bar that produces fights in the neighborhood, drunken loud patrons, and robberies of drunken patrons is producing negative externalities. The box store with an unprotected parking area may be producing negative externalities to its customers in the form of car break-ins (the first form of externality we considered). If the thieves who are drawn to the opportunities created by the store also take advantage of scattered opportunities in the neighborhood surrounding the store, the store creates a negative externality in its immediate environment.

Finally, there are costs externalized to the friends and family of offenders, as well as to correctional institutions and rehabilitation programs. Consider a person prepared to offend but who has not engaged in serious criminality. In the absence of an easily accessible place that facilitates crime, such a person may take longer to become a serious offender, and may even avoid it all together (a juvenile may age out of such temptations, for example). But if such places are readily available, he will become a serious offender sooner. This negative externality also occurs when a place tempts a previous offender into recidivating. The presence of such places may make correctional and rehabilitation efforts less effective and more costly (Cullen, Eck, and Lowenkamp, 2002). The externalized costs are not the crimes these offenders commit elsewhere (these are accounted for under victimizations and impacts on the surrounding community, considered earlier), or the official responses to these crimes (also accounted for earlier). Rather, these externalized costs are born by the family and friends of the offenders, as well as by the offenders themselves.

Police are becoming more mindful of such crime externalities. Over the last two decades, many have advocated problem-oriented policing to address problematic places (Braga and Weisburd, 2010; Goldstein, 1990; Scott, Eck, Knutsson, and Goldstein, 2008). According to this approach, police identify crime or disorder concentrations, analyze the conditions to determine their causes, develop and implement a set of solutions, and then evaluate the effectiveness of what they did. Increasingly, problem-oriented policing advocates have suggested that police shift the responsibility for the problem back onto the shoulders of the people or institutions that created the conditions for the problem (Scott, 2005). Although not using the vocabulary of economics, they have suggested that people and organizations that create problems should internalize the costs of those problems by paying for the prevention of crime or disorder they produce.

It is possible to take this idea a step further. If a relatively few places “pollute” crime or disorder, and this pollution is a sizable proportion of all crime and disorder, then it makes sense to craft regulatory policies for handling those places, rather than have police officials negotiate individual solutions at place after place. Regulatory approaches used to curb pollution have done just that and provide important lessons for crime place prevention.

Places and Environmental Regulation

Regulation is not usually considered part of mainstream criminal justice policy. Still, regulation already plays an important role in crime control and prevention (Grabosky, 2011). In the United States, the Drug Enforcement Administration promulgates and enforces regulations to thwart prescription drug abuse. The Bureau of Alcohol, Tobacco, and Firearms (BATF) regulates some aspects of the firearms market to curb gun violence. The BATF also regulates explosives to thwart terrorist attacks, a job it shares with the several other federal agencies (Kane, Lee, Maeda, Okereke, and Scott, 2005). The U.S. Department of the Treasury and the Federal Reserve Board regulate money transfers to prevent money laundering that could aid drug traffickers and terrorists (Levi, 2002). The Federal Aviation Administration and Department of Homeland Security impose regulations on airports, airlines, and passengers to prevent terrorist attacks (Frederickson and LaPorte, 2002). In Great Britain, regulatory practices are used to control disorder through Anti-Social Behavior Orders (Flint and Hunter, 2011). These are only a few obvious examples, but they demonstrate that the application of regulation to crime fighting is not new. Equally important, it is already accepted public policy to regulate nonoffender third parties for the prevention of crime.

There is increasing recognition that regulation has a major role to play in criminal justice (Quirk, Seddon, and Smith, 2011). In their innovative examination of police resource acquisition, Ayling, Grabosky, and Shearing (2008) described a variety of regulatory processes that extend the law enforcement powers of the police. Mazerolle and Ransley (2005) also addressed police use of regulatory powers—their own or those of other government agencies. Bars and drinking establishments have received considerable attention in crime research. In their recent and comprehensive book on such places, Graham and Homel (2008) described a wide variety of efforts to reduce drinking-related violence. These authors highlighted the importance of using regulation to address crime, and they showed how regulation fits within a larger institutional and social context. We build on this foundation by drawing on environmental policies and consider a wide range of regulatory practices to reduce crime at places.

Environmental Regulation

A variety of sources emit pollution. Some, like power plants and factories, spew emissions from a single source. These are called point-source polluters (Womach, 2005). But there are nonpoint source emitters, as well. The two most obvious examples are farms (agricultural pesticide, herbicide, and fertilizer runoff) and vehicles (tailpipe emissions). This distinction between point and nonpoint emitters is important but not new to discussions of crime control policies. Cook and Braga (2001) described why it is important to distinguish between point sources of illegal firearms and to diffuse sources for developing firearm regulations for preventing gun violence (see Braga, Cook, Kennedy, and Moore, 2002). We will treat places as point-source emitters and consider regulatory policies designed for

such sources. However, some crimes cannot be tied to specific places—personal robberies, for example, may be concentrated in a small geography, but they are less likely to be in concentrated at a particular address. So the crime policies we are examining do not cover all forms of crimes.

Regulatory mechanisms are sometimes called “instruments” (Hahn and Stavins, 1991). We will use this term for consistency with that literature. Environmental economists have developed a useful taxonomy of instruments, based on how an instrument uses markets: nonmarket instruments and market instruments (Ogus, 2011). Nonmarket instruments focus on specific methods for emission controls—the *means* of accomplishing the goal. We will focus on two types of nonmarket instruments: (a) command and control and (b) subsidies. Market instruments address the *ends* directly, and they are agnostic as to the means used to achieve these ends. There is a wide variety of market instruments, but we will look at four well-known instruments.

Means-Based Instruments to Reduce Crime at Places

Means policies focus on the technology and procedures that lead to reduced pollution. These policies either encourage the use of particular pollution control processes (e.g., use smoke stack scrubbers to reduce sulfur emissions) or discourage the use of processes that produce pollution (e.g., restrictions on burning high sulfur coal). There are two principal means policies. *Command and control* mandates a practice or technology, whereas *subsidies* reduce the costs of adopting a practice or technology. Common to both is the assumption that the practice or technology is effective once implemented.

Command and control. Command and control maybe the most commonly used environmental regulatory instrument (Gunningham, Grabosky, and Sinclair, 1998). Polluters are ordered to adopt measures designed to abate their emissions. If they do so, they are in compliance. If they do not adopt the measures, they face a penalty, such as a fine or license suspension or revocation.

This is an oversimplification. Although coercive command-and-control instruments receive the most attention, there are other forms of command-and-control regulations. After becoming concerned that regulation discussions had become mired in simplistic “for regulation” versus “against regulation” debates, Ayres and Braithwaite (1992) created the regulatory pyramid to demonstrate that regulation can entail a wide array of options ranging from exhortations, sermons, and collaborative arrangements to punitive measures. Grabosky (2011) extended their pyramid to three dimensions: The government’s regulatory options are on one face (Ayres and Braithwaite’s original pyramid), industry’s ability to self-regulate is on the second face, and third-parties’ (e.g., interest groups) regulatory options are arrayed on the third face. Thus, command-and-control regulation can be made highly flexible, and it does not have to be just coercive. This flexible understanding of regulatory instruments has important implications for crime at places: a point we will return to repeatedly in this article.

Command-and-control instruments have been already applied to crime prevention. To prevent robberies, for example, Gainesville, FL's city council passed an ordinance mandating that convenience stores employ two clerks from 8 p.m. to 4 a.m., remove window signs obscuring views into the store, locate the sales area so it is visible from the street, use specific cash control procedures, light their parking areas in a specific way, install cameras "of a type and number approved by the city manager," and provide employees with robbery prevention training (Clifton, 1987: 12). Violations can result in the city revoking the business's license (Clifton, 1987). Other examples, familiar to all air travelers, are requirements by the federal government for the use of particular security technologies and procedures by airports and airlines to prevent terrorist attacks on or with aircraft.

As noted, command-and-control approaches assume that the required technologies or procedures actually reduce the noxious outcomes. Unfortunately, the availability of evidence assuring the effectiveness of specific means often is lacking or weak for places and crime (Eck, 2002; Eck and Guerette, 2012). And because this approach mandates use of a specific technology or procedure, a place owner who complies with the requirements may have little incentive to innovate when they are not as effective as assumed (Porter and van der Linde, 1995).

Another serious problem with command-and-control regulation is that it applies to all places, regardless of crime level: It does not take into account the iron law of troublesome places. Most facilities in a population will have little or no crime; however, all facilities will have to bear the same cost of compliance. Therefore, many places will have a costly mandate, but society will gain nothing from their prevention efforts. Compliance conditions can be modified to reduce some of the unnecessary burdens, but the more exceptions added to the regulations, the more costly it is to administer them.

There are at least two circumstances where command-and-control regulation maybe preferable to alternatives. First, when reported crime is not a reliable measure of outcomes, it may be preferable to focus on compliance with means of prevention rather than on the results of prevention. Prostitution activity at places, for example, may be highly underreported because no one involved in the crime has an incentive to report it. Second, if the concern is for extremely serious and rare crimes—such as mass killings from a terrorist attack—then the government cannot simply measure outcomes. A regulatory process must focus on the implementation of means designed to thwart such crimes.

Subsidies of means. Although command-and-control instruments compel the adoption of particular practices, subsidies provide positive incentives to improve practices. Subsidies have most of the same characteristics as command-and-control policies, but mandates are replaced with inducements (Thaler and Sunstein, 2008). Subsidies for using "green" technology, such as tax breaks for improving home insulation or buying a high mileage car, are examples of this type of policy instrument. Typically, subsidies in crime prevention are goods and services offered free or at below-market cost. Examples of subsidized crime prevention measures include providing free property marking to home owners, landlord

training, and police response to automatic alarms. Subsidies are usually voluntary—place owners do not have to attend training, homeowners do not have to mark their property, and alarm companies can respond to alarms themselves.

It is possible to create an inducement for good practice by reducing taxes or fees to places that implement a crime reduction practice. The property taxes on parking lots could be reduced for lots that introduce specific security measures: better lighting, closed-circuit television (CCTV), or restricted access, for example. Similarly, to reduce violence in and around bars in an entertainment zone, the city could reduce property or sales taxes for bars that close early.³ A business improvement district (BID) could do the same, within its special tax area, for businesses implementing particular prevention techniques.

Another approach is to use indirect inducements. In Los Angeles, restaurants are given a grade depending on compliance with health and safety regulations. An A represents full compliance, a B indicates a few failures, and a C represents many failures. The grade is posted prominently on the outside of the restaurant, thus signaling to customers the conditions of the establishment (Jin and Leslie, 2003). Clarke and Goldstein (2003) suggested a similar scheme to reduce vehicle crimes in commercial parking lots. An evaluation of a voluntary security rating scheme for parking lots in the United Kingdom indicated that it reduced crime. In the United Kingdom, scheme ratings were based on compliance with procedures (Smith, Gregson, and Morgan, 2003). With this type of regulatory process, the regulatory agency is not providing a direct inducement, but it is signaling potential customers in the market for the place's services.

Like command-and-control regulation, subsidies are highly evidence dependent. And because particular practices or technologies are rewarded while others are not, the place owner may have less incentive to try other procedures or technologies that may be more effective at reducing crime. Importantly, the means endorsed may only be weakly linked to the outcomes desired. In the restaurant grading scheme, for example, the grade may not necessarily be a strong indicator of disease prevention (Woolston, 2011). If such a grading scheme is used for grading parking facilities, a parking lot owner who could prevent crime without adopting prescribed means would get poor grades, even though his lot may be safer than lots with high grades.

Finally, the highly skewed distribution of crimes across a population of facilities means that many places may receive a subsidy even if they do not need it. For instance, a parking lot with no vehicle crimes could be eligible for free positive publicity if it installs new lighting or other prevention technology, even though no crime is averted. Smith et al. (2003) suggested that the voluntary U.K. rating scheme had its biggest impact when applied to high-crime parking lots. Consequently, the effectiveness of subsidies might be improved if restricted to

3. Thanks to Michael Scott for suggesting the bar example used here, as well as for suggesting the parking lot grading example in the next paragraph.

places with substantial crime problems, rather than provided to all facilities, regardless of initial crime levels.⁴

The circumstances where means subsidies might be useful are similar to those where command and control may be useful: preventing poorly reported crimes and preventing rare crimes with extreme costs. The choice of command and control or subsidies will depend on who is considered most responsible for paying for prevention: the place owner or the taxpayer.

Ends-Based Instruments to Reduce Crime at Places

Where means-based instruments focus on use of particular procedures and technologies, ends-based instruments focus on the outcome. Ends-based policies are market mechanisms in that they differentially influence the costs of production among competing firms and thereby reward low-polluting firms relative to high-polluting firms (Freeman and Kolstad, 2007). They also are selective; the impacts of the regulations are directly connected to the level of emissions. This is in direct contrast to means-based policies, where all firms are eligible for a subsidy or are subject to the same commands.

Ends-based instruments are unlikely to be the primary regulatory instrument if the crimes being addressed are extremely rare and very serious: aircraft hijacking, for example. Because they are rare, it is difficult to determine whether the place owner is successful at prevention, or just lucky despite inadequate prevention. Means-based instruments may be more useful for such crimes. Additionally, ends-based instruments are probably not useful when the crimes being addressed are unreliably reported. Measuring the volume of consensual crimes is difficult, so fees, fines, and taxes will be hard to assess. An exception is the use of legal liability, although only under special circumstances.

Legal liability. We include this instrument in the market category because strict liability for damages caused by pollution creates incentives to reduce such emissions (Segerson, 2007). Faced with a risk of a substantial penalty for pollution, firms will shift to methods that produce less pollution. Some evidence suggests that legal liability may reduce pollution (Segerson, 2007). Premises liability suits filed by victims can be considered such a policy instrument. However, it is unclear whether they can similarly influence crime. Because lawyers often file such suits on a contingency basis, they are more likely to be applied against places with a very serious crime (e.g., homicide, rape, or robbery with a serious injury) and against owners who have substantial resources. Consequently, private civil actions may not make much difference in reducing property crimes or in influencing owners with limited resources (Eck, 1997). This instrument requires far more evidence than we currently have.

4. This runs the risk of creating a moral hazard for places ineligible for the subsidy. Depending on the form of the subsidy, an owner of a place with moderate crime levels may find it advantageous to let crime rise to be eligible for the subsidy.

There is more evidence of effectiveness when law enforcement entities threaten suits. The threat or use of civil sanctions—through chronic nuisance abatement—by police or prosecutors does seem to reduce crime, at least with regard to drug-dealing locations (Eck, 2002; Mazerolle et al., 1998). In these cases, the plaintiff is not the victim and the attorneys are not compensated based on the size of the judgment against the defendant. Instead, the plaintiff selects particularly crime-prone locations and tries to induce the owner to implement changes that can reduce crime. If the owner is noncompliant, then a suit is brought to close the place, at least temporarily. Although there is substantial evidence that this reduces crime at the selected places, we do not know whether there is a general deterrent effect of such lawsuits.

Fees, fines, and taxes. Fees, fines, and taxes levied on polluters to address externalities are known to economists as “Pigouvian” taxes (Farrell and Roman, 2006). The more a firm pollutes, or produces crimes, the more it pays. This policy instrument requires accurate measurement of the noxious output and precise attribution to the emitter. When this instrument is applied to crime places, a place owner is charged for every crime over a threshold (which could be zero). Because the focus is on outcomes, place owners have an incentive to explore innovative approaches to reduce crime: There is no built-in preference for one means over another, so the government does not have to pay for evidence supporting the efficacy of any particular means. Place managers can experiment on their own, or in collaboration with other place managers. When the effectiveness of prevention methods is highly context sensitive, this policy instrument is particularly attractive, relative to means-based instruments.

There are several examples of this approach in policing. Some jurisdictions fine place owners for excessive alarms (Sampson, 2007). For instance, the cities of Milwaukee and Cincinnati have ordinances that fine apartment owners when calls for service from an apartment complex exceed a specific threshold. In Chula Vista, the city can revoke the operating permits of motels and hotels that exceed calls for service limits and fine motels and hotels that operate without the permit (Chula Vista Police, 2009). Similarly, police can refuse to respond to calls from places that exceed a certain threshold of crime. How much of an incentive this is for place owners to reduce crime depends on the value of police response to the place owner. It does, nevertheless, reduce the second form of externality described earlier: police and other costs borne by taxpayers.

The principal problem with fees, fines, and taxes is that they do not take into account the incremental cost to the owner of reducing crime. Imagine two crime places: Place L can reduce crime at a low cost, whereas place H has a high cost of reducing crime by the same amount. A low fee can be used to induce L to reduce crime, but then H will simply pay the low fee and continue to emit crimes. If the fee is set high enough to induce H to reduce crime, L will be forced to pay a greater fee than necessary to reduce crime. This is the marginal abatement cost problem.

Subsidies. Just as subsidies can be provided for means-oriented regulation, they can be applied to ends-oriented regulation to provide an inducement to achieve specific targets. The polluter may receive a reward, such as a reduction in taxes, for reducing emissions below a particular level. Like taxes and user fees, subsidies such as this leave it to the polluter to determine how the target will be achieved, so it too can spur innovation and encourage abatement strategies specifically tailored to particular circumstances.

We used an example of bar closing times and licensing fee reductions when we considered means-subsidies. With ends-subsidies, the government would reduce fees to bars that keep fights below a threshold. One can imagine that the absence of fights in 2011 would translate into a reduced fee in 2012, but if fights went above a particular threshold, the fee would increase for 2013. Similarly, instead of the local government subsidizing lighting or CCTV surveillance at parking lots, it could provide temporary partial tax abatements for keeping crime low. Even the grading system we considered earlier could be reworked into an indirect ends-based subsidy: The prominently posted grade on the parking lot would be based on the previous year's theft from vehicle statistics, rather than on the security features in place.

Ends subsidies may not be particularly attractive to government policy makers. Not only do they face the marginal abatement cost problem, but also they put the costs on taxpayers, and give the appearance of rewarding place managers who facilitate crime. But they may be useful if the subsidy outlay is smaller than the saving in government service costs to these places. However, they face an added disadvantage. Citizens and elected officials might feel that providing a reasonably safe environment is a duty, so no special inducement should be required. Furthermore, some subsidy instruments may create a moral hazard: a situation where place managers purposely create criminogenic situations so they can get a subsidy to reduce it. Perhaps, for these reasons, we can find no examples of the use of subsidies to reduce crime at places. Despite these limitations, there may be contexts where subsidies are useful at particular types of places and for particular types of crimes.

Tradable permits. Tradable permits are a class of environmental policy instruments, the best known of which is *cap and trade* (Organization for Economic Co-Operation and Development [OECD], 2001). We will describe cap and trade in some depth and then briefly describe other tradable permit schemes that may have crime applications.

The United States developed the first cap-and-trade policy for reducing sulfur dioxide emission. Evidence suggests that it has reduced these pollutants (Stavins, 2007). Other tradable permit schemes have been undertaken around the world. Evaluations of these regulatory processes suggest that they can work quite well (Ellerman, 2007), although how well they work depends a great deal on the nature of the emission, the industry that produces it, and the details of the particular tradable permit market (Tietenberg, 2003, 2007). A major benefit of cap and trade over other regulatory instruments is that "they provide – assuming perfect monitoring and complete enforcement – complete certainty with respect to the total level of emissions" (Johnstone, 2003: 5).

There are no examples of the use of tradable permits to reduce crime, so we will use a hypothetical example of parking lots in a large city to illustrate how a crime place cap-and-trade program may work, drawing on Jaffe, Ranson, and Stavins (2009). We will assume that the distribution of thefts from vehicles follows the iron law of crime places (Wilcox and Eck, 2011), with most lots having little or no vehicle crime but a relative few having most of this crime. To implement the cap-and-trade policy, the city calculates the number of thefts from vehicles in parking lots, perhaps using time series data to calculate the average yearly volume. Next, the city sets a cap on these crimes that is significantly below this average yearly volume, say, equivalent to a 25% reduction in parking lot vehicle crimes. Then it issues permits for theft from vehicles so that the total number of permitted crimes equals the cap, and allocates the permits to the parking lots. A parking lot can have as many thefts from auto as they hold permits. If a parking lot exceeds its permitted crimes, the city penalizes it with a sanction in excess of the cost of purchasing permits on the market. If all the permitted crimes occur in the city, there will be a 25% reduction in these crimes from previous years.

The city allows parking lot owners to sell their permits. Lots A and B are below their allocation of thefts and have permits to sell. Lot D is far over its limit, and lot C is at its limit. If either C or D has low marginal abatement costs, they will probably reduce crime. If their marginal abatement cost is greater than the market price of additional permits, then they will buy permits. The owners of A and B get rewarded for keeping crime low. If they can reduce their crimes even more, they may make even more money from selling additional permits. Thus, the market rewards prevention and penalizes crime production while addressing the marginal abatement cost problem.

A local authority (city or county in the United States) considering cap and trade will need to address at least seven overlapping sets of decisions. First, it must be able to ensure that crimes are accurately and reliably attributed to the locations of their occurrence. Second, the local authority will have to determine which types of places and crimes will be the target of regulation. The crimes need to be frequent enough to be important but not so serious that the idea of issuing permits for them is an anathema (e.g., theft, burglary, or assault but not murder or rape). Third, it should determine whether there are enough regulated places to create a competitive permit market. The size of the jurisdiction probably matters less than the number of facilities and the number of facility owners. Fourth, the local authority must set a global level for these crimes at regulated places. This level should be meaningfully lower than the current crime level. This global level dictates the number of permits the local authority will issue. Fifth, the local authority needs to choose how to allocate permits at the beginning: by auction, lottery, or criteria (e.g., size of facility or crime history) (Tietenberg, 2006). Sixth, the local authority must establish a substantial penalty for having insufficient permits. This penalty assures the permits have a market value and assures crime will decline. Finally, the local authority should examine how the public, including community groups and other

third parties, are to be involved in this process (Ayres and Braithwaite, 1992; Grabosky, 2011).

Other tradable permit instruments. In a cap-and-trade arrangement, the permits are issued *ex ante* (i.e., before the pollution reduction). Another application of tradable permits issues permits *ex post* (i.e., after the pollution reduction). For each polluter, the regulator establishes a maximum level of emissions to be achieved by a specific time. If a polluter keeps emissions under this maximum, it is issued *credits*. So instead of an overall cap on pollution governing multiple firms, each firm has its own target and receives credits only after the target has been documented. *Ex post* issuance of credits gives some security that the targets will be achieved, but the administrative costs can be higher than a cap-and-trade scheme, and there is no assurance of an overall reduction (OECD, 2001). Credits can be traded among firms or banked against future excess pollution. If applied to the parking lots in the previous example, the local authority would negotiate theft caps for each parking facility to achieve. If the thefts from vehicles are less than these caps, the local authority would issue credits that could be used to offset tax liabilities, traded to other parking lots for a profit, or banked against future unforeseen increases in crime.

A variant of tradable permits, known as *averaging* (OECD, 2001), can be applied to a single firm owning multiple polluting facilities. The regulator establishes a global maximum for the firm as a whole, or an average across all of its facilities, rather than a cap for each facility. Increases in pollution are tolerated in some facilities as long as the total volume of pollution does not exceed the cap. The Corporate Average Fuel Economy (CAFE) created by the U.S. Congress is a form of averaging. Automobile manufacturers must have an average fuel consumption rate based on the sales weighted average of its fleet of passenger cars and light trucks (National Highway Traffic Safety Agency [NHTSA], 2011). This rate could be combined with a trading option so that the firm could sell excess permits to other firms (OECD, 2001). Averaging could be applied to shoplifting in a shopping mall or BID: Within the mall or BID, some stores can exceed the average as long as a sufficient number of other stores are below the average.

In more complex schemes, a polluting firm could finance pollution reductions by other entities and gain credits to *offset* their own pollution (Sigman and Chang, 2011). For example, a developer that needs to fill in a wetland to build a housing subdivision can create wetlands in other places to offset the destruction of wetlands (Shabman and Scodari, 2005). One might imagine a large store could finance crime reduction in one part of town to offset its shoplifting arrests. This may seem to be a form of premeditated displacement. However, credits and offsets can be structured so that they produce a net reduction in crime—by making the offset requirement larger than the credit issued (e.g., three crimes must be prevented in the offset for every crime credit). If in return for shoplifting arrests, a store in a low-crime neighborhood finances crime reduction in a high-crime neighborhood, the result could reduce geographic concentration of crime. An important criticism of offsets is that it can be difficult to measure how much actual reduction is achieved by the offset,

although recent work has suggested that even under imperfect measurement, these schemes can be effective (Sigman and Chang, 2011).

Like all ends-based regulation instruments, tradable permit schemes are agnostic about the means used to achieve reductions. Thus, they can stimulate innovation by place managers. Under some tradable permit schemes, place managers with low or no crime could potentially benefit from selling permits to higher crime places. Therefore, they may see a distinct advantage in the use of such instruments, compared with schemes that do not provide such rewards.

There are some potential problems for these instruments. A major concern with tradable permits is the uncertainty of abatement costs. As Johnstone (2003: 5) stated, “by fixing the environmental impacts with greater certainty, *ex ante* estimates of abatement costs become more uncertain.” Credit offset programs have the opposite problem because it can be difficult to assure that credited crimes were actually prevented. A bigger problem is that tradable permits are an unknown policy prescription for handling crime and there are numerous technical details that will need to be addressed.

In this section, we have described a wide array of regulatory options for reducing crime at places. Table 1 summarizes these options. Means-based instruments may be most useful when dealing with rare and extremely serious crimes, consensual crimes, when there is substantial evidence that the means being promoted are effective, or when crime risk is evenly spread across places. When trying to reduce common predatory crimes, where prevention evidence is weak, and where there are substantial differences in crime volume across places, then ends-based instruments may be more useful. A regulatory approach to crime places is a broad strategy that can be tailored to numerous circumstances. There are many ways each of these instruments can be applied, so one should not categorically accept or reject any one of them. Furthermore, combinations of instruments may, in some circumstances, be more effective than using a single instrument. Policy makers should experiment with a wide variety of such regulatory instruments to determine which work best under which circumstances.

Putting Regulation in Place: Implementation Decisions

A regulatory approach is a broad framework that local authorities can implement in many ways and in diverse circumstances. Despite the diversity of regulatory approaches possible, there are three basic decisions that local authorities must make when setting up any particular crime place regulatory regime.

1. Choose the Types of Crimes to Be Regulated

Crimes that are susceptible to regulation should have four characteristics: measurable, important, concentrated, and preventable. Regulators must be able to measure where crimes occur and compliance with regulations. The crimes should be very serious or extremely frequent. Infrequent, very serious crimes are probably best addressed by means-based

T A B L E 1

A Portfolio of Crime Place Policy Instruments

Instrument—How It Works	Reasonable when	Poor choice when	Extant crime examples
<p>Means—Addresses procedures or technology</p> <p>1. <i>Command and Control</i>—Mandates means.</p> <p>2. <i>Subsidies</i>—Underwrites the use of means.</p>	<ul style="list-style-type: none"> ● Crime similar across all places. ● Evidence that means work. ● Consensual crimes. ● Rare extreme crimes. ● Crime similar across all places. ● Evidence that means work. ● Consensual crimes. ● Rare extreme crimes. 	<ul style="list-style-type: none"> ● Little evidence of effectiveness. ● Crime highly variable across places. ● Common crimes. ● Little evidence of effectiveness. ● Crime highly variable across places. ● Common crimes. 	<ul style="list-style-type: none"> ● ID requirements for bars. ● Minimum lighting standards for parking areas. ● Landlord training for apartment owners. ● Extra police patrols for high-crime businesses.
<p>Ends—Addresses outcomes</p> <p>3. <i>Liability</i>—Courts punish occurrences of bad outcomes after suit.</p>	<ul style="list-style-type: none"> ● Risk of suit given crime is high. ● Firms can only avoid suits by avoiding crimes. ● For public suits, consensual crimes. 	<ul style="list-style-type: none"> ● Risk of suit not tightly linked to occurrence of crimes. ● Suits can be avoided by use of means other than prevention. 	<ul style="list-style-type: none"> ● Premises liability suits. ● Nuisance abatement suits.
<p>4. <i>Tax, fine, or fee</i>—Levies a fee, fine, or tax proportional to bad outcomes produced.</p>	<ul style="list-style-type: none"> ● Common crimes. ● Crimes can be measured accurately and inexpensively. ● Tax, fine, or fee can be accurately calculated. ● Equivalent marginal abatement costs. 	<ul style="list-style-type: none"> ● For private suits, consensual crimes. ● Crime is uncommon and extremely serious. ● Consensual crimes. ● Crimes cannot be measured accurately and inexpensively. ● Tax, fine, or fee is uncertain. ● High variation in marginal abatement costs. 	<ul style="list-style-type: none"> ● Charging for calls for police service above a limit. ● Fining excessive false alarms.

(Continued)

T A B L E 1

Continued

Instrument—How It Works	Reasonable when	Poor choice when	Extant crime examples
<p>5. <i>Subsidize</i>—Target set for reductions. Places that achieve or exceed reductions are rewarded.</p>	<ul style="list-style-type: none"> • Common crimes. • Crime can be measured accurately and inexpensively. • Tax or fee liability can be accurately calculated. • Equivalent marginal abatement costs. 	<ul style="list-style-type: none"> • Crime is uncommon and extremely serious. • Sensual crimes. • Crime cannot be measured accurately and inexpensively. • Tax, fine, or fee is uncertain. • High variation in marginal abatement costs. 	<ul style="list-style-type: none"> • No extant examples.
<p>6. <i>Tradeable permits</i></p> <p>a. <i>Cap and trade</i>—Sets limits on bad outcomes, issues tradeable property rights for bad outcomes below the cap.</p>	<ul style="list-style-type: none"> • Common crimes. • Unequal marginal abatement costs. • Many places. • Crime can be measured accurately and inexpensively. 	<ul style="list-style-type: none"> • Crime is uncommon and extremely serious. • Sensual crimes. • Few places. • Equivalent marginal abatement costs. • Crime levels cannot be accurately measured. • Measurement of outcomes is prone to large errors. 	<ul style="list-style-type: none"> • No extant examples.
<p>b. <i>Ex post credits</i>—Each place is given a crime cap. Credits are awarded after documented reductions in crime below the cap.</p>	<ul style="list-style-type: none"> • Common crimes. • Unequal marginal abatement costs. • There is a benefit to negotiating individual place caps. • Distrust of ability of place to stay within caps. • Crime can be measured accurately and inexpensively. 	<ul style="list-style-type: none"> • Crime is uncommon and extremely serious. • Sensual crime. • Crime levels cannot be accurately measured. 	<ul style="list-style-type: none"> • No extant examples.

(Continued)

T A B L E 1

Continued

Instrument—How It Works	Reasonable when	Poor choice when	Extant crime examples
<p>c. <i>Averaging</i>—A cap is set for a firm with multiple places. Average crime of all places within the firm cannot exceed the cap.</p>	<ul style="list-style-type: none"> ● Common crimes. ● Firm with multiple places with unequal abatement costs. ● Used in combination with other instruments. 	<ul style="list-style-type: none"> ● Crime is uncommon and extremely serious. ● Consensual crime. ● No firm has many places. ● Places within firm have similar abatement costs. ● Results in concentrating crime in a neighborhood. 	<ul style="list-style-type: none"> ● No extant examples.
<p>d. <i>Offsets</i>—Place owners reduce crime elsewhere in return for ability to maintain or increase crime at their places.</p>	<ul style="list-style-type: none"> ● Used in conjunction with a global cap. ● Used to reduce neighborhood crime concentrations. ● Common crimes. ● Variation in abatement costs. 	<ul style="list-style-type: none"> ● Crime is uncommon and extremely serious. ● Consensual crime. ● Little variation in abatement costs. ● No global cap. ● Results in concentrating crime in a neighborhood. 	<ul style="list-style-type: none"> ● No extant examples.

regulations, and frequent, less serious events may be amenable to ends-based instruments. If frequent, the targeted crimes should be concentrated at places. Finally, place owners must have the ability to address crimes at their places. If means-based instruments are used, then there should be evidence that these means are effective. If ends-based instruments are used, place managers must have the ability to make changes to place functioning to forestall crime.

2. Decide Who Will Regulate Places

We can imagine that different local authorities will make different decisions: some choosing the police, some choosing another agency, and some choosing a hybrid entity. The most obvious decision is to select the police. The police are obvious because they have the interest, data, and public legitimacy concerning crime (Ayling et al., 2008). Sparrow (2000) made the case that police are already in the regulatory business. And place-based thinking has substantial roots in a problem-oriented approach to policing (Braga and Weisburd, 2006; Goldstein, 1990). If police are the regulators, then a regulatory approach to crime is an extension of Mazerolle and Ransley's (2005) theory of third-party policing.

However, neither their training nor their experiences nor their organizational processes provide police officials with an understanding of how to regulate places. Perhaps this explains why police have not have been as attentive to crime places as we would expect (Weisburd et al., 2010). A means-based place regulator must know a great deal about the business of the regulated places. The regulator also must know how regulations influence the practices of place owners. The regulator must have expertise in the crime prevention technology and practices in use, the evidence supporting these means, and the limitations of these means. For ends-based regulation, the regulator must know a great deal about economics and incentives, including the impact of taxes and fees on behavior. And, for all regulators, there will be a need to understand the legal framework within which the regulatory agency works. These are not bodies of knowledge widespread in policing.

A related concern is how community groups and place owners are involved (Ayres and Braithwaite, 1992; Grabosky, 2011). Community groups may help hold firms accountable by engaging owners in discussions about how to comply with rules and public norms, public advocacy, sermonizing designed to steer public debate and influence markets, lobbying before elected officials and public regulators, and even threatening or filing civil suits.

Ayres and Braithwaite (1992) also proposed enforced self-regulation, where firms or trade groups develop the regulatory standards and government regulators assure compliance. Industry groups without explicit sanctions seem to attract more firms that pollute, so it may be critical that self-regulatory schemes include a strong sanctioning component (Lenox and Nash, 2003). Although there are some serious limitations to self-regulation, following Grabosky (2011), a full description of any regulatory instrument must account for the actions of government regulators, community groups, and place managers.

3. *Produce Evidence of Utility*

A competent policy maker should seek evidence that his or her chosen regulatory instruments work. There are two types of evidence: evidence of the effectiveness of means, and evidence of the effectiveness of instruments.

Means evidence shows that a particular practice mandated by a regulatory authority is likely to result in a reduction in crime. Government has an obligation to assure that its mandates work. However, current evidence about what works at places may be too weak for most means-based instruments. Although there are many studies examining links between place-based prevention and crime, few of these use strong designs (Eck, 2002; Eck and Guerette, 2012). We know with confidence there are many means place managers can use to reduce crime, but we have less confidence in any particular means. So, if governments increase their use of means-based regulation of places, they need to support greater production of quality means evidence. Without such evidence, there is a substantial risk that regulatory authorities will be mandating practices that are ineffective—thus, wasting public and private resources—or have negative side effects.

Governments have fewer obligations to produce means evidence if they adopt ends-based regulation because place managers are free to choose the means they prefer. Under ends-based regulations, place managers may desire evidence describing what does and does not work to reduce crime at places. Individual place managers can experiment with alternative prevention methods systematically, or by trial and error. They can exchange information on their experiences through trade groups.

Independent of the evidence supporting the means required by the regulator, there is a need to evaluate the effectiveness of the instruments used by the regulatory authority. This is *instrument evidence*. Because government is applying the instrument, it should fund these evaluations. Such evaluations should address four questions covering effectiveness, efficiency, equity, and side effects.

1. *Effectiveness*. Does the instrument reduce crime more than alternative methods for reducing crime?
2. *Efficiency*. Does the instrument reduce the costs of reducing crime compared with alternatives?
3. *Equity*. Does the instrument push the costs of fighting crime to place owners who facilitate crime and away from taxpayers who do not?
4. *Side effects*. Are unregulated places and areas safer from crime, perhaps because of a diffusion of benefits, or does crime displace from regulated to unregulated places? Does the instrument inhibit or enhance involvement in criminality among youth? Does it improve or impede reentry among offenders on probation or parole? Does it enhance or limit residential, shopping, recreation, transportation, or educational opportunities to residents of poor neighborhoods?

We need systematic experimentation with a wide variety of regulatory instruments for a variety of crimes at a variety of places, as there is no *a priori* reason to believe that one form of regulation will work for all crimes at all places.

Challenges to Regulating Places

In this section, we examine some challenges to a regulatory approach to crime places, either suggested in the environmental regulation literature or by reviewers of early drafts of this article. In the absence of well-documented experience and rigorous evaluations of crime place regulation, we cannot know whether these objections are realistic or unfounded. Nevertheless, all raise concerns that any government planning a regulatory approach to crime places should consider.

Regulation of Places May Undermine the Moral Authority to Fight Crime

Command-and-control instruments clearly place the responsibility to fight crime on the shoulders of owners of places that incentivize offenders, including instruments that make extensive use of self-regulation or third-party involvement. Such instruments could reinforce standard criminal justice sanctions—regulations of offenders (Ogus, 2011)—as well as problem-solving efforts to remove criminal opportunities (Sparrow, 2008). These instruments not only imply that it is wrong to engage in crime, but also they underscore that it is wrong to facilitate criminal activity by others. Means-based subsidies and ends-based regulations may send more ambiguous messages. Although they can block crime opportunities, they may signal that allowing offending at a place is acceptable, as long as place owners pay for it. When governments use subsidies, place managers may not have to consider crime because it is wrong, but only because taxpayers are willing to underwrite the costs of its prevention.

The Public Will Not Support the Regulation of Places

Is it possible to convince the public that regulating place owners is a fair and effective method to reduce crime? To the extent that retributive justice governs crime policy, a regulatory approach will be found wanting, if not unfair. If offenders are the sole cause of crime, then a regulatory approach puts unwarranted costs on “innocent” third parties. But as we have noted earlier, governments already impose regulations on third parties to remove criminal opportunities. There is nothing new about using regulation to address crime. We are marrying this well-established idea to a recent well-documented empirical finding—crime is concentrated at places. Although it is certain that the politics of some jurisdictions will find a regulatory approach to crime an anathema, there will be others who find some value in the approach.

Regulation of Places Could Make it Harder for Businesses in Poor Neighborhoods

This criticism begins with the premise that regulation adds costs to doing business. In fact, the nature of negative externalities is that they are costs of doing business that place owners

have shifted to others. Regulations shift these costs back to place owners. We expect that if places are regulated to reduce crime, then places with extremely thin profit margins may go out of business.

Command-and-control regulations may have the worst impacts on poor neighborhoods because all regulated places would have to adopt similar crime prevention practices, regardless of whether owners can afford them or of whether they are appropriate for their specific sites. Ends-based instruments provide place owners with greater flexibility in finding prevention practices that are both effective and affordable. Furthermore, they are designed to have their greatest impact on places that have the most crime.

However, crime reduction may reduce the costs of doing legal business in poor high-crime neighborhoods. The diffusion of benefits from formerly high-crime places to nearby locations reduces costs at all places, regulated and unregulated. Therefore, it is possible that the reduction in crime-related costs to places in poor neighborhoods could increase the access of the poor to safe housing, recreation, and shopping.

Regulation of Places Could Increase Crime Concentration in Poor Neighborhoods

Would regulation concentrate crime more than it is already concentrated? This seems unlikely with means-based instruments, as all places in a regulated group are treated the same way. A tax instrument is unlikely to concentrate crime more because an owner of a high-crime place can only reduce crime or close down: Neither of which would increase crime in a high-crime area.

What about tradable permit instruments? Drury, Belliveau, Kuhn, and Bansal (1999) claimed that a market-based air pollution abatement scheme in Los Angeles did concentrate toxic emissions in poor neighborhoods. The scheme allowed point source polluters to continue emitting pollutants by buying offsets from diffuse polluters. Would this occur with crime places? There is no good *a priori* reason to suspect so. Low-crime places would have permits to sell. High-crime place owners could maintain their current crime level, if they bought these permits, reduce crime, or go out of business. None of these actions can import crime to a neighborhood. But three approaches could lead to increased concentration: offsets, averaging, and grandfathering. If place owners were able to offset their crime in one neighborhood for crime reduction elsewhere (e.g., in return for reducing shoplifting at a shopping center, a big landlord is allowed high-crime volumes in his apartment buildings), crime could become more concentrated. If owners only had to reduce the average crime across all their places, then they could leave their high-crime locations in the worst neighborhoods alone, while improving security in their low-crime neighborhood buildings. Finally, allocating permits based on prior crime levels would tend to grandfather in crime hot spots. In summary, although ends-based instruments in general might not be problematic, some specific approaches could lead to negative results.

Regulation of Places Could Impede Offender Reintegration

Former offenders seeking to reintegrate into the community and pursue legitimate occupations may be vulnerable under some regulatory schemes. This probably depends on the specific provisions of local regulations, rather than on inherent limitations of general instruments. These approaches could reinforce each other, under some circumstances. By reducing crime-prone places, for example, offenders released back into the community may have fewer opportunities to recidivate. Thus, rehabilitation and deterrence policies may be more effective if crime places are regulated. Given the variety of instruments that are possible, it is likely that some place instruments will complement offender policies (Cullen et al., 2002), whereas others may undermine them. This might vary by community context, crime type, and offender type. We should see this as an invitation to imagine rigorous research and experimentation to determine how place and offender policies can be combined.

Conclusions: Expanding Crime-Reduction Options

Although it is true that people kill people, it also is true that places can create facilitating conditions for crime. Theory and evidence has shown that crime is concentrated at a few places; these concentrations tend to be stable; reducing crime at these places is possible; crime does not inevitably displace from places, but instead prevention often diffuses out from protected places; place management practices are in part responsible for high crime at a specific place; and place managers can reduce the crime at their places. These findings led us to consider high-crime places as point source polluters. We used environmental regulatory policy theory, research, and experience to outline a series of crime place regulatory instruments.

It is premature to claim that these policies will work as we speculate. Until they are tested, we cannot know. Indeed, because there are a variety of regulatory approaches, it is likely that some will be more useful than others. As is true of environmental regulatory instruments (Ellerman, 2007), and of situational crime prevention (Eck and Guerette, 2011), it is possible that they all work, but under different circumstances, for different crimes, and at different types of places.

We have just provided a peek at the regulatory options available. Ayers and Braithwaite (1992) and Gunningham et al. (1998) have shown that a range of regulatory practices is available. Furthermore, these instruments can be combined (Grabosky, 2011; Johnstone, 2003). This is likely to be true for crime prevention at places. Farrell and Roman (2006) extended the crime application of environmental policy instruments to manufacturers, victims, financial institutions, Internet service providers, and others. They called their approach the “enhanced crime doctrine,” following the enhanced injury doctrine of consumer product regulation (Farrell and Roman, 2006: 147). Consistent with this doctrine, Newman (2011) applied cap and trade to credit card fraud. Policy makers should view the

instruments we have described as flexible building blocks they can use to tailor regulatory approaches to crime in a wide variety of circumstances.

Thirty years ago, Kelman (1981) showed that ideology had stymied the application of ends-based instruments to environmental problems. Today, governments use ends-based instruments alongside means-based instruments to reduce pollution (Freeman and Kolstad, 2007). It is possible that the greatest opposition to the use of a regulatory approach to crime places also will be ideological. Whether ends or means based, a regulatory approach to crime places shifts the burden of blame and responsibility. Rather than viewing crime as simply a matter between offenders and police, a place focus requires consideration of the morality of crime facilitation by third parties. The immediate question is more likely to be who should pay for crime reduction, rather than whether regulation is technically feasible.

The social and financial costs of relying on imprisonment as a crime control mechanism have raised concerns among liberals and conservatives alike. The recent economic recession has called into question local governments' reliance on policing to reduce crime. Durlauf and Nagin (2011) suggested we can reduce crime and imprisonment by relying more on policing than on imprisonment. We may be able to do better: to not only reduce crime and imprisonment, but also reduce our reliance on policing. Regulation has the potential to reduce the brutality of crime control (Kleiman, 2010) and to distribute more equitably the costs of crime reduction. In principle, this seems possible. We need to determine whether this is true in practice.

References

- Anderson, Zara, Gayle Whelan, Karen Hughes, and Mark A. Bellis. 2009. *Evaluation of the Lancashire Polycarbonate Glass Pilot Project*. Liverpool, U.K.: Center for Public Health, Faculty of Health and Applied Social Sciences, Liverpool John Moores University.
- Andresen, Martin A. and Nicolas Malleson. 2011. Testing the stability of crime patterns: Implications for theory and policy. *Journal of Research in Crime and Delinquency*, 48: 58–82.
- Ayling, Julie, Peter Grabosky, and Clifford Shearing. 2008. *Lengthening the Arm of the Law: Enhancing Police Resources in the Twenty-First Century*. New York: Cambridge University Press.
- Ayres, Ian and John Braithwaite. 1992. *Responsive Regulation: Transcending the Deregulation Debate*. New York: Oxford University Press.
- Baker, Jennifer. 2010. Club Ritz slaying suspect arrested. *Cincinnati Enquirer*. August 27. Retrieved October 26, 2010 from news.cincinnati.com/article/20100827/NEWS010701/308270016/Club-Ritz-slaying-suspect-arrested.
- Baldwin, Robert and Martin Cave. 2010. *Understanding Regulation: Theory, Strategy, and Practice*. New York: Oxford University Press.
- Barr, R. and Ken Pease. 1990. Crime placement, displacement and deflection. In (Michael H. Tonry and Norval Morris, eds.), *Crime and Justice: A Review of Research*, Vol. 12. Chicago, IL: University of Chicago Press.

- Blumstein, Alfred and Joel Wallman. 2006. *The Crime Drop in America*, Revised Edition. New York: Cambridge University Press.
- Braga, Anthony A. 2001. The effects of hot spots policing on crime. *The ANNALS of the American Academy of Political and Social Science*, 578: 104–125.
- Braga, Anthony A., Philip J. Cook, David M. Kennedy, and Mark H. Moore. 2002. The illegal supply of firearms. In (Michael H. Tonry, ed.), *Crime and Justice: A Review of Research*, Vol. 29. Chicago, IL: University of Chicago Press.
- Braga, Anthony A., David M. Hureau, and Andrew V. Papachristos. 2011. The relevance of micro places to citywide robbery trends: A longitudinal analysis of robbery incidents at street corners and block faces in Boston. *Journal of Research in Crime and Delinquency*, 48: 7–32.
- Braga, Anthony A., Andrew V. Papachristos, and David M. Hureau. 2010. The concentration and stability of gun violence at micro places in Boston, 1980–2008. *Journal of Quantitative Criminology*, 26: 33–53.
- Braga, Anthony A. and David L. Weisburd. 2006. Problem-oriented policing: The disconnect between principles and practice. In (David L. Weisburd and Anthony A. Braga, eds.), *Police Innovation: Contrasting Perspectives*. New York: Cambridge University Press.
- Braga, Anthony A. and David L. Weisburd. 2010. *Policing Problem Places: Crime Hot Spots and Effective Prevention*. New York: Oxford University Press.
- Brantingham, Patricia L. and Paul J. Brantingham. 1981. Notes on the geometry of crime. In (Patricia L. Brantingham and Paul J. Brantingham, eds.), *Environmental Criminology*. Beverly Hills, CA: Sage.
- Brantingham, Patricia L. and Paul J. Brantingham. 2008. Crime pattern theory. In (Richard Wortley and Lorraine Green Mazerolle, eds.), *Environmental Criminology and Crime Analysis*. Cullompton, Devon, U.K.: Willan.
- Chula Vista Police. 2009. *Reducing Crime and Disorder at Motels and Hotels in Chula Vista, California*. Goldstein Award Submission. Center for Problem-Oriented Policing. Retrieved November 14, 2010 from popcenter.org/library/awards/goldstein/2009/09--47%28W%29.pdf.
- Clarke, Ronald V. 1980. Situational crime prevention: Theory and practice. *British Journal of Criminology*, 20: 136–147.
- Clarke, Ronald V. 1995. Situational crime prevention. In (Michael H. Tonry and David Farrington, eds.), *Building a Safer Society: Strategic Approaches to Crime Prevention*. *Crime and Justice*, Vol. 19. Chicago, IL: University of Chicago Press.
- Clarke, Ronald V. 2008. Situational crime prevention. In (Richard Wortley and Lorraine Mazerolle, eds.), *Environmental Criminology and Crime Analysis*. Cullompton, Devon, U.K.: Willan.
- Clarke, Ronald V. and Gisela Bichler-Robertson. 1998. Place managers, slumlords and crime in low rent apartment buildings. *Security Journal*, 11: 11–19.
- Clarke, Ronald V. and Herman Goldstein. 2003. Thefts from cars in center-city parking facilities: A case study in implementing problem-oriented policing. In (Johannes

- Knutsson, ed.), *Mainstreaming Problem-Oriented Policing, Crime Prevention Studies*, Vol. 15. Monsey, NY: Criminal Justice Press.
- Clarke, Ronald V. and David L. Weisburd. 1994. Diffusion of crime control benefits: Observations on the reverse of displacement. In (Ronald V. Clarke, ed.), *Crime Prevention Studies*, Vol. 2. Monsey, NY: Criminal Justice Press.
- Clear, Todd. 2011. A private-sector, incentives-based model for justice reinvestment. *Criminology & Public Policy*, 10: 585–608.
- Clifton, Wayland, Jr. 1987. *Convenience Store Robberies in Gainesville, Florida: An Intervention Strategy by the Gainesville Police Department*. Gainesville, FL: Gainesville Police Department.
- Cohen, Lawrence E. and Marcus Felson. 1979. Social change and crime rate trends: A routine activity approach. *American Sociological Review*, 44: 588–605.
- Cook, Philip J. and Anthony A. Braga. 2001. Comprehensive firearms tracing: Strategic and investigative uses of new data on firearms markets. *Arizona Law Review*, 43: 277–309.
- Cornish, Derek. 1994. The procedural analysis of offending and its relevance for situational prevention. In (Ronald V. Clarke, ed.), *Crime Prevention Studies*. Vol. 3. Monsey, NY: Criminal Justice Press.
- Cornish, Derek and Ronald V. Clarke. 1986a. *The Reasoning Criminal: Rational Choice Perspectives on Offending*. New York: Springer-Verlag.
- Cornish, Derek and Ronald V. Clarke. 1986b. Situational prevention, displacement of crime and rational choice theory. In (Kevin Heal and Gloria Laycock, eds.), *Situational Crime Prevention: From Theory into Practice*. London, U.K.: Her Majesty's Stationery Office.
- Cornish, Derek and Ronald V. Clarke. 2008. The rational choice perspective. In (Richard Wortley and Lorraine Mazerolle, eds.), *Environmental Criminology and Crime Analysis*. Cullompton, Devon, U.K.: Willan.
- Cullen, Francis T., John E. Eck, and Christopher Lowenkamp. 2002. Environmental corrections: A new framework for effective probation and parole supervision. *Federal Probation*, 66: 28–39.
- Drury, Richard Toshiyuki, Michael E. Belliveau, J. Scott Kuhn, and Shipra Bansal. 1999. Pollution trading and environmental injustice: Los Angeles's failed experiment in air quality policy. *Duke Environmental Law and Policy Forum*, 9: 231–289.
- Durlauf, Steven N. and Daniel S. Nagin. 2011. Imprisonment and crime: Can both be reduced? *Criminology & Public Policy*, 10: 13–54.
- Eck, John E. 1993. The threat of crime displacement. *Criminal Justice Abstracts*, 25: 527–546.
- Eck, John E. 1994. *Drug Markets and Drug Places: A Case-Control Study of the Spatial Structure of Illicit Drug Dealing*. Ph.D. dissertation. College Park: Department of Criminology and Criminal Justice, University of Maryland.
- Eck, John E. 1997. Do premises liability suits promote business crime prevention? In (Ronald V. Clarke and Marcus Felson, eds.), *Business and Crime Prevention*. Monsey, NY: Criminal Justice Press.

- Eck, John E. 2002. Preventing crime at places. In (Lawrence W. Sherman, David P. Farrington, Brandon Welsh, and Doris Layton MacKenzie, eds.), *Evidence-Based Crime Prevention*. New York: Routledge.
- Eck, John E., Ronald V. Clarke, and Rob T. Guerette. 2007. Risky facilities: Crime concentration in homogeneous sets of establishments and facilities. In (Graham Farrell, Kate J. Bowers, Shane D. Johnson, and Michael Townsley, eds.), *Imagination for Crime Prevention. Crime Prevention Studies*, Vol. 19. Monsey, NY: Criminal Justice Press.
- Eck, John E. and Rob T. Guerette. 2012. Place-based crime prevention: Theory, evidence, and policy. In (Brandon Welsh and David P. Farrington, eds.), *Oxford Handbook on Crime Prevention*. New York: Oxford University Press.
- Eck, John E. and Julie Wartell. 1998. Improving the management of rental properties with drug problems: A randomized experiment. In (Lorraine Mazerolle and Jan Roehl, eds.), *Civil Remedies and Crime Prevention. Crime Prevention Studies*, Vol. 9. Monsey, NY: Criminal Justice Press.
- Ellerman, A. Denny. 2007. Are cap-and-trade programs more environmentally effective than conventional regulations? In (Jody Freeman and Charles D. Kolstad, eds.), *Moving to Markets in Environmental Regulation: Lessons from Twenty Years of Experience*. New York: Oxford University Press.
- Farrell, Graham and John Roman. 2006. Crime as pollution: Proposal for market-based incentives to reduce crime externalities. In (Kate Moss and Mike Stephens, eds.), *Crime Reduction and the Law*. London, U.K.: Routledge.
- Felson, Marcus. 1986. Linking criminal choices, routine activities, informal control, and criminal outcomes. In (Derek Cornish and Ronald V. Clarke, eds.), *The Reasoning Criminal: Rational Choice Perspectives on Offending*. New York: Springer-Verlag.
- Felson, Marcus, Robyn Berends, Barry Richardson, and Arthur Veno. 1997. Reducing pub hopping and related crime. In (Ross Homel, ed.), *Policing for Prevention: Reducing Crime, Public Intoxication and Injury. Crime Prevention Studies*, Vol. 7. Monsey, NY: Criminal Justice Press.
- Felson, Marcus and Rachel Boba. 2010. *Crime and Everyday Life*, 4th Edition. Los Angeles, CA: Sage.
- Felson, Marcus and Ronald V. Clarke. 1998. *Opportunity Makes the Thief: Practical Theory for Crime Prevention*. Police Research Papers Series, paper 98. London, U.K.: Home Office, Research Development and Statistics Directorate.
- Flint, John and Caroline Hunter. 2011. Governing by civil order: Towards new frameworks of support, coercion and sanction? In (Hanna Quirk, Toby Seddon, and Graham Smith, eds.), *Regulation and Criminal Justice: Developing a New Framework for Research and Policy Development*. Cambridge, U.K.: Cambridge University Press.
- Frederickson, H. George and Todd R. LaPorte. 2002. Airport security, high reliability, and the problem of rationality. *Public Administration Review*, 62: 33–43.
- Freeman, Jody and Charles D. Kolstad. 2007. Prescriptive environmental regulations versus market-based incentives. In (Jody Freeman and Charles D. Kolstad, eds.), *Moving to Markets in Environmental Regulation: Lessons from Twenty Years of Experience*. New York: Oxford University Press.

- Gigerenzer, Gerd and Reinhard Selten. 2002. *Bounded Rationality: The Adaptive Toolbox*. Cambridge, MA: MIT Press.
- Goldstein, Herman. 1990. *Problem-Oriented Policing*. New York: McGraw-Hill.
- Grabosky, Peter. 2011. On the interface of criminal justice and regulation. In (Hanna Quirk, Toby Seddon, and Graham Smith, eds.), *Regulation and Criminal Justice: Developing a New Framework for Research and Policy Development*. Cambridge, U.K.: Cambridge University Press.
- Graham, Kathryn and Ross Homel. 2008. *Raising the Bar: Preventing Aggression in and Around Bars, Pubs and Club*. Cullompton, U.K.: Willan.
- Green, Lorraine. 1995. Policing places with drug problems: The multi-agency response team approach. In (John E. Eck and David L. Weisburd, eds.), *Crime and Place. Crime Prevention Studies*, Vol. 4. Monsey, NY: Criminal Justice Press.
- Groff, Elizabeth R., David L. Weisburd, and Sue-Ming Yang. 2010. Is it important to examine crime trends at a local “micro” level? A longitudinal analysis of street to street variability in crime trajectories. *Journal of Quantitative Criminology*, 26: 7–32.
- Guerette, Rob T. and Kate J. Bowers. 2009. Assessing the extent of crime displacement and diffusion of benefits: A systematic review of situational crime prevention evaluations. *Criminology*, 47: 1331–1368.
- Gunningham, Neil, Peter Grabosky, and Darren Sinclair. 1998. *Smart Regulation: Designing Environmental Policy*. New York: Oxford University Press.
- Hahn, Robert W. and Robert N. Stavins. 1991. Incentive-based environmental regulation. *Ecology Law Quarterly*, 18: 1–42.
- Hesseling, Rene B. P. 1994. Displacement: A review of the empirical literature. In (Ronald V. Clarke, ed.), *Crime Prevention Studies*, Vol. 3. Monsey, NY: Criminal Justice Press.
- Homel, Ross, Marg Hauritz, Richard Wortley, Gillian McIlwain, and Russell Carvolth. 1997. Preventing alcohol-related crime through community action: The surfers paradise safety action project. In (Ross Homel, ed.), *Policing for Prevention: Reducing Crime, Public Intoxication and Injury. Crime Prevention Studies*, Vol. 7. Monsey, NY: Criminal Justice Press.
- Horst, Barry M. 2010. Man shot to death in Club Ritz. *Cincinnati Enquirer*. May 16. Retrieved October 26, 2010 from news.cincinnati.com/article/20100516/NEWS010701/305140003/Man-shot-to-death-in-Club-Ritz.
- Jaffe, Judson, Matthew Ranson, and Robert N. Stavins. 2009. Linking tradable permit systems: A key element of emerging international climate policy architecture. *Ecology Law Quarterly*, 39: 789–808.
- Jin, Ginger Zhe and Phillip Leslie. 2003. The effect of information on product quality: Evidence from restaurant hygiene grade cards. *Quarterly Journal of Economics*, 118: 409–451.
- Johnstone, Nick. 2003. *Efficient and Effective Use of Tradeable Permits in Combination with other Policy Instruments*. OECD Global Forum on Sustainable Development: Emissions Trading. Paris, France: Organization for Economic Co-Operation and Development.

- Jones, Lisa, Karen Hughes, Amanda M. Atkinson, and Mark A. Bellis. 2011. Reducing harm in drinking environments: A systematic review of effective approaches. *Health and Place*, 17: 508–518.
- Kane, Leah, Andrew Lee, Yuta Maeda, Chrissy Okereke, and Matt Scott. 2005. *Legal Controls on Explosive Materials: Report for the United States House of Representatives Committee on Homeland Security*. Syracuse, NY: Maxwell School of Citizenship and Public Affairs, Syracuse University.
- Kelman, Steven. 1981. *What Price Incentives? Economists and the Environment*. Dover, MA: Auburn House.
- Kleiman, Mark A. R. 2010. *When Brute Force Fails: How to Have Less Crime and Less Punishment*. Princeton, NJ: Princeton University Press.
- Laycock, Gloria. 2005. Defining crime science. In (Melissa Smith and Nick Tilley, eds.), *Crime Science: New Approaches to Preventing and Detecting Crime*. Cullompton, Devon, U.K.: Willan.
- Lenox, Michael J. and Jennifer Nash. 2003. Industry self-regulation and adverse selection: A comparison across four trade association programs. *Business Strategy and the Environment*, 12: 343–356.
- Levi, Michael. 2002. Money laundering and its regulation. *The ANNALS of the American Academy of Political and Social Science*, 582: 181–194.
- Madensen, Tamara D. and John E. Eck. 2008. Violence in bars: Exploring the impact of place manager decision-making. *Crime Prevention and Community Safety*, 10: 111–125.
- Mazerolle, Lorraine Green and Janet Ransley. 2005. *Third Party Policing*. New York: Cambridge University Press.
- Mazerolle, Lorraine Green, Jan Roehl, and Colleen Kadleck. 1998. Controlling social disorder using civil remedies: Results from a randomized field experiment in Oakland, California. In (Lorraine Mazerolle and Jan Roehl, eds.), *Civil Remedies and Crime Prevention. Crime Prevention Studies*, Vol. 9. Monsey, NY: Criminal Justice Press.
- National Highway Traffic Safety Agency (NHTSA). 2011. CAFE overview—Frequently asked questions. Retrieved April 15, 2011 from nhtsa.gov/cars/rules/cale/overview.htm.
- National Research Council. 2004. *Fairness and Effectiveness in Policing: The Evidence*. Committee to Review Research on Police Policy and Practices. Wesley Skogan and Kathleen Frydl, eds. Committee on Law and Justice, Division of Behavioral and Social Sciences and Education. Washington, DC: National Academies Press.
- Newman, Graeme R. 2011. Designing markets for crime reduction. In (Paul Ekblom, ed.), *Designing Out Crime from Products: Towards Research-based Practice. Crime Prevention Studies*. Boulder, CO: Lynne Rienner.
- Nightclub and Bar. 2010. Around the scene: May 27, 2010. Retrieved April 6, 2011 from nightclub.com/nightclub-confidential/around-scene-may-27-2010.
- Ogus, Anthony. 2011. Regulation and its relationship with the criminal justice process. In (Hanna Quirk, Toby Seddon, and Graham Smith, eds.), *Regulation and Criminal Justice: Developing a New Framework for Research and Policy Development*. Cambridge, U.K.: Cambridge University Press.

- Organization for Economic Co-Operation and Development (OECD). 2001. *Domestic Transferable Permits for Environmental Management: Design and Implementation*. Paris, France: Organization for Economic Co-operation and Development.
- Pierce, Glenn, Susan Spaar, and LeBaron Briggs. 1988. *The Character of Police Work: Implications for the Delivery of Police Service: Final Report to the National Institute of Justice*. Boston, MA: College of Criminal Justice, Northeastern University.
- Porter, Michael E. and Claas van der Linde. 1995. Green and competitive: Ending the stalemate. *Harvard Business Review*. September 1, pp. 120–134. Reprint 95507.
- Putnam, Sandra L., Ian R. Rockett, and Miriam K. Campbell. 1993. Methodological issues in community-based program effects. In (Thomas K. Greenfield and Robert Zimmerman, eds.), *Experiences with Community Action Projects: New Research in the Prevention of Alcohol and Other Drug Problems*. Center for Substance Abuse Prevention Monograph 14. Rockville, MD: U.S. Department of Health and Human Services.
- Quirk, Hanna, Toby Seddon, and Graham Smith. 2011. *Regulation and Criminal Justice: Developing a New Framework for Research and Policy Development*. Cambridge, U.K.: Cambridge University Press.
- Ruth, Henry and Kevin R. Reitz. 2003. *The Challenge of Crime: Rethinking Our Response*. Cambridge, MA: Harvard University Press.
- Sampson, Rana. 2007. *False Burglar Alarms, 2nd Edition*. Guide No. 5. Washington, DC: Office of Community Oriented Policing Services.
- Scott, Michael. 2005. Shifting and sharing police responsibility to address public safety problems. In (Nick Tilley, ed.), *Handbook of Crime Prevention and Community Safety*. Cullompton, U.K.: Willan.
- Scott, Michael, John E. Eck, Johannes Knutsson, and Herman Goldstein. 2008. Problem-oriented policing. In (Richard Wortley and Lorraine Mazerolle, eds.), *Environmental Criminology and Crime Analysis*. Cullompton, U.K.: Willan.
- Segerson, Kathleen. 2007. An assessment of legal liability as a market-based instrument. In (Jody Freeman and Charles D. Kolstad, eds.), *Moving to Markets in Environmental Regulation: Lessons from Twenty Years of Experience*. New York: Oxford University Press.
- Shabman, Leonard and Paul Scodari. 2005. The future of wetlands mitigation banking. *Choices*, 20: 65–70.
- Sherman, Lawrence W., Patrick R. Gartin, and Michael E. Buerger. 1989. Hot spots of predatory crime: Routine activities and the criminology of place. *Criminology*, 27: 27–55.
- Sigman, Hilary and Howard F. Chang, 2011. The effect of allowing pollution offsets with imperfect enforcement. NBER Working Paper No. 16860. National Bureau of Economic Research. Retrieved April 10, 2011 from nber.org/papers/w16860.
- Smith, David G., Mick Gregson, and James Morgan. 2003. *Between the Lines: An Evaluation of the Secured Car Park Award Scheme*. Home Office Research Study 266. London, U.K.: Home Office Research, Development and Statistics Directorate.
- Sparrow, Malcolm. 2000. *The Regulatory Craft: Controlling Risks, Solving Problems, and Managing Compliance*. Washington, DC: Brookings Institution Press.

- Sparrow, Malcolm. 2008. *The Character of Harms: Operational Challenges in Control*. New York: Cambridge University Press.
- Spelman, William. 1995. Criminal careers of public places. In (John E. Eck and David L. Weisburd, eds.), *Crime and Place. Crime Prevention Studies*, Vol. 4. Monsey, NY: Criminal Justice Press.
- Stavins, Robert. 2007. Market-based environmental policies: What can we learn from U.S. experience? In (Jody Freeman and Charles D. Kolstad, eds.), *Moving to Markets in Environmental Regulation: Lessons from Twenty Years of Experience*. New York: Oxford University Press.
- Thaler, Richard H. and Cass R. Sunstein. 2008. *Nudge: Improving Decisions about Health, Wealth, and Happiness*. New Haven, CT: Yale University Press.
- Tietenberg, Tom. 2003. The tradable-permits approach to protecting the commons: Lessons for climate change. *Oxford Review of Economic Policy*, 19: 400–419.
- Tietenberg, Tom. 2006. *Emission Trading: Principles and Practice*. Washington, DC: Resources for the Future.
- Tietenberg, Tom. 2007. Tradable permits in principle and practice. In (Jody Freeman and Charles D. Kolstad, eds.), *Moving to Markets in Environmental Regulation: Lessons from Twenty Years of Experience*. New York: Oxford University Press.
- Weisburd, David L. 1997. *Reorienting Crime Prevention Research and Policy: From the Causes of Criminality to the Context of Crime*. NCJ 165041. Washington, DC: National Institute of Justice.
- Weisburd, David L., Shawn D. Bushway, Cynthia Lum, and Sue-Ming Yang. 2004. Trajectories of crime at places: A longitudinal study of street segments in the City of Seattle. *Criminology*, 42: 283–322.
- Weisburd, David L. and John E. Eck. 2004. What can police do to reduce crime, disorder and fear? *The ANNALS of the American Academy of Political and Social Science*, 593: 42–65.
- Weisburd, David L., Cody W. Telep, and Anthony A. Braga with Elizabeth R. Groff, Joshua C. Hinkle, Cynthia Lum, Nancy A. Morris, Laura A. Wyckoff, and Sue-Ming Yang. 2010. *The Importance of Place in Policing: Empirical Evidence and Policy Recommendations*. Stockholm: Swedish National Council for Crime Prevention.
- Weisburd, David L., Laura A. Wyckoff, Justin Ready, John E. Eck, Josh Hinkle, and Frank Gajewski. 2006. Does crime just move around the corner? A controlled study of displacement and diffusion in two crime hot spots. *Criminology*, 44: 549–592.
- Whitaker, Carrie. 2011. Club Ritz gets most attention at liquor-permit hearing. *Cincinnati Enquirer*. April 11. Retrieved April 14, 2011 from news.cincinnati.com/article/20110405/NEWS0108/104060358.
- Wilcox, Pamela and John E. Eck. 2011. Criminology of the unpopular: implications for policy aimed at payday lending facilities. *Criminology & Public Policy*, 10: 473–482.
- Wilson, Craig R. 2010. Improving services at small- and medium-sized police agencies during a recession. *The Police Chief*, 55: 66–70.

Womach, Jasper. 2005. *Agriculture: A Glossary of Terms, Programs, and Laws*. Washington, DC: The Library of Congress, Congressional Research Service.

Woolston, Chris. 2011. The healthy skeptic: The ABCs of restaurant grades. *Los Angeles Times*. August 15. Retrieved August 15, 2011 from latimes.com/health/la-he-restaurant-grades-20110815,0,7158400.story?track=icymi.

Zimring, Franklin E. 2007. *The Great American Crime Decline*. New York: Oxford University Press.

John E. Eck is a professor of criminal justice at the University of Cincinnati. He has written extensively for researchers and practitioners on problem-oriented policing, crime places, and crime patterns. He received his Ph.D. from the University of Maryland and his Masters in Public Policy from the University of Michigan.

Emily B. Eck is a research technician studying fungal attacks on barley malts in the Department of Food Sciences and Technology at Dalhousie University. She is a 2010 graduate of University of Kings College and Dalhousie University in environmental sciences and economics.

POLICY ESSAY

CRIME REDUCTION THROUGH A REGULATORY APPROACH

Bringing Social Context Back Into the Equation

The Importance of Social Characteristics of Places in the Prevention of Crime

David Weisburd

*George Mason University
Hebrew University*

In their article about crime, place, and pollution, Eck and Eck (2012, this issue), advance an argument that has been developing for more than two decades. The specific places where crime occurs should become a key focus of crime prevention and indeed criminology (Eck and Weisburd, 1995; Sherman, 1995; Sherman, Gartin, and Buerger, 1989; Weisburd, 2008; Weisburd, Telep, and Braga, 2010; Weisburd, Groff and Yang, In press; Wilcox and Eck, 2011). It is based on solid empirical evidence, and has been strongly grounded in opportunity theories of crime (Clarke and Cornish, 1985; Cohen and Felson, 1979; Brantingham and Brantingham, 1993). At its core is what my colleagues and I have termed the “law of crime concentrations at places” (Weisburd, Groff and Yang, In press). Irrespective of the city, or even country examined, about 50 percent of crime is found on just 3 to 6 percent of the city landscape, and 20 to 25 percent of crime is found at only 1 percent of the places in a city (Pierce, Spaar, and Briggs, 1988; Sherman et al., 1989; Weisburd and Amram, forthcoming; Weisburd, Bushway, Lum, and Yang, 2004; Weisburd et al., In press). As Eck and Eck note, it is not simply the concentration of crime at a place that suggests the crime prevention potential of place based approaches, it is also the relative stability of chronic crime places over long periods of time (see Weisburd et al., 2004). In turn, it is important to note that there is strong heterogeneity of crime places within communities, suggesting that concentrations of crime at micro units of geography are not

Direct correspondence to David Weisburd, Center for Evidence-Based Crime Policy, Department of Criminology, Law & Society, George Mason University, 4400 University Drive, MS 6D12, Fairfax, VA 22030 (e-mail: dweisbur@gmu.edu).

simply reifications of larger neighborhood level effects (Groff, Morris, and Weisburd, 2009; Groff, Weisburd and Yang, 2010; Weisburd et al., In press; Weisburd, Morris and Groff, 2009).

What Eck and Eck (2012) add to this argument is the idea that regulation should become a central feature of the tool box for doing something about crime at place. This approach is very much within the tradition of opportunity theories and crime that has been at the core of crime and place studies. Eck and Eck add important new ideas though by applying the concept of “pollution” to place generators of crime. Regulation in the way they suggest that should become a key new method for crime control in American cities. But new data on the relationship between characteristics of places that influence crime concentrations suggests that we should broaden our approach in a different way as well. In a forthcoming book from Oxford University Press titled *The Criminology of Place: Street Segments and Our Understanding of the Crime Problem* (Weisburd et al., In press), my colleagues and I examine the factors that determine selection into trajectory patterns of crime over a 16-year period. Our data confirm the importance of opportunity theories such as routine activities (Cohen and Felson, 1979; Felson, 1994), situational crime prevention (Clarke, 1995), and crime pattern theory (Brantingham and Brantingham, 1993), thus providing additional support for the importance of regulation in crime prevention at places. But our work also suggests that social features of places, often ignored by researchers in this area, are also strongly linked to crime places.

There is a long tradition in American criminology that emphasizes community social controls in doing something about the crime problem (see Bursik and Webb, 1982; Shaw, 1929; Shaw and McKay, 1942). Sources of differential ability of communities to regulate their residents are reflected in structural characteristics such as poverty and residential mobility, or the ability of neighborhoods to restrain unruly juveniles. Noting the importance of self-efficacy to individuals, Sampson, Raudenbush, and Earls (1997:919) coined the concept of collective efficacy of communities, or the “willingness [of residents] to intervene for the common good,” to emphasize the mechanisms by which a community can prevent crime through enhanced informal rather than formal controls. In our work we have found that these concepts have important salience not just at the level of communities, but also at the micro geographic level of crime hot spots. This finding has important implications for crime prevention, suggesting that interventions that emphasize social rather than opportunity reducing features of place should be an important part of the crime prevention at place tool box.

Bringing Social Disorganization Back Into the Equation

Criminology of place scholars have looked primarily to what can be termed “opportunity theories” (Cullen, 2010; Wilcox, Land, and Hunt, 2003) as an explanation for why crime trends vary at places and as a basis for constructing practical crime prevention approaches (e.g. see Eck, 1995; Sherman et al., 1989; Weisburd et al., 2004). Routine activities theory,

situational prevention, and crime pattern theory all place great emphasis on the specific opportunities offered by specific places and situations. In contrast, the study of crime at higher geographic levels has placed emphasis on the social characteristics of places, for example the socioeconomic levels of people who live in certain areas (Bursik and Grasmick, 1993; Sampson and Morenoff, 1997), or the degree to which there is strong population heterogeneity (Shaw and McKay, 1942). Such perspectives may be grouped more generally as social disorganization theories (see Bursik, 1988; Kubrin and Weitzer, 2003; Sampson and Groves, 1989).

My colleagues and I (Weisburd et al., In press) think it is striking that scholars who study the criminology of place have virtually ignored social disorganization theories in empirical analysis and theoretical discussion. In one sense this is understandable, since the impetus for study of micro crime places came from opportunity theories. Such theories justified examination of small geographic units because of their emphasis on the specific situations and contexts that make crime possible. We argue for greater “theoretical integration” (Bernard and Snipes, 1996) in the study of crime and place (e.g. see Elliott, 1985). This is indeed, not a radical new idea. As Cullen (1988) notes, Cloward (1959) sought to integrate opportunity perspectives with traditional social disorganization ideas more than a half century ago. More recently, a number of criminologists have sought theoretical integration of opportunity and social disorganization theories at place, though their level of geographic analysis has been much higher than the microgeographic units that are our focus, or that of Eck and Eck (2012; e.g. see Joiner and Mansourian, 2009; Wikström, Ceccato, Hadie, and Treiber, 2010; Wilcox, Madensen and Tillyer, 2007).

Of course, theoretical integration of opportunity and social disorganization theories in a model for understanding crime at street segments does not make sense if social disorganization is a concept that is irrelevant to the criminology of place. This seems to be the position of many scholars in this area. Sherman, Gartin, and Buerger (1989: 30), for example, argued in introducing the idea of a criminology of place, that “(t)raditional collectivity theories [termed here as social disorganization theories] may be appropriate for explaining community-level variation, but they seem inappropriate for small, publicly visible places with highly transient populations.”

Is the concept of social disorganization “inappropriate” for understanding variability of crime at specific places? Scholars concerned with social disorganization have focused their interests on larger geographic areas, often communities, and have linked their theories to the ways in which the characteristics and dynamics of these larger social units influence crime. If indeed the only units of analysis relevant to social disorganization are large geographic units like communities or neighborhoods, then it is reasonable to say that social disorganization is irrelevant to the study of the criminology of place.

But another approach is possible, and we (Weisburd et al., In press) think relevant to the study of crime at small units of geography. Microgeographic units, such as street segments or specific facilities, do not simply represent physical entities. They are also social settings,

or following Wicker (1987:614) “behavior settings,” which can be seen as “small-scale social systems.” In this context, the street segments that we study in our book (Weisburd et al., In press) can be seen as examples of small-scale communities (see Taylor, 1997). People who frequent a street segment get to know one another and become familiar with each other’s routines. Residents develop certain roles they play in the life of the street segment (e.g. the busybody or the organizer). Norms about acceptable behavior develop and are generally shared. Blocks have standing patterns of behavior, for example, people whose routines are regular like the mail carrier, or the shop owner. In this context we can see street segments as “microcommunities” as well as “microplaces.” They have many of the traits of communities that have been seen as crucial to social disorganization theory, in that these physical units function also as social units with specific routines.

If the street segment can be seen as a type of “microcommunity,” then social disorganization theory has direct relevance to our understanding of crime at place (see Rice and Smith, 2002; Smith, Frazee, and Davison, 2000; Taylor, In press; Taylor, Gottfredson, and Brower, 1984). For example, street segments, like communities, are often dynamic with people moving in and out, shops opening and closing. Such transitions have often been seen to represent heightened social disorganization in studies of communities. In this context, it seems reasonable to ask whether high social mobility is related to crime at street segments. Similarly, poverty and social disadvantage have been identified as strongly related to crime at higher levels of geography. Is variability in wealth or social class at the street segment level also related to trends in crime? Of course, if we are to examine such relationships we have to first identify whether such characteristics vary at microlevels of geography.

Our work (Weisburd et al., In press) suggests that they do, and thus reinforces the importance of considering social features of places in crime prevention. We collected geographic data on structural factors reflecting social disorganization at the street segment level (Shaw and McKay, 1942; Sampson and Groves, 1989; Wilcox, Quisenberry, Cabrera, and Jones, 2004) and what some have termed intermediate variables of social control (Sampson and Groves 1989; Sampson et al. 1997). Our findings indicate that there are also microgeographic hot spots of social disorganization and low social control. For example, we collected data on public housing and Section 8 vouchers at street segments in Seattle, finding that there are public housing assistance hot spots. Indeed, 50% of housing assistance is consistently found on about 0.4% of the street segments in Seattle. There is also strong street-by-street variability, emphasizing the importance of hot spot segments rather than larger area concentrations. Within 800 feet of the public assistance hot spots, 84.3% of street segments do not have any public housing assistance recipients.

“Collective efficacy” has come to be seen as an important representation of the ability of residents of communities to exercise informal social controls (Sampson et al., 1997). One important indicator of collective efficacy is residents’ willingness to participate in public affairs (Morenoff, Sampson, and Raudenbush, 2001; Sampson et al., 1997). We represent collective efficacy using the percent of active voters on each street segment (see also Coleman,

2002; Putnam, 2001). On average, there are around seven active voters per street and a little less than 40% of the voters on each street are considered active voters. When we examine the street segments within 800 feet of the “hot spots” of active voters (the top 10%), only 25% of neighboring street segments also evidenced such high levels of active voting.

Most importantly, these social features of places are strongly related to whether a street segment was identified as a chronic crime hot spot over the 16-year period we examine in Seattle (Weisburd et al., In press). About 1% of the street segments in Seattle were found in this chronic crime group. These places were not only relatively stable throughout the observation period, but also accounted for about 22% of all crime incidents in the city. Property values, housing assistance and collective efficacy as measured by voting behavior were all key variables in our models explaining trajectory group membership. These social features of places not only evidenced strong street-to-street variability, but also were key factors in explaining developmental crime trends over time. Whether a place was a crime hot spot or not was strongly related to its social characteristics.

Scaling Down Social Interventions: New Opportunities for Crime Prevention at Places

If important causal mechanisms underlying developmental patterns of crime at place can be found in factors such as economic deprivation or collective efficacy, as indicated by our work (Weisburd et al., In press), then we are left with the question of whether social interventions should be added to the tool box of crime prevention at places. It is important to note at the outset that opportunity features of places produced greater variance explained in our models than social features of places, and the two most important predictors of crime at place in our study are both measures of what opportunity theorists have often termed “suitable targets” (e.g., see Cohen and Felson, 1979). Focus on formal social controls such as hot spots policing (Braga and Weisburd, 2010) is very much reinforced by our work. And our work also provides strong basic research findings that support the arguments made by Eck and Eck (2012) for increasing regulatory methods of crime control at places.

But our work (Weisburd et al., In press) raises the question of whether we can reinforce crime prevention by also addressing the social conditions of chronic crime places. This question has for the most part been ignored by place-based crime prevention scholars, in part perhaps because they have, as we noted above, drawn their initial theoretical impetus from opportunity theories. And community theorists of crime have seldom considered small micro geographic units and their role in the production of crime (see St. Jean [2007] for an exception). But another key barrier to the introduction of social interventions into the crime prevention equation has been the sense of scholars in this area that the scale of social interventions made them irrelevant for crime prevention.

Like the weather, which has also been found to influence crime, social processes such as poverty and social disorganization more generally were seen to be outside the control of crime prevention practitioners (Clarke, 1995). These were problems that could not be directly impacted by crime prevention and, therefore, thought to be better left as factors we

know influence crime but which do not contribute to the immediate amelioration of crime problems. But the fact that such processes operate on a very microgeographic-level offers opportunity for much more targeted efforts to change the social context of places. Crime prevention agents may be able to influence change on specific street blocks or facilities, as opposed to cities or neighborhoods more generally.

The focus on the specific places where crime problems are found provides an opportunity to “lower the scale” of social interventions, and accordingly to make such interventions relevant to crime prevention practitioners. It is one thing to attempt change in the social conditions of an entire neighborhood or city. It is another to try to ameliorate problems on specific blocks. One indication that this is possible comes from Redlands, CA, where the police department was able to manage housing and social service resources so that they were focused on specific census tracts where crime problems were most serious (Weisburd, Morris, and Ready, 2008). The California example suggests that a focus on even smaller geographic units, such as street segments, is possible.

If crime control is the goal, it is important to focus social interventions more carefully. Perhaps it is time to consider providing economic aid to problematic street blocks and not to neighborhoods overall. It may be time to think of strengthening communities on specific streets, and not in whole neighborhoods. Such activities could be led by progressive police agencies. In some ways, criminologists have long been concerned with how to alter community dynamics in the long-term pursuit of crime reductions. For example, advocates of the “broken windows” perspective have argued this point, noting that a key role of the police is to reduce fear in communities and through this to empower citizens to reestablish community social controls and community norms (Hinkle and Weisburd, 2008; Kelling and Coles, 1996). There have also been crime prevention efforts that have focused on improving economic conditions, such as the federal “weed and seed” programs. The difference here would be a matter of focus. Such efforts would not be focused on large areas such as business districts or communities but at specific hot spots of crime. Such an approach has already been suggested in recent studies of prisoner reentry. Scholars have identified “million dollar blocks” that include large numbers of people who are in jail or prisons (Cadora et al., 2003). They argue that more could be gained by focusing resources on the street blocks where these prisoners come from, rather than on their incarceration (Clear, 2008). Our findings indicate that such reallocation of resources could produce important crime prevention benefits.

Conclusions

Eck and Eck (2012) raise interesting new ideas for addressing the fact that crime is heavily concentrated at a relatively small number of places in the city. Their observation that criminologists have traditionally paid too little attention to the problem of crime at place is timely, and hopefully will add to a growing argument in criminology that the place where crime occurs is a key issue for theoretical and empirical inquiry (see also Brantingham and

Brantingham, 1993; Clarke, 1995; Cohen and Felson, 1979; Weisburd et al., 2004). In this response essay, I have focused on some recent research that I have conducted with colleagues that both supports this approach and suggests that it is time for scholars in this area to also consider the relationship between social disorganization and crime at micro levels of geography (Weisburd et al., In press). This work shows that social interventions that would target such problems as poverty or low collectivity efficacy are also relevant to doing something about the crime problem at places. Indeed, the application of such approaches at micro geographic places provides an opportunity to scale down such interventions making them both feasible for crime prevention agents to manage, and realistic to implement in a time of declining public resources.

References

- Bernard, Thomas J. and Jeffrey B. Snipes. 1996. Theoretical integration in criminology. In (Michael Tonry, ed.), *Crime and Justice: A Review of Research*, Vol. 20. Chicago, IL: University of Chicago Press.
- Braga, Anthony A. and David L. Weisburd. 2010. *Policing Problem Places: Crime Hot Spots and Effective Prevention*. New York: Oxford University Press.
- Brantingham, Patricia L. and Paul J. Brantingham. 1993. Environment, routine, and situation: Toward a pattern theory of crime. In (Ronald V. Clarke and Marcus Felson, eds.), *Routine Activity and Rational Choice. Crime Prevention Studies*, Vol. 5. New Brunswick, NJ: Transaction.
- Bursik, Robert J. Jr. 1988. Social disorganization and theories of crime and delinquency: Problems and prospects. *Criminology*, 26: 519–551.
- Bursik, Robert J. Jr. and Harold G. Grasmick. 1993. *Neighborhoods and Crime: The Dimensions of Effective Community Control*. New York: Lexington Books.
- Bursik, Robert J. Jr. and Jim Webb. 1982. Community change and patterns of delinquency. *American Journal of Sociology*, 88: 24–42.
- Clarke, Ronald V. 1995. Situational crime prevention. In (Michael Tonry and David Farrington, eds.), *Building a Safer Society: Strategic Approaches to Crime Prevention. Crime and Justice*, Vol. 19. Chicago, IL: University of Chicago Press.
- Clarke, Ronald V. and Derek B. Cornish. 1985. Modeling offender's decisions: A framework for research and policy. In (Michael Tonry and Norval Morris, eds.), *Crime and Justice: A Review of Research*, Vol. 6. Chicago, IL: University of Chicago Press.
- Cloward, Richard A. 1959. Illegitimate means, anomie, and deviant behavior. *American Sociological Review*, 24: 164–176.
- Cohen, Lawrence E. and Marcus Felson. 1979. Social change and crime rate trends: A routine activity approach. *American Sociological Review*, 44: 588–608.
- Coleman, Stephen. 2002. A test for the effect of conformity on crime rate using voter turnout. *The Sociological Quarterly*, 43: 257–276.
- Cullen. Francis T. 1988. Were Cloward and Ohlin strain theorists? Delinquency and opportunity revisited. *Journal of Research in Crime and Delinquency*, 25: 214–241.

- Cullen, Francis T. 2010. Cloward, Richard A.: The theory of illegitimate means. In (Francis T. Cullen and Pamela Wilcox, eds.), *Encyclopedia of Criminological Theory*. Thousand Oaks, CA: Sage.
- Eck, John E. 1995. Examining routine activity theory: A review of two books. *Justice Quarterly*, 12: 783–797.
- Eck, John E. and Emily B. Eck. Crime place and pollution: Expanding crime reduction options through a regulatory approach. *Criminology & Public Policy*. This issue.
- Eck, John E. and David Weisburd. 1995. Crime places in crime theory. In (John E. Eck and David Weisburd, eds.), *Crime and Place. Crime Prevention Studies*, Vol. 4. Monsey, NY: Willow Tree Press.
- Elliott, Delbert S. 1985. The assumption that theories can be combined with increased explanatory power. In (Robert F. Meier, ed.), *Theoretical Methods in Criminology*. Beverly Hills, CA: Sage.
- Felson, Marcus. 1994. *Crime and Everyday Life: Insight and Implications for Society*. Thousand Oaks, CA: Pine Forge Press.
- Groff, Elizabeth R., David Weisburd, and Nancy Morris. 2009. Where the action is at places: Examining spatio-temporal patterns of juvenile crime at places using trajectory analysis and GIS. In (David Weisburd, Wim Bernasco, and Gerben J. N. Bruinsma, eds.), *Putting Crime in Its Place: Units of Analysis in Spatial Crime Research*. New York: Springer.
- Groff, Elizabeth R., David Weisburd, and Sue-Ming Yang. 2010. Is it important to examine crime trends at a local “micro” level? A longitudinal analysis of street to street variability in crime trajectories. *Journal of Quantitative Criminology*, 26: 7–32.
- Joiner, Thomas M. and Jessica A. Mansourian. 2009. *Integrating Social Disorganization and Routine Activity Theories: A Look at Urban Crime in Morristown, New Jersey*. Presented to the Morristown Police Department (NJ). Boston, MA: Northeastern University. Unpublished report.
- Kubrin, Charis E. and Ronald Weitzer. 2003. New directions in social disorganization theory. *Journal of Research in Crime and Delinquency*, 40: 374–402.
- Morenoff, Jeffrey D., Robert J. Sampson, and Stephen W. Raudenbush. 2001. Neighborhood inequality, collective efficacy, and the spatial dynamics of urban violence. *Criminology*, 39: 517–560.
- Pierce, Glenn, Susan Spaar, and LeBaron R. Briggs. 1988. *The Character of Police Work: Strategic and Tactical Implications*. Boston, MA: Center for Applied Social Research, Northeastern University.
- Putnam, Robert. D. 2001. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.
- Rice, Kennon J. and William R. Smith. 2002. Sociological models of automotive theft: Integrating routine activity and social disorganization approaches. *Journal of Research in Crime and Delinquency*, 39: 304–336.
- Sampson, Robert J. and W. Byron Groves. 1989. Community structure and crime: Testing social-disorganization theory. *American Journal of Sociology*, 94: 774–802.

- Sampson, Robert J. and Jeffrey D. Morenoff. 1997. Ecological perspectives on the neighborhood context of urban poverty: Past and present. In (Jeanne Brooks-Gunn, Greg J. Duncan, and J. Lawrence Aber, eds.), *Neighborhood Poverty: Policy Implications in Studying Poverty*. New York: Russell Sage Foundation.
- Sampson, Robert J., Stephen W. Raudenbush, and Felton Earls. 1997. Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, 277: 918–924.
- Shaw, Clifford R. (with Frederick M. Zorbaugh, Henry D. McKay, and Leonard S. Cottrell). 1929. *Delinquency Areas. A Study of the Geographical Distribution of School Truants, Juvenile Delinquents, and Adult Offenders in Chicago*. Chicago, IL: University of Chicago Press.
- Shaw, Clifford R. and Henry D. McKay. 1942. *Juvenile Delinquency and Urban Areas. A Study of Rates of Delinquency in Relation to Differential Characteristics of Local Communities in American Cities*. Chicago, IL: University of Chicago Press.
- Sherman, Lawrence W. 1995. Hot spots of crime and criminal careers of places. In (John E. Eck and David Weisburd, eds.), *Crime and Place. Crime Prevention Studies*, Vol. 4. Monsey, NY: Willow Tree Press.
- Sherman, Lawrence W., Patrick Gartin, and Michael E. Buerger. 1989. Hot spots of predatory crime: Routine activities and the criminology of place. *Criminology*, 27: 27–55.
- Smith, William R., Sharon G. Frazee, and Elizabeth L. Davison. 2000. Furthering the integration of routine activity and social disorganization theories: Small units of analysis and the study of street robbery as a diffusion process. *Criminology*, 38: 489–523.
- St. Jean, Peter K. B. 2007. *Pockets of Crime: Broken Windows, Collective Efficacy, and the Criminal Point of View*. Chicago, IL: University of Chicago Press.
- Taylor, Ralph B. 1997. Social order and disorder of street blocks and neighborhoods: Ecology, microecology, and the systemic model of social disorganization. *Journal of Research in Crime and Delinquency*, 34: 113–155.
- Taylor, Ralph B. In press. *A General Metatheory of Crime and Communities*. New York: New York University Press.
- Taylor, Ralph B., Stephen D. Gottfredson, and Sidney Brower. 1984. Block crime and fear: Defensible space, local social ties, and territorial functioning. *Journal of Research in Crime and Delinquency*, 21: 303–331.
- Weisburd, David. 2008. Place-based policing. *Ideas in American Policing*. Washington, DC: Police Foundation.
- Weisburd, David, and Shai Amram. In progress. The law of concentrations of crime at place: The case of Tel Aviv.
- Weisburd, David, Shawn Bushway, Cynthia Lum, and Sue-Ming Yang. 2004. Trajectories of crime at places: A longitudinal study of street segments in the city of Seattle. *Criminology*, 42: 283–321.
- Weisburd, David, Elizabeth R. Groff, and Sue-Ming Yang. In press. *The Criminology of Place: Street Segments and Our Understanding of the Crime Problem*. New York: Oxford University Press.

- Weisburd, David, Nancy A. Morris, and Elizabeth R. Groff. 2009. Hot spots of juvenile crime: A longitudinal study of street segments in Seattle, Washington. *Journal of Quantitative Criminology*, 25: 443–467.
- Weisburd, David, Nancy A. Morris, and Justin Ready. 2008. Risk-focused policing at places: An experimental evaluation. *Justice Quarterly*, 25: 163–199.
- Weisburd, David L., Cody W. Telep, and Anthony A. Braga with Elizabeth R. Groff, Joshua C. Hinkle, Cynthia Lum, Nancy A. Morris, Laura A. Wyckoff, and Sue-Ming Yang. 2010. *The Importance of Place in Policing: Empirical Evidence and Policy Recommendations*. Stockholm: Swedish National Council for Crime Prevention.
- Wicker, Allan W. 1987. Behavior settings reconsidered: Temporal stages, resources, internal dynamics, context. In (Daniel Stokels and Irwin Altman, eds.), *Handbook of Environmental Psychology*. New York: Wiley-Interscience.
- Wikström, Per-Olof H., Vania Ceccato, Beth Hardie, and Kyle Treiber. 2010. Activity fields and the dynamics of crime. Advancing knowledge about the role of the environment in crime causation. *Journal of Quantitative Criminology*, 26: 55–87.
- Wilcox, Pamela and John E. Eck. 2011. Criminology of the unpopular: Implications for policy aimed at payday lending facilities. *Criminology & Public Policy*, 10: 473–482.
- Wilcox, Pamela, Kenneth C. Land, and Scott C. Hunt. 2003. *Criminal Circumstance: A Dynamic Multicontextual Criminal Opportunity Theory*. New York: de Gruyter.
- Wilcox, Pamela, Tamara D. Madensen, and Marie S. Tillyer. 2007. Guardianship in context: Implications for burglary victimization risk and prevention. *Criminology*, 45: 775–803.
- Wilcox, Pamela, Neil Quisenberry, Debra T. Cabrera, and Shayne Jones. 2004. Busy places and broken windows? Toward defining the role of physical structure and process in community crime models. *The Sociological Quarterly*, 45: 185–207.

David Weisburd is the Walter E. Meyer Professor of Law and Criminal Justice and Director of the Institute of Criminology at the Hebrew University, and a Distinguished Professor of Criminology, Law and Society at George Mason University and Director of its Center for Evidence Based Crime Policy. Professor Weisburd received the 2010 Stockholm Prize in Criminology and the 2011 Klachky Family Prize for Advances on the Frontiers of Science.

POLICY ESSAY

CRIME REDUCTION THROUGH A REGULATORY APPROACH

Some Problems with Place-Based Crime Policies

Dan A. Black

University of Chicago, NORC, and IZA

Kyung Park

University of Chicago

Existing crime policies are focused on raising the costs of crime for those committing the crime. For example, our drug policy attempts to deter drug crimes by increasing penalties or probabilities of capture. Eck and Eck (2012, this issue) argue that this approach ignores the growing body of evidence that suggests the majority of crime is place-specific. Dark alleys, decrepit buildings, and other places create opportunities for crime that otherwise may not have taken place. In other words, it is not just people that cause crimes, but places literally can cause crimes too. Under this framework, there may be substantial efficiency gains by tailoring crime policies in ways that provide incentives for building, motel, bar, and other proprietors to reduce crime. In this essay, we examine the merits of place-based crime policy.

The fundamental idea driving place-based policy is that a causal link exists between locations and crime. This idea seems plausible. Crimes occur when offenders and their potential targets interact in situations in which there are no means to control their behavior. For instance, two antagonists will be more likely to fight at a bar without a bouncer than one that employs a bouncer. The bar with the bouncer includes a credible punishment mechanism that forces actors to control their behavior. Extending this idea, if proprietors would change their location-specific environments in ways that generally discourage crime, this could reduce the number of uncontrolled interactions, which in turn, could reduce crime overall.

To make this case, however, two arguments must be true. First, proprietors do not fully internalize the externalities associated with criminal behavior that they facilitate by

Direct correspondence to Dan A. Black, Harris School, University of Chicago, 1155 E. 60th Street, Chicago, IL 60637 (e-mail: danblack@uchicago.edu).

not being as diligent as they could be had they fully internalized these externalities. This would suggest there is too much crime in our current equilibrium. Second, the proprietor must be better able to produce these security services than the public sector and the actors in our drama. Both are necessary to justify imposing the burden of these policies on the owners of the properties. Eck and Eck (2012) focus their discussion on the dramatic case of repeated murders at a single bar, obviously a very tragic occurrence. In this essay, however, we want to distinguish between crimes with victims (or violence) and the victimless crimes.

For most establishments, regarding crimes with victims—such as breaking into a car in a parking lot—there are clearly incentives for both proprietors of establishments and potential victims to take care to prevent such break-ins. Obviously, the owners of cars would prefer not to have their cars damaged and their possessions stolen. This should induce them to take actions to reduce the chances of a break-in, such as storing valuables in the trunk and using their car alarms. (Such behaviors would probably be reduced if proprietors of parking lots beefed up their level of protective services.) The proprietors, however, also have an incentive to minimize the crime. First, they would not want to develop a reputation for being a place where many cars are damaged, which would likely reduce their long-term business. Moreover, in our litigious era, an occasional client claiming malfeasance on the part of the proprietor would drive insurance rates higher and probably induce more care on the proprietor's part. Are these incentives about right?

Incentives Today

Certainly, proprietors already engage in behaviors that lower criminal activity. This is particularly true for crimes involving victims or violence. For instance, 24-hour gas stations use surveillance cameras, in part, because they recognize that their locations are especially prone to robbery. Similarly, bar or nightclub proprietors routinely employ bouncers who quickly respond to threats of an outbreak of violence. The proprietors have intrinsic incentives to avoid either the direct monetary losses or the reputational costs associated with violence and crime. A wild bar-room fight is going to set the proprietor back a lot of cash and make his clientele less likely to come back. Bar owners, however, often make most of their money selling alcohol, and alcohol and young men, especially violent young men, are a volatile combination. Although bar owners may not want the brawls, they like the revenue flow from alcohol sales and so they are conflicted: The more alcohol they sell, the more money they make, but the greater the likelihood something will go tragically wrong. There is in this case, however, another powerful instrument available to the local authorities: removal of the liquor license, which would destroy virtually any bar. Again, we must now ask whether bar owners have too little incentive to limit crime? Perhaps, but the case is far from obvious.

In the case of victimless crimes, however, proprietors may have less of an incentive to prevent crime as there may be less direct damage associated with the crime when both buyer

and seller benefit from the transaction. For example, an apartment building proprietor may not care that her tenants engage in drug trafficking or prostitution as long as they pay their rent on time and do not reduce the willingness of other clients to reside in the apartments. Indeed, allowing such activity may increase the likelihood that clients are able to pay the rent. Do such proprietors have too little incentive to prevent such crimes?

Of course, the owners have every incentive to maintain the value of their property, but they do not get to capture any value they add to adjacent properties so they may have too little incentive to make socially optimal investments. Of course, they also have no direct access to the consumer and surplus generated by the drug prostitution transaction so proprietors may have an incentive to overly limit these transactions. Taken as a whole, do the proprietors have too little incentives to deter victimless crime? Perhaps, but we view the case as far from obvious. As Becker (1968) reminded us, the optimal level of crime is not zero. The mere existence of hot spots is not *a priori* evidence of misaligned incentives. In the remainder of this essay, we will put this issue on the back burner and consider the implications of placed-based policies.

Some Consequences of Placed-Based Policies

The attractiveness of place-based policies is that they have the potential to reduce the costs of providing protective services. For instance, a few well-placed security cameras might be virtually as effective as stationing a police officer at the location at a fraction of the cost. But policies, even ones that pass the cost-benefit tests, usually have unintended consequences. In this section, we explore a few of these. Although the list is far from comprehensive, it gives us pause before we recommend the wide use of placed-based policies to reduce crime.

Displacement of Economic Activity

Place plays a complicated role in crime. Although some locations do seem to be “hot spots” and other areas within close proximity seem to be low-crime areas, there is little doubt that hot spots are concentrated in poor communities presumably because the people who reside in these areas are more likely to be or live in close proximity to criminals.

This is extremely unfortunate even under today’s legal environment. Firms operating in poor sections of town face higher costs in part because of the higher crime rates. They suffer greater losses from theft, and they invest in technologies and personnel to reduce the losses associated with crimes. Obviously, these higher costs must in equilibrium be passed on to consumers, consumers who are less able to pay these costs than their richer counterparts. The imposition of yet more private costs in the limitation of crime will necessarily involve the poor paying yet higher prices and having more limited choice. This is an unfortunate occurrence of geography.

The unfortunate calculus, however, is that the poor will pay for most of these (privately financed) placed-based policies because they are the ones residing in proximity to the hot

spots. Fortunately, they will benefit disproportionately from the programs. Whether they will find it worth the cost, however, is another matter. Without a clear understanding of the poor's willingness to pay for crime reduction, it is difficult to see whether these policies are "worth it" to the people being asked to pay for the policies.

Displacement of Crime

The empirical evidence on displacement is mixed. On the one hand, numerous studies have suggested little evidence of displacement in response to "hot spot" policing interventions. For instance, in the Jersey City POP Violent Crimes experiment, 24 high crime target areas were randomly matched into 12 pairs; one of the two received problem-oriented policing, while the other place did not. Braga et al. (1999) found that this targeted intervention significantly reduced crime without increasing crime in other nearby areas. Another high-profile example is the Kansas City Gun Project in which certain gun crime "hot spots" were targeted for increased gun seizures. Sherman and Rogan (1995) found that the 65% increase in gun seizures was associated with a 49% decrease in gun crimes. They also found no evidence of increases in gun crimes in comparable areas that did not receive the intervention.

Although these studies are consistent with location-specific interventions successfully reducing crime, there are reasons to be cautious with interpretation. First, as Barr and Pease (1990:293) suggested, "if, in truth, displacement is complete, some displaced crime will fall outside the areas and types of crime being studied or be so dispersed as to be masked by background variation . . . no research study, however massive, is likely to resolve the issue." It is difficult to disentangle whether the absence of displacement effects is a result of a true reduction in crime or a result of criminals responding to the interventions by exerting more effort to avoid detection or simple problems of measurement. Second, displacement effects are likely to be larger in the long run versus the short run. In the short run, criminals will have fewer margins along which they can adjust. A pimp who loses the safe haven of one motel may need time to find another suitable place of operation. Studies that focus on short-run displacement effects also are likely to understate the true effects.

Although these papers have raised the possibility that displacement could neutralize the crime reductions resulting from place-based policies, we also would like to point out that displacement could actually exacerbate the negative externalities associated with certain types of crime.¹ For instance, interactions between prostitutes and clients in cul-de-sacs, back alleys, or public bathrooms arguably generate more social costs in comparison with meetings that occur in the privacy of motels. This is especially true if residents near these public spaces include young children. To the extent that place-based policies shift crimes toward these types of locations, the cure could actually aggravate the problem.

1. Lowman (1992) found that the changing geography of street prostitution in Vancouver is related to law enforcement efforts. Please see Hesseling (1994) for a comprehensive review of displacement studies.

The advertising website craigslist.org provides a more transparent example of unintended consequences that can occur with displacement. Although [craigslist](http://craigslist.org) is not a physical location, the site is widely recognized as an intermediary that allows clients and prostitutes to search efficiently for one another on the Web. In a broad sense, [craigslist](http://craigslist.org) is also a “hot spot” for prostitution-related crimes. The growth in prostitution on [craigslist](http://craigslist.org) coupled with high-profile murders of prostitutes arranged via [craigslist](http://craigslist.org) has sparked a backlash against the site’s adult sections. In recent years, [craigslist](http://craigslist.org) has shut down the site’s adult sections as a result of legal pressures from the U.S. attorney general. These measures have reduced the quantity of transactions that are arranged via [craigslist](http://craigslist.org).

An open question is whether these constraints on [craigslist](http://craigslist.org) improve welfare overall. Some studies suggest that [craigslist](http://craigslist.org) actually allows prostitutes to work without the supervision of pimps. This generally translates into higher earnings and safer working conditions. To the extent that prostitution is simply displaced from [craigslist](http://craigslist.org) to older methods of search, crime policy targeted at [craigslist](http://craigslist.org) may have in fact reduced social welfare by reshifting agency from the prostitutes back toward the pimps and by making prostitution less transparent overall (Boyd, 2010). Nor is this a problem unique to prostitution. Are drug transactions safer in bars (with their bouncers checking clients entering the premise) or on dark street corners? Although keeping the bar from hosting these transactions may reduce the number of transactions (as some marginal participants find it too dangerous to conduct transactions) and although some in society (although neither the buyers nor the sellers) may find this desirable, displacing drug deals to “unregulated” sites probably puts more people at higher risk of grave harm than if we tried to “regulate” the site. Further displacement is not likely to improve the situation.

Managerial Capture

The potential for managerial capture also poses a problem for place-based policies. We explain the premise of regulatory capture with the commonly used example from environmental policy. In this context, the government would like to know firm-specific marginal costs to impose appropriate emissions regulations. For instance, the government may want to impose more stringent standards on firms who could implement them more efficiently. Acquiring this information, however, is costly and requires some degree of specialized knowledge. Rather than do this themselves, the government often will hire a regulator whose familiarity with the industry allows him or her to gather the information at a lower cost. A tension then occurs because low-cost firms have an incentive to pay the regulator to distort the information to the government. The asymmetric information that generates the demand for regulators also provides conflicts of interest (Stigler, 1971).

The literature on regulatory capture also could apply to place-based crime policies. Consider the example of a street corner that is a hot spot for street walking by prostitutes. Place-based policy might incentivize the building manager on the corner to install brighter street lights or surveillance cameras or to incorporate other measures that might reduce

prostitution at that location. At the same time, the pimp also has strong incentives to bribe the manager to prevent these actions. If the pimp's willingness to pay for the location is sufficiently high, the place-manager would have weak incentives to reduce crime. At worst, the two could even coordinate to promote prostitution while decreasing the probability of detection. If the place-manager's actions are easily observed, then achieving compliance seems less problematic. To the extent actions are difficult to observe, however, the threat of managerial capture will be a concern. This will surely be a problem in victimless crimes, particularly lucrative ones.

Selective Policing

A practical consideration for place-based crime policy is how to define criminal hot spots. Current practice seems to be to characterize hot spots as locations in which there are a high volume of arrests. But recent studies have suggested that college students are increasingly using marijuana across U.S. campuses. Few police districts, however, are exploring targeting college dormitories as a viable demand-side strategy to reduce crime. Perhaps the current asymmetry in police attention is the result of the fact that the negative externalities associated with drug trafficking are not evenly spread across geography, but it may simply reflect the fact that, on the average, college students have richer parents with access to better lawyers than the poor.

Along these lines, an area in which place-based policies could have an extremely high social rate of return is white-collar crimes. A recent *New York Times* article (Wyatt, 2011) suggested that 19 Wall Street firms have repeatedly violated antifraud statutes over time. For instance, the article cited Merrill Lynch as having violated two antifraud statutes seven times since 1999. Given the sheer size and scale of these firms, this anecdotal evidence raises the possibility that a small number of firms may be responsible for the majority of financial fraud crime. The traditional responses to this type of fraud have been generally ineffective. These firms have deep financial and legal resources that make persecution both risky and costly. However, place-based crime policies may be far more effective than the current system of having the Securities and Exchange Commission engage in costly monitoring of these firms. Assuming these high-fraud firms and/or departments within firms can be identified, severe financial penalties for department managers could be effective in reducing fraud. One can imagine that a penalty of zero bonuses over the course of several years would force department managers to exert more effort and foster a culture that respects business ethics in ways that the current system fails to do. Moreover, in these cases, displacement is not a concern as it is difficult to take these crimes outside of Wall Street.

Conclusions

Eck and Eck (2012) have raised an intriguing issue: Can we produce a more efficient crime policy by focusing on the micro geography of crime? The proposals in their article, however,

represent a shifting of the cost of the protective services from the public sector and private citizens to owners of private property, arguing that the owners of this property do not fully internalize the externalities associated with reducing crime and that they are more efficient producers of security services than the public sector.

Eck and Eck (2012) may be right. There are, however, a lot of questions about what levels of externalities are being ignored. Although one could fully believe that the current system does not fully capture all of the negative externalities of crime, it is another matter to determine who has the comparative advantage in abatement. Moreover, as Ayres and Levitt (1998) were able to demonstrate convincingly, there may be many positive externalities associated with potential victim precaution. We want to be particularly encouraging of such behavior and would not want it reduced in response to an increased vigilance of proprietors unless the actions of proprietors prove even more cost effective. Finally, we note that the unintended consequences of place-based policies need to be carefully analyzed. We have mentioned a few, but we doubt that we have exhausted the list. Unpacking the incentives and externalities that the current system provides and the impact of place-based policies on those incentives and externalities will be a major undertaking.

References

- Ayres, Ian and Steven D. Levitt, 1998. Measuring positive externalities from unobservable victim precaution: An empirical analysis of Lojack. *Quarterly Journal of Economics*, 108: 43–77.
- Barr, R. and Ken Pease. 1990. Crime placement, displacement and deflection. In (Michael Tonry and Norval Morris, eds.), *Crime and Justice: A Review of Research*, Vol. 12. Chicago, IL: University of Chicago Press.
- Becker, Gary, 1968. “Crime and punishment: An economic approach. *Journal of Political Economy*, 76: 169–217.
- Boyd, Danah. 2010. Censoring Craigslist: Bad for prostitutes, good for pimps. *Blog Her: Life Well Said*. Retrieved November 11, 2011 from blogher.com/censoring-craigslist-bad-prostitutes-good-pimps.
- Braga, Anthony A., David L. Weisburd, Elin J. Waring, Lorraine Green Mazerolle, William Spelman, and Francis Gajewski. 1999. Problem-oriented policing in violent crime places: A randomized controlled experiment. *Criminology*, 37: 541–580.
- Eck, John E. and Emily B. Eck. Crime place and pollution: Expanding crime reduction options through a regulatory approach. *Criminology & Public Policy*. This issue.
- Hesseling, Rene. 1994. Displacement: A review of the empirical literature. In (Ronald V. Clarke, ed.), *Crime Prevention Studies*, Vol. III. Monsey, NY: Criminal Justice Press.
- Lowman, John, 1992. Street prostitution control: Some Canadian reflections on the Finsbury Park experience. *British Journal of Criminology*, 32: 1–17.
- Sherman, Lawrence W. and Dennis P. Rogan. 1995. Effects of gun seizures on gun violence: “Hot spots” patrol in Kansas City. *Justice Quarterly*, 12: 673–694.

Stigler, George. 1971. The theory of economic regulation. *Bell Journal of Economics and Management Science*, 2: 3–21.

Wyatt, Edward. 2011. Promises made, and remade, by firms in S.E.C. fraud cases. *New York Times*. Retrieved November 8, 2011 from nytimes.com/2011/11/08/business/in-sec-fraud-cases-banks-make-and-break-promises.html?emc=eta1.

Dan A. Black is a professor at the Harris School and a senior fellow at the National Opinion Research Center. He serves as research director of the CWICstat program, a research group that aides Chicago in their workforce development programs. He currently serves as the principal investigator for the 1997 Cohort of the National Longitudinal Survey of Youth and is on the editorial board of the *Journal of Labor Economics*, *Labour Economics*, *Estudios Públicos*, and *Journal of Urban Economics*. His research focuses on labor economics and applied econometrics. His papers have appeared in the top journals in economics, statistics, and demography. He has served on panels for the Census Bureau, the Department of Education, the Environmental Protection Agency, the National Science Foundation, and the National Academy of Science and has served as a consultant for the New Zealand and Australian governments. Before joining the Harris School, he was on faculty at the University of Kentucky and Syracuse University, and held visiting appointments at the University of Chicago, Australian National University, and Carnegie Mellon University. Prof. Black holds a B.A. and an M.A. in history from the University of Kansas and an M.S. and a Ph.D. in economics from Purdue University.

Kyung Park is a graduate student at the Harris School of Public Policy. His research focuses on political economy, discrimination, and education policy. He holds a B.A. and M.A. in economics from the University of Chicago, and is expected to receive his Ph.D. in public policy from the Harris School in the spring of 2013.

POLICY ESSAY

CRIME REDUCTION THROUGH A REGULATORY APPROACH

Crime, Place, and Pollution

Expanding Crime Reduction Options Through a Regulatory Approach

Lorraine Mazerolle

University of Queensland

Janet Ransley

Griffith University

John E. Eck and Emily Eck (2012 issue) challenge two fundamental assumptions of crime policy by asking the following questions: First, why are offender-centric, as opposed to place-centric, crime policies generally the sole focus of governments' efforts to reduce crime? Second, why do governments feel obligated to bear the full cost of the burden for fighting crime? On the first assumption, although it is unlikely that crime policies have ever focused *solely* on offenders and not on places, it is fair to say that the preponderance of crime policies have, over many years, focused on offender-centric policies rather than on policies aimed at reducing the criminogenic conditions of high-risk places. Eck and Eck thus provide a compelling and well-documented set of arguments that demonstrate why policy makers need to consider more carefully the importance of "place" in crime control policy. As converts to the importance of place in understanding the causes of crime, this is not a hard pill to swallow. The second assumption, however, seems to suggest that it is novel for policy makers to think about alternative tools and techniques for harnessing other entities to share the cost of crime reduction. For Eck and Eck, the novel tools and techniques are adopted largely from environmental policy approaches to pollution control.

This policy essay argues that governments, and in particular police agencies, do not, and have not ever, really borne the full cost of crime control. User-pays schemes, for example, such as when event organizers pay for police presence at sporting fixtures, are arguably

Direct correspondence to Lorraine Mazerolle, Institute for Social Science Research, University of Queensland, Room 409, General Purpose North 3 (Building 39A), Campbell Road, St Lucia, Queensland 4072, Australia (e-mail: l.mazerolle@uq.edu.au).

the most widespread practice illustrating how governments have, for many years, sought to recoup the cost of crime control. But Eck and Eck's (2012) main question is actually focused on a larger, more structural, question about the distribution of responsibility for crime control: a matter that has vexed policy makers throughout the world for many years. In this policy essay, we concentrate our comments on unpacking the "who should pay for crime control" dilemma posed by Eck and Eck. We argue that a large and significant component of crime control responsibility and costs are already shared between government agencies and beyond government coffers, and that the trend to regulatory justice, as supplement or replacement for criminal justice, is now well established. Although we agree with Eck and Eck that crime policy still has a lot to learn from environmental policy, we argue also that other regulatory approaches—such as those drawn from taxation, health, and finance—also have much to contribute to the future of crime policy.

Our essay begins with a nod to the importance of place in crime control. We agree with Eck and Eck's (2012) call for policy makers to reallocate crime control policies to focus less on offender-centric initiatives and more on place-centric strategies. Our essay then reviews the broader regulatory environment that underpins Eck and Eck's call for drawing on environmental approaches to pollution control to help model crime control policy. This leads us to make some observations about the effectiveness of regulatory approaches to crime control that focus on criminogenic places and that refer to some of the problems and critiques that develop. We finish with some comments about the range of implementation issues that are likely to confound the adoption of environmental approaches to crime control and discuss the broader regulatory lens that, like Eck and Eck, we think holds promise for better crime control policy in the future.

The Importance of Place

Eck and Eck (2012) provide a comprehensive overview of the central arguments and literature that underpin the call to policy makers to focus more crime control efforts on the places, not on the people, generating most crime problems. Few scholars would now disagree with the importance of focusing crime control efforts on the places that generate more than their fair share of the problem. Wilcox and Eck (2011) referred to the "iron law of troublesome places" (p. 476); David Weisburd won the internationally acclaimed Stockholm Prize in Criminology in 2010 (The Stockholm Prize in Criminology, n.d.) by putting "crime in its place" (see Weisburd, Telep, and Braga, 2010); and The Campbell Collaboration's systematic reviews of the extant literature are unequivocal in demonstrating, with uncanny consistency, that interventions that focus on criminogenic places not only work but also lead to a "diffusion of crime control benefits" (Weisburd, Telep, Teichman, Gill, and Vitter, 2011). In plain terms, it is now impossible for policy makers to ignore the need to prioritize crime policies toward regulating crime-prone places. Eck and Eck capture the highlights of an ever-growing literature that should weigh heavily on policy makers keen to reduce crime throughout the world.

What is interesting, however, is Eck and Eck's (2012) observation that environmental policies have, for a long time, adopted a place focus rather than a person focus to control pollution. Why is this? Much of it can be traced back to the development and expansion of regulation generally as industrialization grew in Britain and the United States in the 19th and early 20th centuries. The focus of early regulation was around the worst excesses of unsafe factories, worker exploitation, and harmful products (Carson, 1974), and the emphasis was on reducing harms rather than on holding individuals morally and legally responsible. Protective legislation sought to balance the legitimate interests of capital and business owners with those of workers, consumers, and the public generally. Environmental regulation in particular focused on the factory as the source of pollution rather than on which individuals were responsible for its occurrence, partly because of the limited resources available for enforcement (Bartrip and Fenn, 1983). Similarly, occupational health and safety regulation focused on workplaces as the site of injury and prevention rather than on punishment (Gunningham and Johnstone, 1999). Antitrust regulation, especially as developed in the United States in the late 19th and early 20th centuries, was a response to market failure, and the focus was on correcting markets (a different type of "place") rather than on individuals, with prosecutions reserved largely for highly public sentinel cases (Friedrichs, 2010). In these types of regulatory schemes, the driving force has been to secure the orderly, safe, or efficient conduct of desirable and legal activities rather than the punishment of wrongs. Hence, enforcement has involved a variety of highly developed and specialized regulatory agencies and inspectorates relying on tools aimed largely at the securing of compliance rather than at prosecutions of wrongdoers (Ayres and Braithwaite, 1992).

The criminal law, by contrast, traditionally has been concerned with holding individuals responsible for their conduct, especially the commission of morally repugnant acts (Cotterrell, 1992). Indeed, criminal law has struggled to move beyond individual criminal responsibility to dealing with group-focused criminal corporations and crime networks. Until the mid-20th century, regulation and criminal law developed in relatively separate streams, with the first enforced by regulators focused on compliance and the second by police focused on prosecution. This led to different enforcement techniques, with police responding to *transient*, separate activities committed by individual suspects and regulators focusing on *patterns* of behavior—compliance records, standards and conditions, and emission levels. These patterns are the responsibility of the organization, with breaches not easily connected to identifiable individuals even where the breaches themselves are immediately obvious, such as the discharge in a creek or broken sanitation equipment.

Only in the last few decades have the criminal and regulatory law streams begun to converge (see Cheh, 1991; Mazerolle and Ransley, 2005). Regulators sought new criminal sanctions to impose on violators, and the criminal justice system developed to include civil sanctions and other regulatory mechanisms (Crawford, 2009). This convergence of the criminal and regulatory laws created new opportunities for place-centric crime control

strategies: drug abatement legislation, drug- and alcohol-free zones, curfew zones, to name a few. Although regulatory law has typically been regarded as separate from criminal law, the trend to criminalization has blurred this distinction, with many agencies now supervising some aspects of criminal law (Cheh, 1991, 1998; Cotterrell, 1992), such as corporate misconduct, market-related offenses, pollution and other environmental offences, racial or cultural vilification, and consumer offenses. Governments, in the wake of regulatory failures leading to corporate scandals and collapses, health risks—such as Britain’s mad cow and foot and mouth disease outbreaks—and environmental degradation, view criminalization both as a real deterrent and as an indication that they are taking the problems seriously. As John Braithwaite (2003) noted, regulatory agencies, while individually smaller than police organizations, now collectively comprise a much larger law enforcement sector than police. He argued that many features of the transformed criminal justice system (the audit society, actuarialism, responsabilization risk, and partnership, as discussed subsequently) are not new but are simply transposed from the regulatory state.

The Regulatory Approach to Crime Control

Trends in regulation over the past few decades, especially deregulation, privatization, and marketization, have observed a reduced reliance on public ownership as a form of regulation, as well as its replacement by sophisticated regulatory schemes, the growth of social regulation, and the injection of competition into previously monopolistic industries (Ogus, 1994). The new regulatory schemes are less reliant on the classic model of command and control typically associated with U.S. progressive-era regulation (Baldwin, Scott, and Hood, 1998), where legalistic rules are applied with little discretion or cooperation. The new regulatory styles favor less prescriptive rules, incentives rather than sanctions, and the adoption of self-regulatory codes and instruments. Power (1997) identified three overlapping programs of reform: new methods of public management, shifts in regulatory style, and the development of new markets for assurances and services. Particularly influential have been the ideas of responsive and smart regulation advanced by Ayres and Braithwaite (1992) and Gunningham, Grabosky, and Sinclair (1998). These ideas center on notions of regulatory pyramids or regulatory toolboxes that agencies use to tailor solutions to individual problems and contexts.

Eck and Eck (2012) draw on this background trend in regulation to make a compelling argument that crime could be viewed as a form of pollution. Drawing from environmental policy that seeks to reduce “polluting places,” the authors explore how crime policy makers could institutionalize a more regulatory approach to controlling crime at criminogenic places. As the authors of *Third Party Policing* (Mazerolle and Ransley, 2005), we agree that police, as agents of crime control, could do more to forge partnerships and bring otherwise inaccessible regulatory approaches to deal with problem places. But this does not make it *new* to apply regulatory approaches to crime fighting. As discussed elsewhere (Mazerolle and Ransley, 2005), the earlier sharp distinctions between regulatory enforcement and criminal

investigation and prosecution have been breaking down for some time. Increasingly, criminal law makes use of civil processes and remedies. At their simplest and most longstanding, these processes include the use of discretionary warnings as a form of “soft” sanction, which has always been a large part of day-to-day policing. Other measures include the use of civil orders (e.g., gang and drug house injunctions), behavioral orders (good behavior bonds, antisocial behavior orders, and move-on powers), forfeiture orders (tainted property and proceeds of crime), mandatory reporting (child abuse and large cash transactions) or recording (drug sales or prescriptions), and non-criminal-justice detention orders (for the mentally ill, sex offenders, and terrorism suspects). Ayling, Grabosky, and Shearing (2009) described a range of practices in which police act as commercial vendors of security, and others in which third parties are mandated or coerced into assisting with law enforcement. Some of these measures date back centuries (e.g., the use of bail conditions as a form of behavioral order, and the preventive detention of the mentally ill, alcoholics, and recidivist criminals), whereas others are more recent innovations.

The underlying driver for these types of measure we described previously as part of the transformation of criminal justice from an old into a new penology. In Feeley and Simon’s (1994) terms, the focus is no longer entirely on individuals and concepts such as guilt, responsibility, and obligation, as well as the diagnosis, intervention, and treatment of an individual offender (Feeley and Simon, 1994: 173). Instead, the concern is with “techniques for identifying, classifying and managing groups assorted by levels of dangerousness. It takes crime for granted. It accepts deviance as ‘normal’” (Feeley and Simon, 1994: 173). Interventions are not directed at determining responsibility or ensuring accountability, but at managing and regulating risky groups. Feeley and Simon’s elements of actuarial justice included what they called the new practices of incapacitation (by redistributing groups in society based on their risk profiles, e.g., in prison); preventive detention of arrestees based again on “selective stereotypes” (e.g., by denying bail); and the development of offender profiles (they give the example of drug courier profiles). What sets these actuarial elements apart is that they are targeted on the population rather than on individuals, are aimed at prevention and risk minimization rather than at detection and punishment of wrongdoers, and rest on their own rationality, a pseudo-scientific system of statistical indicators. Garland (1997) suggested that the governance of crime is now problematized in different ways, leading to new rationalities for the governance of crime and criminal justice. Rather than being a social and legal problem, crime, its control, and criminal justice, he suggested, are now viewed in economic terms, such as “risk and rewards, rationality, choice, probability, targeting and the demand and supply of opportunities” (Garland, 1997: 185). Criminals have become opportunistic risk takers, and victims supply the risk opportunities. Crime is controlled through limiting risks and opportunities rather than through the correction and rehabilitation of offenders favored by the welfare state. In this context, Crawford (2009) argued that the language of regulation has now infiltrated the criminal justice system and has led to a “proliferation of novel mechanisms of regulatory control” (p. 811) such as antisocial

behavior orders, restorative justice interventions, and new surveillance and sanctioning measures. Criminal justice processes and crime prevention policy have already absorbed regulatory approaches.

These recent shifts to more regulatory approaches to crime control stem largely from what Mazerolle and Ransley (2005) referred to as top-down governmental reforms that follow global transformations toward regulation as opposed to command-and-control approaches to elicit compliance. These global transformations have created opportunities, according to Mazerolle and Ransley (2005), as well as demands on police, to forge partnerships and use new tools and techniques for controlling crime. It is not surprising, then, that Eck and Eck (2012) view new opportunities emerging for crime control through experiences already tested in the control of pollution.

Beyond the police, Eck and Eck (2012) argue that the toolbox and responsibilities for taking a regulatory approach to crime control must shift into other areas of the criminal justice system. Considerable evidence suggests this already happens. In courts, for example, the trend toward specialized or problem-solving courts (Freiberg, 2011) tends to view the incorporation into the criminal justice process of new actors (case workers, counselors, and employers and family members) and techniques (case management, drug testing, and surveillance). These extend the focus of the court from determining guilt and punishment to managing a therapeutic intervention. In corrections, the trend to prison privatization has involved not only new actors (private owners and their employees) but also new areas of regulation, such as the development and imposition of minimum service standards and recidivism targets. Policing too has spread far beyond the police, with private, regulatory, and corporate providers involved in prevention (surveillance through private security patrols and closed-circuit television), detection (especially in areas such as fraud and scientific testing), and prosecutions (e.g., the contracting out of criminal prosecutions to private counsel). Ayling et al. (2009) described a comprehensive typology of ways in which policing resources are extended, and researchers such as Koehle (2011) provided empirical studies of the role of regulation in crime prevention. These developments pose new avenues for crime control under explored within our expositions of third-party policing. There is, therefore, much to like about Eck and Eck's (2012) application of the language of environmental policy to frame regulatory crime control responses. Treating places as "point source emitters" (Eck and Eck, 2012) and considering regulatory policies designed for such sources should help to capture the imagination of policy makers seeking to institutionalize crime policies that rebalance past biases toward offender-centric to crime policies that make places more central to crime control policy.

Effectiveness of the Regulatory Approach

One gap in Eck and Eck's (2012) article is a summary of the effectiveness of regulatory approaches to crime control. Indeed, Mazerolle and Ransley (2005) dedicated two chapters to a review of the literature pertaining to the evaluation evidence. By drawing on nearly

80 evaluations of interventions that fit the definition of “third-party policing,” Mazerolle and Ransley (2005) found that business owners are most often targeted as third-party “partners” to work with the police in dealing with violent crime problems in bars, property crime problems in unsecured car parks, drunk and disorderly behavior in public places, and street prostitution. Their review of the evaluation literature also revealed a range of other categories of regulatory “nodes” (or third parties) in the trend toward expanding responsibility for crime control beyond the police: parents, school administrators, domestic violence victims, liquor licensing authorities, car manufacturers, local councils, and public housing authorities are all co-opted in third-party policing to use the legal levers that are either available to them (e.g., restraining orders, council by-laws, and liquor licensing laws) or designed to punish them (e.g., parents) for failing to control the behavior of the ultimate targets (e.g., children).

Overall, Mazerolle and Ransley (2005) concluded that using third parties and legal levers (many of which were not intended for crime control purposes) are an effective tactic to expand the responsibility for crime control, sometimes even among unwilling third parties. Eck and Eck (2012) offer a different way of categorizing the range of approaches to crime control, which is drawn from the environmental literature. Their comprehensive summary (Eck and Eck, 2012: Table 1) of the means-based and end-based instruments provides an expansive portfolio of crime place policy instruments. They make a range of suggestions as to when the policies seem reasonable to use (e.g., “subsidies” being appropriate for consensual crimes) and when they seem to be poor choices (e.g., “offsets” being a poor choice for tackling serious crimes when there is little variation in abatement costs). Their table provides much food for thought. Yet Eck and Eck are hard pressed in many categories to come up with extant examples. Why? We argue that there are unlikely to be examples for some of Eck and Eck’s categories because the instruments of environmental approaches contradict completely the underlying ethos of the criminal law: that any crime is morally repugnant and there should not be official acceptance of any level of lawbreaking. So, for example, tradeable permits that allow a certain level of offending will always be met with outrage (see Eck and Eck’s category 6).

The other aspect of regulatory approaches to criminal justice left largely untouched by Eck and Eck (2012) is their effect in terms of equity, accountability, and impact on citizens’ civil liberties. Extending responsibility for crime prevention beyond police imposes more than just financial costs on third parties: (a) It can lead to “regulatory creep” that extends the acceptable limits of government intervention in the lives of citizens and business, (b) it can do so unequally on the basis of location or membership of certain groups (e.g., young people or the unemployed), (c) it can be used to justify lesser provision of mainstream policing services to certain communities, and (d) it can have net-widening effects as those who breach their new responsibilities themselves become subject to sanction. These serious issues must be considered before any uptake of regulatory measures in crime prevention.

Concluding Comments

Eck and Eck (2012) use environmental regulatory policy theory, research, and experience to outline an approach to crime control. They summarize the manner in which crime-prone places generate negative externalities—victimization of third parties, cost of other agencies dealing with the problems (e.g., medical practitioners), and knock on effects into the surrounding areas (e.g., car theft in and around bars)—and propose an environmental approach to compelling the owners of the places that generate more than their fair share of crime to pay for the crime pollution. Eck and Eck (2012) make a compelling case for why crime should be viewed as a form of pollution.

We have argued that criminal justice policy makers are already making use of a range of different regulatory approaches, although often in an unplanned and ad hoc way that lacks both theoretical understanding and empirical evidence of effectiveness. We also argue that policy makers can—and often do—examine more broadly different areas of regulation, not just pollution control. At the same time, however, they also need to consider the disadvantages of extending regulatory justice, especially its capacity to broaden the range of social controls and interventions imposed in unequal and unaccountable ways, especially in the absence of sound evaluative evidence of effectiveness.

References

- Ayling, Julie, Peter N. Grabosky, and Clifford D. Shearing. 2009. *Lengthening the Arm of the Law: Enhancing Police Resources in the Twenty-First Century*. Cambridge, U.K.: Cambridge University Press.
- Ayres, Ian and John Braithwaite. 1992. *Responsive Regulation: Transcending the Deregulation Debate*. New York: Oxford University Press.
- Baldwin, Robert, Colin Scott, and Christopher Hood. 1998. *A Reader on Regulation*. Oxford, U.K.: Oxford University Press.
- Bartrip, P. W. J. and P. T. Fenn. 1983. The evolution of regulatory style in the nineteenth century British factory inspectorate. *Journal of Law and Society*, 10: 201–222.
- Braithwaite, John. 2003. What's wrong with the sociology of punishment? *Theoretical Criminology*, 7: 5–28.
- Carson, W. G. 1974. Symbolic and instrumental dimensions of early factory legislation: A case study in the social origins of criminal law. In (R. S. Hood, ed.), *Crime, Criminology and Public Policy*. London, U.K.: Heinemann Educational.
- Cheh, Mary M. 1991. Constitutional limits on using civil remedies to achieve criminal law objectives: Understanding and transcending the criminal-civil law distinction. *Hastings Law Journal*, 42: 1325–1413.
- Cheh, Mary M. 1998. Civil remedies to control crime: Legal issues and constitutional challenges. In (Lorraine G. Mazerolle and J. Roehl, eds.), *Civil Remedies and Crime Prevention*. Monsey, NY: Criminal Justice Press.
- Cotterrell, Roger B. M. 1992. *The Sociology of Law: An Introduction*. 2nd ed. London, U.K.: Butterworths.

- Crawford, Adam. 2009. Governing through anti-social behaviour: Regulatory challenges to criminal justice. *British Journal of Criminology*, 49: 810–831.
- Eck, John E. and Emily Eck. 2012. Crime place and pollution: Expanding crime reduction options through a regulatory approach. *Criminology & Public Policy*. This issue.
- Feeley, Malcolm and Jonathan Simon. 1994. Actuarial justice: The emerging new criminal law. In (D. Nelken, ed.), *The Futures of Criminology*. London, U.K.: Sage.
- Freiberg, Arie. 2011. Post-adversarial and post-inquisitorial justice: Transcending traditional penological paradigms. *European Journal of Criminology*, 8: 82–101.
- Friedrichs, Jörg. 2010. The privatization of force and its consequences. In (Christopher Dasse and Cornelius Friesendorf, eds.), *Rethinking Security Governance: The Problem of Unintended Consequences*, London, U.K.: Routledge.
- Garland, David. 1997. “Governmentality” and the problem of crime: Foucault, criminology, sociology. *Theoretical Criminology*, 1: 173–214.
- Gunningham, Neil, Peter N. Grabosky, and Darren Sinclair. 1998. *Smart Regulation: Designing Environmental Policy*. Oxford, U.K.: Clarendon Press.
- Gunningham, Neil and Richard Johnstone. 1999. *Regulating Workplace Safety: System and Sanctions*. Oxford, U.K.: Oxford University Press.
- Koehle, Gregory M. 2011. *An Interrupted Time Series Analysis of the State College Property Ordinance and an Assessment of Rental Property Managers as Place Manager/Intimate Handler of Offender*. Unpublished Master’s thesis, Indiana University of Pennsylvania, Indiana, Pennsylvania.
- Mazerolle, Lorraine and Janet Ransley. 2005. *Third Party Policing*. New York: Cambridge University Press.
- Ogus, Anthony I. 1994. *Regulation: Legal Form and Economic Theory*. Oxford, U.K.: Clarendon Press.
- Power, Michael. 1997. *The Audit Society: Rituals of Verification*. Oxford, U.K.: Oxford University Press.
- The Stockholm Prize in Criminology. *Winner of the Stockholm Prize in Criminology 2010*. Retrieved December 15, 2011 from http://www.criminologyprize.com/dynamaster/file_archive/091221/9f76d973f5a59edb5fde05de1be029c0/SPC%202010_145x200_webb.pdf
- Weisburd, David L., Cody Telep, and Anthony A. Braga. 2010. *The Importance of Place in Policing: Empirical Evidence and Policy Recommendations*. Stockholm, Sweden: Swedish National Council for Crime Prevention.
- Weisburd, David L., Cody Telep, Doron Teichman, Charlotte Gill, and Zoe Vitter. 2011. Displacement of crime and diffusion of crime control benefits in large-scale geographic areas. Protocol. *Campbell Database of Systematic Reviews*. Retrieved December 15, 2011 from <http://www.campbellcollaboration.org/library.php>
- Wilcox, Pamela and John E. Eck. 2011. Criminology of the unpopular: Implications for policy aimed at payday lending facilities. *Criminology & Public Policy*, 10: 473–482.

Lorraine Mazerolle is a Research Professor in the Institute for Social Science Research (ISSR) at the University of Queensland and an Australian Research Council Laureate Fellow. She is also the Foundation Director and a Chief Investigator in the Australian Research Council (ARC) Centre of Excellence in Policy and Security (CEPS), a Chief Investigator in the Drug Policing Modeling Program, and the ISSR “Policing and Security” Program Director. Professor Mazerolle leads a team of highly talented research scholars with expertise in experimental criminology, urban criminological theories, survey methods, advanced multilevel statistics and spatial statistics. She is the recipient of numerous U.S. and Australian national competitive research grants on topics such as community regulation, problem-oriented policing, police technologies, civil remedies, street-level drug enforcement and policing public housing sites.

Professor Mazerolle is a Fellow of the Academy of Experimental Criminology, immediate past President of the Academy, foundation Vice President of the American Society of Criminology Division of Experimental Criminology and author of scholarly books and articles on policing, drug law enforcement, third-party policing, regulatory crime control, displacement of crime, and crime prevention.

Janet Ransley is an Associate Professor and currently Head of the School of Criminology and Criminal Justice, Griffith University, which has Australia’s largest criminology program. She conducts cross-disciplinary research focused on legal, political and governance issues in policing, drug law, immigration detention, and forensic mental health. She has also published on the topics of Indigenous people and the criminal justice system, and commissions of inquiry.

POLICY ESSAY

CRIME REDUCTION THROUGH a REGULATORY APPROACH

Joining the Regulatory Fold

Malcolm K. Sparrow

Harvard University

The police profession has much to gain by recognizing its kinship with a broad range of regulatory professions. Law-enforcement agencies, security and intelligence organizations, and social regulatory agencies all exist primarily to protect society from a variety of harms. Such harms include crime, pollution, occupational hazards, transportation hazards, corruption, discrimination, various forms of exploitation, food contamination, terrorism, and risks from unsafe commercial products. The core task for such organizations is to identify harms, risks, dangers, or threats of one kind or another, and then either eliminate them, reduce their frequency, mitigate their effects, prevent them, or suppress them, and, by so doing, provide citizens higher levels of safety and security.

Agencies with risk-control tasks at the core of their mission are a special breed, and can learn a great deal from one another. They are fundamentally different from the other half of government, which provides citizens with *services* such as education, health care, welfare, or public transportation systems.

Enforcement and regulatory agencies accomplish their task principally by constraining the behavior of citizens or industry. They deliver protection from harm primarily through the delivery of *obligations*, and they use the coercive power of the state to back up that delivery! They may, on occasions, restrict business practices, seize property, suspend licenses, and even deprive individuals of their liberty or life. Not surprisingly, given their use of such powers, these agencies are scrutinized and criticized more for their uses and abuses of power than for their uses and abuses of public funds. The price paid by society—in terms of governmental intrusion, loss of liberty, and imposed restrictions—has to be worth it in terms of risks reduced, harms prevented, or dangers mitigated.

Direct correspondence to Malcolm K. Sparrow, John F. Kennedy School of Government, Harvard University, Mailbox 10, 79 JFK Street, Cambridge, MA 02138 (e-mail: malcolm_sparrow@harvard.edu).

The vogue prescriptions used to improve governments' performance over the last 30 years, largely imported from the private sector, have provided little instruction in relation to these distinctive risk-control tasks. The management guidance available has focused on customer service, business process improvement, and quality management,¹ much less on the challenges of operational risk-control, behavior modification, compliance management, or the structuring of enforcement discretion around specific harm-reduction objectives. Risk-control agencies have been left to fend for themselves, to invent their own more particular brand of reforms, and to seek more specialized and relevant sources of inspiration.

For more than a decade, Harvard has been convening executive programs designed for exactly this group of regulatory professionals, with the express purpose of focusing on those managerial and organizational dilemmas that they all share, and which separate regulatory and enforcement agencies from the remainder of (mostly service-providing) government.² A few police executives have attended these courses and quickly discovered a natural kinship with their regulatory peers. But the number of police executives attending remains relatively small, as most police professionals do not view themselves as "regulators" nor do they recognize regulatory strategy discussions as relevant for the police profession. Some years ago, we even altered the name of the course, to "Strategic Management of Regulatory *and* Enforcement Agencies," in a deliberate attempt to emphasize the relevance for police and other law-enforcement agencies, but to relatively little avail.

Historically, the police profession has paid little attention to literature on regulatory strategy, drawing insights instead almost exclusively from dedicated studies of policing and from the academic disciplines of criminal justice and criminology. The police profession seems to have operated on the maxim "if it is not *about* us, it is not *for* us." What this means, in effect, is that most good ideas for improving regulatory strategy have to be invented twice: once for social regulators and then again (and usually independently) for the police profession.

Eck and Eck (2012, this issue) illustrate the potential value for police in glancing sideways to see what their regulatory peers are up to, and what tools and methods they may have developed. Eck and Eck explore a variety of control *instruments*, more normally associated with environmental protection, which might become relevant to crime control if we view crime as an externality emanating from specific places (badly managed bars, clubs, or poorly protected parking lots), and where the consequences (costs) of the resulting

-
1. Alford and Speed (2006) provided a careful examination of the ways in which a "client focus" needs to be adapted to be constructively applied within a regulatory setting. For a review of the application of customer-service ideals and business process improvement methods in reform of U.S. regulatory agencies, see Chapters 4 and 5 in Sparrow (2000).
 2. A 1-week executive program titled "Strategic Management of Regulatory and Enforcement Agencies" was offered first at the Harvard Kennedy School in 1998 and is now offered twice a year. It also is offered twice a year in the Southern Hemisphere through the Australia and New Zealand School of Government.

crime-clusters are borne by other patrons, local residents, or persons in the vicinity. The question then becomes how best to induce *place-managers* to take more responsibility for controlling the crime problems associated with their businesses or premises. With that goal in mind, Eck and Eck consider the use of penalties (for failing to implement mandated controls), subsidies (to encourage deployment of relevant technologies), tax reductions (as rewards for contributions to control), and rating schemes (to inform consumers of the levels of risk). They also question whether issuing place-managers with tradable permits, specifying amounts of crime to be expected or accepted in the vicinity, could conceivably produce the same kind of efficiency gains in crime control as in the control of industrial pollution.

The application of such ideas to crime control is certainly interesting and worthy of deeper consideration. Many of these particular methods would probably not hold up, as Eck and Eck (2012) seem to anticipate, in the face of potential ideological objections. From the victim's perspective (imagine a vehicle owner whose car is robbed overnight in a parking garage), it would be difficult to understand what it meant that this particular crime was "within the permitted amount of crime" or what the policy justification was for permitting any crime at all. With pollution, at least there is some countervailing benefit, as industrial pollution results from socially useful processes of energy production and industrial manufacturing. Hence, society accepts that pollution, although it still needs to be controlled properly, is neither inherently evil nor completely avoidable.

From the place-managers' perspective, treating local crime problems as an externality produced by their businesses might seem objectionable and legally questionable. Eck and Eck (2012) neatly summarize their central assertion thus: "places can emit crime just as a coal-fired power plant can emit sulfur dioxide." From a legal perspective, this analogy may turn out to be awkward. Place-managers would no doubt point out that sulfur dioxide has no brain, exercises no choice, and therefore cannot be held responsible for the damage that it causes. Even with evidence of place-centered crime-clusters, obvious difficulty remains in attaching responsibility to the owner or manager of premises for crimes committed elsewhere, and usually later, by their patrons—who, of course, exercise considerable choice in the matter and are normally counted fully responsible for their own behavior.

My point is not at all to dismiss any of these options, but to point out that picking and choosing from a range of regulatory instruments needs care and attention, and a lot more discussion. Eck and Eck (2012) have usefully opened that discussion in relation to place-based crime problems. Some ideological objections could perhaps be circumnavigated if innovative crime-control policies avoid using measures that seem to reward place-managers for cleaning up crime problems that they helped create. Obliging businesses to pay experience-rated premiums into a crime compensation insurance scheme—in the same way that businesses' are obliged to buy workers' compensation insurance from the state, with premiums based on their own recent occupational injury rates—might provide suitable financial incentives without the public appearance of rewarding past irresponsibility.

Admitting evidence of local crime patterns at license renewal hearings also seems plausible and defensible. In any case, finding ways to reinternalize the externalities associated with criminogenic places is a worthwhile pursuit and might produce some novel approaches. I will look forward, as such work matures, to someday parking my car in a hotel parking lot next to a sign that proclaims, “Hotel Management takes full responsibility for any damage to, or theft from, vehicles parked in this lot.”

What Explains the Divide?

Given the natural kinship that police should by virtue of their mission feel with other regulators, and the many benefits that could result from exchanging ideas and tools, it is worth wondering why police have not, to date, joined or enjoyed the broader brotherhood of harm-reduction professionals.

Several factors contribute to this. First, police do not view themselves as “regulators” because they are not involved much, if at all, in the promulgation of regulations. Police rely on existing criminal statutes for their legal authority and seldom generate subsidiary ordinances or regulations in the way that most social regulators do.

Culturally, police agencies seem distinct too. They wear uniforms, carry firearms, and traditionally exhibit many aspects of a quasi-military culture. They feel greater kinship, therefore, with other law-enforcement agencies that share these same features (e.g., Customs, Coast Guard, and Immigration) than they do with their unarmed, nonuniformed, unsworn civilian counterparts in regulatory agencies.

The domain for police work also is different. Police often seek *persons unknown*, and *at-large* for crimes committed. Their jurisdiction is everywhere, covering both public and private spaces. By contrast, much of the work of regulatory inspections focuses on specific business premises or plants. Officials responsible for management of the plant and compliance with regulations are clearly identifiable, up front. Their behavior might be an issue, but generally their identity is not.

Also, the risks police tackle have some distinctive properties. Many involve *opponents* (criminals or perpetrators) who seek deliberately to evade detection and adapt their strategies to circumnavigate control initiatives.³ Most environmental problems and workplace safety hazards do not have that property. If occupational safety regulators identify a safety hazard accurately and address it, then that hazard does not go searching for some other way to kill people! If environmental professionals solve one pollution problem, they do not generally create another. Most environmental, health, and safety hazards have no brain, and consequently they cannot deliberately seek to thwart official efforts to control them, nor do they try to hide their activities. Criminal enterprises clearly do both.

3. For a discussion of this class of risks and the special challenges they present to those responsible for control, see Chapter 9, “Conscious Opponents,” in Sparrow (2008).

Curiously, during the last few years, environmental regulators have been running more often into problems that do indeed involve conscious opponents. Such problems include illegal logging, poaching, or smuggling of endangered or protected species; deliberate and illegal introduction of sport-fish into lake systems where they do not belong, and the increasing involvement of organized crime groups in toxic waste management (and illegal dumping). In all these areas, traditional environmental regulatory approaches seem weak and not quite appropriate. The underlying scale of such problems is unknown, as most illegal activity is deliberately hidden. Displacement occurs when regulators intervene. The regulatory job becomes, suddenly, much more dangerous. And environmental regulators now have to consider the use of a broad range of tactics and methods—such as undercover operations, covert surveillance, and the use of paid informants—that they almost never used in relation to pollution problems originating from industrial plants. Where might environmental professionals go for advice on such matters? They need to go to the police and other law-enforcement professionals whose risk-control responsibilities routinely involve tackling opponents (thieves, hackers, smugglers, or terrorists), and who frequently use such tools and methods. Law-enforcement agents could readily help environmental professionals understand the role that intelligence and counterintelligence plays in such situations, the importance of unpredictability and mystery, and the justifications for official deception in combating criminal enterprise. The potential learning, if police talked more often with their regulatory counterparts, would surely go both ways.

Common Ground

So some significant differences are indeed worth noting. Such differences can be a rich source for discussion across disciplinary lines. But the commonalities are far more numerous and more important, and the strategic and organizational dilemmas these professions confront are strikingly similar.

Law-enforcement agencies and agencies of social regulation exist primarily to control harms of one type or another.⁴ They are expected to be effective in providing protections but yet to be minimally intrusive and burdensome at the same time. They all use reactive, preventive, and proactive methods and seek to integrate these into coherent control strategies.

In terms of organizational forms, they each run specialist functional units and operate core high-volume operational processes as well (responding to calls, processing tax-returns, reviewing license applications and renewals, and taking complaints), but they also want

4. *Social* regulation, which centers on issues of health, safety, and welfare, usually is distinguished from *economic* regulation, which focuses on the healthy functioning of markets. Agencies of social regulation are given industry-wide responsibility for the control of a specific category of risks or threats (e.g., environmental, occupational safety, labor practices, and consumer product safety). By contrast, agencies of economic regulation seek to preserve competition, efficient market function, and fair trade practices within one specific industry (e.g., transportation, utilities, communications, or financial services).

to organize themselves to deal with specific risks or problems, even when these problems do not align neatly or at all with existing functions, processes, or any other piece of the established organizational structure. The police profession calls this “problem-oriented policing,” whereas many regulatory agencies talk of “risk-based regulation” or (in tax administration) “compliance management.”

These agencies all want to understand how to deploy analysis to help identify and disaggregate risks more accurately and how to orient their performance story around harms reduced, risks controlled, or problems solved rather than around traditional output or activity measures. They all contend with inevitable tensions that arise between competing values, where organizational *effectiveness* seems to require the use of careful targeting, selection, and focus, but that seems fundamentally at odds with the traditional regulatory values of consistency, uniformity, equity, and fairness.

They are all expected to embrace the values of openness, predictability, and transparency, but they have to somehow square those values—especially when dealing with conscious opponents intent on thwarting control efforts—with their need to remain on occasion unpredictable, to use disinformation or deception (as in undercover operations), and to retain the element of surprise.

These agencies also wrestle with the foundational dilemmas of regulatory policy, such as the tension between the *legal* model of regulation (where regulators focus on procuring compliance with existing law) and the *expert* model of regulation (where regulators focus on harm reduction and invent alternative methods for influencing behaviors that may be harmful but not illegal). The regulatory world at large is currently leaning more explicitly and deliberately toward the *expert* model. Reasons for this include increased public pressure for better protection in the wake of the attacks on September 11, 2001, the Global Financial crisis, and other perceived “regulatory failures.” The burgeoning *risk literature* might have helped too, although it has focused more on the psychology of risk perception (by individuals) than on risk control as a governmental or organizational challenge. For sure, the modern focus on risk and risk control has helped inspire regulators to focus more carefully on the business of identifying and suppressing specific harms, especially emerging and unfamiliar ones, rather than continuing to rely on traditional processes and programs.

Explicitly acknowledging and embracing the *expert* model constitutes a profound shift. It affects virtually every aspect of modern regulatory conduct. Currently, regulatory executives are grappling with the implications for organizational structure, managerial decision making, the use of discretion, the structure of performance reporting, and the evolving nature of their relationships with the communities they regulate.

All these issues affect police organizations just as much as they do other regulatory bodies. Police use somewhat different vocabulary to describe them. What police call *problem oriented*, other regulators call *risk based*. What police call *community policing* looks remarkably similar to what regulators call *coregulation*—signaling closer, collaborative

relationships between government and people, sharing responsibility for establishing and pursuing a joint risk-control agenda.⁵

Potential Benefits

The police profession could benefit in many ways from joining regulatory strategy discussions. First, as Eck and Eck (2012) illustrate, they would discover a much broader range of compliance-management and behavior-modification techniques (regulatory instruments) than police have used traditionally, several of which might be applied usefully to crime control and other public safety issues.⁶

Second, police would observe a more carefully delineated set of regulatory *structures*. Eck and Eck (2012) touch on this subject when they categorize the regulatory instruments they discuss, variously, as either *means based* or *ends based*. This distinction forms part of a larger puzzle, as regulators figure out, with respect to any specific risk, *who* should be responsible for *which parts* of the risk-control task.

We can learn a lot about alternative regulatory structures and the ways in which they relate to the idea of risk management by crudely splitting any risk-control initiative into three parts. For a specific risk to be controlled (whether it relates to crime, pollution, disease, or safety hazards), someone has to *identify* the risk, someone has to *analyze the risk and design a suitable intervention* (analysis and design), and then someone has to *act in a particular way or stop acting in particular ways* to apply the intervention. Regulators and the regulated community can split these three tasks between them in various permutations and combinations, and—depending on which parts of the job government keeps and which parts government delegates to the community—thereby produce distinct models of regulatory interaction.

Under the traditional regulatory approach (labeled model 1 in Figure 1), government retains responsibility for spotting risks, analyzing them (maybe with some consultation along the way), and developing an intervention design. Government then issues prescriptive rules or regulations informing the community what must be done to control the risk (e.g., “balconies must be equipped with railings at least 3 ft high and with bars no further apart than 4 in”). The regulator focuses thereafter on procuring compliance, and compliance with the rules is assumed necessary and sufficient to control the risk. Regulators call this “prescriptive” or “rule-based” regulation. Those who disapprove of this style of regulation have also attached to it a variety of derogatory labels, including “command-and-control” regulation and “one-size-fits-all” regulation.

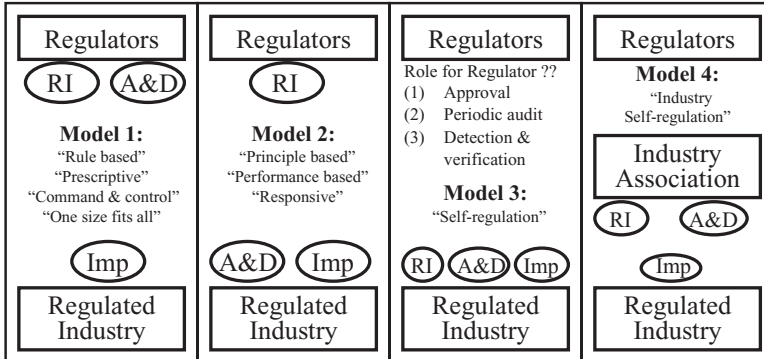
5. Martinez, Fearn, Caswell, and Henson (2007) explored the potential application of “coregulation” in food safety in both the United Kingdom and the United States. Coregulation is described as involving “public and private sectors working hand-in-hand to deliver safer food at lower (regulatory) cost.”

6. For an extensive catalogue of regulatory methods, see Frieburg (2010).

FIGURE 1

Regulatory Structure: 4 Models

Locating responsibility for: (1) Risk Identification (RI)
 (2) Analysis & Design (A&D)
 (3) Implementation (Imp)



When regulators recognize diversity in the regulated industry, they shift to model 2, delegating the *analysis and design* parts of the risk-control task. In other words, government still identifies the important risks but allows the community considerable flexibility in how they will control them. Eck and Eck (2012) refer to "ends-based" instruments. In the regulatory literature, this approach is usually called "performance-based" or "principle-based" regulation.

Delegation does not necessarily stop there. Large companies in highly technical arenas press for more control. They argue that it is they, not government, who knows their own business best and employs the best technical experts, and therefore, they are in a better position than government to identify the relevant risks. High-tech industries thus press for control of all three parts of the risk-control process: risk identification, analysis and design, and intervention. Model 3, where the regulated industry or community takes responsibility for all three, is called "self-regulation." Industry is basically relied on to run its own risk-management operation, and the role of government regulators changes significantly: Now they get to approve industry's risk-management plans up front, and subsequently they audit the operations of the risk-management system on a periodic basis to make sure the company is effective in identifying and controlling risks. They also should maintain their own independent audit and discovery systems so they can verify the truthfulness of the company's account regarding problems that develop and their success (or failure) in controlling them.

Model 4, "industry self-regulation," is a variant on model 3. Some industries, particularly those consisting of a large number of small companies, do not want the bother

of designing and running elaborate risk-control systems of their own. But they do not want government imposing burdensome and prescriptive rules either. So they club together and form an industry association, which they then rely on to identify risks common across the industry, analyze and design interventions palatable to the association's members, and issue requisite guidance and instruction. [One could conceivably imagine an association of bar owners, or of parking-lot management companies, playing a similar role with respect to the types of place-based risks discussed by Eck and Eck (2012).]

In the regulatory world, models 3 and 4 have become fashionable lately. The "better regulation" movement in Europe and throughout the Organization for Economic Co-Operation and Development countries incorporates an underlying ideological (and often political) preference for "light-touch, self-regulatory approaches." The advent of "safety management systems" in civil aviation throughout the world also delegates much more responsibility for risk identification and control down to the level of corporations (airlines, aircraft maintenance operations, and aircraft manufacturers), with aviation safety regulators focused increasingly on auditing the safety management systems of others, rather than on doing so much of the risk-management work themselves.

To prefer one or another of these structures on ideological or political grounds turns out to be a huge mistake. Each structure works well for specific types of risk and likely will fail if applied to the wrong sets of risks. The state of the art, in terms of regulatory design, is to begin to appreciate the need to operate multiple regulatory structures simultaneously, even with respect to the same industry but for different classes of risk.

Self-regulation (model 3) works well for risks (a) that are observable from the level of the corporation, (b) that the corporation would be happy to disclose if found, (c) that are within their capacity to control, and (d) where controlling the risk is closely aligned with their business interests. But that is a relatively small subset of risks, and arguably it is the subset likely to be best controlled already. Self-regulation is an unreliable approach for dealing with risks that would not be visible from a decentralized perspective (i.e., which require higher level analysis and monitoring), which they would not disclose or address responsibly (such as corruption on the board), or which are beyond their capacity or not in their interests to control.

The array of structural options gets more complex when two other factors are introduced. The first involves recognizing that any of these three crude phases of the risk-control process (identification, analysis and design, and implementation) can be shared rather than being placed unambiguously with government or the community. The second involves recognizing the multitiered jurisdictions that pertain to many regulatory tasks. Designing regulatory structures in Europe has been complicated substantially by the advent of the European Union as a regulatory superstructure. In the United States, most regulatory and law-enforcement tasks involve federal and state agencies, as well as city and local departments. These additional dimensions enlarge substantially the range of options as one considers *who* should be responsible for *what*.

In fact, as the range of structural options increases, this simple diagnostic device becomes more and more valuable as it provides considerable clarity. For any specific category of crime problems, it makes sense to ask, “for *this type* of problem, *who* should be responsible for *what*?” Who is best placed to identify emerging patterns and trends? Who has a vantage point at the right level—not too high and not too localized—and the relevant data or monitoring capabilities that will enable them to spot emerging trouble, of this type, in a timely fashion? Who is best placed to analyze and understand an emerging risk, and to propose suitably tailored interventions? Which parties within the community can be trusted to play their part because it is in their interests to do so, and which parties must simply be told what must be done and forced to comply (model 1) because their private interests relating to this type of risk simply do not align with public purposes? Also, which parts of the community should be consulted in the analysis and design phase because of the special insights they might have into the genesis or dynamics of specific crime problems?

Note that these questions have no right answer *in general*, as there is no single regulatory structure that is good for all risks. These questions have to be asked for each distinct set of risks and should lead to different arrangements in respect of different problems. That is part of what it means to master *risk-based* regulation.

The professional era of policing, in terms of the nature of the relationship between police and the community, most closely resembles model 1, *prescriptive regulation*. The community policing movement shifted the profession closer to model 2 and explicitly incorporates the notion of *co-production*, with responsibility shared between the police and the community for risk identification, prioritization, solution design, and delivery.⁷

Empowering communities to become crime-resistant and resilient in their own right may yet move crime control closer to model 3, *self-regulation*. We also might imagine that models 3 and 4 could help public policing develop constructive and appropriate relationships with a proliferation of private policing and security organizations. Where competent private organizations exist—such as security operations in an industrial park or housing complex, or university campus police departments—public police might end up assuming the role of overseers or auditors of someone else’s crime-management and safety plan. Police might take a similar approach to major trucking firms or coach companies in relation to traffic compliance and highway safety. As public policing seeks to make better sense of the growth of private policing, it might be useful to explore a more diverse set of structural relationships with private parties that could end up supporting and furthering the public risk-control task.

Recent experience among regulators suggests it is best not to prefer any one model. Rather, the considerable range of possibilities should be appreciated. Tailor the choices to specific classes of risk and recognize that any one group of actors can be your natural

7. For a broader regulatory view of the notion of coproduction, see Chapter 3, “Legal Compliance, Regulation, and Co-Production,” in Alford (2009).

and trustworthy allies in relation to one problem and yet can have diametrically opposed interests in relation to another.

Unfinished Business: The Maturing of Problem-Oriented Policing

A broader look across professional lines also might shed light on the nature of progress made to date in the development of problem-oriented policing. Regulatory agencies confront problems of many different shapes and sizes, and each regulatory profession tends to have its own tradition in terms of which shapes, or dimensions, it recognizes readily. Police have focused most naturally on *place-based* concentrations of crime—a tradition that stretches back before the advent of geographic information systems or computerized crime-mapping software, when “crime analysis” revolved around pin-maps on precinct commanders’ office walls.

Other regulatory professions have different traditions. Consumer product safety focuses most naturally on the risks associated with specific products (e.g., baby walkers, and the associated risk of toddlers in baby walkers tipping over and falling down stairways) or with specific categories of products that pose more generic dangers (e.g., plastic products made in China with unacceptably high lead-content levels).

Occupational safety regulators traditionally have focused on industry groups and categories of hazard that are concentrated within each industry group: for example, “falls from heights” and “trench cave ins” in the construction industry, “tractor rollovers” and “deaths in grain-handling” (asphyxiation of farm workers in grain silos) in farming, asbestosis in the roofing industry, lacerations to hands and forearms on poultry production lines, and so on.

Tax agencies tend to organize their compliance-management efforts around categories of taxpayers, which they call “market segments” (i.e., personal, small business, big business, and international business) and then around the methods of tax avoidance or evasion that exist within particular segments.

But all regulators discover, sooner or later, that risks come in many shapes, and whereas some align neatly with the existing organizational structures and well-practiced operational methods, most do not. The challenge, then, is to produce the flexibility and fluidity that enables the agency to organize itself differently for different types of risk and to do so without a series of wrenching reorganizations.

Nowhere is this challenge more acute than in environmental protection, as environmental risks come in so many different forms. Some pollution problems concern specific discharges from specific industrial facilities (and these fit nicely into traditional permitting programs, which are organized by media: air, water, and hazardous waste). But other environmental risks involve endangered species, or the arrival of exotic plants or animals that distort the equilibrium of native ecosystems. Some environmental problems are industry specific (e.g., heavy metals as a by-product of the printing industry, gypsum as a by-product of phosphorous extraction, excessive use of certain pesticides in citrus-farming, or the use of

mercury in dentistry). Some problems relate to topographical areas (air-basins or watersheds) where pollutants accumulate. Non-point-source pollution (like agricultural runoff) has to be monitored and managed in terms of watershed areas and permissible loadings in rivers and streams. Other problems relate to the loss of or danger to natural resources (wetlands, habitat, fish-stocks, or coral reefs). Other environmental risks—such as radon gas, lead paint, mold, and asbestos—appear in the home and have nothing to do with industrial facilities and not much to do with geography.

In learning about the multidimensional character of harms and exploring the organizational challenges of a problem-solving approach, the police profession enjoyed a substantial head start, thanks to Herman Goldstein. From the 1970s onward, Goldstein addressed explicitly the limitations of geographic and temporal analysis, and the profession's reliance on standardized tactics.⁸ He urged police to recognize the many other ways in which crime problems might be concentrated, pointing out that some involve repeat offenders whose crimes were dispersed geographically. Some crime patterns revolve around criminal enterprise or clashes between competing syndicates or gangs. Some involve specific classes of victims, even repeat victims, or patterns of antisocial behavior. Goldstein decried the narrowness of the “hot-spot” focus—even as that form of analysis migrated from pin-maps to the computer (Goldstein, 1990). Worse, he said, police have not only relied on one principal form of analysis, they have also relied heavily on one standard tactical response—*directed patrol*—to deal with any hot spots revealed by that analysis.

More than three decades since Goldstein began teaching the profession about the myriad varieties of crime patterns and the importance of generating creative and tailored responses, it is worth asking how much progress the profession has made in moving beyond “cops on dots” strategies. Many departments still rely on some type of Compstat process as their embodiment of the problem-solving method, and most Compstat systems retain (from the original New York City version) a heavy emphasis on reported crime statistics split first by precinct, and then by hot spots within each precinct.⁹ Even the latest idea to surface, *predictive policing*, seems to rest rather squarely on the idea that one can extrapolate from historical patterns to determine, in advance, *where* and *when* a crime is likely to occur (so police can *be there* with a view to preventing the crime or intervening during its commission.)

Even the scholarly champions of evidence-based policing, in their efforts to determine whether problem-oriented policing really works, seems to have ended up focused heavily on evaluating *place*-based intervention strategies. That might be because *that is what problem-oriented policing has become*, and therefore, these are the only types of problem-oriented

8. For one of his best known earlier works, see Goldstein (1979). His most comprehensive treatise on problem-oriented policing is presented in Goldstein (1990).

9. Sparrow (2009) provided a discussion of the relationship between Compstat processes and the broader notion of problem-oriented policing.

strategies widespread enough to be susceptible to systematic evaluation. For all the scholars and practitioners who have taken Goldstein's message to heart and tried to make it work in practice, this conclusion would be terribly disappointing and frustrating.

But it could be because place-based interventions are easier than other types of problem-based intervention to evaluate *with social science methods*. Perhaps place-based experiments are easier to design and conduct than experiments focusing on family-centered interventions, city-wide gang-intervention strategies, or strategies designed to protect repeat victims. Weisburd and colleagues, in their 2010 Campbell Systematic Review, surveyed 5,500 problem-oriented policing related articles and found only four randomized studies, all four of which involved place-based experiments (Weisburd, Telep, Hinkle, and Eck, 2010). Their study also located six quasi-experimental designs, and four of these also turned out to be place-based. The two designs that were not place-based involved treatments applied to probationers and parolees, respectively, who can presumably be obliged to conform to experimental protocols in ways that ordinary members of the public cannot.

Whatever the reason, it seems surprising and disappointing that the form of analysis and intervention that Goldstein decried, more than three decades ago, as narrow, particular, and limiting—that is, *place-based* analysis, followed by some version of *cops-on-dots* deployment—apparently remains to this day so utterly central both in operational policing and in scholarly inquiry.

With respect to the multidimensional nature of harms, I am not suggesting that other regulatory agencies have it any easier. They just have it *different*; and differences are both interesting and instructive. Regulatory agencies vary enormously in terms of the shapes and sizes of problems they naturally recognize and are accustomed to tackling.¹⁰ They also respond organizationally in different ways when problems come to light that do not fit their analytical and operational traditions. Some of them, particularly agencies of environmental protection, have wrestled for much longer and more explicitly with the challenges posed by pollution issues defined in different dimensions—no doubt because of the extraordinary range of problems they confront. Environmental agencies have at various times reorganized around the dimensions of the most pressing problems of the day. That just makes other problems *not fit*. At other times, they have constructed dedicated units for each different type of problem and have tried to run them all simultaneously, but that becomes expensive as the *types* of problem keep proliferating over time. More recently, many regulatory agencies are producing their own version of a problem-oriented approach, relying on fluid resource allocation and temporary risk-based project-teams, which can be formed and unformed as problems appear and get resolved, and without any change in the underlying organizational structure.

10. For a detailed discussion of the varying dimensionality of harms/problems and the implications for control strategies, see Chapter 4, "Defining Problems: Picking the Dimensions," in Sparrow (2008).

A Multitude of Opportunities

A richer conversation between law-enforcement and regulatory agencies could bring other benefits too. Some important harms straddle jurisdictional lines and require interagency cooperation. An obvious example is the issue of violence in the workplace, a substantial proportion of which stems from domestic disputes spilling over into the workplace. This issue clearly is a policing matter, but—insofar as it affects the safety of workers within their workplaces—it is an occupational safety concern as well. Collaboration between environmental agencies and police around the problem of toxic waste dumping by organized crime would certainly run more smoothly if these agencies became more aware of their similarities and a little less focused on their differing traditions.

The police profession also might gain from an examination of the different ways in which other regulators use science. The fields of environmental protection, food and drug safety, occupational safety and health, nuclear safety, and transportation safety are all deeply embedded in the natural sciences. Agencies employ significant numbers of highly educated scientists, with backgrounds in physical, chemical, biological, and engineering sciences. Given this strength in the natural sciences, these professions instinctively perform a detailed analysis of the mechanisms through which harms occur. A precise diagnosis of the problems, up front, leads naturally to highly targeted and specific interventions carefully designed to alter or interrupt precursor event sequences.

These natural-science-rich agencies then rely much less on social-scientific methods applied after the fact. They end up, therefore, with a different balance between natural science and social science support. They invest much more heavily in the diagnosis of problems up front, using the inquiry methods of the natural sciences, and they need much less, after the fact, in terms of program evaluation. They derive their confidence that specific interventions worked not so much from statistical analysis and controlled experiments, but instead from being able to study closely the mechanism of the harm and observe directly when they have sabotaged it successfully.

The police profession, as it seeks to advance its problem-solving expertise, might benefit from adjusting the ways in which they use scientific inquiry. Hopefully, police will become more careful and deliberate up front in diagnosing the precise nature of specific crime problems and fathoming the mechanisms through which they unfold, and a little less quick to assume that the answer lies in accepting or rejecting generic programs invented elsewhere.¹¹ Such a shift would lead the profession to ratchet up its investments in more versatile and sophisticated forms of crime analysis, in support of risk-based or problem-oriented policing.

The police profession has toiled unnecessarily because of its isolation. Joining a richer cross-professional discussion would accelerate its development. The profession does not need to invent everything for itself. Many other regulatory professions face equivalent

11. For a discussion of the differences between natural science and social science inquiry methods, as well as the appropriate mixture of these that is required to support modern policing, see Sparrow (2011).

pressures, share similar aspirations, wrestle with the same tensions and conflicts, and are exploring reform ideas perfectly applicable to policing. Hopefully this essay has touched on enough potentially fruitful areas to make the prospect of such broader discourse seem attractive and worthwhile.

References

- Alford, John. 2009. *Engaging Public Sector Clients: From Service-Delivery to Co-Production*. Basingstoke, U.K.: Palgrave MacMillan.
- Alford, John and Richard Speed. 2006. Client focus in regulatory agencies. *Public Management Review*, 8: 313–331.
- Eck, John E. and Emily B. Eck. 2012. Crime place and pollution: Expanding crime reduction options through a regulatory approach. *Criminology & Public Policy*. This issue.
- Frieburg, Arie. 2010. *The Tools of Regulation*. Sydney, Australia: Federation Press.
- Goldstein, Herman. 1979. Improving policing: A problem-oriented approach. *Crime & Delinquency*, 25: 236–258.
- Goldstein, Herman. 1990. *Problem-Oriented Policing*. New York: McGraw-Hill.
- Martinez, Marian Garcia, Andrew Fearne, Julie A. Caswell, and Spencer Henson. 2007. Co-regulation as a possible model for food safety governance: Opportunities for public-private partnerships. *Food Policy*, 32: 299–314.
- Sparrow, Malcolm K. 2000. *The Regulatory Craft: Controlling Risks, Solving Problems and Managing Compliance*. Washington, DC: Brookings Institution Press.
- Sparrow, Malcolm K. 2008. *The Character of Harms: Operational Challenges in Control*. Cambridge, U.K.: Cambridge University Press.
- Sparrow, Malcolm K. 2009. *One Week in Heron City: A Case Study*. Washington, DC: National Institute of Justice.
- Sparrow, Malcolm K. 2011. *Governing Science*. Washington, DC: National Institute of Justice.
- Weisburd, David, Cody W. Telep, Joshua C. Hinkle, and John E. Eck. 2010. Is problem-oriented policing effective in reducing crime and disorder? Findings from a Campbell Systematic Review. *Criminology & Public Policy*, 9: 139–172.

Malcolm K. Sparrow is Professor of the Practice of Public Management at Harvard's John F. Kennedy School of Government. He is Faculty Chair of the school's executive programs on regulation and enforcement. In March 2010 he was appointed by President Barack Obama to the Recovery Independent Advisory Panel, to advise the Recovery Board on protecting the integrity of the economic stimulus package. He previously served 10 years with the British Police Service, rising to the rank of Detective Chief Inspector. His research interests include regulatory and enforcement strategy, fraud control, corruption control, and operational risk management. He holds an MA in mathematics from Cambridge University, an MPA from the Kennedy School, and a PhD in Applied Mathematics from Kent University at Canterbury.

POLICY ESSAY

CRIME REDUCTION THROUGH A REGULATORY APPROACH

Crime Reduction

Responsibility, Regulation, and Research

Nick Tilley

University College London

Obesity, global warming, and crime are largely side effects of developments that most of us have welcomed. The ready availability of food in Western countries has resulted in few without enough to eat but in growing levels of obesity and the consequential health problems. The supply of affordable energy allows us to stay warm in winter and cool in the summer, and it fuels the cars that we enjoy driving, but it has contributed to global warming and the possible catastrophe that still awaits us. Technological developments have led to the widespread distribution of easily carried, expensive, and popular products such as cell phones, laptop computers, and Mp3 players, but these have comprised ideal targets of acquisitive crime. People opt to eat healthily or otherwise, people decide whether to drive a gas-guzzling vehicle, and people choose whether they will commit theft. But the supply of opportunities and temptations to eat too much of the wrong kind of food, to drive enjoyable but highly polluting vehicles, and to steal others' highly desirable property is important in producing destructive and unwanted patterns of behavior.

In relation specifically to crime, we have witnessed a proliferation of lightweight, expensive, and enjoyable consumer products not only that we want to buy but also that are good to steal (Clarke, 1999). We also seem to prefer self-service shops, albeit that they create ideal conditions for shop theft (Tilley, 2010). We like to cross borders with minimal impedance, albeit that this creates conditions that facilitate smuggling, drug trafficking, and people trafficking. We enjoy the convenience of cell phones, albeit that they can be used as resources for committing crimes and also comprise attractive crime targets (Harrington and Mayhew, 2001). We like to attend concerts and major sports events, albeit

The author thanks Graham Farrell, Gloria Laycock, and Aiden Sidebottom for useful comments on a previous version of this essay. Direct correspondence to Nick Tilley, Department of Security and Crime Science, University College London, 35 Tavistock Square, London WC1H 9EZ, U.K. (e-mail: n.tilley@ucl.ac.uk).

that they create helpful conditions for pick pocketing and ticket touting (Kurland, Johnson, and Tilley, 2010). We have welcomed the growth in opportunities for women to earn a living outside the home, albeit that this has improved opportunities for burglars (Felson, 2002). And so on. The notion of crime as an unintended and unwanted side effect of developments most of us benefit from, and from which a few profit handsomely, has led to the suggestion that we treat crime as a form of pollution (Farrell and Roman, 2006).

Issues of personal blame have attached more readily to those who engage in criminal acts than to those who overeat (who often are treated medically) or to those who engage in profligate individual energy consumption (for whom techniques of neutralization of the sort described by Sykes and Matza in 1957 are readily available and widely accepted). Some research efforts and some intervention strategies of course relate to the behavior of individual consumers, drivers, or offenders, but a key question in all these cases concerns the propriety and practicality of holding responsible those creating conditions with overall adverse unintended consequences because of the patterned choices they facilitate. Is it fair to ask grocers and their suppliers to accept some responsibility for the overconsumption of the food they supply and the costs of the ill health consequences? Is it fair to ask energy consumers to accept some responsibility for the pollution produced and the costs of dealing with it? Is it fair to ask those who are not themselves acting criminally but are unintentionally creating crime opportunities for others to bear the costs of preventing those others from acceding to temptation? Equally, is it fair for the rest of us to bear the costs of crimes, environmental degradation, and dietary-induced ill health where we have not produced the opportunities that lead to the behaviors creating them? In relation to crime, who should bear the costs of prevention, if we would rather prevent the crimes than absorb the costs of them once committed? Is it fair to expect those creating conditions liable to favor choices with unwanted adverse consequences to bear the costs of response and of prevention, and is it practicable to do so? And if it is reasonable and practicable for them to bear the costs, then what should they do and who should decide what they should do? It is these important questions as they relate to high-crime locations that Eck and Eck (2012) address in their important and challenging article in this issue of *Criminology & Public Policy*, to which this policy essay is a response.

The Principles and Practice of Polluter Payment

In relation to the environment, a “polluter pays” principle is often invoked. Those who stand to benefit from pollution are expected to bear the costs of the pollution. In the public interest, often they are regulated in ways that are designed to reduce their production of pollutants, albeit that this can be difficult in practice where the reach of regulatory bodies is confined to national borders and the source of the problem is transnational. Moreover, we should expect those who risk being held to account for the high social cost choices they facilitate to resist moves that might produce costs for them in particular. They are apt to challenge the causal processes that are alleged to produce the unwanted side effects

and to pass on the blame and costs to others. Those running coal-fired power stations and their suppliers, for example, have resisted the suggestion that their emissions kill lakes, destroy forests, or contribute to global warming, and they have challenged research findings that conclude that they produce these externalities. The narrative goes that if people eat too much of the wrong kind of food, that is their choice and their fault: No one made them eat it and were they to eat moderately, nothing untoward would happen. Likewise, if people drink too much, that is their responsibility, not that of the bar owner, retailer, or manufacturer of the alcoholic drinks. In relation to crime, no one makes people steal the goods they take; criminals steal and should be held responsible. Moreover, we pay taxes to fund a criminal justice system that is supposed to control crime and hold those who break laws to account when they do so. Where regulation is mooted, private-sector resistance also can be expected by those affected on the grounds that cost increases, a bureaucratic burden is imposed, free competition is inhibited, and the public can and should be able to decide whether to patronize the business: It is not for a nanny-like state to meddle. In the United States, in particular, by the standards of some other countries, the resistance to regulation in the interests of crime prevention as a social good can be extreme. This resistance is most obvious in relation to gun control. A panoply of reasons not to impose it have been used, from challenges to research findings suggesting that widespread ownership of guns has adverse consequences, to arguments that any misuse of guns is solely the responsibility of those misusing them, to the argument that regulation would be unconstitutional, to the suggestion that carrying guns prevents crime of the sort experienced during the British riots in August 2011 (see the NRA website for several examples of such arguments: nrarepublications.org/index.php/11688/london-burning/2/, Retrieved November 21, 2011).

A Car Crime Case Study

Strong evidence shows that the crime prevention benefits from private-sector efforts to reduce crime opportunities can be substantial. Car crime furnishes an instructive example of the potential for and the benefits that can accrue from persuading those creating conditions for crime choices to make changes that reduce opportunities. Car crime matters for various reasons. The losses to the victims comprise one set of costs. The costs of crimes facilitated by the availability of stolen cars comprise another. As a debut crime initiating a crime career, the criminality engendered by the ease of car crime may comprise a third (Svensson, 2002). Accidents occurring from dangerous driving by car thieves or from chases of stolen vehicles furnish a fourth source of cost. Finally, there are the costs to the criminal justice system in responding to victims, investigating crimes, and dealing with suspects. There is extensive fallout from car crime. Some of these costs accrue to individuals but many fall to the public purse.

The scope for preventing car crime through the criminal justice system seems to be limited. For each recorded theft from a car in England and Wales in 2002–2003, the chances

of someone being charged was 1 in 40, and for theft of a car, it was 1 in 12 (Tilley and Burrows, 2005). If the then recording rates are taken into account (81% for theft of a motor vehicle and 35% for theft from a vehicle; Simmons and Dodd, 2003), the chances of someone being charged for any particular offense were less than 1% for theft from a vehicle and 1 in 15 for theft of a vehicle.¹ Moreover, a charge does not, of course, necessarily lead to a conviction. Among the 2003 cohort of those who were sentenced for theft from vehicles, the 2-year reconviction rate was 84% and for theft of vehicles the corresponding reconviction rate was 75% (Shepherd and Whiting, 2006). Therefore, the chances of being caught and convicted are slim, and the consequences of being convicted do not seem to be effective in inhibiting future offending. Yet substantial evidence suggests that car crime can be and has been reduced by making parking lots less attractive to offenders and by designing cars in ways that make car crime more difficult or risky (Webb, 2005). The benefits from parking lots designed to inhibit crime and from the incorporation of well-designed security features into cars when they are manufactured are well established (Clarke and Mayhew, 1998; Farrell, Tseloni, and Tilley, 2011; Mayhew and Braun, 2004; Webb, 2005). Indeed, strong evidence shows that improvements in security have played a major part in producing the crime drop witnessed in many countries over the past couple of decades (Farrell, Tseloni, Mailley, and Tilley, 2011).

If we are interested in public policies that will reduce crime as an unwanted “polluting” by-product, the car crime example provides some useful pointers about the mechanisms that can be activated to persuade those in a position to act that they should do so. “Carrots,” “sticks,” and “sermons” are terms often used to describe the major families of policy instrument that can be used by governments to induce changes in policy and practice by third parties (Bemelmans-Videc, Rist, and Vedung, 2005). “Carrots” refer to benefits that can be offered as incentives for the behavior at issue. “Sticks” refer to regulations that force behavior on pain of a penalty in the event of failure. “Sermons” refer to exhortations to persuade relevant individuals and organizations that they should behave in the specified ways. Sticks, carrots, and sermons have all been used individually and in combination to elicit improvements in car security.

In Britain, an institutionalized carrot for parking lot proprietors has been a kite mark scheme that recognizes parking lots that reach specified security standards in the expectation that they will attract more paying users (Smith, Gregson, and Morgan, 2003). In Britain as well, “sermons” of varying kinds have been applied both to drivers and to manufacturers. Drivers have been encouraged to lock their cars and not to leave goods on display in the body of the car (Laycock and Tilley, 1995). Manufacturers have been encouraged to build greater security into cars that are at high risk of theft. Moreover, a sermon with associated carrots

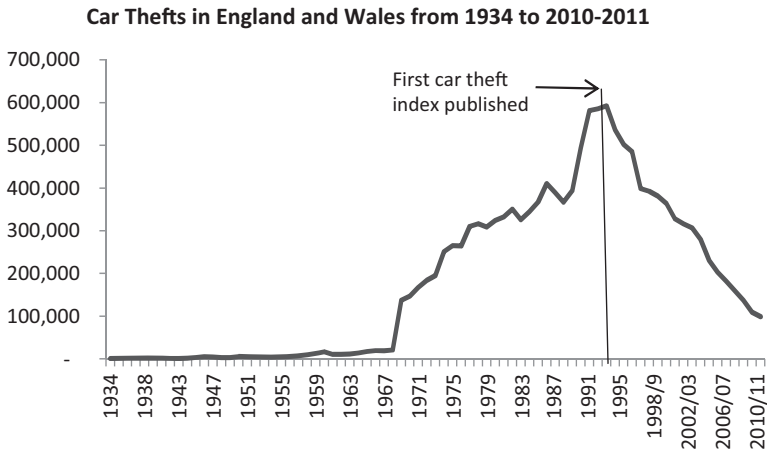
1. Of course, a prolific offender committing multiple offenses has an increased chance of being caught for one of the offenses she or he has committed. The probability of an offense leading to a charge is not the same as the probability of the offender being charged for an offense of the given type.

and sticks has been used to mobilize manufacturers to improve the security of vehicles at greatest risk of theft. The focus of this, the “Car Theft Index,” was rather different from that relating to most other sermons, sticks, and carrots in that it related not to the specific means that could be taken to reduce car theft but to the need to achieve the ends of reduced risk of car theft.

The original Car Theft Index was devised, developed, produced, and published by the then Police Research Group in the Home Office (Houghton, 1992), which is responsible among other things for policing and public safety in England and Wales. It followed early failed efforts to persuade car manufacturers to improve the security of vehicles (Laycock, 2004). It involved working out the variations in risk for car theft among different makes and models of car. It was complex to produce, involving decisions about ways of carving up the population of cars by make, model, and year. Too wide a set of classes and the index would not differentiate sufficiently between subsets of cars. Too narrow a set of classes would produce such small subsets that risk variations could not be calculated. Estimating the numbers of car thefts by model and finding the denominator for calculating rates was tricky, and it had to be defensible to avoid the risk that it would be discredited by interested parties. In the end, risk levels were divided into broad bands (red for 21 or more thefts per annum for every 1,000 cars on the road, amber for 4 to 21 per 1,000, and green for less than 4 per 1,000), rather than given precise numerical values that could be challenged easily.

The idea of publishing the Car Theft Index was to highlight to the public as car users (and as customers for cars) as well as to the manufacturers the variations of car theft risk, on the grounds that either manufacturers would be shamed into improving the security of the vehicles they produced (which was very low at the time for many models) and members of the public would use car theft risk as one of their considerations in deciding which model of car to buy. Thus, the Car Theft Index embodied a sermon (improve the security of the vehicles you produce) backed by a carrot (you can expect to sell more if you perform better in future Car Theft Indexes, and you can expect to sell fewer cars if you persist in producing cars at high risk of being stolen) and a stick (the possibility of regulation in the wings). It was entirely up to the manufacturers to work out what they could do to try to reduce the car theft risks faced by the cars they produced. They were given incentives, therefore, to concentrate their efforts where they were most needed: where theft risks were highest rather than necessarily across the board for all cars. They were also provided with incentives to work out what would be most effective rather than to adopt a particular measure, with unknown or only assumed effectiveness. The Car Theft Index enjoyed widespread publicity and was picked up both by newspapers and by consumer groups. In effect, the consumer was informed and thereby mobilized to put pressure on manufacturers to make their cars less vulnerable to theft.

Laycock (2004) credited the Car Theft Index for kick-starting a sustained and dramatic decrease in the numbers of car thefts in England and Wales at a time when the efficacy of

FIGURE 1

differing security measures was little understood, although the potential for a crime-free car had already been mooted (Southall and Ekblom, 1986). Following the development of a Security Impact Assessment Tool, more can now be said about the crime prevention effectiveness of different measures and combinations of measures in reducing car theft, and hence, advice can now be given more confidently about which measures might be most effective in dealing with what types of car crime (Farrell, Tseloni, and Tilley, 2011).

Figure 1 plots the numbers of car thefts in England and Wales from 1934 to 2010–2011. Since the publication of the Car Theft Index and its follow-ups, the last of which was published in 2006, the numbers of car thefts have fallen by 83% from a high of 592,660 in 1993 to 99,277 in 2010–2011. The production and publication of the Car Theft Index has been discontinued, presumably because it is no longer considered necessary.

A European Directive (95/56/EC) made immobilizers of a minimum standard mandatory for all European new cars from January 1997, and the proportion of the car fleet with them has obviously since grown with new cars replacing older ones on the road. Australia since 2001 and Canada since 2007 have similar requirements (Tilley, Farrell, Tseloni, and Mailley, 2009). These requirements comprise unequivocal regulatory sticks that require car manufacturers to install a specific security device of a specific standard to all new cars. In the United Kingdom, regulation may not have been needed given the attention evidently prompted to security by the strong sermon swept into the first Car Theft Index and its follow-ups, together with any consumer power it mobilized by alerting car buyers to the high car theft risks they faced if they drove particular models.

It is certainly not the case that the research findings about the apparent effectiveness of the Car Theft Index and of security devices that are fitted to cars are conclusive. Consider the following alternative hypotheses:

- Older cars are less valuable and, hence, are less valued by their owners who take less care to secure them.
- Older cars with poorer security tend to be driven by poorer people who live in poorer neighborhoods closer to the places where those tempted to steal cars tend to live and commit their crimes.
- Better off people, driving newer cars with more security devices, park their cars in relatively secure places, including garages close to their homes and secure underground car parks with controlled access, compared to poorer people, who drive older cars with fewer security devices and who have to leave their cars on the streets or in unguarded car parks.
- More cautious people tend to drive cars that are fitted with more and better security devices and to take other measures to reduce their car theft risk.
- Car theft has decreased alongside a range of other crimes for reasons that have nothing to do with levels of security but instead with broader social and economic changes of some kind.
- Car thefts may have decreased with the introduction of car security devices, but some have simply been displaced to other types of offense, most seriously, robberies involving motor cars that are not taken covertly from streets but at gun or knife point from their owners. The scale of the overall decrease and the different modus operandi, however, suggest little direct same-offender displacement.

Rival hypotheses that are easy to construct but difficult to test can be proposed to cast doubt on the following notions: (a) that improved security and (b) that the publication of the Car Theft Index's influence on manufacturer decisions to incorporate them were responsible for the observed falls in car theft. But none has yet been tested and shown that security devices are not important in producing the decrease in car crime, and it is, at least, a striking coincidence that the dramatic downward trend in England and Wales followed closely the publication of the first Car Theft Index.

Pawson (2006) attempted to explain the apparent effectiveness of the Car Theft Index as a sermon stimulating increased manufacturer attention to security. He discussed the Car Theft Index as one example of a "public disclosure initiative" (more commonly referred to as "naming and shaming"), where others have failed or produced maladaptive responses. The Car Theft Index, he suggested, succeeded in the long term because it was backed by a situation in which insurance companies were either refusing to insure high-risk vehicles or setting premiums so high that drivers were not prepared to pay them. What began as a sermon became an economic incentive, and as Pawson suggested, follow-on Car Theft Indexes became unimportant as stimuli to improved security and they have lapsed

accordingly. Furthermore, the Index findings were produced by Home Office researchers with no vested interests, so they were not easy to dismiss. Moreover, mass media attention to the findings made them impossible to ignore. Car manufacturers, including Ford and Vauxhall in particular as companies that came off worst at the time, also cared for their reputation and did not want to be stigmatized. All manufacturers might also have been concerned that failure to respond risked the imposition of regulations they would rather not risk. These conditions furnished a context for engendering manufacturer responsiveness to the calls for increased security to deal with what had become a major part of Britain's crime problem. In England and Wales, at its height, car crime made up 25% of all recorded crime incidents, but in 2010–2011, despite decreases in other volume crimes which contributed to the fall in numbers of crimes overall, it made up only 11%.

The Car Theft Index, and the attention it attracted, marked an acceptance by car manufacturers that they bear some responsibility for trying to prevent the criminogenic side effects of their products. Moreover, it accepted tacitly that the police and criminal justice system can contribute only so much to control car crime. The prevention of car crimes required a change on the part of those who can reduce the opportunities for the crime. Although not alone in being in a position to influence the conditions for car crime (car park proprietors, development planners, architects, and policy makers responsible for car registration comprise other important groups, as shown by Webb, 2005), they are in a strong position to build crime prevention into their products. Moreover, because of the focus on car theft rates rather than on any particular means of preventing them, manufacturers were motivated to focus on outcomes and on effective measures that were designed in (such as the distributed components of audio-systems) or could be applied by car users easily, thoughtlessly, and routinely, for example, the use of a single key that activates the electronic immobilizer, sets the car alarm, and locks the trunk and all doors.

An objection to efforts to improve security as a means of crime prevention is that it might simply displace it to softer targets. Indeed, this risk is real. An example is the switch to the theft of older cars when steering wheel locks that are activated automatically when the ignition key is removed were made compulsory for all new cars in Britain from 1971 (Mayhew, Clarke, Sturman, and Hough, 1976; Webb, 1994). This displacement was not produced in Germany, where such antitheft devices became compulsory for all cars from 1963 (Mayhew et al., 1976; Webb, 1994). The best evidence we have is that displacement is not an inevitable corollary of all improvements in security (Guerette and Bowers, 2009; Hesseling, 1994). One advantage of the Car Theft Index was that it provided incentives for all manufacturers to improve security, as none would want to be victims of any displacement that might follow from improvements to security among those most at risk of theft at any given point in time. An advantage of the German steering wheel lock strategy was that it avoided the creation of a readily available target population of cars for those whose thefts of new ones were thwarted.

Efforts have been made to construct a Phone Theft Index emulating the Car Theft Index to try to leverage cell phone makers and phone service providers to take some responsibility for designing and delivering their products and services in ways that reduce the crime risks associated with them (Farrell and Mailley, 2007; Mailley, Garcia, Whitehead, and Farrell, 2008). Although receiving some publicity, the Phone Theft Index has not so far garnered the governmental attention given to the Car Theft Index and the pressure thereby applied on those who might be competent to reduce crime opportunities. It may be that the kind of contextual conditions highlighted by Pawson (2006) as important in the impact of the Car Theft Index are not present for the Phone Theft Index as a device for motivating acceptance of responsibility for the crime consequences of the product and the need to search for ways of designing crime out of it. Moreover, built-in design solutions or measures that users can apply easily might be more difficult to devise; and the fact that providers of the phones and providers of the services are independent of one another allows either to suggest that the other take responsibility.

Public Policy and Strategies of Responsibilization

For crime prevention public policy, working out how to persuade those competent to prevent the crime fallout from otherwise welcome social developments is important. The strategy of spreading responsibility, however, faces several possible objections. As noted, it might seem to blame the blameless rather than the offenders themselves for crimes that are committed. It might risk loss of utility from otherwise welcomed developments that are out of proportion to the benefits gained by reducing their occasional crime side effects. It might create waste and unnecessary inconvenience, in which requirements to take precautions or build them in are made where there is no significant crime risk. It might be deemed unduly expensive, paternalistic, or intrusive in societies that attach a high value to freedom in general and to the free market in particular, with minimal state interference. It may seem to allow the criminal justice system in general and the police in particular to duck their responsibilities for crime control. Those asked to bear the costs, inconvenience, and risks of being held accountable for crimes they did not commit are liable to raise any or all of these objections if regulations are proposed requiring them to focus on crime prevention or to adopt specific crime prevention measures. Yet the costs of crime to victims, taxpayers, and communities can be substantial, and criminal justice agencies are not well placed to reduce the opportunities, temptations, and provocations that are side effects of many of the social and technical developments we otherwise welcome. Devising strategies that effectively and fairly persuade those who are in a position to reduce crime opportunities that they should do so, and working out what they might do to reduce them while continuing to provide the social utilities they create, provides a substantial agenda for policymakers, practitioners, and criminologists interested in crime prevention.

Eck and Eck (2012) focus on crime that is concentrated consistently by particular location, and they explore the scope for a regulatory approach relating to it. For local

governments, this is an important issue, for as we have seen, the scope for the police directly to control the conditions for crime is very limited. Indeed, where the police do contribute to effective prevention, it is generally through their ability to persuade those competent to act that they should do so. The local police have a variety of strategies of “responsibilization,” as David Garland described it (2000), at their disposal. Scott (2005) and Scott and Goldstein (2005) have outlined many of these strategies. They include the following, in increasing levels of pressure roughly going from gentle sermon through to heavy stick: “educating others regarding their responsibility for the problem,” “making a straightforward informal request of some entity to assume responsibility for a problem,” “making a targeted confrontational request of some entity to assume responsibility for a problem,” “engaging another service agency that has the capacity to help address the problem,” “pressing for the creation of a new organization to assume responsibility for the problem,” “shaming the delinquent entity by calling public attention to its failure to assume responsibility for the problem,” “withdrawing police services relating to certain aspects of the problem,” “charging fees for police services related to the problem,” “pressing for legislation mandating that entities take measures to prevent the problem,” and “bringing a civil action to compel entities to accept responsibility for the problem.” The “entities” referred to are almost exclusively place-based. The remit of the police and local government relates to specific place-related problems and the strategies available tend to focus on them. Product-based crime concentrations often call for strategies that are beyond the competence of local police agencies and local government, but the principle is just the same. In both cases, the costs to the public purse can be reduced and the effectiveness of prevention can be increased if third parties controlling the conditions for criminal behavior can be persuaded to accept some responsibility for their consequences, even where they are not themselves committing the crimes at issue.

The advantage of a local focus is that strategies that are particular to local conditions can be applied and that pressure can be targeted on those specific places that are producing the problems rather than applied across the board incurring costs in many places where there is no problem and from which reasonable resistance can be expected. One beauty of the Scott/Goldstein hierarchy of levers is that only that level that is needed to effect change is applied. The costs, hostilities, resistance, and even lawsuits that might be expected from more extreme pressure are avoided for most and reserved for the few who are most reluctant to accept responsibility. And even they may be more cooperative if they appreciate the heavier pressure and costs of resistance they face if they fail to fall into line.

Place-based responsibilization, however, does face some specific problems. Let us take a concrete example from Northern England (Johnson, 2005). Multiple calls were made over a sustained period to the police for crime and disorder in and around a small shop at the center of a housing project of 650 dwellings. The cost of items stolen from the shop reaches \$3,000 per month. In all, 60–80 complaints per month are made to the police and housing department. The alleyway at the back of the shop is used routinely for dumping waste material. The proprietors of the shop are recent immigrants. They suffer extensive

repeated racial abuse. The local population is almost exclusively White. The housing area is not popular with prospective tenants. Those remaining are vulnerable and elderly or younger and unable to find anywhere preferable to live. A strong gang culture exists among the largely unemployed local youth who are responsible for the harassment. This problem is place-based. It would not, however, be reasonable to responsabilize the retailer, even though the problems largely emanate from the location of the shop and the trade done there. The community incurs costs in terms of police and housing authority time in dealing with individual incidents, but the causes are complex and the consequence of effectively holding the retailer responsible would likely be the loss of an amenity on which vulnerable local residents are dependent. It is equally difficult to determine any single organization to responsabilize. The police certainly could not control the problem on their own. It is difficult to determine any single cause here or any single agency that could reasonably be held accountable. A partnership of the police, probation, local government, local housing provider, local schools, local newspaper, the fire service, and the Commission for Racial Equality devised a wide-ranging short-, medium-, and long-term strategy including area improvement, sustained enforcement, public shaming of the antisocial behavior, truancy sweeps, and revised housing allocation policies. Evidently, a rapid and sustained decrease occurred in the level of crime and antisocial behavior, and the shop became profitable allowing the services it provided to the community to be expanded. In this case, it is doubtful whether regulation and the responsabilization of the shop at the geographical center of the problem would be helpful.

In contrast, in other contexts, responsabilization and regulation could both be effective and could be employed in the interests of equity. If the situation is analogous to that described in relation to car theft, in that the community is paying a high price for dealing with the avoidable crime pollution from enterprises that are clearly profiting from their ways of working, then applying levers in the interests of responsabilization, with the threat of regulation in the event of recalcitrance, seems a plausible strategy. The examples given by Eck and Eck (2012) are consistent with this, in which the design and management of bars or car parks can be more or less criminogenic and the rest of us pay for the criminogenesis of those facilitating crime. Moreover, in these cases, there is a clear focus on the attachment of responsibility to a particular person or organization.

The example of car theft indicates some obvious benefits from focusing leverage and regulation on ends (decreasing crimes without specifying how) rather than means (establishing place-specific measures intended to reduce crimes). Except where we are clear on which means will work and where they are needed, across the board, means-based regulation risks being both ineffective and more costly than it needs to be by requiring action even where it is not needed. Means-based regulation might be defensible where there is evidence of effectiveness and where displacement may occur if it is applied by some but not by others. One claimed advantage of ends-based regulation is that it could stimulate an experimental and innovative agenda to find out what is effective. The risk is

T A B L E 1

High-Crime Location Attributes and Responsibilization Response Options

Sample High-Crime Locations

	Football Club	Supermarket	Local Shop	Bar	Parking Lot	Repeat Burglary Victim	Scrap Metal Yard	Music Store	Hospital	Car Maker
Location problems	Disorder around grounds after games	Theft from and by shoppers	Shoppers and workers harassed, damage and theft	Violence and disorder in and around bar	Theft of and from cars	Repeat burglary victim	Stolen metals received	Theft of CDs	Theft of hospital property, disorder, theft from patients and visitors	Theft of and from cars
Source causal attributability	High	High	Low	High	High	Low	Low	High	High	High
Frequency of offenses	High	High	High	High	High	High	High	High	High	High
Typical harm	Low	Low	High	High	Low	High	High	Low	Low	High
Seriousness of offenses										
Victim	Third party	Third party and self	Third party and self	Third party	Third party	Self	Third party	Third party and self	Third party and self	Third party
Preventative capacity of source	Low	High	Low	High	High	Low	High	High	High	High
Knowledge of preventative means	Low	High	Low	High	High	High	Low	High	Low	Low
Need for source service	Low	Low	High	Low	Low	N/A	High	Low	High	Low

(Continued)

T A B L E 1 (Continued)

Sample High-Crime Locations

	Football Club	Supermarket	Local Shop	Bar	Parking Lot	Repeat Burglary Victim	Scrap Metal Yard	Music Store	Hospital	Car Maker
Ease of crime measurement	Low	Low	Low	Low	Low	High	Low	High	Low	High
Potential for effective sermon	Low	High	Low	Low	Low	Low	Low	Low	Low	High
Potential for effective carrot	High	Low	High	Low	High	High	Low	High	High	High
Potential for effective stick	Low	Low	Low	High	Low	Low	High	High	Low	High

Responsibilization response options

that what is found effective will be used in the interests of competitive advantage and not made freely available for others to use. This price may be worth paying, and certainly, some evidence shows that crime prevention innovators do not always keep secret the results of their preventive efforts (Burrows, 1991).

Table 1 presents a small sample of specific high-crime locations. Crude as it is, it brings out variations in (a) the presenting crime problems, (b) the attributability of those problems to some particular source or agent who could be held responsible for preventing them, (c) the identities of the classes of victim and hence any attributable source's immediate interest in prevention, (d) the level of harm done and hence the social benefits from prevention as against the costs of providing it, (e) the dispensability of the services offered by the particular source (and hence the social costs of imposing costs or controls that could not be borne and hence might lead to withdrawal of service), and (f) the ease of robust and regular measurement of the attributable problems to check on their persistence and to assess the effectiveness of any preventive effort made. The final column lists equivalent features for car manufacturers and car crime, where the necessary context for moves toward regulation was evidently in place. Similar conditions favoring strategies of regulation might also be present for producers and distributors of other types of criminogenic product. But they might be less apt for the types of crime and high-crime location listed in Table 1. In these, measurement and causal attribution challenges, for example, would create substantial difficulties in developing and delivering fair, workable, and publicly acceptable regulatory crime prevention strategies. It is also worth pointing out that compared with unreformed, coal-fired power stations, which billow out a steady stream of sulfurous waste, typically substantial short-term fluctuations in crime occur in specific high-crime locations, which will make confident and difficult-to-contest estimates of success and failure in effecting controls much more difficult.

Eck and Eck's (2012) ideas might be most applicable to large crime-producing locations with consistent streams of crime and where the activities at the location are not socially indispensable, while being less practicable in relation to other types of high-crime location. Busy city center bars and large parking lots are probably good candidates for regulation, but there are still likely to be major measurement problems. Car parks, for example, can be described in multiple ways, and it can sometimes be difficult to distinguish parking on surrounding streets. Proprietors may be able to influence reports of incidents to their advantage. Dirty tricks by competitors may be expected if the system depends on relative performance. And denominators for rate calculations can be tricky and contestable.

Conclusion

The strategies presented by Eck and Eck (2012) are conceptually brilliant and deserve wide discussion. I have expressed some doubts here but hope they are misplaced. I suspect that regulation might be more fruitful in relation to products than places. With regard to places,

well-chosen sermons and carefully dispensed carrots may turn out to be a fairer and more realistic strategy of responsabilization to prevent crime where it is a side effect of the secular developments, products, and services that we mostly welcome.

For both places and products, there is encouraging indirect evidence from noncrime spheres. Architects do not start fires or earthquakes, toy manufacturers do not choke children, and food manufacturers do not intend to cultivate botulism; yet each is regulated in ways that encourage them to internalize known risks. Eck and Eck (2012) are emphatically correct in stressing that manipulating the conditions in which choices to commit crime are liable to be made is an underexplored and underused public policy and that a key to its implementation is to persuade those inadvertently creating crime opportunities to reduce them. And they are right to ask how this can be done.

The arguments set out in this policy essay and in Eck and Eck's (2012) article should not be taken to imply that deciding what to do about offenders is unimportant. What they do suggest in policy terms, however, is that if crime prevention is to be taken seriously at a local or national level, then attention needs to be directed at those conditions creating crime opportunities, even where these opportunities are by-products of goods and services with different purposes.

It would be helpful if some forward-looking local governments were to attempt to trial Eck and Eck's (2012) suggestions both in the interests of the safety of their citizens and in the interests of learning more about the potential of regulation for delivering effective place-based crime prevention.

Finally, the formulation of effective opportunity-reducing policies, whether focused on products or places, ordinarily will require analytic resources to identify persistent concentrations and to work through the conditions giving rise to them. This suggests an important role for criminologists in policy-related research. Successful policies will also depend on acceptance that it is legitimate to expect those producing crime opportunities to accept responsibility for doing something about them. This will sometimes be difficult. Objections will be lodged by those whose vested interests are threatened. Policymakers will need to be adept in the application of reasonable and effective levers to persuade those best placed to reduce crime opportunities. A key issue for researchers and practitioners, therefore, is to determine when and where different policy instruments can be applied most effectively and ethically.

References

- Bemelmans-Videc, Marie-Louise, Ray Rist, and Eric Vedung. 2005. *Carrots, Sticks and Sermons: Policy Instruments and their Evaluation*. New Brunswick, NJ: Transaction.
- Burrows, John. 1991. *Making Crime Prevention Pay: Initiatives from Business*. Crime Prevention Unit Paper 27. London, U.K.: Home Office.
- Clarke, Ronald V. 1999. *Hot Products: Understanding, Anticipating and Reducing Demand for Stolen Goods*. Police Research Series Paper 112. London, U.K.: Home Office.

- Clarke, Ronald V. and Pat Mayhew. 1998. Preventing crime in parking lots: What we know and what we need to know. In (Marcus Felson and Richard Peiser, eds.), *Reducing Crime Through Real Estate Development and Management*. Washington, DC: Urban Land Institute.
- Eck, John E. and Emily B. Eck. 2012. Crime place and pollution: Expanding crime reduction options through a regulatory approach. *Criminology & Public Policy*. This issue.
- Farrell, Graham and Jen Mailley. 2007. Phone alert: Mobile phone crime is increasing as thieves target the ever more valuable handsets. *Police Review*, 27: 30–31.
- Farrell, Graham and John Roman. 2006. Crime as pollution: Proposal for market-based incentives to reduce crime externalities. In (Mike Stephens and Kate Moss, eds.), *Crime Reduction and the Law*. London, U.K.: Routledge.
- Farrell, Graham, Andromachi Tseloni, Jen Mailley, and Nick Tilley. 2011. The crime drop and the security hypothesis. *Journal of Research in Crime and Delinquency*, 48: 147–175.
- Farrell, Graham, Andromachi Tseloni, and Nick Tilley. 2011. The effectiveness of vehicle security devices and their role in the crime drop. *Criminology & Criminal Justice*, 11: 21–35.
- Felson, Marcus. 2002. *Crime and Everyday Life*. Thousand Oaks CA: Sage.
- Garland, David. 2000. The culture of high crime societies. *British Journal of Criminology*, 40: 347–375.
- Guerette, Rob and Kate Bowers. 2009. Assessing the extent of crime displacement and diffusion of benefits: A systematic review of situational crime prevention evaluations. *Criminology*, 47: 1131–1368.
- Harrington, Victoria and Patricia Mayhew. 2001. *Mobile Phone Theft*. Home Office Research Study 235. London, U.K.: Home Office.
- Hesseling, Rene B. 1994. Displacement: A review of the empirical literature. In (Ronald V. Clarke, ed.), *Crime Prevention Studies*, Vol. 3. Monsey, NY: Criminal Justice Press.
- Houghton, George. 1992. *Car Theft in England and Wales: The Home Office Car Theft Index*. Crime Prevention Unit Paper 33. London, U.K.: Home Office.
- Johnson, Dave. 2005. *Return of the Happy Shopper*. Tilley Award Entry. Lancashire Constabulary, U.K.
- Kurland, Justin, Shane Johnson, and Nick Tilley. 2010. *Late Weekend Kick-Offs at Premier Football Matches and Their Possible Link to Increased Levels of Alcohol-Related Crime and Disorder*. Unpublished report to the Government Office for London, U.K.
- Laycock, Gloria. 2004. The UK Car Theft Index: An example of government leverage. In (Michael G. Maxfield and Ronald V. Clarke, eds.), *Understanding and Preventing Car Theft*. *Crime Prevention Studies*, Vol. 17. Monsey, NY: Criminal Justice Press.
- Laycock, Gloria and Nick Tilley. 1995. Implementing crime prevention. In Michael H. Tonry and David Farrington, eds.), *Building a Safer Society: Strategic Approaches to Crime Prevention*. *Crime and Justice*, Vol. 19. Chicago, IL: University of Chicago Press.
- Mailley, Jen, Roni Garcia, Shaun Whitehead, and Graham Farrell. 2008. Phone Theft Index. *Security Journal*, 21: 212–227.

-
- Mayhew, Patricia and Greg Braun. 2004. Parking lot security. In (Michael G. Maxfield and Ronald V. Clarke, eds.), *Understanding and Preventing Car Theft. Crime Prevention Studies*, Vol. 17. Monsey, NY: Criminal Justice Press.
- Mayhew, Patricia, Ronald V. Clarke, Andrew Sturman, and J. Mike Hough. 1976. *Crime as Opportunity*. Home Office Research Study 34. London, U.K.: Her Majesty's Stationery Office.
- Pawson, Ray. 2006. *Evidence-Based Policy*. London, U.K.: Sage.
- Scott, Michael S. 2005. Shifting and sharing police responsibility to address public safety issues. In (Nick Tilley, ed.), *Handbook of Crime Prevention and Community Safety*. Cullompton, Devon, U.K.: Willan.
- Scott, Michael S. and Herman Goldstein. 2005. *Shifting and Sharing Responsibility for Public Safety Problems*. Problem-Oriented Guides for Police Response Guide Series No. 3. Washington, DC: Department of Justice Office of Community-Oriented Policing Services.
- Shepherd, Adrian and Elizabeth Whiting. 2006. *Reoffending of Adults: Results from the 2003 Cohort*. Home Office Statistical Bulletin 20/06. London, U.K.: Home Office.
- Simmons, Jon and Tricia Dodd. 2003. *Crime in England and Wales 2002/2003*. Home Office Statistical Bulletin 07/03. London, U.K.: Home Office.
- Smith, David, Mick Gregson, and James Morgan. 2003. *Between the Lines: An Evaluation of the Secured Car Park Award Scheme*. Home Office Research Study 266. London, U.K.: Home Office.
- Southall, Dean and Paul Ekblom. 1986. *Designing for Car Security: Toward a Crime Free Car*. Crime Prevention Unit Paper 4. London, U.K.: Home Office.
- Svensson, Robert. 2002. Strategic offences in the criminal career context. *British Journal of Criminology*, 42: 395–411.
- Sykes, Gresham M. and David Matza. 1957. Techniques of neutralisation. *American Sociological Review*, 22: 664–670.
- Tilley, Nick. 2010. Shoplifting. In (Fiona Brookman, Mike Maguire, Harriet Pierpoint, and Trevor Bennett, eds.), *Contemporary Forms of Crime: Patterns, Explanations and Responses*. Cullompton, Devon, U.K.: Willan.
- Tilley, Nick and John Burrows. 2005. *An Overview of Attrition Patterns*. Home Office Online Report 45/05. London, U.K.: Home Office.
- Tilley, Nick, Graham Farrell, Andromachi Tseloni, and Jen Mailley. 2009. *Curbing Vehicle Theft Beyond the United States*. Report for Rutgers University and the National Highway Traffic Safety Administration.
- Webb, Barry. 1994. Steering columns locks and motor vehicle thefts: Evaluations from three countries. In (Ronald V. Clarke, ed.), *Crime Prevention Studies*, Vol. 2. Monsey, NY: Criminal Justice Press.
- Webb, Barry. 2005. Preventing vehicle crime. In (Nick Tilley, ed.), *Handbook of Crime Prevention and Community Safety*. Cullompton, Devon, U.K.: Willan.
-

Nick Tilley is Director of the Security Science Doctoral Research Training Centre (SECRéT) at University College London. He is also Emeritus Professor of Sociology at Nottingham Trent University. His research interests lie in policing, crime prevention and program evaluation methodology. He has published 13 books, most recently *The Reasoning Criminal: Essays in Honour of Ronald V. Clarke* (Routledge, 2012, edited with Graham Farrell), and around 150 research reports, papers in journals and chapters in edited collections.

EDITORIAL INTRODUCTION

ASSESSING THE EARNED DISCHARGE PILOT PROJECT

Evidence-Based Policy and the Politics of Criminal Justice Reform

Heather Schoenfeld

The Ohio State University

Across the country, declining revenue and a new political rhetoric of fiscal austerity are forcing state officials to reassess their budget priorities. In the recent past, economic downturns brought similar soul searching, often resulting in cuts to programs deemed nonvital to states' "core mission" to protect people from violent crime (Beckett, 1997; Feeley, 2003). Although governors today still talk of cuts to social services, healthcare, and education, for the first time in 20 years, some of them are (sometimes quietly) looking for ways to trim the outsized scale and cost of incarceration. In California, the effort to reduce the prison population is further motivated by a federal court order resulting from unconstitutional overcrowding and inadequate medical care in the state's prisons.

In a parallel development, over the past decade, criminologists, criminal justice professionals, private foundations, and research centers have coalesced around "evidence-based" practice as a standard for crime control and criminal justice initiatives. Begun as a movement in the medical field, evidence-based practice fits well within tightening financial constraints, the emphasis on risk reduction, and increased managerialism (Traynor, 2002). Questions aside (Rycroft-Malone et al., 2004; Lin, 2012, this issue), the promise of evidence-based practice in the crime control field aligns with public officials' desire to reallocate scarce resources while complying with taxpayers' demands for accountability. Consequently, governors and corrections administrators have turned to quasi-public, "evidence-based" research centers to design and evaluate programs that can reduce corrections costs while maintaining public safety.

Direct correspondence to Heather Schoenfeld, Department of Sociology, 115 Townshend Hall, 1885 Neil Ave., Columbus, OH 43210 (e-mail: schoenfeld.25@osu.edu).

In turn, as evidence-based practice becomes accepted as a legitimate basis for policy, it gives reformers a potential end run around the usual politics of crime control policy. As stated on the webpage of the University of California Irvine Center for Evidence-Based Corrections, “*In an effort to put science before politics* when managing state correctional populations, [the Center] taps the research power of the University of California to evaluate juvenile and adult prison programs . . . and provide information that helps corrections officials make policy decisions based on scientific evidence” (ucicorrections.seweb.uci.edu, para. 1, emphasis added). The following research article, by Smith, Omori, Turner, and Jannetta (2012, this issue) tells the story of one such effort. By moving us past a conversation about “what works,” Smith et al. provide a case study of the failed implementation of an evidence-based program meant to reduce recidivism and returns to prison. As it chronicles the “pitfalls besetting would-be reformers” (Campbell, 2012, this issue), the study contributes to a desperately needed discussion of “how will it work?”—a topic usually neglected in criminological research (Lin, 2012).

The research evaluates the implementation of a pilot Earned Discharge (ED) program rolled out by the California Division of Adult Parole Operations. The program was designed to target low-risk parolees (through a risk assessment tool) and give them the opportunity to earn their way off parole in 6 months, rather than the currently required 1 year. As parole revocations are a main source of input into the corrections system, ED promised to lower prison admissions and recidivism of the low-risk group, while shifting resources to improve monitoring of higher risk parolees.

Smith et al. (2012) find that the ED program failed to be implemented as designed for three main reasons. First, the political position of corrections bureaucracies compelled parole administrators to downgrade the pilot to a “simulation” when law enforcement and local politicians raised objections. Second, the organization of the parole agency hampered clear communication of the program goals, procedures, and workload. And third, the input of multiple stakeholders compromised program integrity. Most significantly, the parole officers charged with screening parolees for the program did not trust the risk assessment tool. Consequently, Smith et al. find that had the program been implemented, it would have impacted very few parolees, thus having a negligible effect on prison admissions or resources.

Lin (2012) proposes conceptual categories that further help explain the implementation failure. In short, he argues that ED threatened to harm the workload and reputations of key stakeholders. Lin points out that if policy changes *can be presented as a threat to public safety*, they are bound to lose the support of law enforcement, politicians, and the community. Campbell (2012) explains why ED could be perceived as such, despite its predicted negligible effect on crime rates. He notes how decades of highly politicized crime policy have created a “zero sum” view where any policy that can be construed as good for offenders is necessarily bad for public safety. Furthermore, he adds, politicians and law

enforcement have a unique platform to make this claim, whereas those who support reform (bureaucrats and communities most impacted by crime and incarceration) are institutionally constrained (Miller, 2008).

In light of Smith et al.'s (2012) findings, the question of policy recommendations seems better posed as *political* queries. Contrary to the hope of the evidence-based movement, circumventing the politics of crime policy will require more than science. Reformers need to ask who will package new programs as beneficial for the public? How can programs be incentivized for would-be naysayers? And what political coalitions can rally to the support of programs when challenged? In addition, the failed implementation of ED speaks to the entrenchment of a "culture of control" in both politics and criminal justice agencies (Garland, 2001). Since the early 1990s, everyone from politicians to parole officers has developed new assumptions, rationales, and goals based on the management and surveillance of offenders (Feeley and Simon, 1992). Evidence-based programs that challenge this orientation will need to take on not only political culture but organizational culture as well.

References

- Beckett, Katherine. 1997. *Making Crime Pay: Law and Order in Contemporary American Politics*. New York: Oxford University Press.
- Campbell, Michael C. 2012. Perpetual "crisis" and the dysfunctional politics of corrections in California. *Criminology & Public Policy*. This issue.
- Feeley, Malcolm. 2003. Crime, social order and the rise of neo-conservative politics. *Theoretical Criminology*, 7:111–130.
- Feeley, Malcolm M. and Jonathan Simon. 1992. The new penology: Notes on the emerging strategy of corrections and its implications. *Criminology*, 30: 449–474.
- Garland, David. 2001. *Culture of Control: Crime and Social Order in Contemporary Society*. Chicago, IL: University of Chicago Press.
- Lin, Jeffrey. 2012. Resisting "evidence" in challenging correctional environments. *Criminology & Public Policy*. This issue.
- Miller, Lisa L. 2008. *The Perils of Federalism: Race, Poverty, and the Politics of Crime Control*. Oxford, U.K.: Oxford University Press.
- Rycroft-Malone, Jo, Kate Seers, Angie Titchen, Gill Harvey, Alison Kitson, and Brendan McCormack. 2004. What counts as evidence in evidence-based practice. *Journal of Advanced Nursing*, 47: 81–90.
- Smith, Sarah M., Marisa K. Omori, Susan F. Turner, and Jesse Jannetta. 2012. Assessing the earned discharge pilot project: The importance of context, capacity, and content. *Criminology & Public Policy*. This issue.
- Traynor M. 2002. The oil crisis, risk and evidence-based practice. *Nursing Inquiry*, 9: 162–169.

Heather Schoenfeld is an assistant professor of sociology at the Ohio State University. Her research on the historical, political, and racial antecedents of mass incarceration in the United States most recently appeared in *Law & Society Review*. She is currently working on a book that investigates the politics of prison growth in Florida over the second half of the 20th century.

EXECUTIVE SUMMARY

ASSESSING THE EARNED DISCHARGE PILOT PROJECT

Overview of: “Assessing the Earned Discharge Pilot Project: The Importance of Context, Capacity, and Content”

Sarah M. Smith

Marisa K. Omori

Susan F. Turner

University of California, Irvine

Jesse Jannetta

Urban Institute

Research Summary

Largely as a result of punitive measures passed in the 1980s and 1990s, prison and parole populations have soared across the United States. California’s policies are reflective of these tendencies, and as a result, the state has experienced especially acute crises in parole and prison operations. The Earned Discharge pilot program was introduced in 2007 in an effort to improve parolees’ outcomes by incentivizing early release for low-risk offenders performing well on parole, and reallocating resources from these parolees to higher-risk parolees. To accomplish this goal, the pilot used a risk-assessment instrument to screen for nonviolent, low-risk offenders, and a case review process to further identify ideal candidates. However, the pilot program faced several obstacles and was downgraded to a simulation exercise. The implementation analysis found that the most salient of these obstacles were:

- *a challenging political “context,” which created barriers to adopting an Earned Discharge program in concordance with evidence-based standards.*
- *parole administration’s limited “capacity” to provide strong leadership, and problems achieving agency-level coordination.*
- *lack of stakeholder buy-in related to the “content” of the Earned Discharge Program and the translation of initial program concepts into practice.*

Policy Implications

Analysis of the Earned Discharge program implementation highlighted a number of barriers to nonpunitive criminal justice innovations. These barriers must be overcome in order to implement programs whose principles are supported by scientific research. The results of the Earned Discharge program simulation suggest that, due to program design changes based on political exigencies, few benefits would be achieved by the program even if it had been fully implemented. Such interventions must overcome the political difficulties involved in reducing punitive control of some low-level, but politically unpopular groups, such as gang members and sex offenders. Buy-in from prosecutors and other local politicians and crime control agents, who have little incentive to support such programs, must be achieved. Parole agency coordination and leadership should also be strengthened in order to instill confidence in the agency's ability to provide program integrity.

Keywords

implementation, parole, early release, political, incentive

RESEARCH ARTICLE

ASSESSING THE EARNED DISCHARGE PILOT PROJECT

Assessing the earned discharge pilot project: The Importance of Context, Capacity, and Content

Sarah M. Smith

Marisa K. Omori

Susan F. Turner

University of California, Irvine

Jesse Jannetta

Urban Institute

Largely as a result of punitive measures passed in the 1980s and 1990s, the United States has experienced a dramatic increase in prison populations over the past three decades. Parole populations also have soared, stressing the level of supervision and resources parole agents can provide to parolees. California, where prison overcrowding has resulted in a court order stipulating a reduction of tens of thousands of inmates, might be the state most impacted by these trends. California's correctional system is plagued by what many experts call a "counterproductive" parole system that causes growth to the prison population (*Coleman v. Schwarzenegger*, 2009: 181), and recent statewide budget deficits have resulted in reduced funds to corrections, exacerbating the problems faced by the state's prison and parole agencies (*Coleman v. Schwarzenegger*, 2009; Dickey, 1996).

California's parole system, managed by the Division of Parole Operations (DAPO) within the California Department of Corrections and Rehabilitation (CDCR), is unique from other states in several ways. Nearly all inmates released from California prisons are placed under mandatory parole supervision for 3 years regardless of their crime, individual needs, and risk (Petersilia, 2007b; Petersilia and Weisberg, 2006; Travis and Lawrence,

This research was supported in part by the Center for Evidence-Based Corrections contract with the California Department of Corrections and Rehabilitation. We thank staff from the Division of Adult Parole Operations and the Adult Research Branch for their support. We also would like to acknowledge Heather Schoenfeld and three anonymous reviewers for their helpful comments. Sarah M. Smith and Marisa K. Omori contributed equally to this article. Direct correspondence to Sarah M. Smith, Department of Criminology, Law & Society, University of California, Irvine, 2340 Social Ecology II, Irvine, CA 92697 (e-mail: sarahms@uci.edu).

2002; Warren, Gelb, Horowitz, and Riordan, 2008). The result is a large population at risk of reentering prison by revocation of parole. Additionally, these individuals are more likely to be revoked given law enforcement's ability to search parolees without probable cause (Travis and Petersilia, 2001). When parolees are returned to prison for a parole violation, they are still required to serve the remaining time on parole after their prison time (Travis, 2003). These policies create large prison and parole populations, as offenders "churn" in and out of prison in a cyclical fashion (Petersilia and Weisberg, 2006). In fact, revoked parolees account for a greater proportion of California prison admissions than do individuals with new felony convictions, and 30% of individuals admitted to California prisons with new felony convictions were on parole at the time (CDCR, 2010a). This situation has contributed to such extreme overcrowding in California's prisons that the prison health care system was placed under receivership, and a three-judge panel was appointed in 2007 to address the situation (*Coleman v. Schwarzenegger*, 2009). The panel ordered the state to reduce its prison population by approximately 46,000 through institution of parole reform and establishment of evidence-based programming. Some reductions were made but not enough to bring the state into compliance with the order, resulting in a U.S. Supreme Court ruling in May 2011 to reduce populations by approximately 33,000 within 2 years (Savage, 2010; Sherman, 2011; Stanton, 2009; Thompson, 2010).

Reform efforts to address this situation began in earnest in 2007 with the introduction of Governor Schwarzenegger's Rehabilitation Strike Team, which was a multipronged effort to reduce prison overcrowding and to target correctional resources. Jointly designed by the Strike Team and DAPO, the Earned Discharge pilot project was one program in this effort. Earned Discharge focused on standardizing parole by using an evidence-based decision-making instrument to help relieve the burden of high caseloads on parole agents. Parolees who were nonviolent offenders were to be offered a contract with behavioral incentives to abide by parole restrictions and "earn" their way off parole early, reducing the parole population and, ultimately, prison populations (CDCR Expert Panel on Adult Offender Reentry and Recidivism Reduction Programs, 2007; Governor Schwarzenegger's Rehabilitation Strike Team Report, 2007; Petersilia, 2007a, 2007b; Travis and Petersilia, 2001). The pilot program was tasked with identifying eligible parolees for Earned Discharge based on their parole supervision level, offense, and projected risk to recidivate, as well as on indicators of parole performance associated with successful reentry, including residential factors, employment, and drug history. According to the original pilot model, parolees who met the screening criteria and maintained parole-performance measures laid out in the contract would be released from parole at 6 months rather than at the previous minimum of 1 year unless parole agents or supervisors decided to use an administrative "override" to keep the individual on parole.

In the course of its implementation, however, the Earned Discharge pilot project faced strong resistance and eventually was modified from a live pilot to a simulation in which parolees were still screened for eligibility but not actually released early from

parole. In fact, only a few months passed between the initiation of the parolee screening process and the transformation of the pilot into a simulation. The pilot also excluded the behavioral contract idea, instead focusing on the screening process. Moreover, the number of parolees ultimately recommended for early release in the simulation was a small fraction of the initial parolee population because of strict eligibility criteria, multiple screening points, and high use of administrative overrides to recommend individuals be retained on parole. Given the difficulties surrounding implementation, understanding the context of the Earned Discharge pilot is as important as analyzing the outcomes of the simulation. Thus, the purpose of this article is to analyze the problems confronted in the implementation of the Earned Discharge pilot program, to assess the potential impact of the program had it been implemented, and to discuss how implementation of criminal justice programs might be improved in the future. The starting point of the analysis is the implementation perspective, which emphasizes “postadoption events” or the “actions and strategies” of those who transform the program into practice after it is determined. Ellickson and Petersilia (1983) adapted this perspective to respond to criminal justice interventions in particular. They identified innovation characteristics, the organizational capacity to translate the innovation into practice, and external factors such as local support as integral for successful implementation.

By presenting a case study of an unsuccessful program implementation, this article expands on these factors of implementation and emphasizes the interplay between them, identifying a typology of *context*, *capacity*, and *content*. Specifically, the implementation of the program was hindered severely by problems related to the political and institutional *context* of the pilot, particularly the lack of local law enforcement support of the pilot and the unwillingness to broach politically sensitive issues relating to sex offenders. The inability of DAPO to mobilize support was related to its *capacity* to provide strong leadership and to communicate clearly the goals of Earned Discharge to parole agents and law enforcement stakeholders. Confusion over the program processes and disagreement about the *content* of the program itself contributed to the lack of stakeholder support and the eventual failure of the implementation. These issues, their impact on current and future corrections reforms, and strategies for attending to the context, capacity, and content of program implementation are discussed next.

Implementation Studies

Along with recent trends in correctional rehabilitation and the literature assessing new correctional programs, attention has focused increasingly on the implementation of these programs. Many of these implementation studies are framed in the correctional rehabilitation literature as an extension of determining “what works.” Some of this research has suggested frameworks for implementation analyses. As a 20-year follow-up on a meta-analysis by Gendreau and Andrews (1979), the researchers identified an elaborated typology of four areas of assessment in implementation studies (Gendreau, Goggin, and Smith,

1999). This typology includes general organizational factors such as bureaucratic structure, features of the program itself, the person responsible for initiating the program, and the staff who deliver the program. Similarly, Fixsen, Blase, Naoom, and Wallace (2009) proposed a theoretical model that viewed the “core components of implementation” as integrated factors that influence successful “science to service” program delivery. Their model included factors such as staff selection, training, ongoing coaching and consultation, staff evaluation, and systems interventions.

Alternatively, factors determining “what works” for successful implementation also can be subsumed into broader conceptual categories. In a RAND (Ellickson and Petersilia, 1983) study of program implementation in the criminal justice system, the authors identified four broad categories of factors affecting implementation: the characteristics of the innovation, characteristics of the adopting organization, organization’s choice of implementing strategies, and characteristics of the external environment. These four categories are broader and more inclusive than some of these later studies, and in particular, they include both the quality of the program as well as the external environment.

“Characteristics of the innovation” identifies the clarity of goals and procedures, benefits and costs, and scope of the change as integral to successful innovations. They indicate that the goals and procedures of the innovation must be clear, the benefits must be clear and outweigh the costs, and the scope of the change must be limited appropriately (Ellickson and Petersilia, 1983). Thus, “failure of concept” could be as simple as well-intentioned reformers “fundamentally misunderstanding the nature of the problem they are trying to address” (Berman and Fox, 2010: 6). For example, Berman and Fox (2010) described how an innovative program designed to combat the high homicide rate in St. Louis by using community referrals to seize firearms modified its original tactic from only obtaining firearms to arresting offenders instead. This program virtually stopped the referrals, and although this was discontinued in a third iteration of the program, the police relied on internal police tips instead of referrals. These lack of referrals, however, undermined the legitimacy of the program to the community, and without a strong community partner, the program was discontinued.

Much research has been dedicated to both organizational characteristics and the organization’s strategies for implementing a program. This model considers reasons for adoption, leadership support, resources, frequent and regular communication, staff training, and adaptive planning as some factors in these categories. Program implementation guides have indicated that aside from resources, “institutional will” often is viewed as the most important step to successful programs (Anglin and Maugh, 1992; Taxman, Young, Byrne, Holsinger, and Anspach, 2002). Securing the necessary support is complicated when a program is shared by multiple organizations that might have conflicting goals, which occur often in criminal justice interventions such as reentry programs and in parole (Ellickson and Petersilia, 1983; La Vigne, Lawrence, Kachnowski, Naser, and Schaffer, 2002; Taxman et al., 2002). In addition to communicating goals clearly, one way this can be ameliorated

is to have institutionalized system-wide coordination, such as a staff member dedicated to reaching out to all partners (La Vigne et al., 2002; Taxman et al., 2002).

Finally, the RAND (Ellickson and Petersilia, 1983) model considered the characteristics of the external environment. Yanow (1987) stressed that implementing agencies act within a context of the culture of a specific policy issue including the interpretations of and beliefs about that issue, by both those in the organizations responsible for implementation as well as the general public. This finding might be particularly important in criminal justice interventions because crime issues often trigger strong public responses and are politicized. Gaining support from community members and local agencies can be difficult, particularly when the political climate is unfavorable to such changes. Research has highlighted the importance of creating community ties and support—programs that deal with offenders on parole supervision should be cognizant of these issues (Harrell and Bryer, 1998).

A criticism of implementation studies based on the “what works” literature is that they represent a return to “top-down” approaches to implementation analysis, in which researchers assume that decisions are made at an administrative level and follow a strict hierarchy down to line staff, who have little discretion in their positions (Barrett, 2004). In these studies, the failures of implementation are assumed to be a result of a lack of clear policy objectives or unclear communication between the various actors and agencies involved. These top-down implementation analyses do not take into consideration situations in which multiple actors might have decision-making authority and structures that are not clearly hierarchical. For example, parole agents have considerable discretion over how they deal with individuals on their caseload.

Some implementation researchers, particularly within correctional treatment, therefore advocate for “bottom-up” and integrated approaches (Barrett, 2004), which start from the premise that implementation does not necessarily follow a strict hierarchy in which policymakers are assumed to have control over the processes that affect implementation (Elmore, 1979–1980). Instead, bottom-up methods explore the “negotiated order” of power, relationships, and interactions between the actors and agencies involved (Barrett, 2004). The role of agency culture, in which individual people and groups in the organization have shared meanings and interpretations of a policy, also takes on an important role in the implementation process (Yanow, 1987). One early analytical approach proposed by Elmore (1979–1980) was “backward mapping.” By starting with the end goal of each level of an innovation, backward mapping determines the most direct path for affecting the intended result at each level and thus identifies policy objectives in a backward, but more targeted, fashion. Success is conditional on the ability of changes at each level to influence other levels and the relative agency individuals may have in respect to the organization’s larger goals.

We build from Ellickson and Petersilia’s (1983) identification of factors affecting an innovation’s success, which the authors developed in the context of the criminal justice system. We conceptualize these issues in this case as the political and institutional *context*, the *capacity* of DAPO to lead and execute Earned Discharge, and the *content* of the program

itself. We consider also how the factors in each of these categories impact each other, and thus, we conceptualize a more fluid model of implementation. Second, we take Barrett's (2004) suggestion seriously and propose an integrated model that includes both structural barriers and individual-level factors such as the views of "street-level bureaucrats" that led to the failure of the Earned Discharge program.

Introducing Risk and Rewards into Parole

Earned Discharge was based on the idea of reintroducing an incentive-based parole system to low-risk offenders. Both the concept for "earning" early discharge from parole, as well as the screening criteria for Earned Discharge, were drawn initially from the "what works" correctional literature (Petersilia, 2007a). Although few studies have been published specifically studying parolees' responses to the use of a shortened parole period as an incentive, both social-psychological and criminological literature support the effectiveness of rewards for positive behavior in correctional populations. Behavioral treatment programs that emphasize rewards (often with a written contract) have been shown to be effective in reducing recidivism, although many have argued that a cognitive model or a hybrid cognitive-behavioral model show even greater results (Cullen, 2004; Cullen and Gendreau, 2000; for meta-analyses, see Andrews et al., 1990; Aos, Miller, and Drake, 2006; MacKenzie, 2000; or Pearson, Lipton, Cleland, and Yee, 2002). Studies have supported the use of parole boards for discretionary release as an effective incentive for positive behavior while incarcerated, although impacts on long-term recidivism seem to be mixed (Proctor and Pease, 2000; Solomon, Kachnowski, and Bhati, 2005).

Moreover, interventions should be targeted appropriately. Bonta and Andrews (2007) emphasized the importance of a "risk-based" dimension to the principles of effective interventions to target services to those who have the greatest likelihood of reoffending. This model identifies "static" and "dynamic" factors, specific behaviors, and characteristics predictive of reoffending, and it suggests that criminal justice interventions should target the dynamic factors, which are those characteristics that can be changed. Additionally, a third principle of "responsivity," including personal characteristics such as mental and emotional problems, cognitive functioning, and readiness to change, plays a major role as well (Andrews et al., 1990; Latessa and Lovins, 2010). Earned Discharge's program was thus designed to incorporate the use of a risk-assessment tool to identify the "low-risk" population, as well as to encourage good behavior by providing the incentive of early discharge from parole.

Although many corrections administrators and researchers have embraced both the risk and rewards elements in parole practices, support for such standardized models might not trickle down to agents. In contrast to parole administrators, parole agents often still subscribe to an individual-level clinical perspective or a more traditional law enforcement role, and some reject scoring systems and tools such as risk-assessment instruments (Lynch, 1998). Harcourt (2007) also has criticized risk assessment's ability to predict reoffending realistically, noting that such actuarial methods rely on the unrealistic assumption that

individuals react similarly to incentives and sanctions, and overlook other consequences of implementing such a system. Nonetheless, all states use some sort of risk assessment to make decisions for correctional populations (Latessa and Lovins, 2010). According to the APAI International Survey of Releasing Authorities, 87% of releasing authorities use some type of decision-making instrument to help guide release decisions (Kinney and Caplan, 2008).

Earned Discharge Project Overview

Project Synopsis

At the time of the pilot's proposal, approximately 127,000 offenders were supervised by DAPO. Nearly all offenders are placed on parole in California (Petersilia, 2006). DAPO agents generally review cases after an offender has served 1 year on parole and make a decision to discharge or retain on parole. After that point, parolees only can be discharged with the concurrence of DAPO and the Board of Parole Hearings, or they remain on parole until they have reached the end of their parole term (generally 3 to 4 years).

The Earned Discharge pilot was intended to address the inability of the current parole model to create incentives for and promote positive parolee performance. Earned Discharge was designed to allow DAPO to focus resources on moderate- and high-risk offenders, reflecting adherence to the risk-needs principle of effective correctional intervention. That is, resources would be reallocated from low-risk parolees to more serious offenders who require and benefit most from improved supervision and programming. Ideally, Earned Discharge also would provide a written "behavioral contract" between the parolee and the parole officer, encouraging behaviors helpful to a successful reintegration in exchange for an early release (Petersilia, 2007a). Once off supervision, parolees would not be subject to administrative returns to custody or warrantless searches by law enforcement. Therefore, Earned Discharge had the potential both to reduce the recidivism of all parolees by encouraging good behavior and to shrink the population under direct criminal justice supervision.

Local law enforcement agency members such as police chiefs and prosecutors established a Law Enforcement Advisory Committee (LEAC) in response to the pilot's introduction. Although the LEAC originally held an advisory role to the pilot, later it became involved more heavily in the parolee screening process itself and raised enough concerns and a significant amount of attention to cause DAPO to downgrade the pilot to a simulation. Thus, ultimately parolees were screened for discharge but not actually released from parole early.

Eligibility Process for Earned Discharge Participants

Earned Discharge was designed to subject parolees to a multistage screening process to determine whether they qualified for early parole discharge. Parolees were required first to be on the lowest level of DAPO supervision. The second criterion required parolees to have been on parole for 180 days or less or released from prison to parole during the study period. The third stage of screening excluded parolees if they had serious or violent offenses,

were registered sex offenders, had a gang affiliation, were assigned to the U.S. Immigration Service, had a parole violation that resulted in a minimum 6-month break in supervision, were in the process of having parole revoked, or demonstrated other exclusionary factors determined by DAPO.^{1,2}

Parolees who passed screening for these three criteria were then screened with a risk-assessment instrument based on prior criminal record.³ If parolees were assessed as low risk, they were then screened with an individual-level file review by DAPO staff and agents, which included evaluating parole performance factors in making their final decisions for discharge approval. Parole performance factors included components such as housing and employment status, drug use, and reporting or complying with parole conditions. Some parolees at this stage also were evaluated by LEAC, which met to review individual files and made their own recommendations for discharge. After the file review by the agents and supervisors, parolees who had been on parole for at least 6 months were to be approved for final release by DAPO.

DAPO chose to implement the Earned Discharge pilot in two Southern California counties selected because the parole population included a greater proportion of nonviolent offenders compared with those in other areas, the parole administration and agents were more informed about Earned Discharge, and the parole districts had the most resources. An intended result of the pilot was the discharge of nonviolent, nonserious parolees from parole supervision; however, because of issues that arose during the rollout of the pilot, DAPO transformed Earned Discharge from a live pilot into a simulation exercise, and parolees were not actually discharged early from parole. Nevertheless, data tracking the decisions made at different levels of the simulation were collected to help understand the potential effects of actually implementing the program. Table 1 reflects the stages of screening for Earned Discharge as well as the numbers of parolees that were approved at each stage of the simulation.

Based on the simulation, Earned Discharge's estimated impact on the reduction in parole population was small. As a result of the stringent screening process, only a small fraction of the parolees were approved through all the screening stages. As reflected in Table 1, only 1.5% of the initial parole population was approved by DAPO (stage 5), and even fewer were approved by LEAC (stage 6). After excluding those based on supervision

-
1. "Serious felony" offenses are defined in California Penal Code §1192.7 and include murder, voluntary manslaughter, rape, sodomy, lewd and lascivious act on a child younger than 14 years of age, robbery, first-degree burglary, and many different gang offenses and firearm offenses. "Violent felony" offenses are defined in California Penal Code §667.5 and include murder, voluntary manslaughter, rape, sodomy, kidnapping, and many other offenses.
 2. Other factors included having a case in local custody, assigned to a state hospital, having a break in parole supervision for 6 months or longer as a result of an "at Large/Suspend" status, and parole violations not captured in the automated parole system (Assembly Bill 1678, 2010; SBX3 18, 2009).
 3. This risk-assessment instrument was later adapted by the CDCR and named the California Static Risk Assessment, which assesses a parolee's risk for recidivism.

TABLE 1

Parolees Eligible at Each Screening Stage for Earned Discharge (N = 4,746)

Screening Stage	Screening Criteria	n	%
	Initial parole population	4,746	100.0
Stage 1: Parole caseload	Low-level supervision caseload	3,595	75.7
Stage 2: Study window	180 days or less on parole or preparole	1,171 ^a	24.7
Stage 3: Initial screening criteria	Eligible after initial screening criteria (no registered sex offenders, serious or violent offenders, immigration services, etc.)	499	10.5
Stage 4: Risk-assessment score	Low-risk score profile	247	5.2
Stage 5: Parole review	Agent-approved parole performance factors	132	2.8
	Unit supervisor–approved file review	126	2.3
	Field administrator–approved file review	108	1.5
Stage 6: LEAC review	Case review, including additional offender information known to law enforcement	6 (of 31)	0.4 ^b

^aIn all, six cases had missing risk scores at this stage and were excluded from review.

^bPercent calculated out of project number of offenders approved if LEAC had reviewed all 108 cases.

level or study window, less than a quarter of the parolees also passed the initial screening criteria and risk-assessment stage (stages 3 and 4), conducted by DAPO clerical staff. Most of these parolees were excluded by the screening criteria, which included both offense- and person-based categories. For example, serious or violent offenders and those who had a rearrest or violation of their parole term were excluded alongside those with an illegal immigrant status. Of the approximately 500 parolees who passed these criteria, only half had the required low-risk score on the assessment (stage 4). Thus, by the time the file review (stage 5) began, most parolees in the pilot site had already been excluded because of the pilot project's timing or the strict eligibility criteria and risk score, even though they were on low-level supervision caseloads.

Of the parolees that were eligible for file review, less than half were ultimately approved for Earned Discharge by DAPO (stage 5). Decisions to keep parolees on parole were made more conservatively at each level of review. For example, higher level supervisors in DAPO did not always review discharge decisions if the parole agent recommended that the parolee remain on parole. LEAC members reviewed only a subsample of these cases, and after it became clear that the pilot was only going to be a simulation exercise, they stopped reviewing cases altogether. Only 6 cases of 31 reviewed by LEAC were recommended for discharge, resulting in only 0.5% of the initially eligible population.

Research Design

The Center for Evidence-Based Corrections conducted semistructured interviews with Earned Discharge program staff, DAPO parole agents, and LEAC members after the pilot

ended to determine the details of the offender screening, eligibility decisions, and issues with program implementation. Interview subjects were selected based on a convenience sample, and of the 26 that were contacted, 18 agreed to be interviewed. The interviews were conducted with five parole agents, four unit supervisors, and four senior DAPO administrators and consultants, as well as five LEAC members. All interviews followed a semistructured format with separate interview instruments for DAPO and LEAC members, and interview responses were confidential and deidentified. The interviews were conducted both in person and over the phone, and both the interviewer and a separate note taker who typed interview responses were present for the interview. After the interview, note takers edited interviews for spelling and clarity, and they denoted the direct quotes. Where there are direct quotes, we identify interview respondents by their professional title.

To help understand the pilot's context, we also reviewed relevant documents, including newspaper articles as well as memos and e-mails among DAPO administrators, Rehabilitation Strike Team members, and local law enforcement and politicians. These notes discussed the pilot's development, the workload on clerical staff hired to conduct the screening and risk-assessment stages, and concerns about the loss of warrantless search and seizure, as well as training materials for parole agents on the risk assessment and screening.

Implementation Analysis: Context, Capacity, and Content

The Earned Discharge pilot demonstrated the importance of favorable social, political, and economic conditions as well as of informed and receptive audiences. The role of local stakeholders, most importantly the LEAC members, the way in which the pilot was presented by the CDCR and understood by parole agents, and the characteristics of the program ultimately led to its demise. These three interrelated factors, the local context, the innovation content, and the organizational capacity to translate the science of the program to reality, will be discussed as crucial to the failure of the program implementation. Interviews with DAPO administrators, parole agents, assistant unit supervisors and unit supervisors, and LEAC members elucidated the salience of these factors.

Context of the Implementation: Political and Institutional Environment

Although both DAPO parole agents and supervisors and the LEAC members expressed interest in the possible benefits of the Earned Discharge pilot project, implementation of the pilot as originally proposed was hampered significantly by an unfavorable political and institutional environment. Although many interviewees agreed that the parole district was a good site choice because it had the most resources, offenders were mostly nonviolent, and the parole administrator and agents were informed, there were several drawbacks of the local environment as well.

Although Earned Discharge was supported by Governor Schwarzenegger (Petersilia, 2008), it became clear relatively early in the implementation process that the pilot did not have the support it needed from the prison guards' union or local stakeholders. According

to a local newspaper (Associated Press, 2007), the California Correctional Peace Officers Association, which represents corrections officers as well as parole agents, spoke out against the pilot, arguing that it would threaten public safety. However, some believed that the union's stance was based on the possibility of parole agents losing their jobs if caseloads were reduced (Berman and Fox, 2010). The union had been blamed in blocking previous parole reform efforts by the Schwarzenegger administration (Associated Press, 2007), and so their stance on Earned Discharge was not surprising.

Perhaps more important, law enforcement members and local politicians such as the district attorney, the sheriff, the police chief, and state assembly members were uncomfortable with several aspects of the Earned Discharge pilot, particularly the inability to conduct warrantless searches once a parolee had been discharged early from parole. Before the rollout of the pilot in the first county, they formed a working group to discuss Earned Discharge and explain the concerns of their members to DAPO officials. This working group, which was later named the Law Enforcement Advisory Committee, was intended originally to serve in an advisory capacity, but they capitalized on the loss of search and seizure as an argument against Earned Discharge and ultimately used this issue as a way to mobilize support from other law enforcement and criminal justice stakeholders (members of probation and police departments) for more decision-making authority. These LEAC members led such a strong opposition to the pilot as it was being proposed to these stakeholders at the first implementation meeting that the rollout of the program virtually stopped in its tracks. Because of this meeting, the LEAC was able to achieve broad support for the right to veto the discharge of individual parolees, and through additional letters and outside meetings with DAPO administrators, it resulted in DAPO downgrading the pilot to a simulation.

Discordant agency cultures and distrust between local stakeholders and DAPO were exacerbated by a lack of open and clear communication between the two groups in advance of the implementation meeting. LEAC interviewees indicated that a lack of communication in advance of training sessions indicated that their opinions were not valued; one interviewee noted that he believed the purpose of inviting LEAC groups to the table was to produce a façade of involvement but that, in reality, DAPO was going to roll out the pilot with or without LEAC support. Some in DAPO felt that the lack of professional courtesy afforded them by LEAC members at the meeting was offensive, that LEAC members did not have enough knowledge about their parolees to make discharge decisions, and that they did not bring useful information to the decision-making process.

Others indicated that they understood the concerns of law enforcement, however, and that LEAC members did contribute information that DAPO did not have. One DAPO administrator explained that LEAC members brought information about a parolee's performance while on probation; by supplying personal and detailed facts about an offender that frequently does not make it to the parolee's field file, this helped complete the picture of an offender and his or her circumstances before being incarcerated. Although LEAC

involvement might have underscored agency tensions, some viewed it as an opportunity to help these stakeholders understand that parole was not just trying to dump people back into the community but that they were committed to using an evidence-based approach.

Interview subjects agreed that the different agendas of parole agencies and law enforcement agencies made it difficult to share information and implement pilots such as Earned Discharge effectively. For example, one DAPO parole agent said:

I think they [local stakeholders in LEAC] have a different agenda than DOC [DAPO], and they clash a lot because of those differing agendas—policy, politics. They are primarily a law enforcement agency. Their agenda is to lower the crime rate and our agenda fluctuates; we want to lower the crime rate, but we want to lower the prison population, reduce recidivism, and are interested in trying to do something different with people coming out of prison and committing more crimes.

Interviewees expressed the sentiment that it was necessary to defer to agency knowledge when operating on another's turf as professional courtesy, but they understood that this made it difficult to collaborate on these types of projects. Exacerbating the issue is the fact that the agencies involved in Earned Discharge operated at two different levels—while the state ran parole, local agencies such as the district attorney, sheriff's departments, and police received these parolees. For example, one DAPO unit supervisor said that getting local buy-in was "ridiculous. It would be like a District Attorney consulting with parole to determine who they were going to prosecute." A DAPO administrator agreed, stating "if you want folks to be discharged, you can't have the locals have a vote. If I said to the Sheriff 'how about every time you let someone out your door, I get a vote about that,' or a DA, 'every time you decide to charge, I get a vote about that.' And from one law enforcement to another, they know I'm right." Several DAPO interview subjects expressed frustration with the inclusion of local law enforcement and the veto power they used to influence the change from the live pilot to a simulation.

It was clear that differing agency agendas and roles contributed to the relatively fast metamorphosis of the pilot into a simulation. A few interviewees cited the political nature of the parole agency as a major barrier to implementing the pilot as planned. For example, one DAPO administrator explained:

They may need to make us a nonpolitical agency. No other law enforcement agency has to work under the constraints that we do. Let us practice our craft and do our science. We need to educate outsiders rather than just respond to them. Jessica's Law [which established residency restrictions and lifetime electronic monitoring for high-risk sex offenders, among other changes] has changed the way we do business now. There is no correlation between the law and community safety.

These issues highlight the lack of buy-in related to the costs and benefits of the innovation to stakeholders. Because the job responsibilities of law enforcement are more clear and unidirectional, LEAC members perceived the project as decreasing their control over offenders but not providing tangible benefits. Earned Discharge did not provide enough benefits to law enforcement to outweigh the costs and warrant buy-in. More broadly, these sentiments speak to the difficult nature of introducing criminal justice innovations that reduce rather than expand the control of criminal justice agencies over offenders, particularly in states with a history of instituting punitive measures as crime-control responses. California has the most expansive three-strikes law in the country (Chen, 2008; Dickey, 1996), one that is widely considered out of line with other three-strikes laws (Barker, 2009). Yet there is still wide public support of the law throughout California, evidenced by the failure of Proposition 66, intended to reduce the fiscal and community impacts of imprisoning nonviolent offenders (Barker, 2009). These concerns sometimes contradict the research behind risk-assessment tools. For instance, one respondent, a DAPO consultant, added:

It's the reality of the situation, that there are whole categories [of offenders] that are pulled out of a risk assessment. And if you think that you're going to under predict [with a risk-assessment instrument], you don't want to take that chance when the stakes are so high, such as with a sex offender. I don't think the public is really ready to take that jump.

Sex offender legislation and public fear of sex offenders have placed many restrictions on programs like Earned Discharge and have been used to thwart reforms like Proposition 66 (Barker, 2009). Although many of these offenders are among the least likely to recidivate (CDCR, 2010b; Langan, Schmitt, and Durose, 2003), policies in California tend to be driven more by the political stakes involved in including sex offenders in programs like Earned Discharge than by the risk profiles of these types of offenders. For instance, one interview subject indicated that excluding all sex offenders from the program does not "stack up to science all that well," but that it is a political issue that cannot be broached. Consequently, the risk-aversion and "common sense" opinions of the public result in compromising programs that cannot be designed with strict adherence to the research behind them.

Informed and receptive audiences also are necessary to implementing interagency collaborations. Although DAPO administrators and staff and LEAC members each benefit from their own professional experience and expertise, they may not be well informed regarding the exigencies of the other's roles. For instance, one LEAC interviewee indicated that he had been unaware until recently that the prisons are so crowded that rehabilitation programs cannot function properly or at all. Some DAPO interviewees also expressed frustration with what they perceived as a lack of professional courtesy with which they were treated by LEAC members, and some felt that collaboration with law enforcement was unnecessary. Both LEAC members and DAPO agents and supervisors expressed frustration

with the implementation of the pilot, and the lack of clear communication from DAPO administrators seems to have at least contributed to the disconnect they experienced. The political issues pertaining to the context of the implementation had a clearly negative impact on successful implementation of Earned Discharge. The way in which stakeholders, with goals and strategies different from those of DAPO, negotiated control over the implementation reflects the importance of the bottom-up approach of implementation studies that emphasize a dialectic between vested interests.

Capacity: Organizational Characteristics and Implementation Capacity

Another factor integral to the success of criminal justice innovations is the capacity of the organizing agency, in this case, DAPO administration, to convert the motivations of the innovation to practice. Ellickson and Petersilia (1983: 4) indicated that the adopting organization must be able to “mobilize and build participant support, cooperation and competence.” Interview respondents indicated that these goals were not achieved at the level needed to implement the Earned Discharge program effectively. DAPO’s agency structure hindered its capacity to secure strong support for the pilot even within the agency among parole agents. Specifically, different perspectives on parole by those within DAPO, poor communication to those both inside and outside the agency, and the rushed nature of the pilot led to many related obstacles, including a lack of buy-in and shared understanding about the pilot’s purpose and poor training of agents to handle the processing of cases.

Earned Discharge was driven largely by both DAPO’s top administrators as well as outside pressures from the Governor’s office, who might have underestimated the “trained incapacity,” or complacent attitude, of corrections staff regarding implementing reforms (Little Hoover Commission, 2007) as well as the amount of relative autonomy that parole agents have. Support from all levels of agents within DAPO itself was impeded by its leadership structure. Because the agency’s administration intended eventually to implement Earned Discharge statewide, DAPO administration, in coordination with outside consultants, took control of the introduction and implementation process. For example, they conducted the trainings without input from lower-level DAPO staff even though those staff were the ones who actually performed the screenings and case reviews. Additionally, DAPO administrators made the decision to hire clerical staff to conduct the risk-assessment portion of the project rather than parole agents because of perceived workload issues.

Part of the pilot’s early support was driven primarily by a relatively new top administrator, who had been hired as an outsider to the agency. He had a law enforcement background but had been known as an advocate for change, which was not necessarily welcome by the California corrections environment as a whole (Rothfield, 2009). Although originally it was considered a benefit that this administrator was a newcomer to DAPO, as the agency has been characterized as a “billion dollar failure” (Little Hoover Commission, 2007)

amid multiple calls for reform (Berman and Fox, 2010), his lack of insider experience was noted as a possible culprit in the loss of credibility experienced by DAPO administration throughout the pilot implementation. Securing buy-in was difficult even within DAPO, where an administrator admitted that embracing a program like Earned Discharge would require a change in many agents' fundamental perspectives on rehabilitation:

I was concerned about the readiness and ability of parole agents to start a cultural and philosophical shift; at least in the past 20–30 years we've had a punitive-oriented model, so [we're] trying to take some steps to make that cultural shift.

Not only would Earned Discharge necessitate parole agents to change the way they viewed their jobs and parolees, but these conflicting philosophies held by administrators and some agents made it impossible for them to share the same vision of the program in the first place. Some DAPO interviewees recalled that they had some concerns but were interested in the pilot prior to its initiation. Others felt ambivalent or pessimistic toward Earned Discharge, even if the program was being supported by DAPO's top administrators. Additionally, DAPO administration's accommodation of LEAC demands also discouraged parole agent buy-in and reduced their confidence in the DAPO administration's ability to lead the program.

Some DAPO administrators admitted that the implementation was rushed without thinking through the ability of the agency to train its agents and that they perhaps focused too much on some parts of the project rather than on others. Some DAPO administrators indicated that they realized the rushed nature of the implementation caused them to lose credibility with DAPO agents and supervisors as well as with LEAC members, but they explained the difficulty in attending to the dueling need to reduce prison overcrowding as stipulated by the court order from the three-judge panel (*Coleman v. Schwarzenegger*, 2009) and to address the concerns of victims' rights group and LEAC members.

Additionally, intra-agency fragmentation within DAPO also led to its inability to communicate effectively among DAPO administration, agents, and LEAC across several aspects of the pilot. From the interview responses, problems with communication seemed to be a result of the rushed nature of the pilot. In particular, there was not clear communication of the ongoing changes to Earned Discharge. Some respondents indicated that there was no official notification when the pilot was downgraded to a simulation, whereas others said they were informed. According to one DAPO administrator, it was mentioned that the pilot might have been suspended at one point, later revived as a live pilot, and then finally changed into a simulation. Similarly, parolees were confused about the changing status of Earned Discharge; one DAPO agent noted that several parolees were excited about the pilot as conceptualized initially, but then it changed shortly thereafter without notification. This on-again, off-again nature might have had a chilling effect on how much effort some agents were putting into the project.

As a result of differing views of the role of parole, the rushed nature of the pilot, and poor communication, interviewees expressed somewhat different understandings of the purpose of the pilot. DAPO agents felt that the pilot was focused on managing parolees better, reducing prison crowding, and decreasing parole agent caseloads, whereas DAPO administrators focused more on Earned Discharge as a standardized, science-based approach. Although some LEAC interviewees agreed with these motivations, others thought the impetus for the pilot was politically motivated but not represented as such. They believed that the real purpose of the pilot was to reduce prison overcrowding but that it was presented as a way to reduce workload on parole agents and law enforcement, and to give parolees a chance to prove themselves worthy of early parole release.

Additionally, training and, to a lesser degree, workload issues contributed to difficulties implementing the program as proposed, as there were problems using the risk-assessment tool accurately and consistently. Most interviewees felt the training they received regarding how to review parolees and determine eligibility for earned discharge was inadequate and that agents would need more hands-on training if the pilot had been rolled out as planned initially. These assessments can be attributed, in part, to the DAPO administration's decision after the training to employ clerical staff working overtime instead of parole agents to conduct the initial screening process because it was time consuming. Accordingly, some interview participants said that they attended trainings about how to read a rap sheet and conduct an initial evaluation but that they did not end up conducting this component of the evaluation. Instead, they conducted the final screening stage, evaluated parole performance factors, and conducted file reviews for discharge, without having covered these topics sufficiently in the training. Even though other interviewees indicated that they were given the diagnostic tool and received some training about how to use it, most thought this part of the training should have been more extensive.

Content: Earned Discharge as a Concept

The third major component of the implementation perspective is related to innovation characteristics or content. Ellickson and Petersilia (1983) found that the importance of the clarity of the innovation's goals and procedures as well as its costs and benefits are of utmost importance in ensuring that the program is implemented as originally conceived. Interview data revealed that clarity of content was not achieved, and problems were found with the content of the program itself. Some stakeholders disagreed about the factors that were most important in determining whether a parolee should be released or retained on parole and whether the eligibility process, particularly use of the risk instrument, led to accurate decisions. Not only were top-down issues important, as the pilot did not reflect program integrity from the outset, but also the negotiated order of power and control of individual actors over the eligibility process also affected how tools were used and the level of buy-in associated with the instruments.

As mentioned, both DAPO agents and supervisors as well as LEAC members were unclear about the goals of the Earned Discharge pilot and the processes that would follow to achieve these goals. Some of the confusion might have been the disconnect between “earning” an early discharge in its original inception and the eventual program design. The original conception of Earned Discharge called for a written contract between the parole officer and the parolee, including the specific behaviors that a parolee would follow to “earn” his or her way off parole (Petersilia, 2007a). Originally, similar factors to those in the parole performance measure (used in stage 5) were slated for use as part of this contract; parolees who were adhering to all the conditions of the contract could earn an early release.

As the pilot was vetted by LEAC, however, the focus turned from the behavioral contract to the risk assessment and parole review (stages 4 and 5) for discharge. Rather than holding a parolee accountable to a contractual obligation and ensuring that he or she attended to all the aspects of the contract, parolees were assigned points in a piecemeal fashion for different factors predicting success or failure regarding reintegration. Assessing individual parolees in this manner more resembles risk analysis, and essentially represented another level of risk assessment in addition to what was already done at stage 4 rather than something “earned.” Moreover, because of the lack of communication and rushed execution of Earned Discharge, many parole agents were not even aware of the contract component of the program, and the contract never materialized as the pilot became a simulation. One parole agent highlighted this confusion, responding that “someone can have two Prop 36’s [California’s policy to divert low-risk offenders into treatment] and a recommendation for ICOTP and STAR [drug treatment programs]—4 violations in 6 months—and that is not anything earned. They are recommended as long as they are not revoked.”

Although the literature supports less intervention with low-risk offenders (Turner, Petersilia, and Deschenes, 1992), this short-term, 6-month time frame was also a concern to DAPO agents. Some parole agents and DAPO administrators felt that the ability to get off parole in 6 months was a powerful motivator for parolees, but others thought parolees did not have the tools, support, or foresight to use the incentive to their benefit. Some parole agents believed that parolees would manipulate the system by behaving well for 6 months and then return to criminal activity afterward. Regardless of their opinion about Earned Discharge as an incentive, interviewees generally expressed the idea that it takes longer than 6 months to observe positive treatment effects and stable employment in parolees. Some were concerned about the lack of resources for appropriate follow-through available to parole agents and the loss of needed social resources for parolees who would be discharged. One DAPO interviewee explained that Earned Discharge could mean the “worst of both worlds”—cutting off a good parolee from needed [parole] services and then not having search-and-seizure powers when he or she violated. However, many of these interviews did not acknowledge the reality that most of these low-risk parolees would have little contact with their agents in the first place (Associated Press, 2007; Petersilia, 2006).

Whereas the risk-assessment tool itself was modeled after a validated tool in another state, both the parole performance and the risk assessment were questioned, and in some cases, circumvented, by both parole agents and LEAC members. Opinions about the types of parolees determined eligible by the risk-assessment instrument and parole performance measures varied among DAPO agents and administrators. DAPO administrators tended to be more positive overall about the instruments, with one noting that “these [eligible parolees] are boy scouts; they probably should not have been on parole in the first place.” In contrast, although most DAPO and LEAC respondents generally thought the criteria for Earned Discharge were appropriate, many interviewees, particularly parole agents, were concerned about the ability of an actuarial instrument and parole performance criteria to assess individuals’ potential and capability accurately, and they indicated the need to know the person’s entire history, circumstances, and personality to determine whether he or she would be successful. Parole agents seemed apprehensive about replacing years of clinical judgment with a risk-assessment tool.

Some parole agents felt that personal communication with parolees and the understanding of dynamic factors were vitally important in determining success after parole, and the agents rejected the idea of quantifying these characteristics. As one DAPO parole agent stated:

I can tell if an individual is trying hard; an individual’s potential should be measured . . . there were people [who] qualified that you know are not going to be successful in the long run. There are people who had a series of problem behaviors, but you get the idea that this person is going to try to do well and this [would not] be indicated in a static factor.

Thus, interview data suggest that parole agents perceived the risk-assessment and parole performance measures as unable to capture the necessary factors of recidivism, and as a result, sometimes they disagreed with its outcomes.

Moreover, instruments were used inconsistently and were undermined by DAPO agents. Consistent with attitudes that rejected the risk assessment and parole performance, parole agents indicated that the risk score itself might be affected by their attitudes about a parolee and that “what you write will conform with what is expected [and with] the beliefs of the individual agent.” Interviewees noticed that some units were tougher than others and that many agents were unclear about how to use the criteria. Screening materials showed that parolee performance scores were not filled out according to the original documentation about the tool and that scores were calculated incorrectly. It also seemed that agents used case factors (such as the number of times the parolee moved, drug use, compliance, housing, employment, and restitution) to apply parole performance scores differently. These findings support interview data highlighting problems with program integrity as well as with acceptance of the content of the tools eventually used in the pilot.

Discussion and Conclusion

The Earned Discharge pilot parole program, initiated in 2007 as a collaboration between Governor Schwarzenegger's Rehabilitation Strike Team and the CDCR's Division of Adult Parole Operations, was designed as one component in a comprehensive effort to improve parole and prison operations. Earned Discharge was focused on restructuring parole decisions and on reallocating resources to areas of greatest need. However, the pilot faced several issues during implementation and subsequently was downgraded to a simulation. Political barriers, stakeholder buy-in issues related to the content and implementation of the program, and problems achieving agency-level coordination were the most salient. An analysis of the Earned Discharge pilot program implementation highlights these issues and their impact on the feasibility and possible effectiveness of policy interventions of this type as well as offers guidance for future implementation efforts.

The simulation of Earned Discharge demonstrated that the program would be unlikely to save money and decrease recidivism. For the time and resources spent on screening parolees, little benefit was gained in terms of producing a substantial number of parolees for early discharge. Although the type of offenders approved for discharge reflected the accepted understandings about characteristics of those likely to succeed, the low number of parolees who would have been released was striking. The use of strict initial screening criteria not necessarily derived from the static and dynamic factors at stage 4 and conservative screening by parole agents, supervisors, and LEAC members further down the pipeline at stages 5 and 6 contributed to the lack of parolees designated for release.

Despite the stringent criteria, there were still reservations by many interviewees, particularly parole agents, to using a risk-assessment tool to screen out parolees for Earned Discharge. Many of them felt that the tool gave them only a surface understanding of an individual, which was likely emphasized because the pilot included a case-by-case review of parolees in addition to the risk-assessment tool. Although some cited the more "science-based" nature of the risk-assessment tool as a benefit in theory, in practice, interviewees often fell back on their clinical assessment of an individual. This result is consistent with Lynch's (1998) finding that although actuarial tools might be touted by agency administrators, those who actually used the tools were uncomfortable or unreceptive to using them. Interview findings revealed that the DAPO administration's more positive view of risk assessment might be a reflection of administration's goal of managing large correctional populations using science-based tools, whereas agents are concerned with providing direct service to individuals.

The amendment of Earned Discharge from a pilot to a simulation also made clear that if parole agencies like DAPO are going to involve law enforcement, then they must obtain buy-in before rolling out such programs. Although opposition from the prison guards' union was somewhat damaging, it seemed to have a relatively small role in the pilot's demise compared with resistance by local law enforcement and politicians. Collaborative partnerships between agencies should be brokered at pilot initiation and continue throughout. For instance, the

political ability of law enforcement and local politicians to stall initiatives became evident at the onset of LEAC participation, as interviewees noted that local politicians and law enforcement members blocked the project's impetus early on and garnered additional support from the law enforcement community against it.

Overarching obstacles to effective collaboration and implementation of projects such as Earned Discharge reflected the different goals and exigencies of the agencies. These differences are tied to the different levels at which these agencies operate—parole works at the state level, and those who receive parolees operate on the county level—and the political nature of the agencies, particularly the local, county-level agencies involved. The nature of elected officials' careers can be particularly detrimental to the implementation of nonpunitive criminal justice innovations. Similar to the findings in other studies (Campbell, 2011a, 2011b), prosecutors in this case were the most outspoken against Earned Discharge. Such officials, who were concerned about future elections, are unlikely to involve themselves in any criminal justice interventions that may be perceived as soft on crime; instead, often they vehemently oppose such changes (Campbell, 2011a, 2011b). Prosecutors in particular have incentives to convict offenders and little, if any, incentive to consider anything else, including long-term recidivism and public safety concerns that might be addressed by criminal justice policy changes (Forst, 2004). In the case of Earned Discharge, LEAC had little incentive to support the pilot program and much to gain politically by critiquing it.

One DAPO unit supervisor commented that obtaining local buy-in is essentially impossible because it would entail supplanting the mission of local agencies in favor of those of state agencies. This difficulty could be resolved by joining the efforts of criminal justice stakeholders and parole to determine basic operations together. Although such restructuring would require substantial time and effort, California might need to address whether local agencies should be depoliticized and whether parole should be managed at the local level with law enforcement agencies, making decisions collaboratively rather than working against each other in some cases.

Recently, California legislators have taken steps in this direction through the Criminal Justice Realignment Act, which is a part of the Budget Act of 2011 that responds to (a) California's budget shortfall, (b) the Supreme Court order to reduce prison overcrowding, and (c) the state's counterproductive prison and parole policies. The Criminal Justice Realignment Act (2011) encompasses a set of broad changes to parole and prison operations (Budget Act of 2011; California Judicial Branch, 2011), one of which involves managing parole for lower-level offenders at the local level. An important consequence of this legislation is that county-level criminal justice actors will have more stakes in decisions sending offenders back to prison for long terms because some of the costs will now be incurred at the local level (Lagos, 2011). The move toward local control might ameliorate problems regarding obtaining local buy-in that were so instrumental in the failure of Earned Discharge and might encourage more collaboration with state agencies focused on managing large correctional populations under budget constraints.

Rather than relying on prison and mandatory lengthy parole supervision as *the* criminal justice strategy and mandating parole practices that supply this incarceration cycle, counties will have incentives to incorporate a variety of criminal justice responses, some of which are cheaper and more effective at reducing recidivism (Hetz-Burrell and English, 2006; Marion, 2002; Shilton, 1992). Although these circumstances are by no means preferable, such difficult choices could be exactly what the state needs to encourage collaboration between state and local criminal justice agencies. Just as incentives to earn their way off parole might induce behavioral compliance in parolees, incentives for local agencies to commit to alternative and community-based reentry efforts might make them more attractive and achievable.

References

- Andrews, Don A., Ivan Zinger, Robert D. Hoge, James Bonta, Paul Gendreau, and Francis T. Cullen. 1990. Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis. *Criminology*, 28: 369–404.
- Anglin, M. Douglas and Thomas H. Maugh. 1992. Ensuring success in interventions with drug-using offenders. *The ANNALS of the American Academy of Political and Social Science*, 521: 66–90.
- Aos, Steve, Marna Miller, and Elizabeth Drake. 2006. *Evidence-Based Adult Corrections Programs: What Works and What Does Not*. Olympia: Washington State Institute for Public Policy.
- Associated Press, The. 2007. County would test shorter parole terms for non-violent criminals. *The Orange County Register*. September 18. Retrieved April 7, 2011 from ocregister.com/news/parole-196923-parolees-policy.html.
- Barker, Vanessa. 2009. *The Politics of Imprisonment: How the Democratic Process Shapes the Way America Punishes Offenders*. Oxford, U.K.: Oxford University Press.
- Barrett, Susan M. 2004. Implementation studies: Time for a revival? Personal reflections on 20 years of implementation studies. *Public Administration*, 82: 249–262.
- Berman, Greg and Aubrey Fox. 2010. *Trial and Error in Criminal Justice Reform: Learning from Failure*. Washington, DC: Urban Institute Press.
- Bonta, James and Don A. Andrews. 2007. *Risk-Need-Responsivity Model for Offender Assessment and Rehabilitation*. Public Safety Canada website. Retrieved April 7, 2011 from ocipep-bpiepc.gc.ca/res/cor/rep/_f/Risk_Need_2007-06_e.pdf.
- California Department of Corrections and Rehabilitation (CDCR). 2010a. *Adult Institutions Outcome Evaluation Report*. Sacramento: Author. Retrieved November 15, 2011 from cddcr.ca.gov/Adult_Research_Branch/Research_Documents/ARB-FY0506-Outcome_Evaluation_Report.pdf.
- California Department of Corrections and Rehabilitation (CDCR). 2010b. *Corrections: Year at a Glance*. Sacramento: Author. Retrieved November 15, 2011 from cddcr.ca.gov/Reports_Research/index.html.

- California Department of Corrections and Rehabilitation (CDCR) Expert Panel on Adult Offender Reentry and Recidivism Reduction Programs. 2007. *Report to the California State Legislature: A Roadmap for Effective Offender Programming in California*. Sacramento: Author.
- California Judicial Branch. 2011. Criminal Justice Realignment Resource Center. Retrieved November 15, 2011 from courts.ca.gov/partners/realignment.htm.
- Campbell, Michael C. 2011a. Ornerly alligators and soap on a rope: Texas prosecutors and punishment reform in the Lone Star state. *Theoretical Criminology*. E-pub August 23.
- Campbell, Michael C. 2011b. Politics, prisons, and law enforcement: An examination of law and order politics in Texas. *Law & Society Review*, 45: 631–665.
- Chen, Elsa. 2008. Impacts of “three strikes and you’re out” on crime trends in California and through the United States. *Journal of Contemporary Criminal Justice*. E-pub June 3.
- Cullen, Francis T. 2004. Rehabilitation and treatment programs. In (James Q. Wilson and Joan Petersilia, eds.), *Crime: Public Policies for Crime Control*. Oakland, CA: Institute for Contemporary Studies Press.
- Cullen, Francis T. and Paul Gendreau. 2000. Assessing correctional rehabilitation: Policy, practice, and prospects. In (Julie Horney, ed.), *Criminal Justice 2000: Policies, Processes, and Decisions of the Criminal Justice System*. Washington, DC: National Institute of Justice, U.S. Department of Justice. Retrieved April 7, 2011 from ncjrs.gov/criminal_justice2000/vol_3/03d.pdf.
- Dickey, Walter J. 1996. *Impact of “Three Strikes and You’re Out” Laws*. Washington, DC: Campaign for Effective Crime Policy.
- Ellickson, Phyllis L. and Joan Petersilia, with Michael Caggaino and Sandra Polin. 1983. *Implementing New Ideas in Criminal Justice*. Santa Monica, CA: The RAND Corporation.
- Elmore, Richard F. 1979–1980. Backward mapping: Implementation research and policy decisions. *Political Science Quarterly*, 94: 601–616.
- Fixsen, Dean L., Karen A. Blase, Sandra F. Naoom, and Frances Wallace. 2009. Core implementation components. *Research on Social Work Practice*, 19: 531–540.
- Forst, Brian. 2004. Prosecution. In (James Q. Wilson and Joan Petersilia, eds.), *Crime: Public Policies for Crime Control*. Oakland, CA: Institute for Contemporary Studies Press.
- Gendreau, Paul and Don A. Andrews. 1979. Psychological consultation in correctional agencies: Case studies and general issues. In (J. J. Platt and R. J. Wicks, eds.), *The Psychological Consultant*. New York: Grune & Stratton.
- Gendreau, Paul, Claire Goggin, and Paula Smith. 1999. The forgotten issue in effective correctional treatment: Program implementation. *International Journal of Offender Therapy and Comparative Criminology*, 43: 180–187.
- Governor Schwarzenegger’s Rehabilitation Strike Team Report. 2007. *Meeting the Challenges of Rehabilitation in California’s Prison and Parole System*. Retrieved November 15, 2011 from cdcr.ca.gov/News/docs/GovRehabilitationStrikeTeamRpt_012308.pdf.

- Harcourt, Bernard E. 2007. *Against Prediction: Profiling, Policing and Punishing in an Actuarial Age*. Chicago, IL: University of Chicago Press.
- Harrell, Adele and Sarah Bryer. 1998. *The Process Evaluation of Project Connection: Lessons on Linking Drug Courts and Communities*. Washington, DC: Urban Institute Press.
- Hetz-Burrell, Nicole and Kim English. 2006, May. *Community Corrections in Colorado: A Study of Program Outcomes and Recidivism, FY00-FY04*. Denver: Office of Research and Statistics, Colorado Department of Public Safety.
- Kinvey, Susan C. and Joel M. Caplan. 2008. *Findings from the APAI International Survey of Releasing Authorities*. Philadelphia: Center for Research on Youth and Social Policy, University of Pennsylvania.
- La Vigne, Nancy G., Sarah Lawrence, Vera Kachnowski, Rebecca Naser, and Megan Schaffer. 2002. *Process Evaluation of the Pennsylvania Community Orientation and Reintegration (COR) Program*. Washington, DC: Urban Institute Justice Policy Center.
- Lagos, Marisa. 2011. State's radical prison plan ready to start. *The San Francisco Chronicle*. October 2. Retrieved November 15, 2011 from sfgate.com/cgi-bin/article.cgi?f=/c/a/2011/10/02/MNM71L9Q8Q.DTL.
- Langan, Patrick A., Erica L. Schmitt, and Matthew R. Durose. 2003. *Recidivism of Sex Offenders Released from Prison in 1994* (NCJ-198281). Washington, DC: Office of Justice Programs, U.S. Department of Justice.
- Latessa, Edward J. and Brian Lovins. 2010. The role of offender risk assessment: A policy maker guide. *Victims & Offenders*, 5: 203–219.
- Little Hoover Commission. 2007. *Solving California's Corrections Crisis: Time is Running Out*. Sacramento, CA: Author. Retrieved November 15, 2011 from lhc.ca.gov/lhc/185/Report185.pdf.
- Lynch, Mona. 1998. Waste managers? The new penology, crime fighting, and parole agent identity. *Law & Society Review*, 32: 839–870.
- MacKenzie, Doris Layton. 2000. Evidence-based corrections: Identifying what works. *Crime & Delinquency*, 46: 457–471.
- Marion, Nancy A. 2002. *Community Corrections in Ohio: Cost Savings and Program Effectiveness*. Akron, OH: Department of Political Science, The University of Akron.
- Pearson, Frank S., Douglas S. Lipton, Charles M. Cleland, and Dorline S. Yee. 2002. The effects of behavioral/cognitive-behavioral programs on recidivism. *Crime & Delinquency*, 48: 476–496.
- Petersilia, Joan. 2006. *Understanding California Corrections*. Berkeley: California Policy Research Center. Retrieved April 7, 2011 from ucicorrections.seweb.uci.edu/pdf/UnderstandingCorrectionsPetersilia20061.pdf.
- Petersilia, Joan. 2007a. Employ behavioral contracting for “earned discharge” parole. *Criminology & Public Policy*, 6: 807–814.
- Petersilia, Joan. 2007b. Fewer parolees make for safer streets. *Los Angeles Times*. October 8, section A, 15.
- Petersilia, Joan. 2008. Influencing public policy: An embedded criminologist reflects on California prison reform. *Journal of Experimental Criminology*, 4: 335–356.

- Petersilia, Joan and Robert Weisberg. 2006. Parole in California: It's a crime. *Los Angeles Times*. April 23, section M, 2.
- Proctor, Jon L. and Michael Pease. 2000. Parole as institutional control: A test of specific deterrence and offender misconduct. *The Prison Journal*, 80: 39–55.
- Rothfield, Michael. 2009. State parole director to step down. *The Los Angeles Times*. July 16. Retrieved September 8, 2011 from latimesblogs.latimes.com/lanow/2009/07/the-director-of-the-states-mammoth-parole-system-thomas-hoffman-is-retiring-from-gov-arnold-schwarzeneggers-administ.html.
- Savage, David G. 2010. U.S. Supreme Court to hear on California inmate release. *The Los Angeles Times*. Retrieved June 20, 2010 from articles.latimes.com/2010/jun/15/local/la-me-scotus-inmates-20100615.
- Sherman, Mark. 2011. High court orders California to cut 33,000 inmates. *North County Times*. Retrieved November 15, 2011 from nctimes.com/news/local/sdcounty/article_9564b57b-d054-5605-8acb-71184c628200.html.
- Shilton, Mary K. 1992. *Community Corrections Acts for State and Local Partnerships*. Laurel, MD: American Correctional Association.
- Solomon, Amy, Vera Kachnowski, and Avinash Bhati. 2005. *Does Parole Work? Analyzing the Impact of Post Prison Supervision on Rearrest Outcomes*. Washington, DC: Urban Institute Press.
- Stanton, Sam. 2009. An overview of California prisons. *The Sacramento Bee*. Retrieved August 25, 2010 from sacbee.com.
- Taxman, Faye S., Douglas Young, James M. Byrne, Alexander Holsinger, and Donald Anspach. 2002. *From Prison Safety to Public Safety: Innovations in Offender Reentry*. Final Report. College Park, MD: Bureau of Governmental Research.
- Thompson, Don. 2010. California prison overcrowding: Supreme Court to hear California prison-overcrowding case. *The Huffington Post*. Retrieved June 14, 2010 from huffingtonpost.com/2010/06/14/california-prison-overcro_0_n_611281.html.
- Travis, Jeremy. 2003. *Parole in California, 1980–2000: Implications for Reform*. Public Hearing on Parole Reform, Little Hoover Commission. Washington, DC: Urban Institute Justice Policy Center.
- Travis, Jeremy and Sarah Lawrence. 2002. *Beyond the Prison Gates: The State of Parole in America*. Washington, DC: Urban Institute Justice Policy Center.
- Travis, Jeremy and Joan Petersilia. 2001. Reentry reconsidered: A new look at an old question. *Crime & Delinquency*, 47: 291–313.
- Turner, Susan, Joan Petersilia, and Elizabeth. P. Deschenes. 1992. Evaluating intensive supervision probation/parole (ISP) for drug offenders. *Crime & Delinquency*, 38: 539–556.
- Warren, Jenifer, Adam Gelb, Jake Horowitz, and Jessica Riordan. 2008. *One in 100: Behind Bars in America 2008*. Washington, DC: Pew Charitable Trusts.
- Yanow, Dvora. 1987. Toward a policy culture approach to implementation. *Policy Studies Review*, 7: 103–115.

Court Case Cited

Coleman v. Schwarzenegger, No. CIV S-90-0520 LKK JFM P, Plata v. Schwarzenegger. No. C01-1351 TEH. (2009). Three-Judge Court Opinion and Order.

Statutes Cited

Budget Act of 2011, SB 87, Chapter 33, 2010-2011 Cong. 2011.

SBX3 18 (2009-2010). Cong., 3rd Sess. Retrieved November 15, 2011 from leginfo.ca.gov/pub/09-10/bill/sen/sb_0001-0050/sbx3_18_bill_20091011_chaptered.pdf.

Assembly Bill 1678 (2010). California State Senate. Retrieved November 15, 2011 from info.sen.ca.gov/pub/09-10/bill/asm/ab_1651-1700/ab_1678_cfa_20100419_102423_asm_comm.html.

Sarah M. Smith is a doctoral candidate in the Department of Criminology, Law & Society at the University of California, Irvine. She has a Master of Arts in sociology with a concentration in criminology from The George Washington University. Ms. Smith has 5 years of research experience working on projects focusing on corrections, gender and crime, and alternative justice approaches. She also has served for several academic quarters as a research assistant for the National Science Foundation (NSF)-funded study “Prisoner Grievances in California: Disputing Behind Bars,” a large-scale study investigating inmate grievance processes in men’s institutions in California.

Marisa K. Omori is a Ph.D. student in the Department of Criminology, Law & Society at the University of California, Irvine. She also has a Master of Arts in Social Ecology from the University of California, Irvine, and a Master of Arts in criminal justice from the City University of New York—John Jay College of Criminal Justice. Her work focuses on issues of drug policy and use and criminal justice policy. Specifically, her research experience includes projects on methamphetamine legislation, racial and gang violence in juvenile justice facilities, racialized drug arrest practices, and the sentencing of drug trafficking offenders.

Susan F. Turner is a professor in the Department of Criminology, Law & Society at the University of California, Irvine. She also serves as director of the Center for Evidence-Based Corrections. She received her Master of Arts and Ph.D. in social psychology from the University of North Carolina, Chapel Hill. Prof. Turner’s areas of expertise include the design and implementation of randomized field experiments and research collaborations with state and local justice agencies. Currently at the University of California, Irvine, she is assisting the California Department of Corrections and Rehabilitation in the development and testing of a risk-assessment tool as well as an evaluation of a parole violation decision-making instrument designed to provide an orderly decision-making process for response to violations of parole.

Jesse Jannetta is a research associate in the Urban Institute's Justice Policy Center. He directs projects relating to community supervision and reentry from both prison and jail. Before coming to the Urban Institute, Mr. Jannetta was a research specialist at the Center for Evidence-Based Corrections at the University of California, Irvine, where his work included projects on GPS monitoring of sex offender parolees, policies on parole discharge and violation response, and assessment of the California Department of Corrections and Rehabilitation's programs according to the principles of evidence-based design. He holds a Master's degree in public policy from the John F. Kennedy School of Government at Harvard University.

POLICY ESSAY

ASSESSING THE EARNED DISCHARGE PILOT PROJECT

Perpetual “Crisis” and the Dysfunctional Politics of Corrections in California

Michael C. Campbell

Northern Illinois University

In 2007, California’s Little Hoover Commission, which is a bipartisan government oversight committee, stated frankly in a report to California lawmakers that, “The State knows what the answers are . . . thanks to nearly two decades of work” and suggested that policy makers stop dragging their feet and take immediate action to manage California’s deepening corrections crisis (Little Hoover Commission, 2007: 1). The Commission stated correctly that no further research was necessary and that failing to act would be costly. They noted how California’s Department of Corrections and Rehabilitation (CDCR) was already under federal mandate to decrease its population and that federal officials had already seized control of key corrections operations (Little Hoover Commission, 2007). Then-Governor Schwarzenegger had promised to tackle California’s corrections debacle, and the state seemed primed for reform. Change seemed even more likely when economic conditions declined and the state faced historical budget deficits. Despite these developments, the Golden State’s efforts to overhaul its failed corrections system have been marginal and have created as many problems as they have solved. And in 2009, a federal court ordered the state to decrease its prison population by 40,000 inmates or face serious penalties (*Coleman v. Schwarzenegger*, 2009).

Smith, Omori, Turner, and Jannetta (2012, this issue) provide an insightful tale of the pitfalls besetting would-be reformers attempting to change the state’s dysfunctional penal culture. Smith et al. provide an excellent breakdown of criminological research on the value and necessity of targeting the most serious offenders for supervision and of facilitating reintegration by accelerating low-level offenders’ transition into free society. As Smith et al. demonstrate clearly, these types of policies are known to improve recidivism rates and allow

Direct correspondence to Michael C. Campbell, Department of Criminology, Northern Illinois University, Zulauf 808, DeKalb, IL 60115 (e-mail: mcampbell7@niu.edu).

parole officers to focus their attention on the most serious offenders. Smith et al.'s planned evaluation of this modest program promised to provide valuable data on the corrections innovations that might help California drag itself out of the current corrections quagmire. But as Smith et al. demonstrate, state and local organizations affiliated with law enforcement officials successfully thwarted attempts to test new policy directions that might decrease recidivism and costs. This failure joins a growing heap of failed, carefully planned policy innovations that have prevented California from regaining control of its corrections system. As this failure demonstrates, careful planning and evidence of a program's effectiveness alone are not sufficient to ensure effective implementation; these reforms require the necessary political support to offset resistance from criminal justice practitioners who defend the status quo. This essay provides some historical context for the Earned Discharge Pilot Project's failure, considers how this article highlights ongoing difficulties in reform, and then outlines some reasons for optimism and progress.

As the failure of the Earned Discharge program chronicled in Smith et al.'s (2012) article demonstrates, criminal justice policy reforms face considerable obstacles. One of the most formidable obstacles is opposition from criminal justice practitioners, who have become extremely powerful in state politics, and often have attacked policies that would limit their discretion and demand accountability. These institutional actors have enjoyed expanding budgets with almost no accountability for lowering recidivism for decades (Petersilia, 2006). But mounting costs and evidence demonstrating the ineffectiveness of long sentences and strict parole supervision have generated growing interest in implementing policies that are based on evidence and that might do what criminal justice policies should do—decrease crime by facilitating the natural transition out of criminogenic behavior that ultimately leads almost all offenders to law-abiding lifestyles.

For decades, politicians across the United States have consistently chosen convenient paths of least resistance in criminal justice policy that shun accountability and accrue enormous costs. This political climate has generated corrections policies that have made the United States by far the world's largest jailer, with just 5% of the world's population and 25% of its prisoners (Walmsley, 2009). Even low-level and nonviolent offenders are ensnared in a confusing web of policies and procedures that are costly and have little or nothing to do with preventing crime or reducing recidivism. Although this approach might appease public fear and protect politicians from accusations of being soft on crime, it has created policies that ultimately do little to improve public safety and that heap contradictory and at times insurmountable burdens on an alarming proportion of America's poorest citizens (Braman, 2003). We now have sufficient data and experience to examine critically criminal justice policies emerging from the "get tough" era and to raise questions about how and why the criminal justice policy process so often fails to generate policies that incorporate accountability.

In the 1960s, civil unrest and increasing crime rates generated growing concern about crime in California that significantly altered the state's and ultimately the nation's approach

to crime policy. In 1966, Republican Ronald Reagan decisively defeated Democrat Edmund “Pat” Brown (father of Jerry Brown) and promised to crack down on unrest associated with the Berkeley student protests and to strengthen law enforcement’s hand in dealing with unrest (McGirr, 2001). Although Governor, and later President, Reagan claimed to be against more government, he argued also that the state had become too soft on criminals and welfare “bums,” and that law enforcement should be expanded and offenders punished more severely (McGirr, 2001). Reagan’s electoral success was later copied around the nation, and certain politicians across the United States used a “tough on crime” platform for political gain.

In California, every governor since Ronald Reagan has worked to sharpen their “tough guy” image on crime by supporting policies that increase sentences for criminal offenses, dramatically expand funding for law enforcement, and add layers of supervision and sanctions on prisoners, parolees, and probationers. These executives have helped reinforce crime’s central position in state politics, regardless of fluctuations in criminal offending and the growing cost of “corrections” (Campbell, 2009). The political culture that has emerged from decades of highly politicized crime policy has created a dynamic that has reinforced a zero-sum view of crime policy—that any policy that imposes more and harsher sanctions on offenders is good for public safety, and that any policies that do not make people unsafe (Simon, 2007). This false dichotomy has been the strategic cornerstone of “law and order” advocates who have deployed it with great success for decades.

Interest groups and local officials within the law enforcement community itself have been central actors in forging and using this rhetorical Black/White device to advocate for more resources and power, and to undermine policies that threaten their discretion or demand accountability. It is not surprising that Smith et al. (2012) found that opposition from the California Corrections and Peace Officers Association (CCPOA) and local law enforcement officials destroyed this pilot project. Various groups and actors affiliated with law enforcement around the nation have been instrumental in blocking reform and in driving a one-sided “hammer and anvil” approach to crime that has led to mass incarceration and widespread surveillance of a large proportion of America’s minority population. For example, efforts to limit the application of California’s draconian “three strikes” law to violent offenders had considerable support from state voters until the CCPOA ran a slew of ads depicting the measure as a threat to public safety (Page, 2011). In Texas, the state’s district attorneys association was instrumental in thwarting attempts to restructure the state’s sentencing system in ways that would have limited punishment for minor drug and property offenders (Campbell, In press). Florida law enforcement groups worked to dismantle reforms in the early 1990s that would have diverted drug and low-level offenders from prison (Schoenfeld, In press). And in Arizona, local sheriffs and district attorneys undermined reform efforts that would have provided alternatives to mass incarceration for minor offenders (Lynch, 2010). In fact, representatives of law enforcement groups have increased their proportional representation in state and national policy hearings dramatically

over the last several decades and now far surpass community representatives and other groups (Miller, 2008).

I am not suggesting that all law enforcement groups simply pander to public fear or that they are opposed to preventative and rehabilitative policy initiatives. Law enforcement has a rightful place in the policy formation process. But reformers must recognize that these criminal justice organizations are political, operating simultaneously as a major component of the state government while lobbying and appealing to public opinion to shape crime policy in ways that best serve their interests. No such comparable institutional force exists to advocate for policies that might address crime's roots in deep poverty and failed social institutions. Elected leaders should, but most do not. As Lisa Miller's (2008) work has suggested, the political interests of the poor are many and their resources in advocating for policies that address the roots of crime are limited. Organizations representing minority groups and the urban poor—those most commonly affected by crime policy—often simultaneously engage issues of employment, education, welfare, and other social justice issues (Miller, 2008). Law enforcement organizations remain constantly engaged singularly on criminal justice issues, often maintaining statewide associations that effectively lobby and sustain public information campaigns that defend their institutional interests (Campbell, 2011; Miller, 2008). Not surprisingly, these groups advocate positions that defend their turf and in doing so become a powerful obstacle to state or system-wide reform.

Joshua Page's (2011) research on the CCPOA has provided a compelling account of how the state's prison guards union emerged as one of the most powerful political organizations in the state. Page (2011) argued that the union's successes are rooted in its ability and willingness to attack and intimidate those who would oppose CCPOA's positions. The union has successfully thwarted attempts to revamp mandatory sentencing laws and to decrease the overall costs of incarceration by protecting and increasing prison guards' compensation (Page, 2011). Page explained how the emergence of CCPOA was an unanticipated consequence of mass incarceration and that it represents a general alteration in the penal field, the constantly changing arena in which various actors compete to shape crime policy (Page, 2011). As supporters of the Earned Discharge program found, local law enforcement officials and the CCPOA occupy a powerful position in this terrain that they used to gut the program's implementation and evaluation.

If criminal justice systems around the nation aim to decrease costs and improve performance, then an evaluation of promising programs is essential, but not necessarily sufficient, in pressing change. For decades, lawmakers in California and other states have been confronted with powerful research demonstrating that long-term incarceration of low-level offenders in prisons that separated them from their often-weak social networks would most likely increase their chances of reoffending (Petersilia, 2010). California commissioned international consulting firm Arthur D. Little to study its sentencing system in 1979, and the firm concluded that the system's current trend was unsustainable and that a sentencing commission would be the best way to manage the criminal justice system (Arthur D. Little,

1980). This report was ignored in 1980, and its recommendations were again dashed in 1984 when concerns finally generated legislation that would have created a sentencing commission but was vetoed by Republican Governor George Deukmejian (Little Hoover Commission, 2007). Between 1984 and 2006, eight attempts to establish a sentencing commission that would have helped depoliticize sentencing and could have implemented reforms that would address overcrowding were defeated in California, including three that were vetoed by Republican governors (Little Hoover Commission, 2007). Supporting “tough” legislation consistently proved politically effective, and Democratic and Republican lawmakers consistently ignored sound recommendations and made politically expedient decisions that reaped political hay—the state’s current crisis is the obvious product of those decisions. An analysis of criminal code changes found at least 80 sentencing increases between the 1977 passage of California’s determinate sentencing law and 2005 (Little Hoover Commission, 2007), and this does not include less obvious procedural changes that also affect punishments.

Evidence demonstrating the ineffectiveness of long prison sentences and intensive parole for all released inmates is not new, and lawmakers have been aware of it for decades (Little Hoover Commission, 2007). The reason lawmakers continue to drag their feet on reform is simple—crime policy was and is more about politics than sensible policy making. This is not new either. But what is new is a drastically altered crime policy terrain. The cumulative decisions of the past three decades have created a context in which criminal justice organizations and crime victims groups (many created with help from law enforcement organizations) have become powerful political organizations in many states (Page, 2011). Although the tendency of bureaucracies to resist externally formulated goals and policies is nothing new (Weber, 1946), the relative political influence of state and local law enforcement organizations has created a new and challenging crime policy field (Campbell, *In press*; Page, 2011). Law enforcement agents and their organizations provide a powerful network of politically engaged activists that enjoy considerable prestige in the public arena (Campbell, 2011). Often, voters are ill informed about arcane matters of crime policy and administration, and they understandably privilege the stance of representatives of law enforcement because they appear as disinterested protectors of the public good. In reality, they often pursue goals that defend their autonomy and advance their interests.

This raises questions that extend well beyond the nature and impact of crime policy. Mass incarceration and expanding law enforcement bureaucracies have become normalized in American culture. As David Garland (2001) suggested, a nation’s punishment regime is not merely a reflection of that nation’s culture: These important institutions also shape and create new cultural norms. Those norms today reflect and reinforce a deeply insecure and pessimistic perspective on crime policy that shuns science and accountability, and it ignores the state’s responsibility to pursue outcomes that seek justice for even the nation’s poorest and least educated citizens. And, as Jonathon Simon (2007) has suggested, this “culture of fear” prioritizes the power of prosecutors and executives, and it threatens fundamental

checks on state power essential to a healthy democracy. Legal scholar William J. Stuntz (2011) explained the expansion of prosecutorial power that has accompanied determinate sentencing as a central development in what he calls “the collapse of American criminal justice.”

Despite these dire assessments of the current state of criminal justice in America, there are some reasons for optimism. Support for evidence-based practices and a belated concern about costs seem to be generating a potential alternative paradigm that might challenge the “lock ‘em up” armchair logic that has dominated policy making for the last few decades (The Pew Center on the States, 2010). Fortunately, the same federalist structure that creates such confusing and overlapping jurisdictions also provides a useful and insightful set of natural laboratories that help dispel myths about the value of extremely harsh penalties that lack empirical grounding.

Not all states have failed so miserably as California. Policy makers in New York have lowered the prison population markedly over the past decade, and crime has continued to decrease at unprecedented rates (Lippman, 2009). Illinois began to divert minor offenders from prison and has established incentives for local jurisdictions to use community and intermediate sanctions to manage low-risk offenders (Public Act 96–0761, 2009). These examples and many others around the nation combined to mark the first year that the U.S. prison population decreased since 1972 (The Pew Center on the States, 2010), and crime rates across the nation have continued to drop despite the recent economic crisis and high unemployment rates. This drop may be in part caused by growing momentum around evidence-based practices, which use social science research and evaluation to determine which policies actually work. Subsequent studies of these successes might provide compelling evidence that would force criminal justice practitioners to consider alternatives.

But as Smith et al. (2012) show, compelling evidence alone means little without the political will to ensure that criminal justice reforms receive the necessary support to ensure their implementation. A different approach will be required than those that emphasize research findings. Reformers must seek broader coalitions that integrate local community organizations into state level policy making and, ultimately, into support for localized implementation. By reaching out to community leaders and organizations, reformers might procure a necessary counterweight that compels local law enforcement agencies to take demands for reform seriously. A growing body of evidence suggests that locally based reforms are a promising alternative angle for tackling the seemingly intractable problem of overcrowding (Lynch, 2011).

A broad coalition targeting criminal justice policy reform would have to reach beyond the usual suspects, such as families of prisoners and groups concerned about social justice. California’s recent budgetary struggles have made it painfully obvious that the costs of a prisons-first approach to crime have serious consequences for all of the state’s institutions. Even though Governor Schwarzenegger promised to stop surging corrections costs, the annual fee for housing a prisoner increased by 43% from 2003 to 2010 and the corrections

budget increased from \$6 to \$8.2 billion in the 2009 to 2010 budget, which is more than \$3 billion more than the state spent on higher education (Petersilia, 2010). As California drastically increased tuition costs, slashed social welfare funding, and halted public works projects, efforts to scale back the costs of corrections were virtually crushed (Petersilia, 2010). Groups concerned with sufficient state funding to reduce the costs and increase the quality of education have many reasons to support criminal justice reform. But until such a coalition emerges, crime policy formation and implementation will likely continue to be dominated by groups affiliated with law enforcement, which have an obvious self-interest in stopping reforms that decrease incarceration and state surveillance.

Finally, state governments must do more to make local governments responsible for the costs of incarceration and parole. Local criminal justice jurisdictions pay no cost when they sentence offenders to long terms. Inmates are shipped off to state prisons and the state pays the bill (Zimring and Hawkins, 1991). This no-cost arrangement has finally come under scrutiny, and California has forced local jails to accept inmates to comply with federal mandates (Petersilia, 2010). Legislation mandating that local governments incur costs when they fail to seek alternatives to the most costly approaches to crime are promising. The Earned Discharge program's outcome would likely be different if the local jurisdictions that opposed its implementation had to foot the bill for the program's failure.

References

- Arthur D. Little, Inc. 1980. *Determinate and Indeterminate Sentence Law Comparisons Study: Feasibility of Adapting Law to a Sentencing Commission-Guideline Approach*. San Francisco, CA: Author.
- Braman, Donald. 2003. Families and incarceration. In (M. Mauer and M. Chesney-Lind, eds.), *Invisible Punishment: The Collateral Consequences of Mass Imprisonment*. New York: The Sentencing Project.
- Campbell, Michael C. 2009. *Agents of Change: Law Enforcement, Prisons, and Politics in Texas and California*. Unpublished doctoral dissertation. Department of Criminology, Law and Society, University of California, Irvine.
- Campbell, Michael C. 2011. Politics, prisons, and law enforcement: An examination of the emergence of "law and order" politics in Texas? *Law & Society Review*, 45: 631–665.
- Campbell, Michael C. In press. Ornerly alligators and soap on a rope: Texas prosecutors and punishment reform in the Lone Star State. *Theoretical Criminology*. Epub August 23, 2011.
- Garland, David. 2001. *The Culture of Control: Crime and Social Order in Contemporary Society*. Chicago, IL: University of Chicago Press.
- Lippman, Jonathan. 2009. How one state reduced both crime and incarceration. *Hofstra Law Review*, 38: 1045–1057.
- Little Hoover Commission. 2007. *Solving California's Corrections Crisis: Time Is Running Out*. Sacramento, CA: Author.

- Lynch, Mona. 2010. *Sunbelt Justice: Arizona and the Transformation of American Punishment*. Stanford, CA: Stanford Law Books.
- Lynch, Mona. 2011. Mass incarceration, legal change and locale: Understanding and remediating American penal overindulgence. *Criminology & Public Policy*, 10: 671.
- McGirr, Lisa. 2001. *Suburban Warriors: The Origins of the New American Right*. Princeton, NJ: Princeton University Press.
- Miller, Lisa L. 2008. *The Perils of Federalism: Race, Poverty, and the Politics of Crime Control*. Oxford, U.K.: Oxford University Press.
- Page, Joshua. 2011. *The "Toughest Beat:" Politics, Punishment, and the Prison Officers Union in California*. New York: Oxford University Press.
- Petersilia, Joan. 2006. *Understanding California Corrections*. Berkeley: California Policy Research Center.
- Petersilia, Joan. 2010. A retrospective view of corrections reform in the Schwarzenegger administration. *Federal Sentencing Reporter*, 22: 148–153.
- Schoenfeld, Heather. In press. The war on drugs, the politics of crime, and mass incarceration in the United States. *Journal of Gender, Race & Justice*.
- Simon, Jonathon. 2007. *Governing Through Crime: How the War on Crime Transformed American Democracy and Created a Culture of Fear*. New York: Oxford University Press.
- Smith, Sarah M., Marisa K. Omori, Susan F. Turner, and Jesse Jannetta. 2012. Assessing the earned discharge pilot project: The importance of context, capacity, and content. *Criminology & Public Policy*. This issue.
- Stuntz, William J. 2011. *The Collapse of the American Criminal Justice System*. Cambridge, MA: Belknap Press of Harvard University Press.
- The Pew Center on the States. 2010. *Prison Count 2010: State Population Declines for the First Time in 38 Years*. Washington, DC: The Pew Charitable Trusts.
- Walmsley, Roy. 2009. *World Prison Population List*, 8th Edition. London, U.K.: King's College.
- Weber, Max. 1946. *Max Weber: Essays in Sociology*. Translated and with an introduction by H. H. Gerth and C. Wright Mills. New York: Oxford University Press.
- Zimring, Franklin E. and Gordon Hawkins. 1991. *The Scale of Imprisonment*. Chicago, IL: University of Chicago Press.

Court Case Cited

Coleman v. Schwarzenegger, No. CIV S-90–0520 LKK JFM P, *Plata v. Schwarzenegger*. No. C01–1351 TEH. 2009. Three-Judge Court Opinion and Order.

Statute Cited

Public Act 96–0761, Illinois Crime Reduction Act: A Strategic Corrections Initiative for Illinois (2009).

Michael C. Campbell earned his Ph.D. in Criminology, Law & Society from the University of California, Irvine and is currently an Assistant Professor in the Department of Sociology at Northern Illinois University. His research examines the forces that affect criminal justice policy creation and implementation. You can find his work in *Law and Society Review*, *Theoretical Criminology*, *Contemporary Sociology*, and *Punishment and Society*.

POLICY ESSAY

ASSESSING THE EARNED DISCHARGE PILOT PROJECT

Resisting “Evidence” in Challenging Correctional Environments

Jeffrey Lin

University of Denver

Smith, Omori, Turner, and Jannetta (2012, this issue) illustrate the complex challenges of enacting correctional reform in California through the story of Earned Discharge (ED), a 2007 program designed to screen parolees for early release using a scientific decision-making instrument. ED was intended to reduce parole caseloads, allowing parole agents to focus more energy on higher risk parolees. Those parolees who were to be released early would be subject to fewer behavioral restrictions, reducing their likelihoods of reincarceration, which would alleviate California’s prison crowding crisis. However, because of the array of organizational and political problems surrounding the proposed implementation of ED, the program eventually was downgraded from a live pilot to a simulation in which parole staff went through the process of assessing parolees for release, but no parolees actually were discharged. Thus, the program never did anything to reduce parole caseloads or prison populations, but the simulation exercises allowed data to be collected for research purposes. Interestingly, the analysis presented in the article shows that strict screening criteria, coupled with conservative decision making at various stages of screening, would have recommended a small number of eligible parolees for release. In other words, even if the program had been executed as planned, its impact on California correctional populations would have been negligible. In this essay, I argue that the failure of ED was rooted in a philosophical transformation of the notion of “evidence,” which caused major concerns within parole and in other agencies about the effects of ED on public safety and criminal justice workloads. These concerns will continue to compromise correctional population reduction efforts unless the state can enact policy changes coercively.

Direct correspondence to Jeffrey Lin, Department of Sociology and Criminology, University of Denver, 2000 East Asbury Avenue, Sturm Hall 440, Denver, CO 80208 (e-mail: Jeffrey.Lin@du.edu).

What Do We Mean When We Ask “What Works?”

Politicians and correctional officials in California have long been aware of the state's correctional population crisis. Unfortunately, the problem has not been easy to address. California's repeated failures in trying to reduce its correctional populations led a panel of federal judges to order the state to cut its prison population quickly by 40,000 offenders, and California is now scrambling to comply with this order. In California, approximately six in ten prison admissions come from parole, and recent research has illustrated clearly the relationship between parole and prison as a critical facet of institutional overpopulation (Blumstein and Beck, 2005; Grattet, Petersilia, and Lin, 2008; Steen and Opsal, 2007). As Smith et al. (2012) describe, California's unique system of parole supervision places nearly all released prison inmates on parole—typically for 3 years—which has contributed significantly to parole caseload bloating. Moreover, many offenders “churn” repeatedly between prison custody and parole supervision over many years, forming a semipermanent bloc of supervised offenders that consumes a disproportionate amount of correctional resources (Blumstein and Beck, 2005; Grattet et al., 2008).

Because of the various conditions of parole supervision that must be met, as well as their subjection to search and seizure without probable cause, parolees are at much higher risk than nonparolees to be detected doing something prohibited. Therefore, they have an increased likelihood of being caught and returned to prison. Studies have shown that the more closely an offender is watched in the community, the higher his or her chance of being violated and returned to custody (Grattet, Lin, and Petersilia, 2011; Petersilia and Turner, 1993; Sirakaya, 2006). Thus, in theory, discharging the least risky parolees early could have decreased the number of people reentering prison from parole, as these discharged parolees would not have been subject to such close supervision. Here is the critical point: Such a strategy promised little in terms of addressing the criminal behaviors of parolees. Instead, ED proposed to decrease prison admission rates through a change that was almost entirely institutional—averting the state's gaze away from these low-risk offenders. This distinction is subtle but important. “What works?” is catchy and seemingly easy to understand, and identifying empirical evidence of program effectiveness has become a guiding principle in correctional practice, but the implications of this question can be read in different ways. Traditionally, as intended by Martinson (1974), the question could be elaborated as “What works to reduce *reoffending*?” (Martinson famously answered that “nothing works.”) But programs like ED rephrase the question implicitly as “What works to reduce *recidivism*?” A focus on offending requires the state to address the complex causes of crime to change offender behaviors and protect public safety. A focus on recidivism allows the state to turn away from the complexity of crime and to pursue solutions that merely suppress the detection of crime. Were those released through ED expected to reoffend less than they would have if they had remained on parole? Of course not. Discharged parolees would have been freed from their conditions of supervision and no longer subject to warrantless

searches, making their offending harder to detect, meaning they would be more likely to stay out of prison. (They also would have been ineligible for reincarceration by the parole board, which uses a more lenient standard of evidence than that used in criminal courts.) Instead of changing parolee attitudes and behaviors, ED merely identified parolees who seemed relatively ignorable because of promising characteristics they exhibited, such as stable housing, legitimate employment, compliance with parole conditions, and being drug free. This distinction was the foundation for many arguments made by those that resisted ED, who felt that ignoring parolees would not change their behaviors and suspected that some discharged parolees would still reoffend seriously.

But ED was never actually implemented, and the reasons for its failure are the focus of Smith et al.'s (2012) article. How did a promising correctional population reduction policy, backed by reasonable science, in a state under intense pressure to shrink its correctional system, die on the vine? The answer to this question is important not only as a postmortem specific to ED but also because correctional population reduction efforts in California (and elsewhere) will keep happening, so the story of ED can be read as a caveat to subsequent policy efforts. Indeed, Smith et al. describe how many of the organizational and political problems that scuttled ED also have emerged around a more recent initiative called nonrevocable parole.

“What Works?” versus “How will it Work?”

Although research about program effectiveness is fairly rich and methodologically sophisticated, research around program implementation is much murkier (Petersilia, 2008). This matters because answering the question of “What works?” might be irrelevant if the answer to the question “How will it work?” is not known. Smith et al. (2012) detail a program (ED) that was supported by existing research, but the question of program effectiveness was never answered because of all the blockades to implementation. Smith et al. present a daunting laundry list of problems, which I summarize as follows:

1. Unreceptive local political environments
2. Political concerns that affected the screening process (e.g., the exclusion of sex offenders from program eligibility)
3. Differing institutional agendas of state and local agencies
4. Lack of buy-in by parole line staff

Research has identified programmatic approaches with promise—often branded as “evidence based”—but these programs usually are not implemented exactly as planned. Instead, they are transformed fundamentally by organizational and political pressures. For example, in the case of ED, certain offenders—sex offenders, serious or violent offenders, and gang members—were excluded from participation because of political concerns. Understanding the larger organizational dynamics through which these pressures operate may help overcome them (or negotiate through them) in the future. Thus, I feel that a more thoughtful

conceptual classification of these issues might help clarify the problems of correctional policy implementation in California and connect them to the larger dilemma of “evidence” that I have discussed previously. In brief, implementation problems can be characterized generally as concerns about legitimacy or concerns about efficiency; these concerns can be directed horizontally (i.e., across agencies) or vertically (i.e., between the upper and lower levels of the same agency). Compromised legitimacy is most commonly reflected in damaged reputations. If a criminal justice agency enacts policy changes that can be presented as threatening to public safety, then it suffers legitimacy loss. If an agency’s practices contradict the prevailing political beliefs of a community, it suffers legitimacy loss. Efficiency refers to a workload and the nature of work. Agencies will resist policy changes that either create more work for employees or take power from them (i.e., make their work more difficult). I would argue that a program that compromises institutional legitimacy—either across or within agencies—or affects job efficiency—either across or within agencies—will face major obstacles to implementation. ED ran into problems in all of these areas.

Smith et al. (2012) illustrate the ways in which legitimacy was compromised within parole vertically. Parole agents did not feel the screening tool could identify parolees adequately who would succeed without supervision. They felt it provided a surface understanding of risk but lacked depth, ignoring many of the historical and interpersonal characteristics that signified recidivism risk—characteristics that, unsurprisingly, were best assessed by experienced parole agents in their face-to-face interactions with parolees. Parole agents were not necessarily wrong about this. Validated screening instruments cannot identify perfectly those who will reoffend and those who will not. In statistical terms, some amount of variance will always remain unexplained (Harcourt, 2007). In human terms, eventually a parolee who earned early discharge was going to hurt someone and a reporter was going to report on it. Agents are fairly conservative about keeping people on parole and returning them to prison (Grattet et al., 2011; Lin, Grattet, and Petersilia, 2010; Smith et al., 2012). Again, this is driven by legitimacy concerns. Making the most conservative decision (i.e., retain on parole or return to custody) protects the parole agent, the local parole office, and the entire parole agency from accusations that they have compromised public safety. Forcing agents to release parolees from supervision based on instrument scoring, even with supervisor override power, posed a threat to the legitimacy of these actors. In their article, Smith et al. detail the response to this threat. Agents were filling out the tool inconsistently or filling it out according to preexisting expectations about particular parolees.

ED also was compromised by its possible effects on the legitimacy of local actors and agencies. Despite deliberate attempts at interagency coordination, many obstacles proved intractable. As Smith et al. (2012) suggest, these issues were rooted in the decoupled nature of the institutional landscape. State corrections, local law enforcement, and politicians were all involved in this effort, but acting according to the needs of one agency can work against

the interests of others. Conservative politicians could not get behind the pilot, either because they opposed it ideologically or the political costs of supporting a soft-on-crime approach would have been too severe. Local law enforcement objected to the loss of their warrantless search powers, which dovetailed with the public safety concerns expressed by politicians. Political and local law enforcement actors had little to gain and a lot to lose—namely, their reputations—if ED became a reality. Correctional population reduction is not an immediate problem for these actors, but lost elections and damaged reputations are. Because ED never happened, we can only speculate about the ways in which local actors might have resisted the policy had it been enacted. For example, local police might have kept a closer eye on discharged parolees anyway, somewhat subverting the intent of the policy. Conservative politicians might have partnered with victims' groups and the correctional peace officers association to criticize the program publicly (Page, 2011).

On top of these legitimacy problems, ED also would have impacted the work of parole staff and local law enforcement. That is, it would have affected negatively their occupational efficiency. Overall, some respondents felt that the target population would be too narrow to make a difference, which Smith et al. (2012) confirmed through their analyses of the simulation data. Thus, all the organizational effort required to make ED a reality would not have done much to reduce actual prison populations. ED also might have had specific workload effects within parole. Agents would have had to receive training to use the instrument, and they would have had to integrate the instrument into their daily work. Although some agents thought that this would not be much of a burden because clerical staff would do most of the heavy lifting, others were more wary. Either way, someone was going to have to do this labor. Local law enforcement concerns about ED revolved largely around the loss of their warrantless search powers over parolees. Although this is an issue of legitimacy, as described, it also is an efficiency issue, as officers would have to go through the trouble of obtaining warrants to investigate discharged parolees.

Conclusion

ED had two types of problems: organizational and philosophical. The organizationally fragmented development of ED led to serious legitimacy and efficiency concerns about it. In this case, a policy initiative was introduced by a state agency (California Department of Corrections and Rehabilitation) in response to legal pressure from a federal institution (the three judge panel), and the policy would have had significant impacts on the work of local law enforcement agencies. Simply assigning a staff member to reach out to stakeholders and coordinate their concerns could not surmount the irresolvable conflicts between these concerns. These problems can be overcome only by deliberately depoliticizing policy initiatives (or, as one respondent argued, depoliticizing the entire agency) and through *coercive* system-wide coordination.

The broader philosophical problem is that reducing recidivism does not necessarily mean addressing criminal behaviors anymore. The question of “What works?” has been reoriented to focus on recidivism rather than on offending. Neither ED nor nonrevocable parole proposes treatment interventions that would mitigate the criminal behaviors of eligible parolees. Instead, each uses legal, clinical, and social diagnostics to identify those who pose a low risk and then allows these offenders to detach themselves from parole supervision. Here, “evidence” does not pertain to rehabilitation; it pertains to identification. Correctional reforms like these have moved away from addressing the behavior of parolees and toward identifying those who are least likely to offend. In a way, this reflects the darkest trajectory of Martinson’s (1974) idea that “nothing works” to rehabilitate offenders. Programs like ED and nonrevocable parole accept this premise implicitly but obfuscate it with a shadowy, reinterpreted notion of evidence.

This definitional shift also reflects the academically popular idea of managerialism introduced by Malcolm M. Feeley and Jonathan Simon (1992; Simon, 1993). Because of political and organizational pressures, criminal justice agencies today are forced to operate in a corporatized manner with an empirical focus on recidivism reduction as evidence of effectiveness. Recidivism can be reduced in two ways—pursue behavioral interventions that make offenders reoffend less or pay less attention to those whose offending risks can be tolerated. The first approach requires massive amounts of organizational, political, and clinical resources. Not only must behavioral interventions “work” in terms of changing offender behaviors, but also they must “work” in terms of interagency acceptance and cooperation. The second approach—as represented by ED and nonrevocable parole—requires no proof of clinical effectiveness (there is essentially no clinical component), but still it needs a receptive organizational and political environment to succeed. Thus, when characterizing these programs as “evidence based,” policy makers must be clear that the “evidence” pertains only to accurate participant identification and not to clinical proof of behavioral change. Those who resisted ED—parole agents, politicians, and local law enforcement personnel—understood this distinction. They understood also that they would still face reputational consequences when discharged parolees reoffended in high-profile ways, and they knew that the implementation of ED was going to cause problems and inefficiencies in their day-to-day work.

I do not mean to say that these programs are bad ideas. If correctional population reduction is to be achieved, then programs like ED and nonrevocable parole can help. But these programs do not “work” the same way that programs aimed at behavioral change “work” (i.e., cognitive-behavioral therapy, drug treatment, and mental health counseling). Couching these initiatives in the language of scientific evidence can be misleading. Although evidence shows that these programs can contribute to operational efficiency and resource reallocation, there is not much evidence that these programs can improve public safety. The agencies and actors that resisted ED seemed acutely aware of this and, thus, expressed

concern about the program's unintended consequences. Even if there is enough political will to push these programs through at the state level, the correctional proposals of the future must pay serious attention to the ways that line staff and other agencies are impacted in terms of their reputations and workloads. Such obstacles can be overcome, but the state must have a clear strategy to do so. Is it possible to obtain genuine buy-in from line staff and local institutions? Can they be made to comply by legal force? The state, in effect, must ask itself "What works?" and then, more importantly, "How will it work?"

References

- Blumstein, Alfred and Allen J. Beck. 2005. Reentry as a transient state between liberty and recommitment. In (Jeremy Travis and Christy A. Visher, eds.), *Prisoner Reentry and Crime in America*. New York: Cambridge University Press.
- Feeley, Malcolm M. and Jonathan Simon. 1992. The new penology: Notes on the emerging strategy of corrections and its implications. *Criminology*, 30: 449–474.
- Grattet, Ryken, Jeffrey Lin, and Joan Petersilia. 2011. Supervision regimes, risk, and official reactions to parolee deviance. *Criminology*, 49: 371–399.
- Grattet, Ryken, Joan Petersilia, and Jeffrey Lin. 2008. *Parole Violations and Revocations in California*. Rockville, MD: U.S. Department of Justice, National Institute of Justice.
- Harcourt, Bernard. 2007. *Against Prediction: Punishing and Policing in an Actuarial Age*. Chicago, IL: University of Chicago Press.
- Lin, Jeffrey, Ryken Grattet, and Joan Petersilia. 2010. "Back-end sentencing" and reimprisonment: Individual, organizational, and community predictors of parole sanctioning decisions. *Criminology*, 48: 759–795.
- Martinson, Robert. 1974. What works? Questions and answers about prison reform. *Public Interest*, 35: 22–54.
- Page, Joshua. 2011. Prison officer unions and the perpetuation of the penal status quo. *Criminology & Public Policy*, 10: 735–770.
- Petersilia, Joan. 2008. Influencing public policy: An embedded criminologist reflects on California prison reform. *Journal of Experimental Criminology*, 4: 335–356.
- Petersilia, Joan and Susan F. Turner. 1993. *Evaluating Intensive Supervision Probation/Parole: Results of a Nationwide Experiment*. Santa Monica, CA: RAND.
- Simon, Jonathan. 1993. *Poor Discipline: Parole and the Social Control of the Underclass, 1890–1990*. Chicago, IL: University of Chicago Press.
- Sirakaya, Sibel. 2006. Recidivism and social interactions. *Journal of the American Statistical Association*, 101: 863–877.
- Smith, Sarah M., Marisa K. Omori, Susan F. Turner, and Jesse Jannetta. 2012. Assessing the earned discharge pilot project: The importance of context, capacity, and content. *Criminology & Public Policy*. This issue.
- Steen, Sara and Tara Opsal. 2007. "Punishment on the installment plan": Individual-level predictors of parole revocation in four states. *The Prison Journal*, 87: 344–366.

Jeffrey Lin is an assistant professor of sociology and criminology at the University of Denver. His research focuses on decision making in criminal justice institutions. He was formerly a postdoctoral scholar at the University of California, Irvine's Center for Evidence-Based Corrections and a research associate at the Vera Institute of Justice. Professor Lin has a PhD in sociology from New York University.