INTRODUCTION

CHAPTER ONE

Introduction

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For the past 30 years, the Uniform Crime Reporting System (UCR) and the National Crime Victimization Survey (NCVS), which includes its predecessor the National Crime Survey (NCS), have been the two sources of national level estimates of crime in the United States as well as estimates of changes in crime rates. During most of this time, the two series have presented a consistent picture of crime trends. Episodically, however, the two series diverge. Initially this divergence produced ill-informed debates about which series was the better indicator of crime, built around the assumption that only one data source could be correct. These debates motivated researchers to examine the issue of divergence (see Chapter 4, this volume, for a summary). One of the most significant works arising from this body of work is the 1991 book *Understanding Crime Incidence Statistics: Why the UCR Diverges from the NCS* written by Albert Biderman and one of the coeditors of the current volume, James Lynch. Biderman and Lynch's work used the divergence of the UCR–NCS trends as a vehicle for explaining how each data series measures crime differently and for emphasizing that it was acceptable (and even expected) for the two data series to diverge. Their work had two important results. First, it helped quell the "which is better" debates. Second, their work established a foundation for today's commonly held perception that the two indicators are complementary as opposed to competing and that each system should enlighten the portion of the crime problem it is best equipped to address. Throughout this introduction, we use the phrase "crime problem" to refer to the level and the change in level of crime as well as the nature and distribution of crime in society.

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Although the general principle of complementarity is widely accepted, criminologists and social statisticians have yet to identify specifically which components of the crime problem are best addressed by each system and under what circumstances. Addressing this issue requires both an intimate understanding of the procedural differences between the two data series as well as an appreciation for how the differences and changes in these procedures can affect each system's description of the crime problem. This volume, *Understanding Crime Statistics: Revisiting the Divergence of the NCVS and UCR*, moves to that level of detail. Its main purposes are to bring thoughtful consideration to the appropriate use of crime statistics by exploring the issues surrounding divergence in the UCR and NCVS and to suggest how these systems can be used in complementary ways. Ultimately we seek to provide needed insights as to how recent changes in both indicators contribute to divergence as well as guidance regarding which data series is best suited to address particular research problems. Before launching into this enterprise, we use this introduction to explain the utility of studying divergence and the need to revisit divergence now. We also clarify two common misunderstandings concerning crime statistics that often inhibit researchers' ability to visualize the NCVS and the UCR as complementing each other.

WHY STUDY DIVERGENCE?

Studying divergence (or convergence) between the UCR and the NCVS serves as an important heuristic device for understanding the complementarity of the two data systems. Other organizing principles such as the customary parallel descriptions of the two series cannot provide the focus needed to study complementarity. Parallel descriptions of the UCR and NCVS, especially those that are thorough, often leave the reader swimming in a sea of details and lacking any capacity to assess the importance of the design and characteristics of each data set. Divergence provides an organizing framework that enables a thoughtful and practical evaluation of the UCR and NCVS. In the context of divergence, detailed information describing differences in definitions and procedures becomes meaningful. Specific changes or differences in the series become important in proportion to their contribution to

divergence. Our volume is somewhat unique in this approach to ana-
lyzing the UCR and NCVS and studying complementarity. Biderman
and Lynch (1991) attempted to use divergence in this manner, but
they were unable to capitalize fully on this idea of studying comple-
mentarity, largely because much of the information necessary to do so
was not available. For Biderman and Lynch, it was a sufficiently difficult
task simply to propose the concept of complementarity.

In a substantive context, studying divergence serves an important
role because it requires a simultaneous assessment of the UCR and
NCVS and how they would each describe the same aspects of the crime
problem. The two series may diverge because they vary in their proce-
dures and definitions and because they interact with changes in society
in disparate ways. These differences not only contribute to divergence
but also to our understanding of complementarity. If we know, for
example, that a greater portion of divergence between the two sys-
tems is attributable to differences in their rules and procedures, then
these differences should be a clue as to where the most dynamic part of
the crime problem is. Knowing the sources of divergence also informs
regarding how the two series might complement each other in the
description of a particular crime. To illustrate, in looking at the recent
trends in rape, the UCR shows a steady increase in rape since 2000,
whereas the NCVS shows no increase or a decrease. In interpreting
this divergence, it is important to know that the UCR includes victims
under age 12 whereas the NCVS does not. This would suggest that one
reason for the divergence could be changes in the treatment of the
sexual assaults of younger children, such that events previously treated
as incest or as a child protective matter may now be treated as rape. If
further investigation shows this to be the case, then our understanding
of what this increase means has been improved by using the two series
in concert.

We want to state clearly that this volume uses the concept of diver-
gence without any normative component. It is of no concern to us
if the two series diverge or converge. Either outcome affords us an
opportunity to learn how the social organization of the systems affects
their description of the crime problem. At the end of this assessment,
we will have a much better idea of what is captured by one of these
series and not by the other such that we will know when it is better to

use one than the other, as well as how these data can be used jointly
to illuminate the crime problem.

WHY REVISIT DIVERGENCE NOW?

Two specific conditions make it important to return to the issue of
divergence at this time. First, the two series are beginning to diverge
(or at least appear to diverge) after more than a decade of consistent
movement. After such a long spell, debates about divergence from
two decades ago seem like ancient history. At this time, it is important
to remind social scientists and statisticians knowledgeable of crime
statistics about the complementarity principle and to provide specific
explanations of how the UCR and NCVS can diverge without either
one being "wrong." Without this kind of understanding, the risk arises
once again of engaging in debates that undermine rather than improve
our basic statistical series on crime. Second, both series have gone
through substantial changes that both make some of the knowledge
about divergence outdated and may raise questions about the comple-
mentarity principle. In addition, these improvements to the systems
provide more detailed information on sources of divergence that allow
more specificity in discussing how the systems might complement each
other. The NCVS introduced a radically changed design in 1992 that
had substantial effects on estimates of the level of crime in the United
States. No one has investigated the implications of this design change
on the issue of divergence. Similarly, the UCR is undergoing a signifi-
cant redesign in its data collection efforts with the implementation of
the National Incident-Based Reporting System (NIBRS). This change
in the UCR is relevant both because of the repercussions the overhaul
has had on the ongoing collection of aggregate crime data as well as
the availability of incident-level crime data that can inform regarding
sources of divergence. These events warrant revisiting the issue of the
divergence of the NCVS and the UCR.

MISUNDERSTANDINGS IN THE USE OF CRIME STATISTICS

Much of the research community has ignored the concept of comple-
mentarity between the UCR and NCVS. This lack of attention is not

surprising given two common misunderstandings concerning crime statistics that often inhibit researchers' ability to view the NCVS and the UCR as complementing each other. One of these misunderstandings concerns two related assumptions that there is an objective definition of the crime problem and that a statistical system can assess this problem without distortion. The second misunderstanding arises from ignorance regarding the social organization of the UCR and NCVS statistical systems. Both of these are discussed here in more detail.

Major contributors to the misunderstanding and misuse of crime statistics are the two related assumptions that there is an objective definition of the crime problem and that a statistical system can assess this problem without distortion. Crime is a complex and ambiguous concept that depends on many difficult determinations. We must decide whether a given action involved excessive harm to persons or property, provocation by the victim, and intent to do harm. Reasonable people can disagree as to whether harm occurred, whether it was excessive or provoked and whether the harm was inflicted intentionally. Other social phenomena such as employment seem on their face less complex and ambiguous. The difficulty in defining crime complicates its measurement in statistical systems. Persons collecting the data need guidance in identifying crime to classify these behaviors consistently. Greater definitional precision comes at a cost of arbitrariness. As a result, data collectors must use their discretion or they are given a rigid set of rules that poorly fits the phenomenon. Either alternative introduces distortion in the data. It can be taken as a given, then, that the social organization of statistical systems will distort to some degree the data produced, whether those data pertain to crime, unemployment, or some other social phenomenon. The nature of crime just makes this situation that much more difficult.

Distortion is a necessary consequence of the rules and incentives utilized by statistical systems to collect the desired information in an accurate way and to disseminate it in a manner that facilitates its appropriate use. To complicate matters further, all of this must be done within budgetary constraints. The International Association of Chiefs of Police (IACP), for example, was aware of this when it defined the scope of the UCR as crimes that were "serious, prevalent and well reported to the police." The IACP realized that extending the scope

of the series to interesting but less well-reported crime would increase the errors of omission in the data. As a result, the UCR by design omits large portions of the crime problem and cannot be used to address these excluded classes of crime. Every statistical system must balance cost, error, and utility. These concessions inevitably shape the resulting data. To assume otherwise is foolish, but it is an assumption that many readily make for practical reasons as well as for convenience.

Abandoning the assumptions that an objective definition of crime exists and that it can be operationalized by statistical systems without distortion frees us in three ways. First, it highlights the importance of understanding the ways that statistical systems distort the picture of crime and makes this an essential area of study. Second, it reduces the defensiveness of those agencies that collect these data and the researcher partisans of each series. Third, it allows those groups with the most extensive knowledge of these systems to use that knowledge for overall enlightenment of crime data utility rather than disparage the other series.

The second major source of misunderstanding and misuse comes from ignorance. Most researchers who use the NCVS and the UCR do not familiarize themselves with the social organization of these systems in the detail that would allow an appreciation of their complementarity. For many of us, statistics and crime data are a means to a much more rewarding and interesting substantive end. Too often, gaining intimate knowledge of the social organization of statistical systems is viewed as only slowing one down. Blame cannot fully be borne by the researchers because the agencies responsible for collecting the data are not always that forthcoming in revealing the social organization of the data collection. Agencies believe that they benefit from the perception of being "error free" and operating a transparent data-collection service for the public (even a restricted repeat-user community) is an invitation to trouble. Moreover, these data-collection agencies do not have the resources to explain the tedious and arcane particulars of their daily work. Indeed, the NCVS has endured massive sample cuts to fund its basic operations since the Bureau of Justice Statistics (BJS) has been flat funded for decades despite being increasingly burdened with responsibilities to measure different types of crime (e.g., hate crimes, Internet crimes such as identity theft). The combination of

user disinterest and the defensiveness and poverty of statistical agencies perpetuates ignorance of the social organization of statistical systems necessary to use these data appropriately and in a complementary fashion. We hope our book will enlighten readers about the important aspects of these statistical systems that affect the data they produce.

OVERVIEW OF THE VOLUME

Understanding Crime Statistics addresses the general ignorance of the NCVS and UCR that impedes understanding these systems and using their data appropriately. To begin the volume, the first two chapters provide detailed, but focused, information on these two systems that identifies those aspects of the social organization of both series that are likely to have a major effect on the divergence of the resulting trends. Using the information from these chapters as a foundation, our book turns to crime- specific and issue-specific discussions. These chapters examine specific aspects of the social organization of the UCR and NCVS systems and assess empirically whether particular factors contribute to divergence. Finally, our book concludes with a discussion of the lessons learned and suggestions for how to utilize the UCR and NCVS in complementary ways. The following provides a more detailed summary of the chapters included in this volume.

In Chapter 2, Callie Rennison and Michael Rand provide a description of the purpose and design of the NCVS. The NCVS gathers information on the incidence of criminal victimization for households and household members aged 12 and older from a nationally representative sample of households. Specific types of victimization counted in the NCVS include completed and attempted rapes and sexual assaults, robberies, aggravated and simple assaults, burglaries, thefts, and car thefts. This chapter concerns not only the current design but also the substantial redesign of the crime survey that occurred in 1992.

In Chapter 3, Cynthia Barnett-Ryan provides an overview of the UCR. The Uniform Crime Reporting System is administered by the Federal Bureau of Investigation and collects crime data from state and local police departments. The UCR includes information on murder, forcible rape, robbery, aggravated assault, burglary, theft, motor vehicle theft, and arson. In addition to crimes known to police, the

UCR also collects arrest information. Under its traditional "summary system," the UCR collected aggregate-level data from agencies and used specific classification and counting rules to facilitate accurate counting of crime events. This chapter describes those rules and procedures, some of which are discussed in subsequent chapters as sources of divergence. This summary system is in the process of changing to an incident-based system, the NIBRS. This chapter addresses both the traditional way in which the UCR collected crime statistics as well as the changes instituted with NIBRS.

The volume then turns to the issue of investigating divergence and assessing what is currently known about it. David McDowall and Colin Loftin, in Chapter 4, introduce the topic of divergence (and convergence) and consider the definitions and measures of divergence. Literature in this area is summarized with an eye to evaluate critically the definitions proposed by previous researchers and to examine how these definitions have been used to evaluate divergence in the UCR and NCVS. The chapter focuses on four of these definitions that range from more to less demanding requirements for finding divergence. Under the strictest or most demanding definitions, the data systems show little evidence that they converge. Under broader criteria, support for convergence (and against divergence) is stronger. The authors also explore an important complicating factor that divergence itself may have changed over time.

The next two sections of the volume concern specific sources of divergence, first with a view to sources from the NCVS and then with a focus on the UCR. In Chapter 5, Shannan Catalano focuses on how changes from the 1992 massive redesign of the NCVS may have affected divergence between the NCVS and UCR. Specifically, this chapter focuses on the effect of particular aspects of the redesign (new instrument, increased use of computer-assisted telephone interviewing) as well as other changes in the crime survey over time (reduction in sample size, declining response rates). The chapter addresses how these changes in the NCVS could contribute to divergence in the two series with regard to estimates of violent crimes such as aggravated assault and robbery.

Mike Planty examines in Chapter 6 the effect of series victimization reporting in the NCVS on divergence. Some individuals experience

criminal victimization repeatedly. These high-volume victims pose a
problem for crime surveys because respondents cannot always distin-
guish these victimizations as discrete events. Surveys have developed
different procedures to identify and count this special case of victim-
ization. The NCVS employs a "series victimization" procedure when an
individual reports six or more victimizations that are similar in nature.
The number of events is counted, but detailed information is collected
only on the most recent incident. Series victimizations are excluded
from annual estimates published by BJS. It is likely this decision rule
has had an effect on divergence between the NCVS and UCR because
certain crimes like domestic assaults that have increased as a propor-
tion of all violence over time include a disproportionate number of
series victimizations. Planty's chapter examines this issue, considering
in particular how reasonable methods of including series victimiza-
tions in annual estimates might affect divergence as well as "overlap."
The term overlap is used to refer to the instances when the UCR rate
estimates for violence exceed those rates of the NCVS violent crime
reported to the police.

In Chapter 7, Jacqueline Cohen and James Lynch consider another
source of divergence that may arise from the eligible respondents to
the NCVS compared with the general population served by police
agencies. The chapter examines whether the NCVS's household sam-
pling frame has resulted in the underrepresentation of marginal popu-
lations and an undercounting of behavior such as violent crime victim-
ization that is prevalent in these populations. This chapter identifies
the problem by comparing data from the National Hospital Ambula-
tory Care Survey (NHAMCS) with the NCVS. The NHAMCS employs
a sample of emergency rooms rather than housing units sample as is
done in the NCVS and other Census-administered surveys. Large dif-
ferences between the NCVS and NHAMCS are found in the rate of
emergency room visits due to violent victimization. In addition to the
underrepresentation of marginal populations, the chapter examines
other possible explanations for this disparity such as the degeneration
of the NCVS's housing unit frame as well as differences in definitions
and procedures in the two surveys.

The next section focuses on sources of divergence in the UCR. In
Chapter 8, Lynn Addington examines how changes in the UCR may