

Introduction

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Scholars, policymakers, and the general public have long been interested in how economic conditions such as poverty, unemployment, inflation, and economic growth affect public problems, including the level and types of youth violence in a community or society, the focus of the current volume. The connection between macroeconomic factors and youth violence has been referenced or alluded to in much of the literature on this issue. But significant research gaps remain, and opinion is far from settled with respect to the economic factors that are most important and how their impact is manifested in children, adolescents, and their families, schools, and communities. As the United States and other nations continue to confront the economic problems brought on by the 2008–9 Great Recession, these issues remain of utmost importance to researchers, policymakers, and citizens.

In the fall of 2008, the National Center for Injury Prevention and Control (NCIPC) at the U.S. Centers for Disease Control and Prevention (CDC) awarded a contract to the Development Services Group (DSG) to review the research literature on the relationship between macroeconomic conditions and youth violence in order to develop recommendations for future research and evidence-based intervention and prevention strategies. DSG convened a panel of research scholars to initiate the literature review. The panel consisted of experts in criminology, sociology, anthropology, economics, public health, and psychology (see appendix). All of the panelists have conducted research on youth violence, aggression, and crime and are research leaders in their areas of specialization.

The panelists and colleagues at the CDC began work on a series of papers based on the literature review and on their own related research programs. Over the next year, the papers were presented and revised at panel meetings and eventually became the chapters of the current volume. In this introductory chapter, we briefly describe the analytic framework used to guide and organize the literature review and the major conclusions of the review. We then discuss the organization of the current volume, summarize the objectives and results of each of the chapters, and consider the implications of the volume for future research on the causes and prevention of youth violence.

Analytic Framework and Literature Review

During the 1990s, Brooks-Gunn and colleagues developed an analytic framework connecting macro-social conditions such as segregation and labor markets to individual developmental outcomes, including physical and mental health, personal efficacy, interpersonal relations, and criminal behavior (Brooks-Gunn, Duncan, and Aber 1997). The framework specifies two key intervening domains that link macro conditions to individual development: neighborhood characteristics and family responses to neighborhood conditions. The framework has proven to be a durable foundation for subsequent basic and applied studies in what has come to be termed the “neighborhood effects” tradition in social research.

We used the Brooks-Gunn framework as a starting point for our

own literature review and for shaping the chapters in the current volume. Our first task was to develop an analytic framework to guide our inquiries along the lines of that developed by Brooks-Gunn et al. (1997), but our framework is both narrower in scope and more elaborate in content. In keeping with the objectives of our project, we narrowed the range of macro-social conditions to focus on economic conditions such as poverty, unemployment, economic growth, and wealth inequality. We also narrowed the outcome of concern to violent offending and victimization of children, adolescents, and young adults. But we expanded the mediating domains linking macroeconomic conditions to youth violence to encompass the community (comparable to “neighborhood” in the Brooks-Gunn schema) and situational contexts of youth violence. The situational domain includes family structure and functioning as a major component but also incorporates other relevant micro environments affecting youth violence, such as schools, street gangs, illegal markets, and access to firearms (see table 1.1).

Our framework consists of a temporal dimension (long-term versus short-term impacts of economic conditions on youth violence) that is cross-classified with the intervening domains through which the impacts of macroeconomic factors are manifested: societal, community, situational, and individual. The temporal dimension distinguishes economic conditions on the basis of whether they change gradually or rapidly over time. Some macroeconomic factors, such as levels of wealth inequality, change relatively slowly over time, and their impact on youth violence may occur over many years or decades. Such effects are best captured by studies of long-term changes in economic conditions and violence or by cross-sectional studies that reflect the accumulated changes in economic conditions and violence captured at a single point in time. Alternatively, some factors may have an impact on youth violence only when they reach a critical threshold level, and the effective level may differ across communities. Other macroeconomic conditions, such as unemployment, inflation, or consumer confidence, change more rapidly over time, and their effects on violence can be examined in time-series studies covering shorter time periods.

The second dimension of the framework specifies the domains through which economic factors may influence youth violence, over both the short and long run. Broad economic phenomena, such as a

Table 1.1. The Impact of Economic Conditions on Youth Violence: A Multilevel Explanatory Framework

	Society	Community	Situational	Individual	Youth violence
Short-run factors and impacts	<p>Cyclical economic change</p> <p>Reduced social spending</p> <p>Change in economic inequality (e.g., due to technology gap, wealth concentration)</p>	<p>Job loss from local business closings</p> <p>Public budget cutbacks—drop in social services and school resources</p> <p>Cyclical unemployment</p> <p>Reduction in after-school activities</p> <p>Increased incidence of violent behavior as a characteristic of the community environment</p>	<p>Increase in drug market volatility</p> <p>Increase in market for stolen goods</p> <p>Fluctuations in access to firearms</p> <p>Increased youth gang membership and prevalence</p>	<p>Increased likelihood of low-wage, unstable employment</p> <p>Economically induced stressors</p> <p>Increase in dysfunctional coping (e.g., drug, alcohol abuse)</p> <p>Increased truancy, decreased school participation, dropout</p> <p>Negative attitudes toward school</p> <p>Change in individual calculation of risk, resulting in more risk behavior</p> <p>Increased firearm carrying</p>	<p>Increased incidence of violent behavior</p> <p>Increased firearm use</p>
Long-term factors and impacts	<p>Job loss from international competition and outsourcing</p> <p>Unbalanced levels of global unemployment and poverty, leading to cross-border migrations</p> <p>Deindustrialization</p> <p>High economic inequality</p> <p>Media marketing of violence and violent models</p>	<p>Chronic joblessness for youth and families</p> <p>Concentrated poverty</p> <p>Poor housing, exposure to environmental toxins and pollution</p> <p>Physical degradation of neighborhood</p> <p>Lack of access to health care</p> <p>Secondary labor market</p> <p>Family disruption and instability</p> <p>Outmigration of better-off residents</p> <p>Low collective efficacy</p> <p>Low community attachment</p> <p>Immigrant enclaves</p>	<p>Lack of plausible, attractive, and stable job paths</p> <p>Few prosocial adult models—high salience of violent or negative models</p> <p>Ineffective parenting</p> <p>History of family problem behaviors (e.g., drug abuse, criminality)</p> <p>High levels of family violence, abuse, neglect</p> <p>Limited adult supervision</p> <p>Disorganized school climate</p> <p>Limited social capital outside of street environment</p> <p>Violent street code—prevalence of attitudes and beliefs (among adults and peers) supporting violence</p> <p>Easy access to firearms</p>	<p>Chronic unemployment for youth and families</p> <p>Educational deficits</p> <p>Low expectations with respect to mainstream economic and social roles</p> <p>High expectations with respect to gains from street economy</p> <p>Low perceptions of personal safety</p> <p>Decreased reliance on family for support</p> <p>Cognitive-behavioral deficits resulting from violent victimization, prenatal drug exposure, environmental toxins</p>	<p>Chronically high levels of community violence</p> <p>Chronically high levels of family violence, abuse, neglect</p> <p>Persistence of violent street codes—prevalence of attitudes and beliefs (among adults and peers) supporting violence</p>

Differential Impacts of and on Race and Ethnicity



national or global recession, may affect entire societies (column one in the figure). Others, such as concentrated poverty or chronic joblessness, affect some communities more than others (column two). Economic conditions also may influence the situational context of youth violence by, for example, affecting firearm ownership and carrying, the salience of street gangs, and markets for illicit drugs (column three). Finally, the economy may affect individual youths in ways that heighten their risk for violence, for example, through its impact on family functioning, community support resources, illicit drug use, or dropping out of school (column four). The short- and long-run impacts of economic conditions are likely to ramify across multiple domains and may differ depending on the race, ethnicity, or immigration status of the affected youth.

If nothing else, the analytic framework depicted in table 1.1 should convey the complexity of the manifold connections between economic conditions and youth violence. The panel, in order to make its task manageable, decided to focus its attention on four key subdomains through which the impact of economic conditions on youth violence is manifested: families, schools, community resources, and street markets. These intervening contexts were not intended to exhaust the possible connecting links between economic conditions and youth violence, but they do constitute major pathways through which economic factors are likely to influence levels and patterns of youth violence.

The analytic framework proved to be useful for organizing the review and motivating the studies contained in this volume. We recommend continued use of this organizing schema or closely related ones in future reviews intended to summarize prior research and to guide future research on youth violence. The literature review culminated in the following general conclusions:

(1) The research literature on macroeconomic factors associated with youth violence is dominated by cross-sectional studies. Further, results from cross-sectional investigations often are not replicated in existing longitudinal research. Perhaps the best example of such divergent results involves the relationship between unemployment and crime. Cross-sectional research reveals a robust, positive relationship between the unemployment rate and crime, whereas the findings of longitudinal studies are mixed, with some studies finding a negative relationship,

others a positive relationship, and others no relationship, particularly between unemployment and violent crime (e.g., Pratt and Cullen 2005). The difference in results could signal a corresponding difference in the short- and long-term impact of unemployment, with cross-sectional studies reflecting the impact on crime and violence of enduring or chronic joblessness and longitudinal research reflecting short-term cyclical effects or their absence. But the greater consistency of the cross-sectional findings also may be attributable to the absence of controls for other conditions that affect both the level of unemployment and violence. In other words, the relationship between unemployment and violence found in cross-sectional research may to some degree be spurious. Future research should adopt both a cross-sectional and longitudinal framework, as in pooled time-series or panel analyses, which may help to better identify the causal consequences of unemployment and other economic conditions for youth violence, across places and over time (see, e.g., Arvanites and Defina 2006; Raphael and Winter-Ebmer 2001; Rosenfeld 2009).

(2) The analytic framework directs attention to a range of potential pathways between macroeconomic factors, the mediating domains, and youth violence. Most of the literature reviewed, however, focuses on the relationship between mediating factors and youth violence (proximal linkages), rather than between macroeconomic factors and the mediating domains (distal linkages) or linkages spanning the full spectrum from macroeconomic factors to youth violence. Greater research attention to how economic conditions affect families, schools, community resources, street markets, and other mediating contexts of youth violence is clearly needed.

(3) The literature under review points to several individual and family-level risk factors for youth violence and to interventions that show promise in modifying those factors. Much less attention, however, has been devoted to interventions at the community level that may reduce rates of youth violence. Moreover, the research literature strongly suggests that the effect of individual and family factors cannot be separated from the surrounding community-level socioeconomic conditions in which they are embedded, supporting a conclusion that individual or family-level interventions, even if “best practices,” will have limited effects unless they are combined with broader community interventions.

The Current Volume

Overall, the literature review constitutes a rich resource for the research community by summarizing the major results of, as well as deficits in, recent research on linkages between macroeconomic conditions and youth violence. It also served as a foundation for the current volume, which reviews prior research and introduces new results pertaining to youth violence across multiple domains of influence and over time. We asked the contributors to address important outstanding research issues that emerge from the literature review and to bring new data and insights to bear on these issues from their own research. The volume is organized in three main parts. The three chapters in part 1 focus on the relationship between changing economic conditions and general crime, violence, and youth violence trends over varying time periods. The chapters in part 2 examine patterns of youth violence and its control in relation to community socioeconomic conditions. Part 3 directs attention to how economic conditions influence individual and family factors implicated in youth violence. The final chapter derives policy and prevention implications from the research overviews and the new findings presented in the previous chapters.

Part 1 opens with a chapter by Shawn Bushway, Philip Cook, and Matthew Phillips that presents new research results on the relationship between short-run fluctuations in economic conditions and changes in homicide, property crime, and suicide rates over a 76-year period. The results replicate and extend those of a now classic paper by Cook and Zarkin (1985). The authors find that economic downturns result in increases in burglary, robbery, and suicide rates; decreases in motor-vehicle theft; and no significant change in homicide rates. An analysis of age-specific arrest rates since 1963 shows basically the same results, except for robbery, which is not significantly related to changes in age-specific arrests. The analysis of arrests indicates that the “procyclical” pattern (crime decreases coincide with economic downturns) for motor-vehicle theft is specific to offenders under the age of 18; no significant results are found for older age groups. The authors view the mechanisms linking cyclical economic change and crime as a “black box” to be filled in by other researchers. The remaining chapters begin to peer inside the black box.

Eric Baumer, Richard Rosenfeld, and Kevin Wolff present new results on how levels of inflation moderate the impact of unemployment on property crime and age-specific homicide rates for a sample of 82 American cities over the period between 1980 and 2009. Controlling for other influences, they find that the effect of unemployment on property crime rates is stronger during periods of high inflation; in fact, no relationship exists between unemployment and property crime during periods of below-average inflation rates. The authors report similar results for the effect of wage levels on homicide rates. These results may hold a clue for why crime rates did not increase during the 2008–9 recession, when inflation rates were at historically low levels. Contrary to expectations, the authors do not find evidence that the level of unemployment insurance benefits or a measure of drug market activity moderates the effect of economic adversity on crime rates. They conclude their chapter with the recommendation that future research on the relationship between macroeconomic conditions and crime rates move beyond simplistic assessments of “main effects” and consider the role of inflation and other conditions in moderating the relationship between crime rates and economic conditions such as unemployment and wages.

Janet Lauritsen, Ekaterina Gorislavsky, and Karen Heimer also present new research findings in their chapter on the relationship between changing economic conditions and rates of serious violent victimization among adolescents and young adults between 1973 and 2005. They compare the effects of unemployment, poverty, and consumer sentiment on rates of youth violence by the gender and race-ethnicity of victims. They find that increases in youth violence are generally associated with increases in poverty and growing consumer pessimism, but not with increases in unemployment. The effects of poverty and consumer sentiment, however, differ somewhat for males and females and youth of differing ages and race-ethnic groups. Like the previous results presented by Baumer and colleagues, these findings indicate that the relationship between macroeconomic conditions and youth violence is not simple and is conditioned by the age, gender, and race-ethnicity of victims.

In part 2 of the volume on the community context of youth violence, Xiangming Fang, Richard Rosenfeld, Linda Dahlberg, and Curtis Flor-

ence report new results from a cross-sectional study of the relationship between neighborhood socioeconomic disadvantage and self-reported violent offending among a nationally representative school-based sample of adolescents. They find that the relationship between disadvantage and adolescent violence is nonlinear: Adolescent violence is relatively low in the least disadvantaged neighborhoods, peaks in more disadvantaged areas, and falls off somewhat in the most disadvantaged areas. The authors recommend that policymakers consider these nonlinear patterns when devising interventions to control youth violence.

Robert Crutchfield and Tim Wadsworth present results from their research on youth and adult employment patterns in disadvantaged communities, school performance, and delinquency in a nationally representative sample of adolescents. An important result of this study is that neighborhood socioeconomic disadvantage conditions the effect of school performance on delinquency. Among students who live in disadvantaged areas, better grades in school are associated with *higher* delinquency rates, a pattern opposite to that found for students from more advantaged areas and suggesting that the relationship between school performance and violence involvement is conditioned by the neighborhood opportunity structure. This finding should concern policymakers and violence-prevention specialists and echoes the conclusion from the literature review that interventions to prevent youth crime and violence should be multivalent, encompassing the community as well as the families and schools of disadvantaged youth.

The following chapter by Mark Edberg and Philippe Bourgois considers how the exposure of adolescents to street market contexts (e.g., gangs, drug markets) shapes the connection between violence and identity development—thus increasing the likelihood of violent behavior by youth. Prior research has explored normative aspects of these contexts, particularly a violent “code of the street” (Anderson 1999). The authors, however, focus on the interaction of the street market context as embedded in structural inequality and the adolescent developmental phase of identity formation, concluding that violence comes to represent socially valued personal qualities, which strengthens its connection to positive identity models. The authors also conclude that interventions focusing on the risk factors that contribute to youth involvement in street markets do not sufficiently address the *generative* dynamic that exists

once they are involved—as exemplified by the identity development process. Interventions utilizing a *substitution principle* are offered as one alternative.

In the final chapter of part 2, by Jeffrey Fagan and Valerie West, attention turns to the response of the criminal justice system to neighborhood violence. To what extent, they ask, do persistently high levels of incarceration depress economic well-being and human capital in disadvantaged and racially segregated communities? In a panel analysis of New York City neighborhoods between 1985 and 1996, a period in which the city's violent-crime rates both rose and fell sharply, the authors find evidence that high incarceration rates reduce income growth, educational attainment, and work experience in disadvantaged and racially segregated neighborhoods. They recommend targeted micro investment and housing development in such areas to break the connection between incarceration and economic and educational disadvantage.

The two chapters in part 3 of the volume address the interconnections among economic conditions, families, child development, and youth violence. Nancy Guerra employs a lifecycle approach to describe different kinds of links between macroeconomic factors and violent behavior that occur across the developmental continuum. She argues that such linkages must be viewed—for both theoretical and intervention purposes—in connection to developmental stage and as a *cumulative process*. Poverty increases early child exposure to fetal toxins, nutritional deficiencies, trauma (through violence exposure), and family/parenting difficulties. Such exposures set in motion a process that is exacerbated up the developmental chain by other factors connected to poverty and the macroeconomic context, including neglect; a lack of economic resources, educational support, and access to health care; and continued exposure to community violence and its social context. Intervention strategies must therefore be linked across developmental stages to have a chance of interrupting this process.

The chapter by Jennifer Matjasko, Sarah Beth Barnett, and James Mercy describes a cyclical dynamic between macroeconomic factors and families affecting child outcomes. Both short- and long-term economic strains disrupt the ability of families to provide a nurturing and positive developmental environment. Drawing on the family stress and the family investment models, the chapter shows how long-term

and short-term economic strains can differentially (1) increase irritability, anger, depression, substance use, harsh parenting, family conflict, and other problems within families, potentially leading to adjustment and academic problems among children; and (2) affect decisions families make about resources they can (and cannot) provide for educational and developmental support. Further, Robert Agnew's general strain theory (2006) suggests an additional family stressor from a general frustration created by resource deprivation. Matjasko and colleagues propose a model capturing the cyclical dynamic that predicts different family—and thus youth—outcomes by type of economic strain, with implications for intervention.

The final chapter by Curtis Florence and Sarah Beth Barnett considers the implications for policy and prevention raised in the preceding chapters. The authors discuss three preconditions for the prevention of youth violence through improvements in economic conditions. First, a strong relationship between youth violence and economic conditions must be established, net of other influences. Second, prevention programs should target the specific economic conditions that affect youth violence, and their effectiveness in improving those conditions must be demonstrated. Third, the economic improvements must be sufficiently large to lead to reductions in youth violence.

With respect to the first question, several of the chapters in this volume report statistically significant relationships between economic conditions and crime, including youth violence, but some conditions appear to be more important than others. None of the analyses, for example, shows a direct relationship between unemployment and youth violence. The authors recommend that the impact of youth, adult, and family income levels on youth violence should be given high priority in future research intended to inform prevention policy and programs.

The second precondition for policy-relevant research requires that prevention efforts effectively ameliorate the particular economic conditions that influence youth violence. That will mean paying close attention to how economic conditions affect families, schools, and neighborhoods—the more proximate contexts in which youth violence emerges. Finally, the authors maintain that the demonstrated effects of prevention programs must be sufficiently large and sustained to result in appreciable reductions in youth violence. Some of the most effective

prevention programs focus on developmental processes in early childhood. The research challenge is to show that the beneficial effects of early-life interventions persist into adolescence and young adulthood.

Outstanding Issues

The research reported in this volume offers new and important insights regarding the relationship between macroeconomic conditions and youth violence. To take only a few examples, we learn from Baumer and colleagues' study that the relationship between unemployment and property crime may be conditioned by the level of inflation: a significant relationship exists during periods of high inflation, while little or no relationship exists during periods of low inflation. Lauritsen and colleagues' research indicates that the impact of macroeconomic conditions on youth violence differs by race and ethnicity, with stronger effects for minority youth. Crutchfield and Wadsworth report the disturbing result that high-achieving students in disadvantaged neighborhoods may be more likely than other youth to engage in violent behavior. Edberg and Bourgois argue that, for some youth, a violent persona fulfills otherwise positive identity needs and, as a result, may be difficult to modify without substituting prosocial identities that fulfill the same needs. These and the other chapters highlight the complexities in the relationship between economic conditions, youth violence, and the community and situational contexts in which their connections are forged. They also prompt questions that should guide future research on the causes and prevention of youth violence.

We consider six questions to guide future research. We recognize that many others could be added to this list and encourage readers to identify other outstanding issues raised (or neglected) in this volume. But we believe that the following six questions merit serious consideration in the design of future studies of youth violence and research on policy and prevention:

1. Is macro-level research on youth violence sufficient in and of itself to address important questions about the causes and control of youth violence, or should all future research focus on the interplay of macro-, micro-, and individual-level conditions and processes?

2. What are the *disaggregated and interactive* effects of macroeconomic conditions on youth violence and its community and situational antecedents?
3. How do *social institutions* influence the level and types of youth violence observed at specific times and places?
4. What is the role of *property crime* in the generation of and risk for youth violence?
5. To what extent is research on youth violence biased by *selection effects*?
6. Are data and information on youth violence detailed and timely enough to adequately inform policy responses to youth violence?

Is Macro-Level Research Sufficient?

The first question invokes longstanding philosophical and disciplinary debates regarding the adequacy of macro-level theories and research for addressing important questions about human behavior (for an excellent treatment, see Jepperson and Meyer 2011). The debates are framed by two metatheoretical positions: methodological individualism and sociological holism. Methodological individualism, arguably the more dominant orientation in contemporary social science,¹ holds that cultural formations, institutions, and social structures are manifested only in the behavior of individuals and that, as such, explanations of human behavior must be grounded in research on individuals. The opposite holistic position, by contrast, posits that supraindividual conditions and processes (e.g., the nuclear family system, market economy, globalization) are sufficient to explain important social outcomes without invoking strong assumptions about the biological characteristics or psychological states of individuals.

We have stated these positions in their extreme form, which few social scientists adopt without some qualification. A common response in modern social science to the individualistic-holistic debate is to promote “multilevel” theorizing and research that incorporates macro, micro, and individual properties in the explanation of individual behavior. But the very emphasis on individual outcomes privileges the individualistic position and, by implication, rejects single-level macroscopic explanation as untenable.

We fully endorse multilevel theory and research in the study of youth

violence and much else—indeed, the analytic framework underlying this volume explicitly invokes multiple levels of analysis (macro, community, situational, individual) in the explanation of youth violence. But the outcomes of interest are not limited to individual behavior, and the framework is intended as an analytic device to bring some order and clarity to the diverse research traditions and disciplinary perspectives that characterize the study of youth violence. Given the current state of knowledge about the causes and prevention of youth violence, social scientists would be ill advised to limit scholarly inquiry to studies that focus only on individual outcomes or to reject a priori single-level research, whether macro level, individual level, or somewhere in between.

The question of the appropriate level(s) of analysis for the study of youth violence ultimately depends on the explanatory purposes at hand. Consider the study by Bushway and colleagues of the relationship between the business cycle and youth crime and violence. They address a macro-level question: do rates of youth crime and violence rise and fall in systematic fashion during economic recessions and recoveries? Their research reveals relationships between the business cycle and property crime and robbery, but they leave it to others to interpret those relationships in terms of neighborhood or family or individual attributes.

The chapters in part 3 of this volume specify family and individual attributes that may increase the vulnerability of some youth, at particular points in the developmental process, to macroeconomic fluctuations of the sort Bushway and colleagues examine. More broadly, individual- and micro-level theory and research alert us to differential exposure to risk factors that explain why some youth are more likely than others to engage in violent behavior or are at greater risk for violent victimization. But such research does not, by itself, fully explain why *rates* of violence change over time or why some communities have persistently higher rates of violence than others. Those are macro-level issues that require macro-level theorizing and research designs or multilevel designs capable of studying aggregate and not simply individual outcomes (for extended discussion, see Rosenfeld 2011).

Elaborating Macro-Level Research

If macro-level research on youth violence remains viable and necessary, it also should be expanded and elaborated in at least two ways: greater attention should be directed to explaining the impact of macroeconomic conditions on demographically disaggregated rates of youth violence and to how economic conditions interact in their effects on youth violence. Lauritsen and colleagues provide a useful point of departure for research on disaggregated violence rates in their assessment in this volume of the impact of poverty, unemployment, and consumer sentiment on race- and ethnic-specific rates of violent victimization. Bushway and colleagues find that the impact of the business cycle on motor-vehicle theft differs according to the age of the offender (measured by arrests). Baumer and colleagues provide an important example of how some economic conditions (inflation in their study) moderate the influence of other economic factors (unemployment and wages in their study) on youth crime and violence. These results offer a more nuanced view of the relationship between macroeconomic conditions and youth crime and violence than is afforded by research limited to explaining variation in aggregate rates and the additive (versus interactive) effects of multiple macroeconomic conditions.

Social Institutions

“Macro” social conditions are not limited to the aspects of social structure and culture that are emphasized in most prior research on crime and violence (e.g., labor markets, poverty, inequality, violent conduct norms). Social institutions also matter. Social institutions are the enduring complexes of values, beliefs, organizations, positions, and roles that define a social system and set it apart from others (see Jepsen and Meyer 2011; Messner, Rosenfeld, and Karstedt 2011). The relationship between macroeconomic conditions and rates of youth violence and the effects of the economy on individual youth are likely to vary across differing institutional contexts. Indeed, the very concepts of “youth violence” and “adolescence” as a distinct phase of the developmental process are institutionally determined (see Felson 2002). Neither criminological nor public health research on youth violence has

devoted sufficient attention to the role of institutions in shaping the cultural, structural, and individual contexts in which youth violence develops and is sustained and altered (for important exceptions, see Eisner 2001; Gartner 1991; LaFree 1998; Pampel and Gartner 1995; Roth 2009). Historical and comparative research is essential for understanding the institutional forces—and transformations—that give rise to youth violence and the possibilities for its prevention.

Property Crime and Youth Violence

Property crime (burglary, theft, receipt of stolen goods) has been largely neglected as a risk factor for youth violence in both the criminological and public health research literature. Criminologists tend to view the empirical association between property and violent crime as spurious, that is, the result of other individual or social factors such as self-control or criminal opportunities (see Rosenfeld 2009). Public health researchers evidence some interest in general delinquency as a risk factor for violence but have devoted little attention to how the dynamics of property offending may increase violent offending and victimization. Yet there are good reasons for suspecting that property crime and the exchange of stolen goods in underground markets pose specific risks for violence.

The lifestyle and activity patterns of property offenders bring them into contact with violent youth and adults. Violence is used to settle disagreements, to enforce compliance, and to punish wrongdoing among persons who lack access to formal dispute-resolution mechanisms and agents of social control such as the police, courts, and schools. The legal vulnerability of property offenders makes them attractive targets for street robbers and other predators. These risks have been documented in research on illicit drug markets (e.g., Jacobs 2000), but they exist wherever persons are engaged in illegal activity and cannot rely on formal authorities for assistance or protection.

Recent research indicates that the risks of property crime elevate rates of serious violence, including homicide, among youthful offenders (Loeber and Farrington 2011). Further, much research has shown that economic conditions have stronger and more consistent effects on property crime rates than on rates of violent crime (see Bushway et al.

in this volume). This suggests that property offending may be a significant intervening domain linking the economy to violence. Investigating the *causal* consequences of property offending and other forms of criminal involvement for youth violence, and the indirect influence of economic conditions on youth violence through property crime, should be high on the future agenda of youth-violence researchers.

Selection Effects

Perhaps no other issue has bedeviled contemporary research on the community context of youth violence more than that of *selection bias* (see Duncan, Connell, and Klebanov 1997; Sampson, Morenoff, and Gannon-Rowley 2002). The selection problem is part of a broader class of issues affecting the derivation of causal inferences from nonexperimental data. In the classic experiment, some subjects are randomly allocated to a “treatment” condition and others to a “control” condition. In principle, randomization ensures that the treatment and control subjects are similar on all conditions affecting the outcome, except for the treatment. Randomization is difficult to implement in field research on human behavior, however, and in many instances is simply not possible—especially in the study of risky or violent behavior. It is neither ethical nor practical, for example, to randomly expose children and adolescents to differing levels of poverty, abuse, or neglect to investigate the effects of such community and family conditions on violent behavior. Violence researchers are usually left with few alternatives to the use of *observational data* in the study of youth violence, that is, observations of violence and its hypothesized antecedents as they naturally occur in real-world environments. The reliance on observational data raises the problem of selection bias.²

Individuals and families are not randomly allocated across communities of different types; they make choices about where to live and, within limits, where to attend school, work, shop, and spend their leisure time. That is, individuals are selected into (and out of) social environments, and those observed in a particular environment may differ in all kinds of ways from those observed elsewhere. If those individual differences are correlated with a specific outcome we want to explain, such as violent behavior, and also with characteristics of the

environment itself (e.g., the degree of poverty or racial segregation), how can we be certain that the outcome is caused by the environment and not by the attributes of the individuals in the environment? Failure to take adequate account of how individual attributes affect violent behavior can, therefore, lead to invalid causal inferences concerning the effect of social environments on violence by either overestimating or underestimating the hypothesized environmental effect (Duncan, Connell, and Klebanov 1997).

Researchers have long recognized the problem of selection bias in community-level research and have addressed it in essentially three ways: through single- or multi-level cross-sectional research designs that incorporate statistical controls for potentially relevant individual effects; through longitudinal designs that follow the same individuals and communities over a sufficient length of time to establish the temporal sequence between hypothesized causes and effects; and, more recently, through propensity-score models that match or otherwise equate individuals on those characteristics, other than the hypothesized “treatment,” thought to affect the outcome (the classic statement is Rosenbaum and Rubin 1983). Each of these approaches can reduce selection bias, but none eliminates it, especially selection on “unobservables,” that is, relevant individual attributes that the investigator is not aware of or cannot measure. So long as researchers must rely on observational data for studying youth violence and other significant individual and social outcomes, selection bias will remain a threat to causal inference, and causal claims—including those in this volume—must be viewed with caution.

Policy-Relevant Data

A final question that should inform future research on youth violence, especially applied research that has the potential for informing prevention policy and practice, concerns the quality and timeliness of the available data on youth violence and its correlates. To address problems of crime and violence *as they develop*, researchers and policymakers must have access to detailed, comparative, and timely data. Ideally, violence data should be available at the incident level and include information on date and time of occurrence, victim and (if known) suspect

characteristics and relationship, and features of the event, such as its connection to other crimes and weapon use. Few violence data systems contain this level of detail, and those that do are not nationally representative (e.g., the FBI's National Incident Based Reporting System) or omit an important type of violence (e.g., the Bureau of Justice Statistics' National Crime Victimization Survey, which omits lethal violence). Triangulating data across systems is made difficult by the use of differing definitions and reporting jurisdictions. Researchers, policymakers, and the nation would be best served by a single nationally representative violence surveillance system that combines criminal justice and public health data on violent incidents, both lethal and nonlethal, enables comparisons across jurisdictions of varying size, and disseminates the data in small time increments (months or quarters) on a timely basis.

NOTES

1. For example, Jepperson and Meyer observe, "The idea that structural arguments are at best explanation sketches, to be resolved into and replaced by more adequate individual-level explanations, is now relatively commonplace" (2011, 66).
2. Selection bias and related methodological problems that compromise valid causal inference also occur in randomized field experiments in criminology and other social sciences (Sampson 2010).

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