American Sociological Review

Dimensions of Social Capital and Rates of Criminal Homicide

Steven F. Messner, Eric P. Baumer and Richard Rosenfeld

The online version of this article can be found at:

Published by:
$SAGE

http://www.sagepublications.com

On behalf of:

ASA
AMERICAN SOCIOLOGICAL ASSOCIATION

American Sociological Association

Additional services and information for *American Sociological Review* can be found at:

Email Alerts: http://asr.sagepub.com/cgi/alerts

Subscriptions: http://asr.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

Citations: http://asr.sagepub.com/content/69/6/882.refs.html

Dimensions of Social Capital and Rates of Criminal Homicide

Steven F. Messner
State University of New York at Albany

Eric P. Baumer
University of Missouri–St. Louis

Richard Rosenfeld
University of Missouri–St. Louis

Robert Putnam comprehensively analyzes the multidimensional nature of social capital and makes a persuasive argument for its relevance to various community social problems, including violent crime. However, systematic empirical evaluations of the links between the multiple dimensions of social capital and violence are limited by the lack of adequate measures. Using data from the Social Capital Benchmark Survey, the authors model the relationships between several dimensions of social capital and homicide rates for 40 U.S. geographic areas. Their findings show that many forms of social capital highlighted in the literature as having beneficial consequences for communities are not related to homicide rates. Two dimensions of social capital, social trust and social activism, do exhibit significant associations with homicide rates, net of other influences. However, in the latter case, the relationship is positive, and in both cases, simultaneous equation models suggest that these dimensions of social capital are consequences as well as causes of homicide. The results underscore the importance of examining the different dimensions of social capital and assessing their reciprocal relationships with homicide and other social outcomes.

The term "social capital" is ubiquitous in contemporary sociology. Its appeal rests, in part, on its capacity to stir in sociologists a renewed sense of the significance for collective action of *social relations* as distinct from the economic utilities of individuals or the power of public bureaucracies (Coleman 1990). In addition, as Lin, Cook, and Burt (2001:vii) observe, the various meanings of social capital "capture the essence" of concepts that are central to the sociological heritage, such as social integra-tion, social cohesion, solidarity, and social disorganization.

The richness of the concept of social capital is not universally applauded. Critics accuse social capital of "becoming all things to all people, and hence nothing to anyone" (Woolcock 2000:7; see also Woolcock 1998). Nevertheless, the varied, murky, elusive, and even circular meanings of the concept give it great analytical flexibility and multiply its empirical applications. In an astute review of conceptual controversies surrounding social capital, Portes (1998:21–22) calls for assessments of the causes and effects of social capital "as manifold processes . . . to be studied in all their complexity."

We follow Portes' (1998) advice in this report by partitioning the several dimensions of social capital and estimating their interrelationships with criminal homicide. Our analyses rely on a unique data set: the Social Capital Benchmark Survey (SCBS). The explicit purpose of the

SCBS is to capture the diverse forms of social capital discussed in the theoretical literature, particularly Robert Putnam's (2000) influential book, *Bowling Alone*. It contains a wealth of information about the social connections among family members, friends, and neighbors, and about civic, religious, and political activity for a diverse sample of geographic areas in the United States. The SCBS allows for a multidimensional conceptualization of social capital and the measurement of the construct's component elements with a much more extensive list of theoretically grounded indicators than has been possible in previous research. By merging the SCBS measures with data on homicide and other characteristics of the geographic areas in the sample, we offer a much more detailed specification than previously available of those aspects and manifestations of social capital that are and are not associated with criminal homicide.

PUTNAM'S MULTIDIMENSIONAL CONCEPTION OF SOCIAL CAPITAL

In *Bowling Alone,* Putnam (2000) provides a rich description of the multifaceted nature of social capital. He distinguishes among several different dimensions and subdimensions of the concept, nearly all of which, he argues, have waned over the past several decades in the United States. The most general forms of social capital are trust and social participation, which form, in Putnam's (2000:137) words, "a coherent syndrome" within which the "causal arrows are . . . as tangled as well-tossed spaghetti." Trust assumes two basic forms for Putnam: "bonding" trust, which refers to trust in concrete others (friends, coworkers, family, neighbors), and "bridging" trust, which extends beyond immediate social circles to more distant others with whom individuals have no direct ties (see also Yamigishi, Cook, and Watabe 1998). In related usage, Putnam (2000) refers to the two forms of trust as "thick" and "thin," respectively. Elsewhere, Putnam extends this distinction beyond trust and refers to bonding and bridging social capital.

Putnam (2000) subdivides the social participation component of social capital into political participation, civic participation, religious participation, workplace connections, informal social ties, and philanthropy, altruism, and volunteering. Among the possible forms of political participation, Putnam (2000:31–47, 153) emphasizes voting; political knowledge and interest; party identification; involvement in campaigns; attendance at a political rally, speech, or public meeting; committee service for a local organization; participation in social movements; and political protest. Some of these forms of political engagement bleed into civic participation, which entails joining and attending meetings of nonpolitical voluntary associations, such as the Elks, Knights of Columbus, PTAs, and Boys and Girls Clubs of America (pp. 48–64). Religious participation includes church membership and attendance, as well as involvement in church-related programs and activities, such as study groups, charities, and "socials" (pp. 65–79).

Putnam counts informal social connections as forms of social capital, including visiting with family, friends, neighbors, and other acquaintances; "socializing" at bars and nightclubs; and participating in group leisure activities and neighborhood organizations, also a form of civic involvement. As with other forms of social capital, Putnam contends that all these have stagnated or declined, and these reductions in social capital have not been offset by countertrends in spectator sports, self-help and support groups, or the rise of the Internet, which are either too weak (as opposed to "thin") or too inward-looking to foster collective goal attainment.

Putnam views the alleged decline in the various forms of social capital with alarm, because he is convinced that, on balance, social capital facilitates the achievement of collective purposes. By "greasing the wheels" of productive social interaction, social capital lowers the transaction costs of day-to-day social exchanges and widens awareness of "the many ways in which our fates are linked" (Putnam 2000:288). Plentiful stocks of social capital thereby increase the flow of information that facilitates goal attainment and enables "citizens to resolve problems more easily" (p. 288). Putnam does recognize that not all forms of social capital produce positive outcomes. Some kinds of bonding social capital, in particular, are associated with hostility to outsiders and may impede the flow of information that accompanies bridging social capital (Putnam 2000:362). Nevertheless, Putnam clearly emphasizes the

benefits of social capital, which leads him to lament its alleged decline over the past few decades.

SOCIAL CAPITAL, DISORGANIZATION, AND CRIME

One of the pernicious consequences of declining social capital in the United States, according to Putnam, is increased crime. Putnam (2000) links rising crime rates since the 1960s, at least in part, to reductions in the level of social trust over the same period (p. 144). In a more elaborate cross-sectional analysis, he shows that states with high murder rates generally register lower than others on an index of social capital that incorporates measures of political and civic involvement, volunteerism, informal sociability, and social trust (pp. 308–9). He concludes that crime and social capital are directly linked: "Higher levels of social capital, all else being equal, translate into lower levels of crime" (p. 308).

Putnam's explanation of the connection between social capital and crime is rooted most directly in social disorganization theory (Bursik 1988; Sampson and Groves 1989; Shaw and McKay 1969). In the classic formulation, disorganized communities are characterized by high rates of economic deprivation, residential instability, and population heterogeneity (Shaw and McKay 1969). These conditions impede the development of both primary and secondary social networks among residents and between communities, which in turn reduces a community's capacity to exert social control, especially over the behavior of youth (Bursik and Grasmick 1993; Sampson and Groves 1989). Drawing on the logic of social disorganization theory, Putnam argues that social networks form the infrastructure of social capital. This allows for "the reinforcement of positive standards for youth," offering them "access to mentors, role models, educational sponsors, and job contacts outside the neighborhood," . . . "providing emotional and financial support for individuals," and supplying "political leverage and volunteers for community institutions" (Putnam 2000:312). Severed networks and depleted social capital, in contrast, leave "kids to their own devices," increasing the chances that they will act on "short-sighted or self-destructive impulses" (p. 312). In addition, destructive

forms of bonding social capital, such as youth gangs, may emerge in response to the general depletion of other forms of bonding and bridging social capital. The implications for crime are clear: "Young people rob and steal not only because they are poor, but also because adult networks and institutions have broken down" (p. 314).

Several other studies also attempt to assess explicitly the interrelationships between social capital and crime. In an analysis based on the 50 American states, Kennedy et al. (1998:8) operationalize social capital using indicators of trust and civic engagement from the General Social Survey. Trust (scored in the direction of lack of trust) is measured by the proportion of respondents who believe that "most people would take advantage of you if they got the chance," whereas civic engagement is measured by the number of groups and associations to which respondents belong. Kennedy et al. (1998) report that both measures of social capital are significantly associated with firearm violence. These effects persist when measures of poverty and a proxy variable for access to firearms are controlled. They obtain similar findings for related General Social Survey measures of trust and helpfulness.

Rosenfeld, Messner, and Baumer (2001) also conceptualize social capital as composed of the two primary dimensions of trust and civic engagement and assess the impact of social capital on homicide rates in a multivariate framework. In contrast with the research by Putnam (2000) and Kennedy et al. (1998), they model social capital as a latent construct and use smaller and less heterogeneous units of analysis than states, namely, the single and multi-county clusters that comprise the primary sampling units of the General Social Survey. Using indicators of trust and civic engagement similar to those in the study by Kennedy et al. (1998), Rosenfeld et al. (2001) find that the latent construct for social capital has a significant negative effect on homicide rates, net of a baseline model containing well-established covariates. They also estimate a simultaneous equation model to accommodate a possible negative effect of homicide rates on social capital and find that the sign of the effect of homicide on social capital is consistent with expectations, but the coefficient does not reach statistical significance. The effect of social capital on homi-

cide remains significant controlling for the reciprocal influence of homicide on social capital.

Lederman, Loayza, and Mendendez (2002) extend the research on social capital and homicide to the level of nation-states. Using data from the World Values Survey for a sample of 39 developed and developing nations, they assess the effects on homicide rates of three dimensions of social capital: trust, religiosity, and participation in voluntary organizations. They report that the trust dimension of social capital shows a significant negative effect on homicide rates, which is consistent with the research on subnational units in the United States. Similar to the findings by Rosenfeld et al. (2001), Lederman et al. (2002) show that the effect of trust is robust when possible reciprocal effects are controlled with the use of instrumental variables. These authors find less support for the effect of the other indicators of social capital.

The studies by Rosenfeld et al. (2001) and Lederman et al. (2002) examine reciprocal relationships between aspects of social capital and homicide by estimating simultaneous equations with cross-sectional data. In contrast, research by Galea, Karpati, and Kennedy (2002) assesses the mutual influence of social capital and homicide with pooled data for U.S. states from the mid-1970s to the early 1990s. This enables them not only to attempt to replicate previous cross-sectional findings but also to estimate change models. Galea et al.'s (2002) cross-sectional analysis results reaffirm previous findings for the trust component of social capital: States with high levels of trust exhibit low homicide rates. In their change analyses, they find evidence for reciprocal causation. Decreased social trust increases homicide levels, and rising homicide rates reduce levels of trust.[1]

Previous research clearly establishes the potential relevance of social capital to the explanation of variation in homicide rates. Global indicators of social capital show the theoretically expected negative effect on homicide rates in several studies. In addition, the crime-reducing effects of selected measures of social capital have been observed with units at differing levels of aggregation ranging from counties to states to nations. Previous research also raises the possibility that homicide rates have "feedback" effects on social capital, although the evidence is mixed, and there is some suggestion in the literature that different forms of social capital may affect homicide rates in different ways. Previous research is limited, however, in a very important respect. Satisfactory measures of social capital are generally hard to find. As a result, researchers have been unable to explore fully the myriad dimensions of social capital identified in the theoretical literature.

We extend past research on social capital in two significant ways. First, the use of the SCBS data enables us to go well beyond prior work by capturing the richness of Putnam's (2000) multidimensional conception of social capital. We are thus able to determine which, if any, of the concept's multiple dimensions are associated with community homicide rates in the manner implied by Putnam's theoretical arguments. Sharpening the scope of social capital in this way is important not only for theoretical development, but also for identifying the types of social capital in which communities might invest to bring about reductions in violent crime.

Second, building on past research, we assess the possibility of reciprocal causal effects and do so in a multidimensional context. Although Putnam (2000) emphasizes that crime is one among many likely consequences of low levels of social capital, he also acknowledges that crime itself may erode social capital, suggesting that they form a "vicious circle, in which low levels of trust and cohesion lead to higher levels of crime, which lead to even lower levels of trust and cohesion" (p. 317). Other researchers also advance persuasive theoretical arguments that high rates of crime reduce interpersonal trust, disrupt social networks, and lower levels of community participation (Liska and Warner 1991; Skogan 1990). Prior research confirms some of these claims (Bellair 2000; Conklin 1975; Liska and Warner 1991; Markowitz et

---

[1] The research on social capital and crime has focused primarily on aggregated crime rates. A study by Gatti, Tremblay, and Larocque (2003) suggests that social capital also is relevant to the explanation of juvenile offending. These authors document correlations between a composite measure of "civicness" and juvenile offending rates for 19 administrative regions in Italy. Their conclusions must be regarded cautiously, however, because the small sample size precludes rigorous multivariate analyses.

al. 2001; Ross, Mirowsky, and Pribesh 2001; Sampson and Raudenbush 1999).

However, some studies have found that crime can *increase* selected forms of social participation, particularly in anticrime groups such as Neighborhood Watch (Bennett 1989; Skogan 1989; Skogan and Lurigio 1992). Although the SCBS does not permit assessments of change over time, we use instrumental variables to examine the reciprocal relationship between relevant dimensions of social capital and community homicide rates, anticipating that the consequences of violent crime may very well differ for different dimensions of social capital.

DATA AND METHODS

DATA

The SCBS is a large-scale telephone survey of households in the continental United States designed to assess the extent to which Americans are connected to family, friends, neighbors, and local institutions (a detailed description of the SCBS can be found at www.cfsv.org/communitysurvey). The survey, conducted between July and November 2000, includes both a national sample of approximately 3,000 adults and a separate sample of more than 26,000 respondents selected randomly from 40 geographic areas spanning 29 U.S. states. We use the SCBS "community-level" data for our analysis. Sample sizes within these areas range from 500 to 1,500 and, except for a few questions of special local interest, the survey instrument used is identical (Subramanian, Kim, and Kawachi 2002).

To address our research questions, we append data on homicides and socioeconomic conditions to the SCBS. The homicide data are from the published *Uniform Crime Reports* located on the Federal Bureau of Investigation Web site (www.FBI.gov) and from county- and agency-level data files available through the Inter-university Consortium for Political and Social Research (www.ICPSR.umich.edu). For the few communities for which *Uniform Crime Reports* data are unavailable or incomplete, we located the necessary information in reports published by local police agencies. In all instances, the homicide data in our analyses reflect homicides known to the police for the period 1999–2000. Data on the socioeconomic and demographic characteristics of the communities in our study are from the 2000 U.S. census.[2]

The SCBS is unparalleled in the richness and breadth of social capital measures included, but it is not without limitations. Although it currently is the only source of data on multiple dimensions of social capital that permits comparisons across areas within the United States, the cross-sectional nature of the survey and the relatively small size of the community-level sample impose restrictions on the scope of analyses that can be conducted. Furthermore, like many other contemporary telephone surveys, the response rates for the SCBS are low by conventional standards. Overall, 42 percent of those reached by phone completed the interview, which reflects 29 percent of all the persons in the sampling frame. Little is known about the nature or impact of nonresponse in the SCBS. However, sample-balancing weights are provided in the data to adjust the community samples to match their respective populations on the basis of age, race, sex, and education level. We use these weights in the analyses presented later in this article.

Finally, the geographic areas represented in the survey do not consistently correspond to "communities" in the sense used in classical social disorganization theory. The areas vary considerably with respect to level of aggregation. Most of the units are cities, counties, or county-clusters, but the sample also includes three states (Indiana, New Hampshire, and Montana) and one subarea within a central city (North Minneapolis). As noted earlier, previous studies demonstrate the applicability of the social capital concept at diverse levels of aggregation, from counties to nation-states. Nonetheless, given the novel combination of

----

[2] In one instance (North Minneapolis), the documentation for the SCBS is somewhat ambiguous about the precise area represented in the survey. The codebook indicates that the area falls within two postal zip codes and provides highway boundaries for the community. We consulted local census tract and neighborhood maps for the area and matched the SCBS description to these boundaries. The crime data for this area reflect neighborhood-level data reported by the Minneapolis Police Department, and the census data are based on the aggregation of census tract data within the area.

geographic units included in the SCBS, it is critically important to assess the utility of the SCBS sample for macrolevel homicide research. We do so in our analyses by inspecting relevant bivariate correlations, and by estimating an established baseline model of homicide and comparing the results with those obtained from more conventional samples (Land, McCall, and Cohen 1990). Convergence with the results of previous investigations should increase the comparability and reliability of the SCBS sample.

Measures

DEPENDENT VARIABLE. The main dependent variable in our analysis is the homicide rate, measured as the number of homicides per 100,000 residents during 1999 and 2000. We pool data across the 2-year period to increase the stability of the homicide measures, particularly for some of the smaller communities included in our sample. The mean homicide rate for the SCBS communities in 1999–2000 is 6.39 per 100,000, but substantial variation exists around the mean, with homicide rates ranging from .76 to 26.57 across areas. We accordingly convert the homicide rates to natural logarithms to reduce skewness and induce homogeneity in error variance. The log homicide rate for our sample closely approximates a normal distribution.

CONTROLS. To obtain unbiased estimates of the relationships between homicide rates and various dimensions of social capital, other population attributes known to be correlated with homicide must be controlled. We have collected 2000 census data on a large number of economic, social, and demographic conditions found in prior research to be enduring structural covariates of violent crime rates (for reviews, see Sampson and Lauritsen 1994; Messner and Rosenfeld 1999).

A principal components analysis of these variables yields two main factors. The first factor exhibits strong loadings for the percentage of residents who are poor, percentage of families with children headed by a female, percentage of residents who are black, median family income, the Gini index of family income inequality, and the percentage of the civilian labor force unemployed. The second factor exhibits high loadings for population size and population density (both logged to reduce skew-

ness). Following Land et al. (1990), we label these two factors "resource deprivation" and "population structure," respectively. We also include in our regression models a separate indicator of the divorce rate (percentage of persons age 15 years or older who are divorced), and a dummy variable indicating a community's location in a southern state (*southern location*). The structural covariates included in our analyses mostly duplicate the final specification that Land et al. (1990) report in their comprehensive investigation of homicide models for U.S. states, cities, and metropolitan areas.

EXPLANATORY VARIABLES. The key explanatory variables in our analysis are levels of community social capital. Putnam (2000) identifies seven main dimensions of social capital: social trust, political participation, civic participation, religious participation, workplace connections, informal social connections, and altruism, volunteering, and philanthropy. We draw extensively on Putnam's discussion in selecting more than 50 items from the SCBS that tap these potentially distinct forms of social capital. We then aggregate individual responses within SCBS communities to construct community-level means and percentages for the items. For each of the seven dimensions of social capital identified by Putnam, we conduct alpha-scoring factor analysis, with an oblique factor rotation on the relevant items. Principal components analysis produces substantively identical results.

This strategy combines confirmatory and exploratory factor analytic approaches. It is confirmatory in the sense that we identify, *a priori*, possible indicators of the social capital components that Putnam (2000) emphasizes. We then conduct exploratory factor analysis to examine potential dimensionality within those components. This approach allows us to assess the effects of several conceptually distinct, albeit in some cases strongly correlated, dimensions of social capital on variation in community homicide rates. An alternative approach would consider all the available indicators in a purely exploratory factor analysis to determine whether they form one or more dimensions of social capital (Putnam 2000:291). Although this approach would be empirically more parsimonious than the strategy used in our study, the resulting factors would have less theoretical grounding and, as we illustrate, would combine

items that show substantial variability in their relationships with homicide.

Overall, our aggregate-level factor analysis of items from the SCBS yields 12 dimensions of social capital for inclusion as explanatory variables in our regression models. (Details of the factor analysis appear in Table A1 of our *ASR* online appendix supplement at http://www.asanet.org/journals/asr/2004/toc042sp.html). For three of the dimensions that Putnam (2000) highlights—social trust, religious participation, and workplace connections—the factor analyses of relevant items show unidimensional constructs. In our present study, each of the seven indicators of social trust load strongly on a single factor that reflects community-wide levels of social trust (*social trust*). This suggests that areas high in *bonding* trust (e.g., trust in neighbors, coworkers, local shopkeepers) also exhibit high levels of *bridging* trust (trust in nondesignated others). The factor analyses also show that five items that Putnam and others identify as indicators of "faith-based" social capital (e.g., church or synagogue membership, regular attendance at religious services, participation in other religious activities) load strongly on a single factor that distinguishes communities with varying levels of *religious participation.* Moreover, the two items considered as indicators of the extent to which residents have *workplace connections* (i.e., membership in a labor union or trade association) load on a single factor, albeit weakly and opposite in sign. This dimension of social capital primarily reflects differences across geographic areas in labor union membership.[3]

Our analysis shows that the other four forms of social capital that Putnam (2000) discusses need to be disaggregated into subdimensions. First, the areas in our sample show unique variation in two forms of political participation, which we term "political engagement" and "political activism," respectively. *Political*

engagement incorporates basic elements of political participation such as voting, attending town hall meetings, serving as a member of a local organization, and the extent to which residents are interested and knowledgeable about politics. *Political activism* taps behavior directed more specifically at affecting change, such as attending a political rally, participating in protests or demonstrations, and joining others for the purpose of bringing about reform.

Second, three distinct but interrelated forms of civic engagement emerged. These include a general *community involvement* factor that taps participation in clubs, community events, and community projects, and two more specific factors that tap participation in social service groups (*community social service*) and organizations formally organized to promote social change (*community activism*).

Third, the analyses show two dimensions of informal social connections. Consistent with Putnam's (2000) "bowling alone" metaphor, one of these dimensions reflects the extent to which residents participate in various team sports (*team sports*). The other factor is a more general indicator of social interaction with friends, family members, and neighbors (*informal socializing*). Finally, the analysis indicates that the SCBS items measuring altruism, volunteering, and charity are best represented at the aggregate level as two dimensions of social capital: one that identifies communities with a large percentage of residents who have recently given blood (*altruism*), and another that combines an indicator of charitable contributions with the extent to which respondents have engaged in unpaid work to help people besides their family and friends (*volunteering and charity*).

We incorporate these 12 dimensions of social capital as additive scales (for multi-item dimensions) in our analysis of variation in homicide rates. See Appendix Table A1 for the dimensions considered, along with the items and reliability coefficients for each scale.

ANALYTICAL STRATEGY

We estimate a series of recursive and nonrecursive structural equation models to examine the relationships between homicide rates and the dimensions of social capital outlined earlier.

---

[3] Given the weak loadings for these items, in addition to considering the effects from a measure that combines the two indicators, we also consider their effects separately in the homicide regression models discussed later. The results are insensitive to these different specifications. To simplify the analysis, we report only the results of the combined measure.

All the models are estimated with LISREL 8.53 using sample covariances as input and a maximum likelihood solution. We minimize the potential bias introduced by random measurement error in the social capital scales by setting the random error variance for these variables equal to the product of their variance and the quantity one minus their estimated reliability (Bollen 1989; Hayduk 1987). The relatively small sample size of the SCBS precludes the simultaneous estimation of measurement models for multi-item social capital constructs and the specified structural models relevant to our research questions (see Heimer and Matsueda 1994, and Paxton 2002, for similar approaches). As noted earlier, given the heterogeneous aggregate units included in the SCBS sample, we begin by estimating a baseline recursive equation in which homicide is regressed on only the structural covariates used as control variables in our analysis.

With a baseline model established, the critical issue to address is how to specify regression models containing the measures of social capital. A common practice in past research has been to treat social capital as a single construct or a construct with a small number of underlying dimensions (e.g., trust and civic engagement). This strategy is inappropriate for the current study because our primary objective is to examine separately the array of theoretically derived dimensions of social capital to determine whether the respective dimensions exert differential effects on homicide rates. An alternative strategy is to add measures for the full range of social capital dimensions (n = 12) simultaneously to the baseline model in a single equation. This approach has the distinct disadvantage of appreciably reducing degrees of freedom, given that our analyses are based on a relatively small sample (40 cases) with a baseline model that contains multiple predictors (n = 4). Instead, we proceed in stages.

First, we estimate 12 recursive models that add to the baseline model, one-by-one, the indicators of social capital described earlier. These regressions show the unique contribution to the variation in homicide rates of each social capital dimension considered, net of the controls. Next, for the dimensions of social capital that show a statistically significant relation to homicide rates, we report results of nonrecursive

models in which we examine possible reciprocal relationships. This strategy for model specification is admittedly an inductive one necessitated by the small sample under investigation. Nevertheless, our analyses are uniquely capable of examining the interrelationships between homicide rates and a full range of theoretically driven dimensions of social capital, which has not been feasible in previous research.

RESULTS

BIVARIATE PATTERNS

Before turning to the multivariate regression results, it is instructive to inspect the zero-order correlations among the variables included in our analysis. Three noteworthy patterns emerge from the Pearson correlations that are shown in Table A2 (of our *ASR* online appendix supplement). First, although several of the social capital dimensions show moderate to strong intercorrelations, some are only weakly correlated, and some are significantly *inversely* related. The SCBS data show that communities with high levels of social trust also tend to show high levels of informal socializing, community involvement, volunteering and charity, community service, and political engagement. Political activism and community activism also are strongly correlated with one another ($r = .59$; $p < .01$), but these items are only weakly correlated with many of the other items and inversely correlated with still others. For instance, political activism is significantly less prevalent in areas with higher rates of religious participation, and community activism is lower in communities where residents trust one another and socialize more frequently with friends, family members, and neighbors.

Second, the homicide measure is significantly correlated with only 4 of the 12 social capital dimensions, and in one case (community activism), the direction of the correlation is contrary to theoretical expectations. This pattern, coupled with the relatively moderate and inconsistent correlations among the various dimensions of social capital considered, underscores the importance of examining social capital as a multidimensional construct in macrolevel studies of homicide.

Finally, Table A2 indicates that the homicide and social capital measures show significant

correlations with many of the structural covariates included in the analysis. In general, most forms of social capital are less prevalent, and homicide rates are higher in large, relatively dense areas that have high levels of resource deprivation (Putnam 2000; Rosenfeld et al. 2001). A notable exception is the pattern for community activism, which is more common in areas with large and dense populations and high levels of resource deprivation. These patterns suggest the possibility that the significant associations observed between homicide and dimensions of social capital may be spurious, an issue addressed directly in our multivariate analyses.

RECURSIVE MODELS

Do communities with depleted stocks of social capital exhibit comparatively high rates of homicide, net of other well-established structural covariates? As an initial examination of this question, we estimate a series of recursive regression homicide models, beginning with a baseline model that includes only well-established structural covariates, then adding, one-by-one, the 12 social capital dimensions. These analyses show that only three of the social capital dimensions exhibit significant relationships with homicide rates. In Table 1, we present regression results for the baseline model and the three dimensions of social capital found to show significant relationships with homicide rates.

The results for the other dimensions of social capital are displayed in Appendix Table A3 (of our *ASR* online appendix supplement).[4]

Considering first the baseline model shown in Table 1 (Model 1), the results indicate that homicide rates are significantly higher in southern communities and those with elevated levels of resource deprivation, larger and denser populations, and higher divorce rates. Overall, the model accounts for 70% of the variance in homicide rates across the 40 SCBS areas. The explanatory power of the baseline model and the general pattern of the parameter estimates are very similar to those reported in prior research (for reviews, see Land et al. 1990; Sampson and Lauritsen 1994). These findings lend cre-

---

[4] On our *ASR* online appendix supplement, a comparison of the bivariate relationships in Table A2 with the full set of regressions in Table A3 shows that the bivariate associations of community involvement and informal socializing with homicide are attenuated substantially (and are no longer statistically significant) after adjustment for community differences in population structure and levels of resource deprivation. In contrast, the effects of population structure and resource deprivation on homicide rates are minimally affected after the effects of community involvement and informal socializing are considered (compare Models 2 and 8 in Table A3 with Model 1 in Table 1).

Table 1. Influence of Social Capital and Other Determinants on Logged Homicide Rates

	(1)	(2)	(3)	(4)
Explanatory Variables				
Resource Deprivation	.437*	.303*	.446*	.300*
	(.067)	(.091)	(.059)	(.070)
Population Structure	.374*	.230*	.309*	.162*
	(.068)	(.095)	(.063)	(.083)
Divorce Rate	.143*	.118*	.099*	.111*
	(.056)	(.054)	(.051)	(.050)
Southern Location	.430*	.345*	.686*	.354*
	(.159)	(.157)	(.159)	(.142)
Social Trust		−.042*		
		(.020)		
Political Activism			.058*	
			(.017)	
Community Activism				.146*
				(.039)
Adjusted R²	.70	.73	.77	.84

Note: N = 40. Data show maximum likelihood unstandardized parameter estimates.

*p ≤ .05 (two-tailed test)

dence to the use of the SCBS aggregates as units of analysis for macrolevel crime research.

Models 2 to 4 of Table 1 add social trust, political activism, and social activism, respectively, to the baseline model. The results in Model 2 indicate that social trust is negatively associated with homicide rates, net of the control variables. Including social trust in the homicide equation significantly increases the variance explained in homicide rates, and the relative magnitude of its effect is nontrivial: The beta for social trust (–.323) is second only to that for resource deprivation (.384). In contrast to the pattern observed for social trust, and contrary to theoretical models that emphasize the protective benefits of social capital, Models 3 and 4 indicate that the other two social capital variables show positive relationships with homicide rates. Both variables contribute significantly to the overall explanatory power of the homicide model. The results thus show that communities with higher levels of community and political activism experience *higher* levels of homicide. This finding is generally inconsistent with most theory and research on the influence of community participation on crime rates, which assumes at least implicitly that participation uniformly reduces crime (but see Conklin 1975; Durkheim 1938; Skogan and Lurigio 1992).

Nonrecursive Models

The results presented so far document a significant association between homicide rates and the dimensions of social capital that reflect community variation in social trust, political activism, and community activism. The causal meaning of these relationships is ambiguous because homicide rates may affect these forms of social capital.

To begin to untangle these relationships, we estimate two sets of simultaneous equation models that test for possible reciprocal relationships between homicide and social capital. The first set of models evaluates the possible reciprocal relationship between social trust and homicide under a variety of different model specifications. The second set of models addresses the same issues for community and political activism. For the sake of parsimony and to simplify the analysis, we collapse the political and community activism items into a single scale for

inclusion in the nonrecursive models. This seems reasonable given the strength of the zero-order correlation ($r = .59$; $p < .01$) between these items and their similarly positive effects on homicide (Table 1). The items appear to tap a collective willingness to engage in various forms of social activism directed at affecting change. Accordingly, we label this measure "social activism" (alpha = .90).

Estimating simultaneous relationships requires identification restrictions (Berry 1984; Fisher and Nagin 1978; Kenny 1979). The challenge is to locate theoretically relevant and empirically appropriate instrumental variables that allow statistical identification of the reciprocal causal path in a simultaneous equation model. Instrumental variables are assumed to be related directly to one of the endogenous variables in a simultaneous equation, and unrelated or only indirectly related to the other endogenous variable. Although locating such variables in practice often is very difficult, macrolevel theories of crime, social trust, and community activism suggest some possible instruments that can be used to identify the nonrecursive models of interest in this study, and the richness of the SCBS provides an opportunity to evaluate the robustness of findings using multiple instruments and specifications. After describing the instruments used in our initial specifications of nonrecursive models for homicide and the social capital items, and after reporting the results for these specifications, we discuss findings from alternative specifications.

We estimate nonrecursive models for social trust and social activism separately because the sample size of the SCBS is relatively small, and because, as we elaborate later, the predictors of these social capital dimensions differ. With both models, we draw on the general deterrence theory of crime (Gibbs 1975; Zimring and Hawkins 1973) to locate an appropriate instrument for the homicide equation. A central prediction of general deterrence theory is that objective levels of the severity, certainty, and celerity of legal sanctions serve to reduce crime rates, and past research suggests that objective certainty exerts the strongest and most consistent effects on crime rates (Liska and Messner 1999). Accordingly, we use a measure of arrest certainty for violent crime (*violence arrest certainty*) as an instrument for homicide in the

nonrecursive models with social trust and social activism, respectively. We assume that arrest certainty for violence directly affects levels of homicide, while influencing social trust and social activism only indirectly through homicide. Consistent with past practice (Yu and Liska 1993), we measure arrest certainty by dividing the number of arrests by the number of offenses. The specific measure used reflects the number of arrests for homicide, robbery, and aggravated assault in 1998 relative to the number of these offenses reported to the police in 1998, logged to reduce skewness. We exclude rape from the measure because of differences across jurisdictions in definitions of rape, and because of potentially large differences in reporting. The data for arrests and offenses reported to the police are from the *Uniform Crime Reports*.

Our selection of instruments for the two social capital items also is grounded in extant theory. Drawing on the structural amplification theory of mistrust (Mirowsky and Ross 1983; Ross et al. 2001), we use as an instrument in our social trust equation a variable that taps macrolevel variation in subjective alienation. Ross et al. (2001) develop a theoretical model of mistrust that highlights the role of resource deprivation, high levels of crime and disorder, and subjective alienation. Most relevant for the purposes of the current research, Ross et al. (2001:573) suggest that feelings of abandonment and perceptions of helplessness to affect positive change or avoid undesirable events may lead individuals to "believe it safest to suspect everyone and trust no one." Drawing on Ross et al.'s (2001) theory of mistrust, we construct a scale combining three items from the SCBS that measure the extent to which residents feel they have little impact on their communities, are "abandoned" by community leaders, and feel relatively helpless to bring about positive change in their communities (alpha = .704). We label this variable "subjective alienation" and assume that it influences homicide only indirectly by engendering mistrust (see also Anderson 1999).

Our initial specification of the nonrecursive model for social activism is shaped in part by preliminary model estimation indicating that the structural covariates of homicide are, in general, weak predictors of social activism. Therefore, to achieve a satisfactory model of social activism, we incorporate two additional variables identified in the literature as potentially important antecedents to the activities encompassed in our social activism scale. Both variables serve as instruments in our initial specification of the reciprocal relationship between social activism and homicide. The first is drawn from Putnam's (2000) discussion of the factors implicated in the depletion of social capital in the United States. Putnam (2000) argues that with the exception of cohort replacement, the factor that accounts for the largest share of the decline in social capital during the past four decades, especially participation in politics and community affairs, is an increase in the time Americans spend watching television. As he notes, "the effect of electronic entertainment—above all, television—in privatizing our leisure . . . might account for perhaps 25 percent of the decline" (p. 283). Although time spent watching television also is linked in the criminological literature to a reduced risk for some types of victimization, presumably because it concentrates activity within households, we view this as unlikely to have a direct effect on homicide, which often occurs inside households. Consistent with this assertion, the empirical evidence indicates that television viewing is not significantly related to homicide (Messner and Blau 1987). Accordingly, we use the SCBS data to construct a measure that reflects the mean number of hours community residents spend watching television in a typical day, and this serves as one of the instruments in the social activism equation (*television viewing*).

The second instrument used for social activism, also drawn from the SCBS, is the percentage of persons who self-identified a political orientation of extremely conservative or extremely liberal (*extreme politics*). We assume that the presence of a relatively large number of persons who identify politically at the extremes will increase social activism because such individuals are more likely to participate in such activities themselves and recruit others to do so (Norris 2002).

By using these measures as instruments in nonrecursive model specifications, we assume that they show relationships of sufficient strength with the dependent variable they are instrumenting, and that they are not endogenous to and do not directly affect the dependent variable in the accompanying regression equation. Following Bollen (1996:117), we

assess the "quality" of the instruments by evaluating R^2 from equations in which the endogenous variables are regressed on the relevant instruments (see also Sampson and Raudenbush 1999). As displayed in Appendix Table A4 (of our *ASR* online appendix supplement), the proportion of unique variance attributed to the instrumental variables is well above the threshold (.10) that Bollen (1996) uses for identifying an empirically valid instrument. Given that most of the equations considered in this report are just identified, we do not assess formally the assumed exogeneity of our instrumental variables using overidentification tests (Davidson and MacKinnon 1993). However, following past practice (Frone, Russell, and Cooper 1994), we carefully inspect model fit and modification indices for the nonrecursive structural equation models. If the presumed absence of the instruments' direct effects on the other endogenous variables is invalid, these indices would show a poor-fitting model. As elaborated later, no significant points of ill fit are observed in our nonrecursive models.

HOMICIDE AND SOCIAL TRUST. The results of the simultaneous equation models are shown in Tables 2 and 3. Table 2 presents maximum likelihood estimates of the unstandardized coefficients and corresponding standard errors from a model in which social trust and homicide are allowed to influence one another.[5] The fit indices for the model point toward good model fit, and inspection of the residuals and modification

---

[5] Given the small sample size relative to the number of parameters to be estimated, stable estimation of the nonrecursive models also requires us to fix some of the correlations between the exogenous variables at zero. We do so only for the interrelationships that are very small and statistically nonsignificant, so this is unlikely to introduce bias into the analysis.

Table 2. Simultaneous Equation Model of Social Trust and Homicide Rates

	Social Trust	Endogenous Variables	Homicide
Exogenous Variables			
Resource deprivation	−.535		.289*
	(.880)		(.073)
Population structure	−1.38*		.084
	(.656)		(.081)
Divorce rate	−.316		.044
	(.358)		(.042)
Southern location	−.540		.447*
	(1.62)		(.123)
Social activism	.076		.046*
	(.121)		(.009)
Subjective alienation	−1.19*		—
	(.204)		
Violence arrest certainty	—		−.382*
			(.126)
Endogenous Variables			
Social trust	—		−.033[b]
			(.017)
Homicide	−3.69[a]		—
	(2.16)		
Adjusted R^2	.93		.88
χ^2, 5 df		2.24 ($p = .82$)	
RMSEA		.000	
CFI		1.00	
GFI		.987	

Note: N = 40. Data show maximum likelihood unstandardized parameter estimates. CFI = comparative fit index; GFI = goodness-of-fit index; RMSEA = root mean square error of approximation.
*$p \le .05$ (two-tailed test); [a] $p = .04$ (one-tailed test); [b] $p = .03$ (one-tailed test)

Table 3.   Simultaneous Equation Model of Social Activism and Homicide Rates

|	Social Activism	Endogenous Variables	Homicide
Exogenous Variables			
Resource Deprivation	−1.23		.293*
	(1.21)		(.073)
Population Structure	.628		.135
	(1.14)		(.084)
Divorce Rate	−.073		.068
	(.643)		(.045)
Southern Location	−7.39*		.379*
	(1.91)		(.138)
Social Trust	.203		−.037*
	(.257)		(.016)
Extreme Politics	.842*		—
	(.247)		
Television Viewing	−2.59*		—
	(1.26)		
Violence Arrest Certainty	—		−.301*
			(.136)
Endogenous Variables			
Social Activism	—		.026[a]
			(.014)
Homicide	5.86*		—
	(2.50)		
Adjusted R^2	.67		.82
χ^2, 11 df		8.14 ($p = .70$)	
RMSEA		.000	
CFI		1.00	
GFI		.960	

Note: N = 40. Data show maximum likelihood unstandardized parameter estimates. CFI = comparative fit index; GFI = goodness-of-fit index; RMSEA = root mean square error of approximation.
*$p \leq .05$; [a] $p = .056$ (two-tailed test)

indices shows no significant points of ill fit. Overall, the model explains 88 percent of the variation in homicide rates and 93 percent of the variation in social trust across SCBS communities.

The instrumental variables exert significant and appreciable effects on their respective endogenous variables: A higher certainty of arrest for violence reduces homicide rates, and higher levels of subjective alienation reduce social trust. Most importantly, controlling for these factors and the other exogenous variables, the model shows a reciprocal relationship between homicide and social trust. The associated standardized effects indicate that the effect of homicide on social trust (beta = −.47) is larger than the effect of social trust on homicide (beta = −.26), but both effects are relatively important compared with other predictors, and they are statistically significant using a one-tailed test.

We empirically strengthen the identification of the nonrecursive model shown in Table 2 by trimming statistically nonsignificant paths. Doing so yields a model with two additional instruments for the homicide equation (social activism and southern location) and one additional instrument (population structure) for the social trust equation. The standardized parameter estimates from this specification are displayed in Figure 1 (for the unstandardized coefficients and standard errors, see Table A5 of our *ASR* online appendix supplement). The results for this more parsimonious model show that the overall model fit and proportion of variance explained in the endogenous variables are virtually identical to those reported earlier for the full model. In addition, the parameter estimates for variables retained in the social trust and homicide equation are very similar to those obtained in the initial specification. Most importantly, we continue to see a significant recipro-
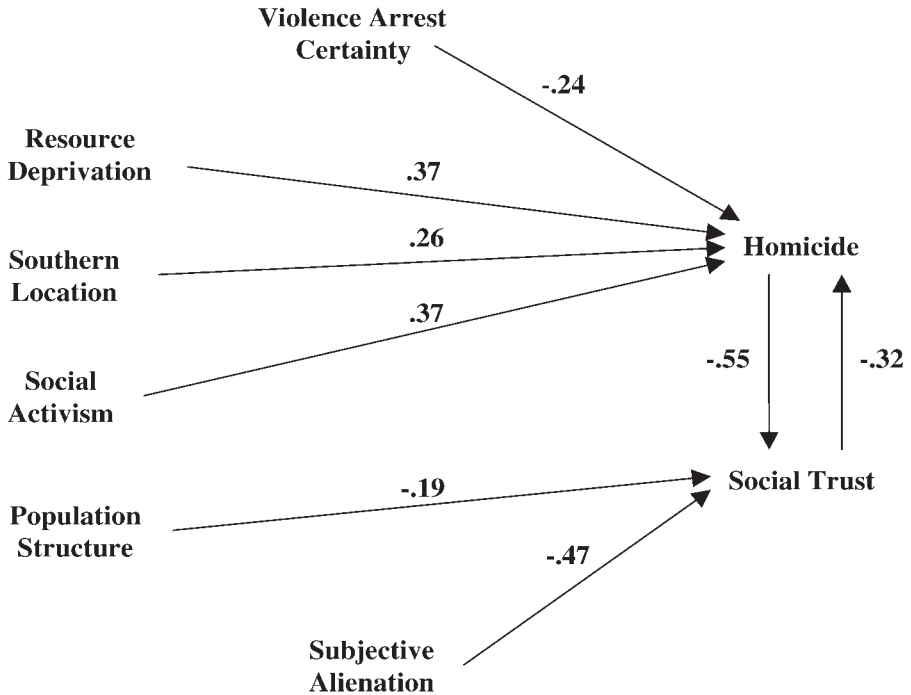
Figure 1. Relationship between Social Trust and Homicide Rates, Reduced Form Model
Note: Model Fit Statistics: χ^2 = 9.71, 11 df (p = .56), RMSEA = .000, CFI = 1.00, GFI = .948. Adjusted R^2: Homicide (.892), Social Trust (.950). Standardized estimates are displayed. For clarity of presentation, correlations between exogenous variables are omitted. RMSEA = root mean square error of approximation; CFI = comparative fit index; GFI = goodness-of-fit index.

cal relationship between social trust and homicide, and the magnitude of both the effect of social trust on homicide (beta = −.32) and the effect of homicide on social trust (beta = −.55) is stronger than observed in the full model. These results are consistent with findings from prior macrolevel crime research using data for neighborhoods, states, and nations (Galea et al. 2002; Lederman et al. 2002; Sampson and Raudenbush 1999), and they provide support both for theories of social capital that emphasize the protective benefits of high social trust levels and for theories of trust that highlight the potential adverse consequences of threatening environments.

HOMICIDE AND SOCIAL ACTIVISM. Is the relationship between social activism and homicide also reciprocal? Table 3 presents the maximum likelihood estimates for the nonrecursive model that address this question. The model fits the data well, and the variables considered explain a substantial proportion of the variation across communities in levels of social activism (adjusted R^2 = .67) and homicide (adjusted R^2 = .82). The results show that levels of homicide are elevated in areas located in the South and in areas with high levels of resource deprivation and low levels of social trust. In contrast, the only structural covariate of homicide significantly related to social activism is southern regional location. Communities located in the South show significantly lower levels of social activism than areas in other regions of the United States. The instrumental variables exert significant effects on their respective endogenous variables. The certainty of arrest for violence significantly reduces homicide rates, and communities with a larger percentage of persons who identify as extremely liberal or extremely conservative and with a lower frequency of television viewing show higher levels of social activism.

Most relevant to the questions addressed in our study, the nonrecursive model shown in

Table 3 shows a relatively large, significant positive effect of homicide on social activism (beta = .68; $p \leq .05$). The effect of social activism on homicide is also positive, but does not quite attain statistical significance if a two-tailed test is applied (beta = .22; $p = .056$), which seems most appropriate given the lack of theory or research implying the sign of the relationship. Thus, the nonrecursive model shows strong evidence that the association between homicide and social activism observed in the recursive specification reflects a process whereby higher homicide rates prompt social activism. In addition, the results suggest a possible reciprocal relationship between levels of social activism and homicide, wherein social activism serves to elevate homicide rates.

Trimming the social activism–homicide model of nonsignificant paths provides further support for a reciprocal relationship between social activism and homicide rates. As Figure 2

shows, with resource deprivation and social trust serving as additional instruments for the homicide equation, the overall pattern observed in the trimmed model is substantively identical to the results shown in Table 3 (for the unstandardized coefficients and standard errors for this model, see Table A6 of our *ASR* online appendix supplement). However, the effect of homicide on social activism (beta = .40) is weaker, and the effect of social activism on homicide (beta = .33) is stronger in this specification, and the latter effect is now statistically significant at conventional levels ($p \leq .05$). These results lend support to the conclusion that social activism is both a cause and a consequence of higher levels of homicide.

ROBUSTNESS TESTS. The findings for the nonrecursive models admittedly are dependent on the identification assumptions imposed, and
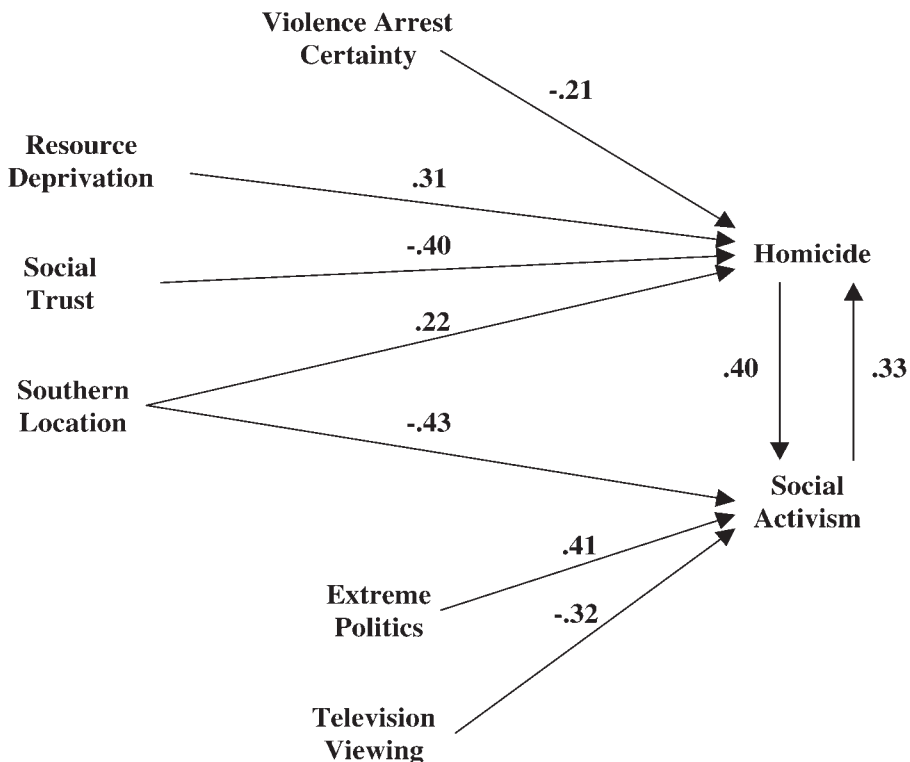
Figure 2. Relationship between Social Activism and Homicide Rates, Reduced Form Model
Note: Model Fit Statistics: χ^2 = 13.99, 17 df (p = .67), RMSEA = .000, CFI = 1.00, GFI = .933; Adjusted R^2: Homicide (.859), Social Activism (.557). Standardized estimates are displayed. For clarity of presentation, correlations between exogenous variables are omitted. RMSEA = root mean square error of approximation; CFI = comparative fit index; GFI = goodness-of-fit index.

definitive conclusions about the precise causal meaning of the associations examined in our study must await longitudinal data on social capital and violence (see also Sampson and Raudenbush 1999). Nonetheless, we can evaluate the robustness of the findings by reestimating the trimmed models with different identifying instruments for social trust and social activism.[6] Past research suggests that in addition to subjective alienation, daily newspaper readership may affect levels of trust in a community, but should affect homicide rates only indirectly through trust (Rosenfeld et al. 2001). We also think a similar argument can be made for the political engagement scale used in our research. We have considered both of these items as instruments for social trust instead of subjective alienation. Both of these instruments exert significant positive effects on social trust as expected, and the reciprocal relationship between homicide and social trust persists (see Table A7 of our *ASR* online appendix supplement).

We have also estimated the social activism–homicide nonrecursive model with two different instruments for the social activism scale: daily newspaper readership and the percentage of residents ages 18 to 44 years. Theoretical discussions of social and political participation emphasize the importance of newspaper readership in generating community participation (Norris 2002; Portes 1998; Putnam 2000). Furthermore, Putnam (2000) shows that age is among the strongest predictors of community participation, with many forms of participation—particularly social activism—highest among persons 18 to 44 years of age (p. 252). Substituting newspaper readership and percentage of residents 18 to 44 years old as instruments for social activism produces a pattern very similar to the findings obtained from the other model specifications (see Table A8 of our *ASR* online appendix supplement). Most importantly, we continue to

observe a statistically significant reciprocal relationship between levels of social activism and homicide.

Overall, the nonrecursive regression results for homicide, social trust, and social activism suggest a somewhat paradoxical pattern whereby homicide rates are predicted to be highest in communities with *low levels of trust and high levels of social activism* and lowest in areas with *high levels of trust and low levels of social activism*. To further illustrate the nature of the observed pattern, we select cases that represent opposite ends of the joint distributions of trust and activism. Three SCBS areas—York, Pennsylvania; Newaygo County, Michigan; and a cluster of rural South Dakota counties–exhibit very high levels of social trust (greater than the 80th percentile) and very low levels of social activism (below the 20th percentile). At the other extreme, using the same percentile criteria, four areas—San Francisco, Denver, Boston, and North Minneapolis—are identified as having very low levels of social trust and very high levels of social activism.

We compute predicted homicide rates for these cases using our reduced-form nonrecursive regression model for social trust and homicide, substituting two sets of values for trust and activism: first, the mean values for the overall sample, and second, the observed values for the distinctive combinations of trust and activism. In both instances, observed values for the other covariates are used. For the low-trust, high-activism areas, the predicted homicide rate, averaged over the four areas, increases from 6.38 per 100,000 under the assumption of mean values for the social capital measures to 14.74 per 100,000 when the observed "criminogenic" values for these areas are used. For the high-trust, low-activism areas, the average predicted homicide rate, assuming mean values for trust and activism, is 3.14 per 100,000. The average predicted homicide rate for these three areas drop to 1.57 per 100,000 when the actual "crime-inhibiting" values for the combination of high-trust and low-activism scores are entered into the equation. As these comparisons illustrate, the magnitude of the effects that the trust and activism dimensions of social capital have on homicide rates is far from trivial.

_____

[6] We have also explored some alternative instruments for the homicide equations. Rosenfeld et al. (2001) suggest that residential mobility and police size can be justified as instruments for homicide on theoretical grounds. However, consistent with their findings, these variables are not significantly related to homicide rates in the SCBS sample.

SUMMARY AND DISCUSSION

Using the SCBS, we have evaluated empirically the relationship between the multiple dimensions of social capital and a community problem of both theoretical and practical concern: levels of criminal homicide. Our analyses confirm the multidimensionality of social capital and show that many of the theoretically salient dimensions are "mutually reinforcing," as Putnam (2000) and other analysts have proposed. However, some of the social capital dimensions are only weakly correlated with one another, and some are negatively related.

Measures of community social activism, in particular, are inversely associated with social trust and informal socializing with family, friends, and neighbors, key elements in most conceptions of social capital, including Putnam's. The reasons for these unexpected relationships are unclear. Perhaps a lack of trust in others is a motivating force underlying social activism. Citizens become active in social reform efforts precisely when they lose faith in conventional modes of political communication and do not trust others to "deliver the goods." Additionally, active involvement in social and political causes and organizations may come at the expense of time spent with family, friends, and neighbors, and also may lessen the attraction of such activity by providing other foci of interest. In any event, a key finding of this investigation is that social activism differs from other forms of social capital in substantively important ways.

Our recursive models of homicide rates show that only social trust has a significant direct effect on homicide in the theoretically expected direction. None of the dimensions of social participation has a significant negative effect on homicide rates after controlling for socioeconomic and demographic conditions, and the dimension of social activism has a significant *positive* relationship with homicide. With the exception of the relationship for social trust, these results run counter to expectations drawn from Putnam's (2000) account.

The nonrecursive analyses further underscore the complexities of the interrelationships between dimensions of social capital and homicide rates. Consistent with prior research (Galea et al. 2002; Lederman et al. 2002), the nonrecursive models indicate that trust and homicide are reciprocally related. Trust significantly reduces homicide, and homicide reduces trust. The latter influence is somewhat larger than the former. In addition, the nonrecursive models suggest that social activism and homicide also are reciprocally associated. Homicide has a relatively strong, significant, positive effect on the index of social activism. The effect of activism on homicide also is positive, but comparatively weaker and statistically significant only in reduced-form models. These findings must be regarded as somewhat tentative given the cross-sectional nature of our analyses, but they are robust across alternative instruments and model specifications.

Why might activism increase rather than decrease levels of lethal violence? A straightforward explanation is that political protest sometimes turns violent, as in some campus demonstrations during the 1960s and protests of police brutality throughout the last several decades (see Halladay 2004 for a recent example). LaFree's (1998) analysis of institutional decline in America over the latter decades of the 20th century suggests a broader account. LaFree (1998:91–113) proposes that the increase in crime rates during the 1960s and 1970s can be understood at least in part as a consequence of the attacks on the legitimacy of existing social and political arrangements by civil rights advocates and opponents of the Vietnam War. If activism undermines the legitimacy of social institutions, it would not be surprising to see various forms of street crime rise.

We can derive another explanation from Durlauf's (1999) observation that arrangements that reinforce social identities, such as ethnic or racial identity, may produce negative consequences for communities if they aggravate intergroup tension and hostility. Much protest activity expresses group conflict of some sort, and is thus likely to make group identities especially salient. Moreover, group tension, hostility, and conflict are likely to impede the capacity of communities to mobilize and exert informal social control among their residents, especially youths, as suggested by classical social disorganization theory (Shaw and McKay 1969) as well as more recent versions (Sampson, Raudenbush, and Earls 1997).

The effect of homicide rates on social activism in our analysis is stronger than the effect of activism on homicide. Although this pattern is not easily interpreted within most

community and crime perspectives, and could not have been anticipated from Putnam's (2000) account of social capital, the findings are consistent with Conklin's (1975) research on the impact of crime. Conklin notes that

> Crime weakens the fabric of social life by increasing fear, suspicion, and distrust. . . . However, under certain conditions people will engage in collective action to fight crime. They may work for a political candidate who promises to restore law and order. They may call meetings of community residents to plan an attack on crime. Sometimes they may even band together in a civilian police patrol to carry out the functions that the police are not effectively performing for them. Since people who perceive high crime rates often hold the police responsible for crime prevention, we would expect such patrols to emerge where people feel very threatened by crime, [and] believe that the police cannot protect them. (p. 185)

Skogan (1989), and Skogan and Lurigio (1992) also maintain that, under certain conditions, crime stimulates community participation on the part of residents. Hope (1988:156) even suggests that one precondition for activism may be the perception of urgency and threat posed by crime itself, noting that "it may be necessary for [residents] to feel enough risk to make the effort of participation worthwhile" (see also Bennett 1989). Much more research is needed, however, on the mediating or moderating conditions that convert the risk felt from crime and related community problems into social and political action rather than quiescence, withdrawal, and isolation.

More generally, an important task for future research is to replicate our analyses with different data sources. Despite the richness of the measures in the SCBS, the survey has several limitations. The sample size for macrolevel analysis is small, and the units are sometimes large and rather heterogeneous. Efforts to replicate our results with research designs that contain relevant measures for larger numbers of more homogenous cases thus would be highly useful.

It also would be instructive to examine the relationship between crime and different forms of social capital over time, especially with longitudinal data from the 1960s on. This is the period when, according to Putnam, social capital began its historic descent in the United States. Although most prior research on social capital and crime, including Putnam's (2000)

own analysis, is based on cross-sectional data, his general argument focuses on the sources and consequences of the decline in social capital over time. It would be important to determine, for example, whether the pronounced drop in crime during the 1990s in the United States can be explained with reference to trends in distinct forms of social capital. Is it associated with a reversal in the decline of social trust, the dimension of social capital most consistently associated with crime in an inverse direction, or perhaps even with an increase in levels of trust?[7] Alternatively, is the crime drop accompanied by a reduction in forms of social capital exerting *positive* effects on crime, such as social activism? Moreover, have the dramatic changes in levels of crime been followed by corresponding changes in trust and activism in a manner consistent with the reciprocal causal models estimated in our cross-sectional analyses? These are intriguing questions best addressed with longitudinal data.

Finally, our analyses have implications for criminological theory. In both the classical and current formulations of social disorganization theory, trust and networks of interdependence link exogenous conditions, such as poverty, mobility, and population structure, to the diminution of social controls and elevated rates of crime and delinquency (Bursik and Grasmick 1993; Kornhauser 1978; Shaw and McKay 1969). Our findings question the role that trust and other aspects of social capital assume in this model. Trust matters, but as an outcome as much as a cause of crime. Deprivation matters as well, but as a direct impediment to social capital as much as a contributor to crime, which, in turn, undermines trust. Accumulating evidence implies that factors typically regarded as exogenous structural features of communities, such as economic deprivation and population density and mobility, are themselves outcomes of persistently high levels of crime (e.g., Liska and Warner 1991; Liska and Bellair 1995; Markowitz et al. 2001; Morenoff and Sampson

---

[7] We are grateful to an anonymous reviewer for pointing out this possibility. The General Social Surveys do extend back to the early 1970s, but include lengthy or continuous time series for only a few of the social capital indicators contained in the SCBS.

1997). This evidence has yet to result in corresponding modifications to theory and analytical practice.

Crime is one of the most persistently "disorganizing" conditions confronting any community. The possibility that it leads to social activism while undermining social trust and perhaps other dimensions of social capital only underscores its theoretical importance. Classical disorganization theory was updated and amplified in the late 20th century by the incorporation of explicit attention to varying types and loci of social controls—from intimate relations with family and friends to political ties between neighborhoods and government officials—that regulate community crime rates (Bursik and Grasmick 1993). A further theoretical move is now needed that reconceptualizes crime as both an outcome and source of social disorganization (see also Bellair 1997). The criticism of earlier formulations of disorganization theory as circular because they tended to confound crime with its putative causes led to alterations in the theory that place less emphasis on crime as a disorganizing community process in its own right (Bursik 1988). Social disorganization theory now requires renewed attention to the processes through which crime reproduces itself by impeding the development of certain forms of social capital that inhibit crime, and by stimulating the growth of those forms of social capital that are conducive to crime.

Steven F. Messner *is Distinguished Teaching Professor of Sociology at the University at Albany, SUNY. His research focuses on the relationship between social organization and crime, the spatial patterning of crime, crime in China, and the situational dynamics of violence. In addition to his publications in professional journals, he is co-author of* Crime and the American Dream *(Wadsworth),* Perspectives on Crime and Deviance *(Prentice Hall),* Criminology: An Introduction Using ExplorIt *(MicroCase), and co-editor of* Theoretical Integration in the Study of Deviance and Crime *(SUNY Press) and* Crime and Social Control in a Changing China *(Greenwood Press).*

Eric Baumer *is Associate Professor of Criminology and Criminal Justice at the University of Missouri-St. Louis. His research is concerned primarily with how social structural and cultural features of communities affect behavior. He has examined this general issue empirically in multilevel studies of the influence of neighborhood characteristics on the nature of crime, the mobilization of law, and the prevalence of various forms of non-normative behavior, in macrolevel studies of urban crime levels and trends, and in case studies of crime and social control in Iceland and the Republic of Malta.*

Richard Rosenfeld *is Professor of Criminology at the University of Missouri-St. Louis. He is coauthor with Steven F. Messner of* Crime and the American Dream *(3rd ed., Wadsworth, 2001) and has published widely on the social sources of violent crime. His current research focuses on the relationship between firearm availability and homicide rates, and the impact of policy interventions on violent crime trends in US cities.*

APPENDIX

Table A1. Dimensions of Social Capital

Variable	Variable Definition and Metric
Social Trust	Seven item scale that includes the percentage of residents who say that, in general, most people can be trusted; and mean levels of trust in neighbors, coworkers, fellow religious worshippers, shopkeepers, the local news media, and the local police (alpha = .96).
Political Engagement	Six item scale that combines the percentage of residents who are registered to vote, the percentage who voted in the 1996 Presidential election, the percentage who have served as an officer or served on a committee of a local club or organization; and mean levels of attendance at public meetings to discuss town or school affairs, knowledge of political leaders, and interest in politics (alpha = .77).
Political Activism	Five item scale that includes the percentage of persons who have attended a political meeting or rally, the percentage who have signed a petition, the percentage who have participated in demonstrations, protests, boycotts, or marches, the percentage who have participated in a political group, and the percentage who have belonged to a group that took action for reform (alpha = .92).
Community Social Service	Four item scale that combines the percentage of residents involved with a parent's association or other school support or service groups, the percentage involved in a youth organization such as the scouts, 4-H Clubs, and Boys & Girls Clubs, the percentage involved in organizations for senior citizens or older people, and the percentage involved in service clubs and fraternal organizations (alpha = .68).
Community Activism	Four item scale that includes the percentage of residents involved with a neighborhood block association or crime watch group, the percentage involved in a social welfare organization, the percentage involved in a civil rights organization, and the percentage involved in a literary or art group (alpha = .77).
Community Involvement	Five item scale that combines the mean number of days residents attended club meetings, the mean number of days residents took part in a community celebration, parade, sports or art event; and the percentage who belong to a hobby, investment, or garden club, the percentage who belong to other clubs, and the percentage who have worked on a community project (alpha = .85).
Religious Participation	Five item scale that includes the percentage of residents who are members of a church or synagogue, the percentage who attend religious services weekly or almost weekly, the percentage who participated in an organization affiliated with religion, the percentage who participated in church activities other than regularly scheduled services, and the percentage who volunteered for their place of worship (alpha = .96).
Workplace Connections	Single item that represents the percentage of persons who are involved with a labor union or trade association.
Volunteering and Charity	Seven item scale that combines the mean number of times residents engaged in unpaid work to help people besides family and friends, and the percentage who volunteered to help fight a health problem, or for a youth program, an organization that helps the poor or elderly, an art or cultural organization, or a neighborhood or civic group; and the the percentage of residents who contributed $100 or more to a religious or non religious charity (alpha = .87).
Altruism	Single item that reflects the percentage of residents who donated blood in the past 12 months.
Informal Socializing	Seven item scale that includes the mean number of friends reported by residents, the mean number of persons with whom residents can confide, the mean frequency with which they have talked with or visited immediate neighbors, the mean frequency with which they have socialized with coworkers outside of work, and the mean number of times they have played cards or board games with others, visited with relatives in person, and had friends over to their house (alpha = .83).
Team Sports	Two item scale that combines the percentage of residents who have been involved with a sports league or club, and the mean number of times residents have played a team sport (alpha = .81).

REFERENCES

Anderson, Elijah. 1999. *The Code of the Street: Decency, Violence, and the Moral Life of the Inner City.* New York: W.W. Norton and Company.

Bellair, Paul E. 1997. "Social Interaction and Community Crime: Examining the Importance of Neighbor Networks." *Criminology* 35:677–703.

———. 2000. "Informal Surveillance and Street Crime: A Complex Relationship." *Criminology* 38:137–69.

Bennett, Trevor. 1989. "Factors Related to Participation in Neighborhood Watch Schemes." *British Journal of Criminology* 29:207–18.

Berry, William Dale. 1984. *Nonrecursive Causal Models.* Newbury Park, CA: Sage.

Bollen, Kenneth. 1989. *Structural Equations with Latent Variables.* New York: Wiley.

———. 1996. "An Alternative Two-Stage Least Squares (2SLS) Estimator for Latent Variable Equations." *Psychometrika* 61:109–21.

Bursik, Robert J., Jr. 1988. "Social Disorganization and Theories of Crime and Delinquency: Problems and Prospects." *Criminology* 26:519–51.

Bursik, Robert J., Jr. and Harold G. Grasmick. 1993. *Neighborhoods and Crime: The Dimensions of Effective Community Control.* New York: Lexington Books.

Coleman, James. 1990. *Foundations of Social Theory.* Cambridge, MA: Harvard University Press.

Conklin, John E. 1975. *The Impact of Crime.* New York: Macmillan.

Davidson, Russell and James G. MacKinnon. 1993. *Estimation and Inference in Econometrics.* New York: Oxford University Press.

Durkheim, Emile. 1938. *The Rules of Sociological Method.* Translated by Sarah A. Solovay and John H. Mueller. Reprint. New York: Free Press.

Durlauf, Steven N. 1999. "The Case 'Against' Social Capital." *Focus* 20:1–5.

Fisher, Franklin and Daniel Nagin. 1978. "On the Feasibility of Identifying the Crime Function in a Simultaneous Equations Model of Crime and Sanctions." Pp. 361–99 in *Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates*, edited by Alfred Blumstein and Jacqueline Cohen. Washington, DC: National Academy of Sciences.

Frone, Michael R., Marcia Russell, and M. Lynne Cooper. 1994. "Relationship Between Job and Family Satisfaction: Causal or Noncausal Covariation?" *Journal of Management* 20:565–79.

Galea, Sandro, Adam Karpati, and Bruce Kennedy. 2002. "Social Capital and Violence in the United States, 1974–1993." *Social Science and Medicine* 55:1373–83.

Gatti, Uberto, Richard E. Tremblay, and Denis Larocque. 2003. "Civic Community and Juvenile Delinquency: A Study of the Regions of Italy." *British Journal of Criminology* 43:22–40.

Gibbs, Jack P. 1975. *Crime, Punishment, and Deterrence.* New York: Elsmere.

Halladay, Jessie. 2004. "Protest of Fatal Police Shooting Turns Violent." *Louisville Courier-Journal*, January 9. (Online). Available: http://www.courier-journal.com (Accessed January 9, 2004).

Hayduk, Les. 1987. *Structural Equation Modeling with LISREL: Essentials and Advances*. Baltimore, MD: Johns Hopkins University Press.

Heimer, Karen and Ross L. Matsueda. 1994. "Role-Taking, Role Commitment, and Delinquency: A Theory of Differential Social Control." *American Sociological Review* 59:365–90.

Hope, Tim. 1988. "Support for Neighborhood Watch: A British Crime Survey Analysis." Pp. 146–61 in *Communities and Crime Prevention*, edited by Tim Hope and M. Shaw. London, England: Her Majesty's Stationery Office.

Kennedy, Bruce P., Ichiro Kawachi, Deborah Prothrow-Stith, Kimberly Lochner, and Vanita Gupta. 1998. "Social Capital, Income Inequality, and Firearm Violent Crime." *Social Science and Medicine* 47:7–17.

Kenny, David A. 1979. *Correlation and Causality.* New York: Wiley.

Kornhauser, Ruth R. 1978. *The Social Sources of Delinquency: An Appraisal of Analytic Models*. Chicago, IL: University of Chicago Press.

LaFree, Gary. 1998. *Losing Legitimacy: Street Crime and the Decline of Social Institutions in America.* New York: Westview Press.

Land, Kenneth C., Patricia L. McCall, and Lawrence E. Cohen. 1990. "Structural Covariates of Homicides Rates: Are There Any Invariances Across Time and Social Space?" *American Journal of Sociology* 95:922–63.

Lederman, Daniel, Norman Loayza, and Ana Maria Mendendez. 2002. "Violent Crime: Does Social Capital Matter?" *Economic Development and Cultural Change* 50:509–39.

Lin, Nan, Karen Cook, and Ronald S. Burt. 2001. "Preface." Pp. vii–xii in *Social Capital: Theory and Research*, edited by Nan Lin, Karen Cook, and Ronald S. Burt. New York: Aldine du Gruyter.

Liska, Allen E. and Paul E. Bellair. 1995. "Violent Crime Rates and Racial Composition: Convergence Over Time." *American Journal of Sociology* 101:578–610.

Liska, Allen E. and Steven F. Messner. 1999. *Perspectives on Crime and Deviance.* 3d ed. Upper Saddle River, NJ: Prentice-Hall.

Liska, Allen E. and Barbara Warner. 1991. "Functions of Crime: A Paradoxical Process." *American Journal of Sociology* 96:1441–63.

Markowitz, Fred E., Paul E. Bellair, Allen E. Liska, and Jianhong Liu. 2001. "Extending Social

Disorganization Theory: Modeling the Relationships Between Cohesion, Disorder, and Fear." *Criminology* 39: 293–320.

Messner, Steven F. and Judith Blau. 1987. "Routine Leisure Activities and Rates of Crime: A Macro-Level Analysis." *Social Forces* 65:1035–52.

Messner, Steven F. and Richard Rosenfeld. 1999. "Social Structure and Homicide: Theory and Research." Pp. 27–41 in *Homicide: A Sourcebook of Social Research*, edited by M. Dwayne Smith and Margaret A. Zahn. Newbury Park, CA: Sage.

Mirowsky, John and Catherine E. Ross. 1983. "Paranoia and the Structure of Powerlessness." *American Sociological Review* 48:228–39.

Morenoff, Jeffrey D. and Robert J. Sampson. 1997. "Violent Crime and the Spatial Dynamics of Neighborhood Transition: Chicago, 1970–1990." *Social Forces* 76:31–64.

Norris, Pippa. 2002. *Democratic Phoenix: Reinventing Political Activism*. Cambridge, UK: Cambridge University Press.

Paxton, Pamela. 2002. "Social Capital and Democracy: An Interdependent Relationship." *American Sociological Review* 67:254–77.

Portes, Alejandro. 1998. "Social Capital: Its Origins and Applications in Modern Sociology." *American Review of Sociology* 24:1–24.

Putnam, Robert D. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.

Rosenfeld, Richard, Steven F. Messner, and Eric P. Baumer. 2001. "Social Capital and Homicide." *Social Forces* 80:283–309.

Ross, Catherine E., John Mirowsky, and Shana Pribesh. 2001. "Powerlessness and the Amplification of Threat: Neighborhood Disadvantage, Disorder, and Mistrust." *American Sociological Review* 66:568–91.

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 Janet L. Lauritsen. 1994. "Violent Victimization and Offending: Individual-, Situational-, and Community-Level Risk Factors." Pp. 1–114 in *Understanding and Preventing Violence: Social Influences on Violence, Vol. 3*, edited by Albert J. Reiss, Jr. and Jeffrey A. Roth. Washington, DC: National Academy Press (Committee on Law and Justice, National Research Council).

Sampson, Robert J. and Stephen W. Raudenbush. 1999. "Systematic Social Observation of Public Spaces: A New Look at Disorder in Urban Neighborhoods." *American Journal of Sociology* 105:603–51.

Sampson, Robert J., Stephen W. Raudenbush, and Felton Earls. 1997. "Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy." *Science* 277:918–24.

Shaw, Clifford R. and Henry D. McKay. 1969. *Juvenile Delinquency in Urban Areas*. Rev. ed. Chicago, IL: University of Chicago Press.

Skogan, Wesley G. 1989. "Communities, Crime, and Neighborhood Organization." *Crime and Delinquency* 23:41–50.

———. 1990. *Disorder and Decline: Crime and the Spiral of Decay in American Neighborhoods*. New York: Free Press.

Skogan, Wesley G. and Arthur J. Lurigio. 1992. "The Correlates of Community Anti-Drug Activism." *Crime and Delinquency* 38:510–21.

Subramanian, S. V., Daniel J. Kim, and Ichiro Kawachi. 2002. "Social Trust and Self-Rated Health in U.S. Communities: A Multilevel Analysis." *Journal of Urban Health: Bulletin of the New York Academy of Medicine* 79:S21–S34.

Woolcock, Michael. 1998. "Social Capital and Economic Development: Toward a Theoretical Synthesis and Policy Framework." *Theory and Society* 27:151–208.

———. 2000. "The Place of Social Capital in Understanding Social and Economic Outcomes." Presented at the International Symposium on the Contribution of Human and Social Capital to Sustained Economic Growth and Well-Being. Human Resources Development Canada and Organisation for Economic Cooperation and Development, March 19–21, Quebec City, Quebec, Canada.

Yamagishi, Toshio, Karen S. Cook, and Motoki Watabe. 1998. "Uncertainty, Trust, and Commitment Formation in the United States and Japan." *American Journal of Sociology* 104:165–94.

Yu, Jiang and Allen E. Liska. 1993. "The Certainty of Punishment: A Reference Group Effect and Its Functional Form." *Criminology* 31:447–64.

Zimring, Franklin E. and Gordon J. Hawkins. 1973. *Deterrence*. Chicago, IL: University of Chicago Press.