MEASURING WHAT MATTERS:
CRIME, DISORDER AND FEAR

by

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This chapter considers two issues: measuring the possible effects of an innovative policing program, and doing so in a framework that could support the inference that the program caused variations that the measurements might reveal. Measurement involves (among other things) the collection of data that represent — sometimes only indirectly — the problems that are targets of programs. These are the "outcome" measures, and it vital that they represent as accurately as possible the scope of a program's intentions. The framework within which these data are collected is evaluation's research design, and it is crucial that the design account for as many alternative explanations for what is measured as is possible under the circumstances. Arguing that "the program made a difference" over the past month or year involves systematically discounting the potential influence of other factors that might account for changes in the measures, through the use of randomization, matched control groups or time series, and other design strategies.

Measurement issues are a bit more closely related to analytic issues than this distinction suggests. One cannot divorce what is measured from how the measures can be linked causally to programs. What evaluators call the "logic model" of a program — how, exactly, it is supposed to have its desired effect — needs to be specified clearly enough that appropriate outcomes can be identified and their measures specified. For instance, if it is a crime prevention program, exactly what kinds of crimes involving what kinds of victims during what periods of the day or night should we look to for evidence of impact?
This essay focuses on measurement issues, but it bridges to design issues through some concrete examples of how measures have been used to make judgments about the impact of programs. It examines in sequence some of the experience of the evaluation community in taking the vital signs of a community via measures of crime, disorder and fear. This is far from a complete list of what matters in policing, as other articles in this volume attest. However, in Kelling’s original (1992: 33) plea for a focus on "what matters" in policing, he concluded with a call for a renewed focus on "... the grinding, day-to-day incivilities and minor street offenses that erode the quality of urban life, make people afraid, and create the milieu within which serious crime flourishes." In recompense for the brevity of the list issues considered in detail in this chapter, it concludes with an inventory of other issues that need to be considered — and appropriately measured — in any thoroughgoing evaluation.

MEASURING CRIME

The development of a new research technology — survey based measures of victimization — has enabled evaluators to dig deeper into claims about the effects of policing on crime. Although not without their problems (which will be examined below), survey measures of crime bypass two enormous sieves that strain out so many offenses that it can be difficult to know what to make of official crime statistics. These sieves are citizen reporting and police recording practices. Together, they work to the disadvantage of the poor and residents of higher-crime areas, and they can disguise the effects of programs that otherwise might appear promising.
Citizen Reporting

Interviews with victims indicate that many incidents are not reported to the police, either by themselves or (as far as they know) anyone else. Among crimes measured by the National Crime Victimization Survey, about 40 percent of all personal crimes and 33 percent of property offenses are reported. Reporting is high for auto theft (93 percent of successful thefts), but much lower for simple assaults (43 percent), attempted rapes (33 percent) and robberies (36 percent), and pocket picking (22 percent). It is only 52 percent for successful residential burglaries, and less than 12 percent for thefts of less than $50 (Bureau of Justice Statistics, 1996: Table 91).

Crime reporting by witnesses rather than victims is even lower. In Britain, only about 12 percent of the instances of shoplifting observed by the public get reported to anyone, 8 percent of serious fights, and 29 percent of thefts from cars (Skogan, 1990b).

Further, the National Crime Victimization Survey reveals that reporting differs by population group. Generally, lower income people, younger victims, and men report victimizations at a lower rate, while home owners report at a high rate. Incidents away from home, those with smaller financial consequences or for which victims had no insurance, and crimes in which victims and offenders know one another well are reported less frequently. Interracial (black on white) crimes are also more likely to be reported. In some crime categories fear of retaliation discourages reporting; in others people do not report because they plan to take action on their own. The belief that police would not want to be bothered, or that they are ineffective or biased, is responsible for about 10-15 percent of nonreporting, depending on the category.
In addition, we have reason to fear that programs and practices that involve people more intimately with policing also encourage crime reporting when they are victimized. Crime prevention and other programs ask citizens to "be the eyes and ears" of police, so they hopefully do increase reporting, but unfortunately this could make those efforts look counter-productive if they were evaluated only using official figures. It appears that this effect has only been documented once — by Anne Schneider (1976) in an evaluation of a residential burglary prevention program in Portland — but the threat of looking worse as a result of doing better has been enough to sensitize almost all evaluators about the difficulties of using reported crime figures to evaluate programs.

Police Recording

In addition to the fairly systematic bias introduced by citizen non-reporting, official figures are further confounded by the vagaries of police recording practices. Founded incidents are not the same thing as reported incidents, often for good reasons, but the gap between the two can also disguise deceptive recording practices. At several levels, police may act to avoid unpleasant or seemingly unproductive work, to forestall complaints about their behavior, or in response to pressure from higher-ups to keep the crime count down. Bona fide reported offenses may be shifted from one category to another, mostly to "downgrade" them, or they can be ignored. In numerous well-documented cases there have been sharp changes in crime rates associated with reform movements, changes in political administration, turnovers among district commanders, and the like. In Chicago, detectives were caught red-handed "killing crime" at an enormous rate by unfounding rape, robbery and assault incidents without investigation. The practice was widely understood
within the department, which kept two sets of books — one public and one private — on reported offenses (Skogan and Gordon, 1983).

Administrators who want honest accounting have few choices. One is to examine the ratio of recorded crimes to arrests in hope of spotting districts where the two figures are too close together, or to monitor the crime clearance rates reported by their detectives. Another strategy for encouraging honesty in bookkeeping is to conduct expensive field audits that track the course of 911 calls, beginning with the communication center's running tape; Chicago's department did this for a decade, in response to the "killing crime" scandal. However, changing technology is undermining the apparent control that centralized complainant-taking and dispatch gave downtown managers over police operations. Police and the public are increasingly communicate with one another directly, via beepers, cell phones, and voice mail, rather than through 911. In addition, community policing strategies almost always involve increasing the frequency of face-to-face meetings and informal encounters between the police and the public for the purpose of exchanging information. The old systems for command and control within police agencies produced a torrent of data on crime and disorderly conditions, that were of sometimes dubious quality, and now those data are becoming increasingly unreliable.

**Survey Measures of Crime**

There are alternative measures of crime, however. The most well known are victimization rates based on the results of surveys that quiz respondents about their recent experiences with crime. These measures by-pass citizen reporting and police recording practices, and typically produce estimates of the crime rate that are 2-3
times those based on official sources. In the aggregate they sometimes trend in the same direction as official figures. This is particularly true at the national level, when expansive categories of crime are considered over a period of years, and after adjustments are made to account for some of the differences between the two series (cf, Mirrlees-Black, et al, 1996; Biderman and Lynch, 1991). However, for small areas, tight timeframes, and detailed categories of crime, it is unwise to expect survey and official figures to point to the same conclusions.

*Figure 1 goes about here*

Figure 1 presents a fragment of a typical victimization screening questionnaire designed for telephone administration. The original questionnaire (Skogan, 1995) included eighteen screening questions probing for both personal and property victimizations. The questioning strategy was to first elicit "yes-no" responses about each scenario on the list, and then return to followup questions like those employed in this study, "was it reported to the police" and "did this happen in your neighborhood." For the respondent, this breaks any apparent link between giving a "yes" response and the burden of answering additional questions, a link which suppresses the victimization count (Biderman, et al, 1967) Information about the location of incidents is frequently required to identify those which took place in the targeted area and which occurred elsewhere. In personal interviews it is possible to show respondents a map and ask them to identify when specific incidents took place. This is particularly useful where the area under consideration is a police district or administrative unit which does not closely correspond to popular conceptions of local neighborhood boundaries.
Problems With Survey Figures

Coverage. Not everyone will be included. Interview refusal rates can be high, and they are growing. The problem is compounded in multi-wave studies in which respondents are reinterviewed over time. In a mobile society recontact rates can be low if more than a few months pass between the waves of a survey, and that loss differs from group to group. In particular, young people, renters, and short-term residents of the community are difficult to reinterview, while women, family members, and homeowners can be found again more easily. Young people (who are at greatest risk) are hard to find at home at any time. Many crimes are reported by organizations (such as schools) and by merchants (Shapland, 1995) and others who will be left out if only households are included in the survey. The number of victimization that they experience are considerable. The last national commercial victimization survey revealed a burglary rate of 217 per thousand establishments, as contrasted to a household rate of 89 burglaries per thousand dwellings (National Criminal Justice Information and Statistics Service, 1976). Among crimes reported to the police, one-third of burglaries involve "nonresidential" (largely commercial) targets (Federal Bureau of Investigation, 1995). However, it is common practice to just survey households.

There is a great deal of debate about the relative merits of telephone versus in-person surveys. The latter cost more, but many inner-city homes are without telephones. In Chicago there are strong links between race, poverty, crime, and the accessibility of people for telephone surveys. At the census tract level, the correlation between telephone access and the gun crime rate is -.44. It -.67 for the percent of families on public aid, and +.50 for the percentage who are home owners. Among the city's prototype community policing districts, 10-19 percent of
households did not have a telephone in two areas, and more than 20 percent of households did not have a phone in the northern end of another district (Skogan, 1995).

On the other hand, survey refusal rates in big cities are lower for telephone than in-person surveys, partly because respondents are unwilling to let strangers into their homes, and the difficulties involved in managing and protecting the safety of interviewers in higher-crime neighborhoods are considerable (Groves and Kahn, 1979). It is not clear what the "bottom line" is on this issue, and in the end it is usually decided by cost.

Expense. Surveys typically use samples to represent the populations of neighborhood, districts, or cities. This introduces error in the findings, and if that error is going to be acceptably small the surveys have to involve fairly large numbers of respondents. The issue of how many respondents are needed is determined by the subject. For example, to document an anticipated drop in the prevalence of burglary victimization from 15 percent to 10 percent of households (a 33 percent decline!) requires about 340 respondents (cf, Kraemer and Thiemann, 1987).

Getting the Count Straight. One of the most interesting developments to date in the study of victimization is the discovery of what makes high crime neighborhoods "high crime." Research in Great Britain indicates that it is not so much that more people are victimized there; that percentage is higher in high crime areas, but what really distinguishes the worst areas is that residents are repeatedly victimized. Repeat or multiple victims contribute disproportionately to the over-all
crime count in high crime areas (Farrell, 1995; Trickett, et al, 1992). This is both good news and bad news.

It is good news because it gives us more leverage on the crime rate. It suggests that programs which target first-time victims could have "more bang for the buck" than scatter-shot prevention efforts, because once-victims are much more likely than non-victims to be targeted again. This phenomenon presents a cheap and apparently effective way of targeting criminal justice resources, and cities that have invested in security surveys, hardware upgrades, and other support services for victims were on the right track (Anderson, Chenery and Pease, 1995; but see Spelman, 1995 for another view).

It is bad news because even the best surveys are not very good at measuring repeat victimization. The reasons why victim surveys are poor at measuring repeat victimization are complex: they involves a combination of general bounding, telescoping, temporal ordering, forgetting, differential recall, series victimization, estimation, design-effect, and confidence-interval problems that pile up on this particular issue (Skogan, 1981). One way of ignoring some of these problems has been to avoid trying to measure victimization rates, or the number of crimes occurring in an area divided by the number of residents or households. Rates are very severely affected by most of the problems listed above, because rates involve estimating the number of crimes that have occurred.

Instead almost every published evaluation in the police field has examined survey measures of the prevalence of victimization, or the percentage of persons or households who have been victimized once or more. This figure is resistant to some of the problems outlined above: we just need to know that something
happened to someone to categorize them a "victim." Prevalence measures are also much easier to analyze using multivariate statistics, because whether they were a victim or not is an experience of individuals that easily can be related to their background, household, and lifestyle factors. Finally, prevalence measures require less questionnaire space and interviewer time because fewer pesky details are required to get a yes-no answer. But now we know that this approach was remarkably insensitive to one of the forces that drives up neighborhood crime rates, and they are not very suited for evaluating what appears to be a promising crime prevention strategy.

Table 1 goes about here

An Example

Things are not as hopeless as the discussion above might suggest. Because they are so difficult to assess when many issues and potential program outcomes compete for evaluation resources, I have found triangulation a useful strategy for making use of multiple, flawed measures of crime rates. Table 1 illustrates the findings of a recent evaluation of community policing in two of Chicago’s police districts (Skogan, et al, 1995). It compares the findings of household surveys and an analysis of 34 months of founded crime incidents. Table 1 reports (1) perceptual measures asking "how big a problem" specific crimes were in the community (see the next section about this); (2) officially recorded crime counts; and (3) survey measures of the prevalence of victimization (a measure that was discussed above). These crimes were selected for close examination because they were among the four top-rated problems in these two districts. The probability figures presented below each of the survey-based figures indicate how likely the changes described there
were to have arisen by chance. The percentage change is presented for officially recorded crimes.

In this example all of the measures pointed in the same direction, lending more confidence to the conclusion that crime went down substantially in these districts. In Morgan Park, auto theft as measured in the survey was down significantly, and so were reports that it was a "big problem" in the area. In Austin, robbery was down in both survey measures. In both districts there was a decline in officially recorded crimes in these categories, especially in Morgan Park. In the comparison areas matched to these districts robbery and auto theft also declined, but only slightly.

MEASURING DISORDER

Important as it is, there is reason to doubt that crime reduction is the sole "bottom line" for evaluating policing. Narrowing their traditionally wider scope of responsibility was one of the strategies employed by reformers to capture control of police organizations (Kelling and Coles, 1997), but the profession has paid a price for the consequences. To "police" society implies a wider mission, and expansion of the police mandate is one of the fundamental features of modern problem-oriented policing. It is not just that police are the only servants of the people who are open 24 hours a day and continue to make house calls. For another, they are taking on a wider range of problems because, when given the opportunity, their "customers" are demanding it. In Chicago, observational studies of small public meetings that are an integral part of the city's community policing program reveals that neighborhood residents are concerned about a broad range of problems, ranging
from traffic enforcement to dumping, building abandonment, and teenage loitering (Skogan and Hartnett, 1997).

One aspect of this new and larger police agenda is an untidy bundle of problems that I have labeled "disorder" (Skogan, 1990a). Disorder is apparent in widespread junk and trash in vacant lots, decaying and boarded-up buildings, vandalism and graffiti, and stripped and abandoned cars in the streets and alleys. It is also signaled by bands of teenagers congregating on street corners, soliciting prostitutes and panhandlers, public drinking, verbal harassment of women on the street, and open gambling and drug use. For many purposes it is useful to think of these problems as falling into to two general classes: social and physical. Social disorder is a matter of behavior: you experience it, see it happen, or see direct and tangible evidence that it is a problem. Physical disorder involves visual signs of negligence and unchecked decay: abandoned or ill-kept buildings, broken street lights, trash-filled lots, and alleys strewn with garbage and alive with rats. By and large, physical disorder refers to ongoing conditions, while social disorder appears as a series of more-or-less episodic events. What these conditions have in common is that they signal a breakdown of the local social order. They are violations of what James Q. Wilson (1968) called "standards of right and seemly conduct."

Of course, to be useful a concept must also be bounded. In this case, it cannot encompass every nuance of behavior. Disorder violates widely shared norms about public behavior; these prescribe how people should behave in relation to their neighbors or while passing through the community. These norms are not a neat bundle of rules, because legislatures have not set some of them in cold type even though they are widely agreed upon. Other activities in the bundle are unlawful, but it has been difficult to get police to take most of those very seriously. Because
many norms about public behavior are uncodified and others are not traditionally defined as "serious," one of the jobs of evaluators is to work through the untidiness of disorder to discover what its dimensions are in a particular context. They usually need to develop new measures of their prevalence, for the uncodified status of many disorders means that there are few official reports or indicators of the extent to which they plague particular neighborhoods.

Figure 2 goes about here

The importance of disorder to policing’s customers can be illustrated by what goes on during beat meetings in Chicago. These meetings are a central aspect of the city’s program, for they are the principal arena in which joint problem identification and problem solving is to take place. Attending 146 of these meetings, we noted a total of 113 different problems that were discussed, as well as 36 types of solutions to them. Of the problems recorded in our observations, 21 were mentioned in at least a tenth of all beat meetings. These are depicted in Figure 2. About half of these problems are related to social disorder issues; note the high rating given to "uncontrollable youths." Complaints about police procedures made up another quarter of these issues, including two of the top four problems. Another fifth of the top issues involved the decay of the physical environment, in the form of graffiti, litter, and abandoned cars and buildings. Interestingly, the kinds of core problems around which reactive policing was organized — represented here by complaints about either burglary or robbery — ranked only 17th on the list, and were brought up in only 12 percent of all meetings (Skogan, et al, 1995).

There are at least three approaches to measuring the extent of disorder: analysis of archival records, direct observation by trained observers, and sample
surveys. Each has strengths and weaknesses, and these are reviewed in detail by Ralph Taylor in his essay in this volume. Consistent with the other sections in this chapter, I focus here on survey-based measures of disorder.

**Survey Measures of Disorder**

The importance of disorder in the eyes of the general public can also be seen in surveys. Boston's 1995 public safety survey asked respondents about sixteen different kinds of incidents or conditions in their neighborhood, and asked them to rank "how big a problem" each was. At the top came auto theft and drugs, but next were noise, public drinking, and vandalism. Then, after burglaries, came "kids hanging around," graffiti, and panhandling (Boston Police Department, 1995). A survey of the most dangerous district involved in Chicago's community policing project found that two of the most highly rated local problems were gang violence and drug dealing, but between them came abandoned buildings, and the fourth biggest problem was junk and trash in the streets and sidewalks. People there thought that public drinking was a bigger problem than burglary, assault, or rape (Skogan, et al, 1995). While many surveys ask "how big a problem" specific disorders are, other formulations of the question include "how worried are you about ..." (Maxfield, 1984), and "how concerned are you about ..." (Mayhew, et al, 1989). These approaches confound the prevalence of problems in their environment with their impact on the respondent, which are not necessarily the same issue, and I would not recommend them.

Exactly what disorders should be included in an evaluation is, of course, driven by the problems facing the communities involved and the nature of the programs being developed. As an illustration, under some circumstances the
targeted problems could be alcohol-related. In Chicago we asked residents of program and comparison areas about "... things that you may think are problems in your neighborhood." They were read short lists of problem descriptions and asked each time if they thought it was "a big problem, some problem, or no problem in your neighborhood." The alcohol-related problems were:

*Public drinking?* (27 percent thought it was some problem, and 20 percent a big problem)

*Taverns or liquor stores selling alcohol to minors?* (21 percent thought it was some problem, and 15 percent a big problem)

*Taverns or liquor stores attracting troublemakers?* (23 percent thought it was some problem, and 19 percent a big problem)

In other surveys I have used survey reports of the extent of problems with:

loitering    vandalism    street harassment
fly dumping    massage parlors    abandoned buildings
noise    abandoned cars    junk-filled vacant lots
truancy    panhandling    litter and trash
graffiti    public drinking    broken windows
public gambling    loud parties    school disruption
public insults    spray painting    dilapidated buildings
taverns    topless bars    dirty streets & sidewalks
pornographic theaters
In each case it was necessary to tailor the specific wording of the question to local conditions. Questions about topless bars were included in surveys in Houston because I could not avoid noticing beer halls with flashing neon signs announcing that "Naked Girls Dance" in several of the targeted residential areas (Skogan, 1990a).

Are these perceptual measures valid indicators of the true extent of disorder in a community? Unlike survey measures of victimization there has been relatively little research on the matter, and much of it is reviewed in Ralph Taylor's chapter in this volume. The question is whether responses to these kinds of survey questions can be taken as (1) useful reports on neighborhood conditions (if we can treat respondents as informants), or if responses are (2) mostly reflections of their biases or personal preferences, or (3) if they are just random answers made up on the spot to satisfy interviewers. Option 2 implies that disorder largely rests in the eye of the beholder, and that surveys are not a very useful way of gathering intelligence about the distribution of neighborhood problems. However, statistical analyses suggest that the surveys are not just measuring intolerance for all but conventional middle-class views of how people ought to behave. Rather, there is evidence that major economic, social, and lifestyle groups within neighborhoods are in a great deal of agreement about the problems that they face, and that the surveys are actually representing neighborhood differences in conditions rather than just individual's views.

Another approach to validating survey results is to compare them with the extent of specific disorders measured by observing of the same area. This is easiest to do for such observable neighborhood conditions as litter, graffiti, and building abandonment. Ralph Taylor and his colleagues made carefully controlled observations of those factors in 66 areas. The results were correlated with perceptual
measures gathered in surveys of the same areas. The correlations were not always very high. They were highest when the survey and observational data were combined to form general indices, and when they were compared for small areas. However, at the single-measure, problem-specific level the extent to which this could be attributed to measurement errors on both the survey and observational sides of the comparison are unclear.

**Observational Measures of Disorder**

As this hints, there are great possibilities for observational measurements of the targets of some policing programs. This work was pioneered by Ralph Taylor, who has conducted block-by-block physical surveys of neighborhoods in Baltimore. His observers assessed and scored the physical dilapidation of individual buildings, the deterioration of streets, alleys and sidewalks. They noted the presence of abandoned buildings and storefronts, graffiti, and litter. In his work these factors were correlated with resident morale and calls for police service. Other researchers have examined the distribution of graffiti and abandoned cars, and the impact of taverns, schools and mixed land use on crime. This research is not easy to conduct. There must be acceptable levels of inter-observer agreement on what the observed for us to accept the results of their judgments, and it is important to safeguard the safety of observers.

There are also limits to what can be observed that persons living in a neighborhood can be asked about. For example, Richard Taub (Taub, et al, 1984) found his observers could not reliably count junk in front yards and vacant lots that was "smaller than a toaster," so they used that standard. Many of the phenomena we would like to observe can be transitory in character, especially if observers are
looking at social behavior rather than physical manifestations of decay. These 
disorders are events rather than conditions, so brief observations are likely to miss 
them. In one study, during repeated and lengthy observations of specific locations 
that had been pre-identified as high-disorder "hot spots," observers actually saw 
something disorderly taking place very infrequently.

*Figure 3 goes about here*

**A Survey Example**

Figure 3 reports the results of surveys of five police districts in Chicago, using 
the "how big a problem" question formal described above. It identifies the four 
neighborhood problems that were the most highly ranked in each area, from a list of 
22 problem scenarios that were presented to respondents in three different sections 
of the questionnaire. Several interesting points are illustrated there.

First, some problems were common across many or most of the districts, 
including drugs and gang violence. Street drug sales were on the agenda in every 
community, and gang violence in four of the five. However, the other top 
problems differed from place to place, and issues that loomed large in some areas 
were scarcely problems at all in other districts. In one dense area with little off-street 
parking, vandalism to automobiles was one of the area’s top four problems; in the 
best-off area, auto theft was on the list. This is why one goal of community policing 
is to open departments up to local input — so that they can effectively discern these 
variations in local concerns and tailor their operations to respond to them.
Second, not all of the problems on people’s minds fell in the "conventionally serous crime" category. A wide range of problems were identified as vexing. Car vandalism was near the top of the list in two areas, as was graffiti. Street crime was also highly rated in two areas. Auto theft, burglary, disruptions around schools, abandoned buildings and "vacant lots filled with trash and junk" each stood near the top of the list in one district. It is interesting to note that only in one district — Morgan Park — did conventional crimes constitute all four of the area’s most highly ranked problems. This was the best-off area of the group, one that is the home of many city workers and has strong connections with city hall and municipal service agencies. In the other four prototypes, two of the top four problems were "quality of life" concerns rather than conventionally serious criminal offenses.

Finally, Figure 3 illustrates that initial levels of these "biggest problems" varied considerably from district to district. For example, street drug dealing was rated a big problem by 60 percent or more of residents of Englewood, but only about 13 percent of the residents of Morgan Park and 20 percent of those we interviewed in Rogers Park thought this was a big problem, even though it was one of the areas’ top-ranked issues. In Morgan Park, burglary was a top-ranked problem, but only 10 percent gave it a high rating. In Morgan Park in particular, there was not much room for improvement on many dimensions, and expectations about the potential impact of community policing on problems had to be tempered by this fact.

What was the impact of the program on these problems? Figure 4 examines this question. It depicts Wave 1 and Wave 2 survey results (labeled "W1" and "W2") for one district and its matched comparison area, to facilitate comparisons of over-time changes in the results. The biggest problems in Englewood included drugs, gang violence, abandoned buildings and trash-strewn lots. The values in
parentheses near the bottom of the figure present the statistical significance of Wave 1 to Wave 2 changes within the area. This is the likelihood that the change recorded in Figure 4 actually reflects a chance fluctuation in the survey, and we only want to pay attention to changes that were probably not due to chance. Detailed statistical analyses of the data are not presented here, but they reinforced the patterns that can be observed in Figure 4.

In Englewood all four of the biggest problems declined, while none went down significantly in its matched comparison area. Street drug sales was ranked a big problem by 62 percent of Englewood residents in 1993, but by only 49 percent in 1994. Abandoned building problems dropped from 43 percent to 27 percent. Gang violence was down only modestly (the percentage who thought it was a big problem declined from 41 to 35 percent), but it increased significantly in Englewood’s comparison area. Detailed statistical analysis provided additional evidence that these problems all declined significantly after 15 months of community policing.

MEASURING FEAR OF CRIME

There have been many efforts to clarify the meaning of the concept of "fear of crime" (Ferraro and LaGrange, 1987; Maxfield, 1984). Some find it troublesome that there is no clear consensus on what the concept means or how it is best measured, and that studies that measure the concept in conceptually diverse ways find that different operationalizations of fear are only very moderately correlated with one another. However, this heterogeneity of meaning simply reflects the fact that fear of crime is a concept of everyday language, one suited for casual conversation. People commonly talk about fear of crime and its social and political effects; for example, one hears that the elderly are "prisoners of fear," traumatized by the thought of
venturing out because of the risks they would face. But the concept needs to be refined for research purposes, and how it is best defined depends upon the purpose of the research.

Research on fear of crime conceptualizes it in one of four ways. Three of these definitions are cognitive in nature; they reflect people’s concern about crime, their assessments of personal risk of victimization, and the perceived threat of crime in their environment. The remaining approach to defining fear is behavioral; some studies define fear as things that people do in response to crime. Dissecting these variations in how fear of crime is defined is important, because they make a great deal of difference in what researchers have found. Different definitions of fear can lead to different substantive research conclusions.

**Concern About Crime**

The "concern" definition of fear focuses on people's assessments of the extent to which crime and disorder are serious problems for their community or society. Concern is a judgment about the frequency or seriousness of events and conditions in one’s environment.

There are a number of approaches to measuring concern. Opinion surveys ask whether crime or disorder is increasing or decreasing, and whether respondents would place them on their list of "most important problems." Most research adopting this definition of fear examines neighborhood conditions. In my research I have asked about "how big a problem" respondents think that various conditions are in their immediate area. The 1995 Boston Public Safety Survey asks, "Is crime a problem in Boston?"
The British Crime Survey gives respondents a list of crimes and disorders and asks, "... how common or uncommon they are in your area?" (Maxfield, 1984). Respondents also are sometimes asked to compare crime in their neighborhood to the city as a whole. Even in the highest-crime cities most report that their own area is "below average." Massive surveys of 13 cities conducted by the Census Bureau during the 1970s found that only 7 percent thought their neighborhood was more dangerous when compared to others in the metropolitan area (Garofalo, 1977). This is likely to be true, for the distribution of crime even within cities is very skewed, with a few areas driving up the citywide total. Because is asks for a "report" on neighborhood conditions that is independent of how respondents perceive their own risks, measures in this category typically are unrelated to those that tap the emotive dimensions of fear.

**Risk of Victimization**

The second common meaning of fear is the perception that one is **likely to be victimized**. Since the surveys sponsored by the President's Crime Commission in the mid-1960s (Biderman, et al, 1967), researchers have been asking people to rate their chances of being victimized. For example, respondents may be asked to rate "how likely" they are to be attacked or burglarized, on a scale ranging from "not very likely" to "very likely." Assessments of risk are respondents' perceptions of the likelihood of things happening to them, and these are frequently recommended as measures of "fear." In the 1988 British Crime Survey respondents were asked to rate their risk of being victimized in the next year, on six-point scales ranging from "certainly not" to "certain to be victimized" (Mayhew, et al, 1989). Risk measures appear to factor in what respondents have done to protect themselves from victimization. As a result, groups like the elderly who report high levels of fear on
other dimensions do not perceive of themselves as particularly at risk, because they also are much less exposed to victimization (Skogan, 1993).

**Threat of Crime**

Definitions of fear focusing on threat emphasize the potential for harm that people feel crime holds for them. Threat levels are high when they believe that something could happen to them, if they exposed themselves to risk. The concept of threat is distinct from those of risk and concern. People may adopt various tactics to reduce their vulnerability to victimization, and as a result they may not rate their risk as particularly high because they avoid exposure to risk. However, they might rate the threat of crime as high if they were to be exposed to risk. Because many people believe that they are capable of dealing with crime, threat also is distinct from concern about the issue. Threat is measured by questions that ask "How safe would you feel if you were out alone?"; or "How would you feel if you were approached by a stranger on the street or heard footsteps in the night?" (Taub, Taylor and Dunham, 1984). Numerous surveys indicate that the threat of crime is felt most strongly by the elderly, and in comparison to measures of risk or concern, questions measuring threat clearly differentiate senior citizens from the remainder of the adult population.

**Fear as Behavior**

A final, important conceptualization of fear of crime is what people do. This meaning of fear reflects a focus on the behavioral rather than cognitive aspects of the attitude. From this perspective, fear is best assessed by how it is manifested in the frequency with which people go out after dark, restrict their shopping to safer
commercial areas, fortify their homes against invasion, and avoid contact with strangers. The International Crime Survey, which has been conducted in almost 30 countries, asks whether respondents avoid certain areas, go out with an escort, if they have a burglar alarm, if they leave their lights on when away from home, and if they ask neighbors to watch their homes when they are away (Van Dijk and Mayhew, 1993).

Many analyses along these lines deal with two general classes of responses to crime: those which limit risk of personal attack by avoiding potentially threatening situations, and defensive tactics which reduce the vulnerability of households to burglary and home invasion. This distinction was first drawn by Furstenberg (1971), who dubbed them "avoidance" and "mobili-zation." Mobilization includes the extent to which people fortify their homes against crime by adopting security measures like special outdoor lights, door locks, window bars, and interior lights, and by marking their property with a special identification number. Avoidance definitions emphasize behaviors aimed at reducing risk of personal crime. These include avoiding dangerous places and people, and walking only with an escort rather than alone after dark.

Which Measure to Use?

It makes a difference what measure is used. For example, research on the effects of mass media coverage of crime is contingent upon the conceptualization of fear that is employed. Tyler and Cook (1984) found that exposure to media stories about crime increased people's concern about crime (as it is defined here, belief that crime is a growing community problem). However, they found that it did not affect people perception that their own neighborhood was unsafe, or that their personal
safety was at risk. Other researchers have found that political attitudes and measures of ideological position are correlated with concern measures, but not with risk or threat measures. Victimization, on the other hand, has clearer effects on both risk and threat measures. Interestingly, the elderly's well known fear of crime is manifested only on the threat measure; they do not rate their own risk of being victimized as particularly high, they do not perceive their neighborhoods to be particularly disorderly, and they are much less likely than others to be concerned about crime (Skogan, 1993).

As this implies, it is important that evaluators pick and choose fear measures carefully. To evaluate the impact of visible patrol it would be wise to use threat measures, which assess perceived risk "outside." On these measures almost no one feels very unsafe during the day, so after-dark fears — and after-dark programs — need to be assessed. Domestic violence programs would call for tailored behavioral measures. The fear of crime measure employed by the National Opinion Research Center, the Roper poll, and others ("Is there a place near by — that is, within a mile — where you would be afraid to walk alone after dark?") would be a useful "hot spot" question, especially in conjunction with a follow-up open-ended question identifying the location. Specific interventions might call for fear measures linked to specific types of crime; for example, house burglary or robbery near automatic teller machines. Offense specific measures of fear are much more strongly linked to one another than are broad or heterogeneous measures (Warr, 1984).

An Example

Can better policing affect fear of crime? This is an area where I think the "common research wisdom" is wrong. The notion that visible policing does not
make a difference in fear and attitudes toward police stems from early experiments conducted in Kansas City. Police there were selectively withdrawn from some experimental precincts and their numbers were beefed up in others, in order to gauge the effect of the extent of routine (largely motorized) patrol on crime and fear. Researchers there found no differences in the subsequent views or victimization experiences of residents of the experimental and comparison areas. They also did not notice that the number of police assigned to their area had changed. Before and since there has been research that ran counter to these conclusions, but the Kansas City findings (Kelling, et al, 1974) became famous.

However, researchers working with survey data on the visibility of policing and contacts between the public and the police quickly note that associations between visibility, contacts, satisfaction, and fear are strong, and persist even when a long list of alternative correlates are controlled for. This can be illustrated by the findings of the ongoing evaluation of community policing in Chicago (for more information, see Skogan and Hartnett, 1997). Unlike Kansas City, the evidence in this case is correlational rather than experimental. But it also involves a program that suddenly increased — this time visibly — the level of police activity in selected areas. The apparent consequences of police visibility in Chicago run counter to the Kansas City results. In this evaluation, respondents were questioned twice, once before the program began and again after about 15 months. Fear of crime was measured each time by responses to three questions. The research examined the impact of experiences that the respondents had between the two waves of interviews.

How safe would you feel being alone outside in your neighborhood at night? [four categories ranging from "very safe" to "very unsafe"]
Is there any particular place in your neighborhood where you would be afraid to go alone either during the or after dark? [yes or no]

How often does worry about crime prevention prevent you from doing things you would like to do in your neighborhood? [four categories, ranging from "very often" to "never at all"]

The reliability of the composite scale combining these items was .66. Before the program began, levels of fear were higher among women, low income and less educated people, African-Americans, and renters.

A statistical analysis found that the impact of visible community-oriented police efforts (walking on foot, talking with residents, patrolling the alley) was large and highly significant. Controlling for many other factors, residents who subsequently observed the police involved in a list of community-oriented activities (not just driving by) felt safer. The most important control factors took advantage of the fact that the respondents were interviewed twice: the analysis also controlled for a measure of how fearful they were before the program began, and what they reported seeing police in their area doing before the program began. Controlling for all of this, residents of the target community policing neighborhoods were less fearful, more satisfied with police responsiveness to community concerns, and thought police were more effective at dealing with crime. The effect of police visibility on fear was of about the same magnitude as the effects of age and sex, two of the strongest determinates of fear.

*Figure 5 goes about here*
To illustrate the magnitude and generality of the effects that are involved, Figure 5 charts Wave 2 responses to the first fear question listed above, "How safe would you feel being alone outside in your neighborhood at night?" The percentage of respondents in each category of visibility who replied "unsafe" or "very unsafe" is presented in Figure 5. The visibility of community-oriented policing during the period between the interviews is represented by a count, ranging from zero to four, of sightings of two different kinds of foot patrol, police checking buildings and alleys, and officer having informal conversations with citizens. We can see in Figure 5 that whites were less fearful than African-Americans or Hispanics, most notably when police visibility was very low. However, levels of fear were lower for all groups when the police were more visible. Although harder to discern by eye, the downward slopes of the lines for African-Americans and Hispanics also were somewhat steeper than the slope for whites. This suggests the effect of police visibility was greater for minorities than for white respondents.

POLICE-RELATED MEASUREMENT ISSUES

Having developed useful indicators of the extent of crime, disorder, and fear, is the evaluator's task done? What we have reviewed is just the beginning. A thoroughgoing evaluation potentially has many more issues to attend to that call for systematic measurement. The list is a long one, and issues related to assessments of the quality of police service, the visibility of policing, police-citizen contacts, and satisfaction with encounters with police, are worthy of a conference in their own right. Among the issues that evaluators have found crucial are:
Visibility of Police

Since the Kansas City preventive patrol experiment, surveys have routinely included questions about sightings of various police activities. There has been no research on the accuracy of these measures, which is probably fairly low. Visibility should be mostly related to how frequently people are positioned to see police, and it is typically much lower among older people, the unemployed, and women.

In our Chicago study we employed a checklist of seven common circumstances under which neighborhood residents might observe the police in action, including driving through the area, walking on foot or in a nearby commercial area, pulling over an auto or searching or frisking someone, patrolling in the alley or checking garages, and having a (apparently) friendly chat with people from the neighborhood. All of these were commonly observed in the dense, not-well-off areas that we surveyed. The activities commonly associated with community-oriented policing (conversations, foot patrols, and alley or garage checks) were observed more frequently in the program areas, and not in the comparison areas. Those activities were also linked to reduce fear of crime, as illustrated in figure 5, while visible motorized patrol seemed to have no consequences at all.

Encounters Between Police and the Public

The survey approach is to screen for encounters between police and the public within a specified recall period (e.g., "the last six months"), using a list of typical contact situations. The British Crime Survey, which is conducted in-person, presents respondents with a checklist of 17 scenarios ranging from reporting a crime
to asking for directions, and asks if they have been involved in them during the past 12 months. For 1992, 54 percent of Britons recalled a contact. Almost 40 percent contacted the police, while an (overlapping) 33 percent were stopped by police or were contacted in the course of an investigation (Skogan, 1994).

There are no comparable national figures for the US. In our surveys in Chicago we screen respondents for nine types of citizen-initiated contacts, ranging from reporting a crime to contacting the police to ask for information. We also ask about their involvement in motor vehicle stops and being stopped while they are on foot. In April of 1993, 61 percent of adult Chicagoans recalled one or more of these direct contacts with police during the past year. In addition, almost 30 percent indicated they had received a parking ticket in the city during the previous year, but we did not include that in the 61 percent figure.

Assessments of the Quality of Police Service

This is an area where remarkably little attention has been focused on measurement development, and I am not even sure what the relevant evaluative dimensions are. In Chicago, we have asked "how good a job" respondents think the police do at a variety of tasks and under a variety of circumstances, questions asking "how satisfied" people are about lists of police efforts, and how well the police behave "toward people in this neighborhood," on several dimensions. Typically, 15-20 percent of respondents insist that they "don’t know" about these things; analytically, they turn out to be older, have had no recent contact with police, do not watch much television, and are uninvolved in neighborhood life.
Assessments of Encounters with Police

Following a contact screener like that described above, respondents recalling an encounter can be questioned about what transpired. If they have multiple contacts they should be asked about the most recent of them. These data are particularly useful because they can provide a detailed "consumer report" of recent encounters with police. The British survey asks those who contacted the police about response time, efforts that police made at the scene and the interest they seemed to show in the case, if they had any followup contacts with police about the matter, and how politely they were treated. People who were stopped by the police are asked if they were given reasons for being stopped; if they were questioned, searched, or breath-tested; and if they were arrested, prosecuted, or otherwise sanctioned. In Britain, all of these factors are closely related to how satisfied people who have contacts are with the quality of police service (Skogan, 1994). One complication is that many crime victims who contact the police have also been stopped or even arrested by them in the recent past, complicating how they judge the quality of the service that they receive (Maxfield, 1988).
REFERENCES


### Table 1
Three Measures of Crime Trends

<table>
<thead>
<tr>
<th>Area and Crime Type</th>
<th>Percent rate a big problem</th>
<th>Official crimes per month</th>
<th>Survey percent victims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morgan Park</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto Theft</td>
<td>15</td>
<td>146</td>
<td>8.0</td>
</tr>
<tr>
<td>Before</td>
<td>10</td>
<td>108</td>
<td>3.2</td>
</tr>
<tr>
<td>After</td>
<td>p=.02</td>
<td>-26%</td>
<td>p=.02</td>
</tr>
<tr>
<td>Austin Robbery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before</td>
<td>31</td>
<td>197</td>
<td>9.0</td>
</tr>
<tr>
<td>After</td>
<td>18</td>
<td>181</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>p&lt;.01</td>
<td>-8%</td>
<td>p=.03</td>
</tr>
</tbody>
</table>

NOTE: official crimes per month average a 17-month period before the program and 17 months following program implementation; tests of significance are for before-after changes in problem ratings and victimization; percentage change is given for monthly recorded crime.
Next, I would like to ask you about some things which may have happened to you or your family during the past year. As I read each one, please think carefully and tell me if it happened during the past year, that is since (March)(April) of 1992.

IF YES, ASK a and b ("most recent" if multiple)

   a. Was this     b. Did this
      reported to   happen in your
      the police?   neighborhood?

   NO YES UNC   NO YES UNC   NO YES UNC

V1. During the past year has anyone broken into your home or garage to steal something? . . . . . . . 0 1 9 0 1 9 0 1 9

V2. (Other than that), have you found any sign that someone tried to break into your home? . . . . . . . 0 1 9 0 1 9 0 1 9

V3. Have you had anything taken from inside your home by someone, like a visitor, during the past year? . . . . . . . 0 1 9 0 1 9 0 1 9

V4. To the best of your knowledge, has anything of value been stolen from your mailbox during the past year or has someone tried to? . . . . . . . 0 1 9 0 1 9 0 1 9

V5. In the past year has anyone damaged or vandalized the front or rear of your home, for example, by writing on the walls, or
Next, I would like to ask you about some things which may have happened to you or your family [HOUSEHOLD MEMBERS] during the past year. As I read each one, please think carefully and tell me if it happened during the past year, that is since (March)(April) of 1992.

IF YES, ASK a and b ("most recent" if multiple)

a. Was this reported to the police?

b. Did this happen in your neighborhood?

NO  YES  UNC   NO  YES  UNC   NO  YES  UNC

V1. During the past year has anyone broken into your home or garage to steal something? . . . . . . . . 0 1 9 0 1 9 0 1 9

V2. (Other than that), have you found any sign that someone tried to break into your home? . . . . . . . . 0 1 9 0 1 9 0 1 9

V3. Have you had anything taken from inside your home by someone, like a visitor, during the past year? . . . . . . . . 0 1 9 0 1 9 0 1 9

V4. To the best of your knowledge, has anything of value been stolen from your mailbox during the past year or has someone tried to? . . . . . . . . 0 1 9 0 1 9 0 1 9
V5. In the past year has anyone damaged or vandalized the front or rear of your home, for example, by writing on the walls, or breaking windows? . . . . 0 1 9 0 1 9 0 1 9

V6. Have you or anyone in this household owned a car or truck during the past year? . . . . . . 0 1 9

[IF "NO" SKIP TO V10]

V7. Did anyone steal that (car)(truck), or try to, during the past year? . . . 0 1 9 0 1 9 0 1 9

V8. Other than that, did anyone take anything from inside your (car) (truck), or try to steal parts of it? . . . . . . . . . . 0 1 9 0 1 9 0 1 9