



Measuring police-community co-production

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Trade-offs in two observational approaches

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Abstract *A popular practice of community-policing is police attendance at community meetings. Given the prevalence of this co-productive activity, research needs to understand the potential variation in police-community interactions occurring in or reported in community meetings. Developing reliable and valid measurement techniques to characterize interactions occurring at police-community meetings has strategic planning value for police and community practitioners and scholarly theoretical value. Two observational coding (issue-specific and global) and sampling (continuous and periodic) strategies are contrasted. Methodological trade-offs regarding validity, utility, strategic planning value, and theory-testing value of the different methods are detailed. It is concluded that global measures of police-community interactions and periodic observations of police-community meetings can help with understanding variation in police-community meetings and implementation effectiveness of co-productive strategies. Yet, to validly understand the cause and effects of police-community co-production on building community and public safety, issue-specific coding strategies and continuous observations of community meetings are necessary.*

Introduction

Community policing implementation appears to be in full stride. In the USA, more than 90 percent of departments serving 25,000 or more residents had some type of community-policing plan in operation (Hickman and Reaves, 1999). The Law Enforcement Management and Administrative Statistics (LEMAS) survey estimates that there are full-time community-policing officers in 64 percent of local police departments in the USA (Hickman and Reaves, 1999). The concept of community-policing has reached the status of a "household phrase" (Maguire and Mastrofski, 2000, p. 4). Yet, it is common for community-policing literature to mention the ambiguities surrounding the

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conception, implementation, and effectiveness of community-policing as a crime reduction intervention (Correia, 2000a; Greene, 1998; Maguire and Mastrofski, 2000). Accordingly, we still need further development of research methodologies suitable for examining how specific elements of community-policing influence the outcomes they are touted to affect (Bennett, 1998).

Despite ambiguities, there appears to be a nearly universal community policing element in the USA: law enforcement attendance at community meetings. The 1999 LEMAS reports that virtually all law enforcement agencies in large municipalities met with community groups during the year prior to the survey, as did 78 percent of State law enforcement agencies (Hickman and Reaves, 1999). The most common groups with which local police agencies met were neighborhood associations, school groups, and business groups (Hickman and Reaves, 1999). Undoubtedly, police involvement in community meetings is common. This discovery makes sense, given the popular community-policing ideology that effective community crime prevention requires that police and residents “co-produce” public safety or form “partnerships” (Duffee *et al.*, 2001; Greene, 2000; Lyons, 1999; Williams, 1998; Zhao, 1996).

Given the prevalence of police-community meetings, systematically characterizing the interactions that occur in these meetings is important for understanding potential variation in this common co-production strategy. The characteristics of police-community meetings are likely to vary across cities and neighborhoods. Likewise, ongoing police-community meetings held in the same neighborhood will exhibit variation in interaction characteristics over time. Ultimately, what occurs or does not “occur in”[1] community meetings may correlate with important community outcomes (e.g. crime reduction, community capacity, collective efficacy, satisfaction with police) and may provide useful feedback on the implementation of community-policing. Therefore, developing reliable and valid measurement techniques to characterize interactions occurring in police-community meetings can have both strategic planning value for police and community practitioners and scholarly theoretical value. This article assesses the utility of an observational approach for measuring police-community interactions that occur in community meetings. More specifically, this article will illustrate various trade-offs between two different coding techniques and sampling strategies for observing and characterizing the interactions that occur in police-community meetings. These trade-offs relate to the validity, utility, efficiency, strategic planning value, and theory-testing value of the different observational methods.

To help assess the utility of a community meeting observation methodology, we compare the observational methods in the Police Community Interaction Project (PCIP) and the Chicago Community Policing Evaluation Consortium evaluation of community-policing in Chicago. To our knowledge, these represent two research projects that have invested most heavily in developing observational approaches for examining police-community interaction by sampling community meetings[2]. PCIP was a four-year project with two primary goals: first, to define (or identify) separate dimensions on which police-

community interaction can be described and to advance the measurement of these dimensions, and second, to facilitate the use of feasible or practical measures of these interactions both by police departments and by neighborhood groups, rather than only by researchers. The Chicago Community Policing Evaluation Consortium was initiated for the evaluation of Chicago's community-policing program, known as "CAPS" (Chicago Alternative Policing Strategy). CAPS has been in operation since 1993 and has been a city-wide effort since 1995 (Skogan *et al.*, 2000b). CAPS is arguably the most extensive community-policing implementation in the USA. It is certainly the most extensively studied.

Our goal in comparing the observational methods and strategies in PCIP and the CAPS evaluation is to highlight how subtle but important differences in conception and research strategy may affect findings and conclusions about police-community interaction. These differences are particularly relevant to an understanding of the temporal development of co-production within a neighborhood. We are not trying to argue that one of these projects employs an approach preferable to that of the other. Indeed it is important to underscore the fundamental differences in the nature and purpose of the two parent projects in which these observational methods were employed.

PCIP was a National Institute of Justice (NIJ) Measuring What Matters project funded specifically and only to develop methods and instruments for measuring police-community interaction. PCIP had no obligation to study the operational effects of any police department effort. A deductive approach was used by PCIP to conceptualize and then operationalize interaction characteristics in community meetings. The strategy of PCIP was to identify general processes that build community capacity[3] in communities and then to ask how the police might connect with these processes (see also Bennett, 1998; Correia, 2000a, b; DeLeon-Granados, 1999; Duffee *et al.*, 1999; Lyons, 1999; Pino, 2001; Scott, 2002). Using existing research in urban political sociology and political science, community organization, and neighborhood organizing, PCIP has defined five major community-capacity building clusters or dimensions in which the police are often active: Steps to Improve the Neighborhood, Steps to Identify with Neighborhoods, Steps to Encourage Resident Efforts, Steps for Resident Participation, Steps for Coordinating Organizations (Duffee *et al.*, 2001).

In contrast with the theory-driven development of methods in PCIP, the CAPS evaluation was funded by multiple grantors specifically to evaluate CAPS on a large scale over a long time period. The CAPS evaluation has looked at community meetings because it was a goal of the Chicago Police Department to have monthly beat community meetings. The CAPS evaluation is obligated to investigate goal accomplishment of the Chicago Police Department. The evaluation purposes of the CAPS evaluation led to a different observation strategy from that employed by PCIP. In contrast, the CAPS evaluators identified police-community interaction characteristics inductively. The CAPS evaluators constructed their observational protocol from early observations of an actual community-policing implementation process. Observers in Chicago made "open-ended notes" on what took place in early beat meetings (Knutson

and Skogan, 1998, p. 3). These notes were used to develop an initial beat meeting observation form, which was modified over time and utilized extensively in 1998 (Knutson and Skogan, 1998).

Coding and sampling options for observing police-community meetings

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Despite approaching measurement issues using different methods of inquiry, PCIP and CAPS have conceptualized similar types of interaction characteristics to measure in police-community meetings. In particular, both projects extensively examine the degree and characteristics of resident participation in police-community meetings. Both projects also examine the types of issues or problems that are identified and addressed in community meetings (including feedback on results). The data-gathering techniques of both projects are also similar; sending trained observers to meetings in which police and residents are participating. However, PCIP and CAPS observation protocols differ in coding and sampling technique. This section describes the coding (issue-specific and global) and sampling (continuous and periodic) strategy differences between PCIP and CAPS community meeting observation protocols.

Issue-specific versus global coding strategies of community meeting observations

To assess levels of police community interaction in community meetings, one option is to employ an “issue-specific” coding strategy, which is used by PCIP. Issues are action items for the group attending a meeting or event. Issues are problems to be solved and the means of solving them or goals to be reached and the means of reaching them. Issues may be concerns for maintaining or improving the neighborhood or concerns about how the assembled group can maintain itself and work together effectively. In addition, issues may arise about who is to do what (division of labor) in either the group or the neighborhood. In many neighborhoods, residents work collectively, often in coordination with the police and other organizations, to engage in community actions that address important community issues. Theoretical support for examining community issues and the collective actions that they may ignite is offered by Warren (1977). Warren (1977, p. 309) states, “In a sense, a community is what it does, and much of what it does can be grasped by studying episodes of action.”

During any particular police-community meeting, a range of issues will be raised, discussed, and reviewed by a mixture of meeting participants. The purpose of issue-specific coding in a community meeting observation methodology is first and foremost to delineate each issue and issue change within the police-community meeting dialogue. Once issues are identified, issues are coded by observers according to various interaction characteristics that may be present. In other words, each issue in a community meeting can be coded for who participated, whether the issue is an actual community effort, the results of efforts, how police encouraged resident effort, and a variety of other characteristics.

An alternative method to issue-specific coding is to form a global measure of interactions occurring at police-community meetings. We call this type of generalized measurement of interaction a “global coding” strategy. Global coding is the type of observational coding utilized by the CAPS evaluation. To create a global measure of how police and the community interact in a meeting requires that the observer summarize what occurred in the meeting across all issues presented. For example, question 84 in the CAPS observation protocol asks, “Who proposed most of the solutions discussed in the meeting?” (Knutson and Skogan, 1998). The observer in that situation must aggregate the nature of participation on solutions across all issues addressed in the meeting, not for each specific issue. The last page of the CAPS observation protocol provides a check-list of issues potentially introduced at beat meetings and asks whether those issues played a major or minor role within the meeting dialogue. However, this protocol does not provide a means for disaggregating how specific interaction characteristics transpire on each issue. Therefore, all police-community interaction characteristics are generalized to the meeting-level in the Chicago evaluation.

Continuous versus periodic sampling of community meeting observations

From July 1999 through June 2000, graduate student observers working for PCIP were present at all community meetings ($N = 26$) in what is called the WESCO District[4] of Indianapolis, Indiana. Thus, PCIP utilized a “continuous sampling” strategy by observing every police-community meeting during a study timeframe in a target neighborhood. In contrast, the CAPS evaluation sampled 459 beat meetings in 253 beats for systematic observations in 1998 (Skogan *et al.*, 2000b). For 171 of these beats, CAPS researchers observed only one beat meeting during the year. The remaining beats received multiple observations, yet observation data were weighted so that all beats were represented equally (Skogan *et al.*, 2000b, p. 13). Thus, the CAPS sampling strategy used “periodic sampling” of community meetings to infer characteristics of police-community interaction. CAPS inferences of police-community interaction are often based upon the observation of one meeting in one beat in one year.

These coding and sampling options for structuring observations of community meetings involve methodological choices that should be made by weighing a variety of competing factors. The principal guiding factor in structuring a methodological choice should be the strategic and/or theoretical goals for observing police-community co-production in community meetings. We review these trade-offs below.

Trade-offs between issue-specific and global coding

We have conceptualized seven important criteria for which the trade-offs between issue-specific and global coding can be contrasted. These trade-offs are described in Table I. We will discuss these as they appear in Table I, from top to bottom.

Areas of contrast	Issue-specific coding	Global coding
Unit of analysis	<p>Issues raised in police-community meetings</p> <p>An issue-specific measure can be aggregated to create a global estimate of police-community interaction in a meeting</p>	<p>Police-community meetings</p> <p>Police-community interaction characteristics are generalized across all issues raised in a meeting</p>
Data collection	<p>Police-community interaction characteristics are measured in “real time” by neutral observers. Accuracy of historical record not susceptible to memory decay</p> <p>Uses a more complex coding process requiring more training, attention, and effort of observers</p>	<p>Police-community interaction characteristics are measured in “real time” by neutral observers. Accuracy of historical record may be susceptible to memory decay. For example, examining participation across each recorded issue may be a more accurate method to assess who participated more in a meeting than summing up from memory the participants that were more involved</p> <p>Uses a less complex coding process requiring less training, attention, and effort of observers</p>
Validity	<p>Provides more police-community interaction detail and dynamics, such as how specific issues influence the interaction in a meeting</p>	<p>Provides less police-community interaction detail and dynamics by not recording how separate issues influence the meeting or evolve over time</p>
Strategic planning uses	<p>Capable of providing information on which issues engender certain interaction characteristics such as more participation, resistance, resources, or action</p> <p>If data are collected continuously, this method has the capacity to link issues across time, allowing practitioners to track progress of issues</p> <p>Capable of providing information about the general character of interactions in meetings and rating quality of meetings</p>	<p>Not capable of connecting specific issues to interaction characteristics</p> <p>Does not have the capacity to track an issue over time</p> <p>Capable of providing information about the general character of interactions in meetings and rating quality of meetings</p>
Theory/policy-testing uses	<p>Capable of illustrating how the interaction dynamics on specific issues or entire police-community meetings may be related to measured outcomes in the community</p> <p>Is consistent with theorizing about community actions and building: to understand community, one must study episodes of action (Warren, 1977)</p>	<p>Capable of illustrating how the general interaction characteristics of police-community meetings may be related to measured outcomes in the community. Thus, it is unable to answer whether the manner in which any particular issue was addressed contributed to a positive or negative outcome</p>

Table I.
Trade-offs between
issue-specific coding
and global coding

Unit of analysis

The unit of analysis for issue-specific coding is the issues addressed at police-community meetings. Each issue raised can be characterized according to various co-productive characteristics, for example, at which meeting participants raised particular types of issues, who participated in discussing specific issues, or which issues involved police efforts to encourage resident involvement (e.g. passing around a sign-up sheet). Issue-specific coding can also be aggregated to create a meeting-level measure of co-production or the percentage of issues raised during an entire meeting that meet a co-productive criterion, for example, what percentage of issues raised in the community meeting were focused on law enforcement activities, or involved residents, etc. Alternatively, the unit of analysis in a global coding strategy is the police-community meeting. Global coding creates a generalized measure of the co-production characteristics of a police-community meeting, which cannot be disaggregated to specific issues.

Data collection

Both issue-specific and global coding use neutral observers to measure police-community interactions in “real-time” as they unfold in a community. Thus, the accuracy of interactions is not very susceptible to coder memory decay. Arguably, issue-specific coding is less susceptible to memory decay than global coding because it requires continuous coding decisions throughout a community meeting, rather than reviewing from memory the overall interactions that occurred in a meeting. Because issue-specific coding requires more coding decisions and observer attention to police-community interaction dynamics, it entails extensive observer training and may require greater coding acuity than global coding.

Validity

One of the key trade-offs suggested in Table I is described in the validity category. By tracking interaction characteristics of each issue presented in community meetings, issue-specific coding provides a detailed picture of how police-community interaction transpires within meetings and out in the community. Police-community interaction characteristics may vary across different community issues. Thus, how police and residents collaborate on one issue may be wholly different from on other issues. In contrast, a global coding strategy generalizes the police-community interaction across issues, hence obscuring potential cross-issue variations. Without issue-specific coding or appropriate caution, one may assume that police-community interaction characteristics are the same for every issue raised in a police-community meeting, which may be an inaccurate conclusion. These coding differences have important implications for strategic planning and theory-testing. To illustrate this key trade-off, we have applied both PCIP and CAPS coding conventions to PCIP data.

PCIP observers coded an average of seven issues per community meeting during the year they spent in the field. The majority of issues raised at community

meetings (69 percent of 191) in the WESCO district focused on steps to improve the neighborhood. The PCIP observation protocol further distinguished neighborhood abuse issues (e.g. drug dealers, negligent landlords, speeding, red-lining practices) from neighborhood enhancement issues (e.g. clean up park debris, install better lighting, improve sidewalks). An important characteristic of resident participation is who raises neighborhood abuse problems or enhancement needs at police-community meetings. Figure 1 illustrates who was more likely to raise an issue, among the three general categories of meetings participants (residents, other organizations[5], and local police). Figure 1 is an example of the results of issue-specific coding because it distinguishes between types of issues[6]: neighborhood abuse versus enhancement issues.

First, Figure 1 demonstrates that improvement concerns raised at community meetings were not balanced, but primarily focused on the “abuses” of neighborhood space in WESCO ($N = 96$). Common abuse issues were drug dealing, prostitution, and negligent landlords. A smaller number of improvement concerns were about “making enhancements” to the neighborhood ($N = 33$). Common enhancement issues included clean-ups, business revitalization, or opening community centers. Second, Figure 1 shows a stark difference between what residents raise as improvement issues and what police raise as improvement issues. Residents were more likely than police to raise neighborhood enhancement issues, and police were more likely to raise space abuse issues.

Observations of police-community meetings could alternatively examine who raises any neighborhood improvement issues in community meetings, regardless of whether the issue concerns neighborhood abuses or enhancements. In other words, observations can depict who raises improvement issues using “global coding”, not issue-specific coding. Figure 2 collapses the issue categories in Figure 1 to illustrate a global coding of who raises any improvement issue.

Figure 2 illustrates that different meeting participants raise improvement issues with the same frequency, whereas Figure 1 illustrates that different participants raise different types of issues. The use of issue-specific coding

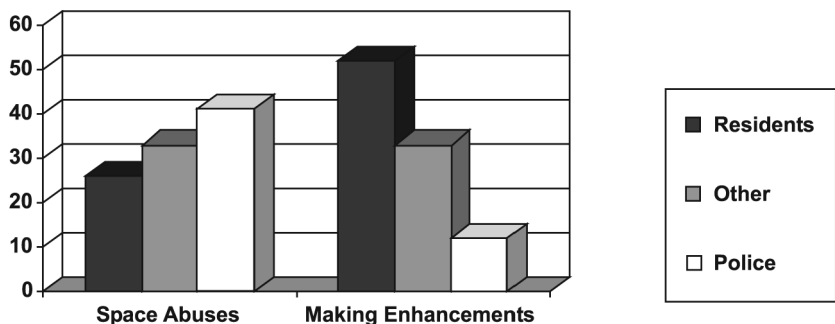


Figure 1.
Type of improvement issues by who raises them (issue-specific coding example)

Note: Interpreted as the % of space abuse ($N = 96$) or neighborhood enhancement ($N = 33$) issues raised by residents, other organizations, or police across all meetings attended ($N = 26$)

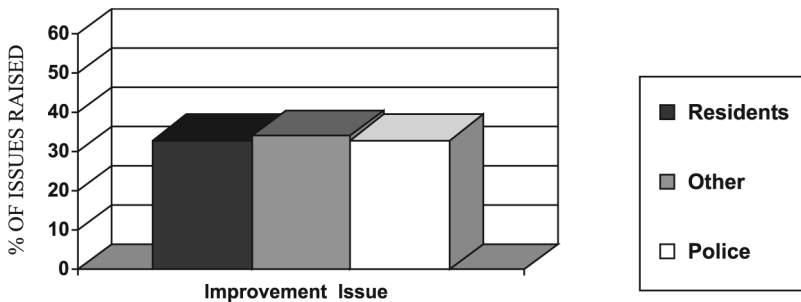


Figure 2.
Who raises
improvement issues
(global coding example)

Note: Interpreted as the % of neighborhood improvement issues ($N = 129$) raised by residents, other organizations, or police across all meetings attended ($N = 26$)

allowed PCIP to examine how collaborating participants favor certain types of neighborhood improvements and bring them forward into a community action agenda. Without issue-specific coding, we might assume that police and resident participants all raise the same types of neighborhood improvement issues, thus sharing the same improvement concerns for the neighborhood.

Explanations of why different participants raise particular issues may be a product of functional differences among the participants. One might look at Figure 1 and respond that police raise neighborhood abuse issues more often than enhancement issues because their organization is designed and mandated to address illegal behavior. However, effective co-production suggests agreement with or at least sensitivity to resident priorities. Perhaps these distinctions illustrate deeper concerns and tension over the direction of public service funding or the appropriate strategy for neighborhood improvement. If the police play an active role in implementing solutions rather than raising issues, then the police may push this neighborhood toward enforcement and away from enhancement. Such possibilities warrant further investigation as to their cause and potential impact on future group cohesiveness, motivation, and longevity of police-resident co-production efforts. Lacking issue-specific coding, these relationships would not be revealed.

The CAPS evaluation, using a global coding strategy, reports that residents raised most of the problems discussed (71 percent) in 1998 Chicago beat meetings (Skogan *et al.*, 2000a, p. 25). The types of issues that were raised at these meetings and coded by observers could vary from drug sales, to gang violence, to abandoned buildings, to traffic congestion, to criticisms of public services (Knutson and Skogan, 1998). By using global coding, the issues raised at CAPS meetings cannot be connected to who raised them. Did the 71 percent of issues raised by residents tend to focus more on neighborhood enhancement concerns before criminal and social disorder issues? With global coding, other important interaction characteristics cannot be connected to types of issues. For example, at 77 percent of the CAPS beat meetings, solutions to problems were proposed (Skogan *et al.*, 2000a, p. 25). Yet, for what issues were solutions proposed and which issues did not lead to a solution? Issue-specific coding provides data that

can discern the types of issues that are more likely to lead to action and to positive and negative outcomes and begin to explore causes of such patterns.

Strategic planning uses

Both issue-specific and global coding can provide practitioners with general characterizations of police-community interactions occurring in community meetings (e.g. how many participants, what organizations showed up, what problems were raised, who participated more). These general characterizations can help inform practitioners of the extent to which their co-productive efforts are appropriately implemented. Data obtained from issue-specific coding provide an additional resource for practitioners by enabling them to assess how specific issues prompt important co-productive interactions and activities. Global coding cannot link police-community interaction characteristics with specific issues. Certain issues may empower resident participation, produce active efforts, and result in positive outcomes. Issue-specific coding in combination with continuous observations of community meetings can be used to link issues across time to determine why some issues fade from an active community agenda and others prevail. Thus, the detailed data record produced by issue-specific coding can help collaborating partners learn how to overcome stumbling-blocks of past co-productive efforts and to replicate positive efforts.

Theory/policy testing uses

A key issue raised in community-policing research is the need for improved understanding of the “dosage” of co-productive interventions designed to impact public safety or liveability (Maguire and Mastrofski, 2000). Both issue-specific and global coding of police-community meetings are productive methods for enhancing our understanding of variability (or dosage) in police-community co-production. Both coding methods can be used to assess the characteristics of police-community meetings that may be negatively or positively related to outcomes measures. One important outcome possibility is that police-community co-production can theoretically build community capacity and efficacy. If this is accurate, Warren (1977) proposes it is the manner in which specific issues are addressed and through what types of community actions that will determine if a community becomes more civically efficacious and builds its problem-solving capacity. Therefore, issue-specific coding is a methodology consistent with theorizing about community building.

Trade-offs between continuous and periodic sampling

The trade-offs between continuous and periodic sampling can be examined on six dimensions. We will discuss these as they appear in Table II, from top to bottom.

Data record

Continuous sampling produces more data points within a time period than periodic sampling. For example, a continuous sampling strategy may involve

Areas of contrast	Continuous sampling	Periodic sampling
Data record	Produces more data points by observing every police-community meeting within a time frame If combined with issue-specific coding, examinations of how issues evolve over time can be undertaken	Produces fewer data points by observing police-community meetings periodically within a time frame May record how a department interacts with neighborhoods but not how co-production unfolds within a neighborhood
Validity	Provides a more accurate measure of police-community interaction, because measurement occurs more frequently	Provides a less accurate measure of police-community interaction, because measurement occurs less frequently. Samples fewer events; therefore data interpretations must be made carefully
Neighborhood/city comparisons	Because of the time and cost of doing continuous observations, it is a less suitable approach for gathering data on multiple neighborhoods	More suitable for producing data on multiple neighborhoods. These data would provide “snapshots” of police-community interaction characteristics across different locations
Strategic planning uses	Capable of examining how and why police-community interactions in the same neighborhood may fluctuate over time. Positive periods can be contrasted with negative periods in an attempt to understand the cause and effect of fluctuation If issue coding is used, there would be data to assess the status of particular issues and to determine why some issues succeed, others are implemented poorly, and others never evolve into action	Because this sampling provides periodic “snapshots” of police-community interaction, data must be carefully interpreted. Data may reflect a misleading representation of normal interaction characteristics Periodic sampling is very suitable for examining the implementation of a department-wide or multi-jurisdiction strategy that utilizes police-community meetings. Jurisdictions with more positive interaction characteristics can be contrasted with others
Theory/policy testing uses	Would provide a more valid examination of how interaction dynamics relate to fluctuations in measured outcomes in the neighborhood because the data record of interaction is more accurate Less efficient method for exploring the causes of variation in police-community interaction across multiple settings	Would provide a less valid examination of how interaction dynamics relate to fluctuations in measured outcomes in the neighborhood because the data record of interaction is less accurate More efficient for exploring the causes of variation in police-community interaction across multiple settings
Cost	Depending on the length of data record desired and the number of meetings attended per month, continuous observations can be very costly	This approach could be less costly if focused on a few neighborhoods (i.e. it uses fewer observations). Yet, the more neighborhoods in the sample, the higher the cost becomes

Table II.
Trade-offs between continuous sampling and periodic sampling

observing every police-community meeting in a neighborhood over a year ($N = 12$), whereas a periodic sampling strategy may involve observing only two of the potential 12 police-community meetings in that neighborhood.

Validity

Similar to Table I, one of the key trade-offs listed in Table II occurs in the validity category. Characteristics of police-community interactions, like the number of residents in attendance, the decision-making influence of residents, the number of community efforts implemented, or types of issues addressed may fluctuate over time. Continuous sampling, which produces more data points or observations of police-community interaction within a time period, is the only methodology suitable for accurately recording fluctuation trends in interaction. Periodic observations of police-community meetings can mask important changes in police-community interactions occurring during observational absences. Thus, continuous sampling produces a more valid data record of police-community interaction in a timeframe by capturing all potential fluctuations in police-community interaction characteristics.

To examine this validity trade-off we have created Figure 3 (a continuous sampling example) and Figure 4 (a periodic sampling example) using PCIP observations of police-community meetings in WESCO. An important police-community interaction characteristic is whether actions to address improvement concerns actually occur in the community. Are police-community meetings forums for discussion or do the discussions also lead to action[7]? PCIP observers assessed whether each neighborhood improvement issue raised in a police-community meeting entailed only discussion of the issue and possible solutions or entailed feedback about implementation efforts to address the improvement issue. Figure 3 illustrates the monthly trend in discussions about desired neighborhood improvements versus feedback on actual efforts to address improvement needs reported at meetings. We use Figure 3 as an example of a “continuous sampling” strategy of community meetings. In other

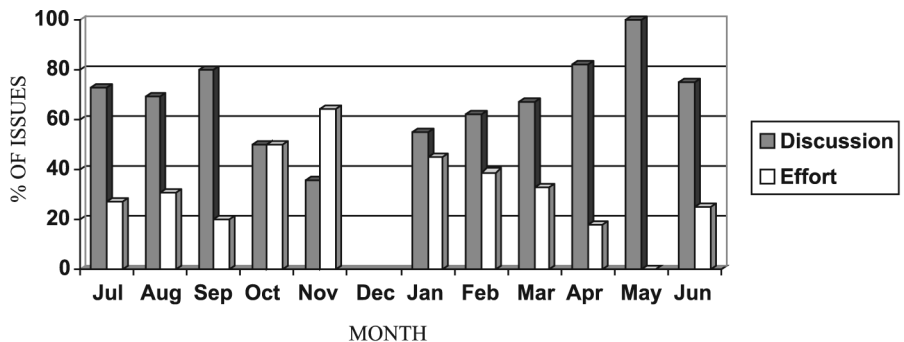
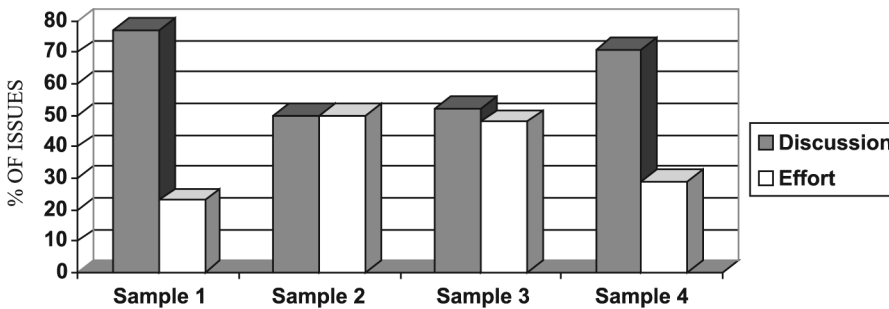


Figure 3.
Monthly variation in type of improvement activity (continuous sampling example)

Note: Interpreted as the % of improvement issues raised in a month that are discussions of a problem or reports of efforts to solve the problem for all meetings in a month ($N =$ Jul-15, Aug-13, Sept-20, Oct-20, Nov-11, Dec-0, Jan-11, Feb-13, Mar-6, Apr-11, May-5, June-4)



Note: Interpreted as the % of improvement issues that are discussion or efforts averaged across meetings in a pair of months (Sample 1 – Jul & Apr $N = 26$, Sample 2 – Nov & Feb $N = 24$, Sample 3 – Oct & Jan $N = 31$, Sample 4 – Jul & Mar $N = 21$)

Figure 4.
Aggregate variation in
improvement activity
(periodic sampling
example)

words, Figure 3 illustrates the balance of discussion and action in collaborative police-community endeavors, when all community meetings were observed for one year. In contrast, Figure 4 displays four different snapshots of discussion and effort levels by using “periodic sampling”[8] of pairs of months in Figure 3.

The discussion/action trends in Figure 3 indicate that reports of actual efforts to improve the neighborhood are relatively sparse and decreasing in the meetings we observed in WESCO. Many improvement needs are dismissed. Some interesting fluctuations occur throughout a year’s worth of observations. Many of the efforts reported in October and November were implementation responses to previous meeting discussions. For example, a prostitution sting, drug house raids, and implementation of an anonymous tip program were all implemented in response to numerous complaints and discussions at previous meetings during summer 1999. Thus, high periods of discussion about particular improvement issues were balanced by community reactions and results reported at later meetings. A similar pattern of effort-balancing discussion does not emerge in the year 2000, as the percentage of improvement discussion consistently rises, the percentage of improvement efforts reported consistently falls, ending in no efforts being reported in May. We attribute this trend to an uncertainty surrounding the role that police in WESCO would play. In early 2000, a new Mayor elected back in November had yet to name the next Chief of Police.

Figure 4 shows what the discussion/effort data would look like if researchers used a periodic sample containing two meetings, such as was done in the Chicago CAPS evaluation. The random pairings of months (samples 1 to 4) indicate that researchers would probably draw different conclusions regarding the balance of discussion and efforts, if they relied on any two randomly sampled months. Samples 1 and 4 would indicate community meetings are characterized by a tremendous amount of discussion over improvement issues, but little indication of actual efforts to address improvement needs. Samples 2 and 3 would indicate that community meetings are characterized by a balanced discussion of improvement needs and improvement efforts occurring in neighborhoods. Therefore, conclusions based on periodic sampling of meetings

could lead to misleading characterizations of community action processes and in any case would certainly miss the trend that occurred over these 12 months. The data from continuous sampling indicate that police-community interaction in WESCO during the latter half of 1999 looked very different from the first half of 2000. The trend data could be used in strategic planning sessions to assess the causes of fluctuations in police-community interactions and determine if such fluctuations are damaging to programmatic goals. Fluctuations in police-community interaction characteristics may also correspond with outcome trends such as calls for service or arrests.

Neighborhood/city comparisons

Although the gaps in information provided by periodic sampling may be harmful to validity, a strong benefit of periodic sampling is its efficiency for creating comparative analyses of neighborhood or cities. Continuous sampling is costly in time and effort. Except for large budget research projects, continuous sampling is an implausible methodology for comparing police-community interaction across multiple neighborhoods and cities. Periodic sampling can be useful for capturing snapshots of police-community interaction across many beats, neighborhoods, or cities. The CAPS data illustrate some of the comparative benefits of periodic sampling. For example, CAPS observers judged police-community meetings according to ten criteria of a "model" meeting (see Skogan *et al.*, 2000a, p. 23). One of the criteria employed by observers was the overall effectiveness with which beat meetings were run ($N = 253$ beats). Observers considered one-fourth of all meetings to be poorly conducted, almost 60 percent fairly conducted, and 15 percent were judged very effectively run (Skogan *et al.*, 2000a, p. 24). Using all ten components of a model meeting to create a ten-point scale, CAPS evaluators assessed the average meeting score at 5.6. A total of 4 percent of meetings received a score of only one or two points (Skogan *et al.*, 2000a, p. 27). Even though the meetings in 171 beats were observed only once, the information about meeting quality has value for program evaluation at the departmental level. Comparisons of meetings can provide valuable data for practitioners and researchers on implementation characteristics of police-community co-production strategies using community meetings. For example, CAPS evaluators compared participation and problem-solving characteristics of meetings from one year to another to determine if problem-solving training had had desired effects. The CAPS evaluators also used meeting data to examine the contexts of the more successful meetings and discovered that the more effective meetings involved civilian leaders and larger attendance (Skogan *et al.*, 2000a, p. 27). No connection between racial composition of beats and model-meeting criteria scores was discovered, but less effective beat meetings occurred in beats with higher personal and property crime rates (Skogan *et al.*, 2000a, p. 28). Such cross-sectional analyses can conceivably give CAPS implementors valuable clues about the kinds of beats where meetings usually run well and meetings where police and residents may need extra facilitation.

Strategic planning uses

The above description of the benefits offered by periodic sampling suggests a primary strategic use for periodic sampling – assessing implementation of police-community co-productive efforts across multiple sites in a large jurisdiction. Continuous sampling would be preferable if practitioners wish to learn about fluctuations in police-community interactions over time in order to develop strategies to sustain certain types of interaction qualities. So, for example, if periodic sampling were used to identify weak police-neighborhood efforts, continuous sampling might then be used during an intervention to improve interaction within a weak neighborhood.

Theory/policy-testing uses

If we want to know whether police-community co-production has causes or effects on neighborhood community capacity, public safety, or liveability, we have to describe the process accurately over time in a neighborhood. We have attempted to address in the validity section the types of errors in characterizing police-community co-production that periodic sampling might produce. Attempting to generate statements about whether community-policing built community capacity and whether community capacity led to better outcomes, on the basis of periodic sampling and aggregation across issues and neighborhoods, is not an appropriate approach to questions about causes and effects of interaction patterns in a neighborhood over time.

Studying the impact of police-community co-production on community capacity, public safety, or liveability is not the only theory-testing that could benefit from observing police-community meetings. A number of scholars are interested in applying institutional and political theories to examine how different forms of community-policing develop across cities or manifest in certain types of socio-political environments (Burke, 1998; Maguire and Mastrofski, 2000; Renauer, forthcoming). Theory construction and testing in this area is principally concerned with understanding the spatial distribution of community-policing practices. How are community meetings in one city different from the interactions that occur between police and residents in another city? Alternatively, are the types of police-community interactions that characterize community meetings different across neighborhoods within the same jurisdiction? Why? It would seem to us that global coding and periodic sampling of police-community interactions could be used to contrast different community-policing implementations across cities or across parts of a large city and may therefore be appropriate for questions at these levels.

Cost

In general, the cost of applying a continuous sampling methodology is more expensive than periodic sampling. The cost of continuous sampling depends on the number of meetings that must be observed per month and the length of the data record deemed necessary for making accurate judgments regarding the fluctuation of co-production in a neighborhood. Periodic sampling involves

fewer observations of police-community meetings in any specific neighborhood and therefore permits sampling across larger areas, as is the case in CAPS.

Discussion

Attendance at community meetings is virtually a universal practice of larger municipal police departments in the USA (Hickman and Reaves, 1999). Such a phenomenon is consistent with the characterization of the current “community era” in policing (Kelling and Moore, 1988). Residents, police, and other government, faith, or private organizations are increasingly meeting to discuss locally relevant issues and develop strategies to improve public safety and liveability. Accordingly, research must develop valid and efficient tools for observing this common co-productive activity between police and residents in order to improve understanding of its variation and relationship to positive or negative community outcomes.

Two observation coding methods (issue-specific and global) and two sampling strategies (continuous and periodic) for observing police-community meetings have been described and compared. Tables I and II provide a listing of trade-offs between the two methods. Ultimately, the choice of method should begin with a thorough assessment of the strategic and/or theory-testing goals for observing police-community meetings.

The more complex, time-consuming, and costly approach involves issue-specific coding and continuous observations of community meetings. Issue-specific coding (coding interaction characteristics of every issue presented in a police-community meeting) and continuous observations are consistent with the classic theoretical approach to community action by Warren (1977) and Sower *et al.* (1957). These authors suggest that, in order to understand community, one must understand how episodes of varied community actions develop over time. Theories of community crime prevention claim that police and residents working together can co-produce public safety and improve liveability (Bennett, 1998; Kerley and Benson, 2000; Sampson and Raudenbush, 2001). If one is studying changes within a neighborhood over time, then continuous and issue-specific coding would be theoretically required. Such methods also allow research to examine what types of interaction characteristics of meetings increase or erode the potential for, or actual levels of, collective action.

Issue-specific coding and continuous observations also provide strategic planning benefits. Practitioners in both policing and community organizations can examine which issues create the most positive resident involvement and learning or generate tension and distrust. This measurement approach would also assist practitioners in understanding what forms of police-community interaction are more likely to increase resident satisfaction with police service. Keeping track of which issues generate community actions and positive outcomes and which issues do not will help illustrate where efforts are needed or where ideological lines are drawn. Watching the development of police-community interaction over time provides the temporal perspective necessary

to capture a complete understanding of the context and dynamics of how police and communities interact and the factors that influence interaction. The complexity and cost of issue-specific coding and continuous observation make them difficult methodologies to implement. Some of this difficulty might be reduced if practitioners could learn to create detailed police-community meeting minutes that would contain these issue-specific data elements. Practitioners may be more willing to invest in such an endeavor if theory-testing were able to demonstrate the practical pay-off that attending to community-building processes leads to better community outcomes.

The less complex and generally less expensive mode for observing police-community meetings entails global coding and periodic sampling. According to Tables I and II, the primary critique of these methods is the potential creation of less valid measures of police-community interaction, or data more prone to erroneous interpretation. This validity concern is founded on the collection of less detailed police-community interaction data and gaps in the collection of interaction episodes when using these methods. Certainly data collected using these methods can be used for strategic planning and theory-testing, but with the recognition that these data do not contain the detail necessary to understand the development of co-production processes within a neighborhood.

We conclude that the most beneficial aspect to global coding and periodic sampling is the efficiency of these methodologies for providing data describing an entire department or a city. The CAPS evaluation is a perfect illustration of the important strategic and theoretical questions that can be explored by examining differences in beat meeting interactions across multiple meeting locations. CAPS evaluators used the characteristics of beat meeting participants and neighborhood context to explore the factors related to quality of beat meetings. Some police departments may be interested in tracking the implementation of community-policing across different districts of the city or department. Does resident participation vary by the socio-economic status of the neighborhood? Which districts are most successful at attracting residents who are racially and socio-economically representative of the neighborhood? How are the issues and concerns that residents raise distributed throughout the city or department? We would argue that these are important questions that could be assessed with a more periodic and less exhaustive measurement approach. Practitioners are more likely to have the skills and resources for collecting some global measures of police-community interaction and using periodic sampling of community meetings to attain an impression of police-neighborhood co-production. It would seem to us that global and periodic measures of police community interactions could be used to contrast different community-policing implementations.

While it is perhaps well-known that detailed and frequent measurement produces greater knowledge of phenomena, this knowledge is frequently violated in studies of community-policing. The differences displayed in Figures 1-4 suggest that substantial interpretative errors may be obtained

with global and periodic sampling methods, if one is trying to measure co-production processes within a neighborhood over a length of time. If the theory is correct that co-production is largely a within-neighborhood process (Correia, 2000b; Hunter, 1985; Sower *et al.*, 1957; Warren, 1977), then studying co-production requires continuous sampling and issue-specific data. Numerous community-policing case studies take point-in-time measures of this process and assume that single or sparse measures adequately describe how police and neighbors worked together. PCIP data demonstrated wild fluctuations from one month to another. Hence, typifications of co-production based on a single observation or even several observations may provide very poor measures of the actual co-production process. Therefore, any conclusions that the police-neighborhood collaboration did or did not succeed in solving problems could be quite faulty.

Notes

1. It is important to clarify what we mean by interactions that “occur in” community meetings. During community meetings, participants frequently report information on police-community actions that are taking place in the community. This information, along with the interactions that take place in the meeting itself, can be recorded. Thus, when we talk about police-community interactions “occurring in community meetings”, we are referring to both the actions that are reported as happening out in the community and those actions that manifest themselves in the meeting.
2. The Project on Policing Neighborhoods (POPEN) engaged in extensive observation of police in community-policing contexts, but focused on street encounters (Parks *et al.*, 1999). Throughout this article, the terms police-community interaction and police-community co-production are used interchangeably. The term police-community interaction does not refer to more general “street-encounter-based” contacts between police and civilians. Rather, this term is used to refer to a variety of more collaborative interactions consistent with the co-production relationship as defined within the text.
3. Community capacity is defined as “the extent to which members of a community can work together effectively, including their abilities to develop and sustain strong relationships, solve problems and make group decisions, and collaborate effectively to identify goals and get work done” (Mattessich and Monsey, 1997, p. 61). We equate community capacity with “social capital”.
4. The WESCO district comprise three neighborhoods, located in the West District of the Indianapolis Police Department (IPD). An umbrella organization titled the Westside Cooperative Organization (WESCO) helps coordinate the activities of the three neighborhood associations within its boundaries, supporting and promoting the activities of the neighborhood associations, and controlling funds provided to the neighborhood associations.
5. “Other” organizations are other law enforcement agencies besides local police, other criminal justice agencies, non-criminal justice government (public) organizations, private business, education-related, faith community, and private social service agencies. Within the year of observation, the most frequent other organization was the community center located in one of the neighborhoods.
6. Figure 1 collapses specific issues into two broad types: neighborhood abuses and enhancements. This analysis could have been finer, but the N/issue would have been very small within the 12-month period observed. For example, just focusing on prostitution issues or community clean-ups.

7. We are not suggesting that discussion is not valuable. Discussion is a very valuable element of co-production (Bennett, 1998). However, we do see value in examining the relationship between discussion and action.
8. To create a periodic sample we randomly chose four pairs of months from the PCIP observation data. Community-building process characteristics of the paired months were then averaged. Thus, each sample in Figure 4 illustrates what “the average” community meeting interaction would look like if researchers had only two months of observation data, as would have been the case in the CAPS approach. In other words, we applied the CAPS sampling strategy to our continuous record in order to illustrate what a periodic rather than continuous record would look like.

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