Assessing a Neighborhood Watch Program

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As local governments have tightened their purse strings over the last 20 years, police departments have sought innovative techniques for curbing crime. GIS is one important tool for maximizing the time and resources available to a department, and it combines effectively with community-oriented policing (COP) approaches.

In 1978, the Spokane, Washington, Police Department (SPD) began implementing community governance projects designed to educate citizens about the role they can play in ensuring their own safety. Those projects led to two public safety programs currently operating in Spokane: Community Oriented Substations (COPS) and the Spokane Block Watch.

In the COPS program, citizen volunteers help establish a visible law enforcement presence throughout Spokane neighborhoods by participating in community service projects, such as those associated with redevelopment, juvenile delinquency or domestic violence.

The Spokane Block Watch is part of a national program designed to educate residents about home safety and the importance of maintaining good communication with neighbors. Since the national program’s inception in 1978, more than 1,400 neighborhood blocks with more than 24,000 Block Watch members have organized to prevent crime throughout the United States. The program in Spokane is now one of the largest in the nation.

Having recently experienced a wave of retirements by seasoned officers who were hired under federal funding when Spokane hosted Expo 74, SPD is now a relatively young, small force with minimal personnel to accommodate the increase in population. Therefore, police officials must maximize every possible resource to promote and enhance public safety in Spokane. As such, the Block Watch is an important asset of SPD, and it has been fully integrated into the department’s organizational structure.
When the Spokane City Council appropriated funding for the continuation of the Block Watch in 1998, it stipulated an evaluation of the program. To satisfy this requirement, SPD's Planning and Research Unit set out to determine if the Block Watch was fulfilling its founding goals, which were 1) to reduce the fear of crime in neighborhoods with a Block Watch group and 2) to reduce the actual number of calls-for-service (CFS) \(^1\) received by SPD in a Block Watch neighborhood. The Unit determined that a survey would be the most effective means of answering these two questions; police officials expected that the survey results could significantly affect the direction of all of Spokane's community policing programs.

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Using SPSS, SPD's Planning and Research Unit and Washington State University's Division of Governmental Studies and Surveys (DGSS) conducted several regression and correlation analyses on different responses to the survey questions. For example, one analysis addressed the question, "Do the results of the fear-of-crime question correlate to the question that asked the age of the respondents?"

SPD also produced several thematic maps. One was of response delimiters \(^2\) of the Block Watch database used for sending out the survey. A thematic map of active Block Watch neighborhoods compared the percent change in CFS from 1997 to 1998 \(^3\) for active Block Watch neighborhoods and the entire city of Spokane. Lastly, a thematic map of Block Watch areas tracked the number of offenders out on active parole within those areas.

A third analysis of active Block Watch neighborhoods showed the relationship to fear-of-crime data from previous surveys conducted through-

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The CFS in this study include incidents received from the public as well as those initiated by a police officer.

\(^2\) The delimiters were used to designate the following: 1) bad address, 2) good address but no response to survey and 3) good address and response to survey.

\(^3\) Both CFS received from the public and those initiated by an officer were used for 1997. Only those calls received from the public were used for 1998. Because they cannot be geographically referenced, however, calls initiated by an officer constituted less than 8 percent of the total geocoded calls for 1997 and were thus deemed insignificant.
out Spokane. This compared the Block Watch neighborhoods with the average fear-of-crime response for citizens of Spokane and across the nation* (see Figure 1).

THE MAPPING AND ANALYSIS PROCESS

The department has used several software programs in the analysis phase, including SPD’s CAD system, SPSS, Microsoft Access and Excel, ESRI’s ArcView and S Plus, an ArcView extension. As the analysis progresses, more ArcView extensions (such as Spatial Analyst and 3D Analyst) will be brought in.

Handling hundreds of thousands of records (CAD incidents and survey respondent data) made the analyses long and difficult. The GIS analysis complemented the statistical tests done in SPSS, which was used to observe relationships among response categories. All the data sets were easily imported into ArcView, and the GIS helped SPD analysts draw conclusions about relationships that were not readily recognized or proven with traditional, tabular statistical methods.

RECOGNIZING TRENDS WITH GIS

Interestingly—and seemingly in direct opposition to a main goal of the Block Watch program (reducing fear of crime)—survey results revealed an increased fear of crime in Block Watch neighborhoods for some crimes. Yet even though Block Watch members were more fearful of specific crime types, they felt as safe overall as the average Spokane citizen walking in their neighborhood alone at night. One explanation for the fact that residents in Block Watch neighborhoods had greater fear of specific crimes than the general public is the high concentration of active offenders under State DOC supervision who claim residence in more than 47 percent of Block Watch neighborhoods (see Figure 2).

Another result of mapping survey findings relates to the geographic distribution of CFS. Spokane experienced a rise in call incidents from 1997

*All questions asked in the Spokane Citizen Survey (1997) and the National Survey (1995) were identical in word and form to the questions asked in the 1999 Block Watch Survey.
Figure 1
Fear-of-Crime Responses by Crime Type
Figure 2
Active Offenders Residence Who Are Supervised
"Face to Face" by State DOC by ZIP Code
vs. Active Block Watch Neighborhoods
Assessing a Neighborhood Watch Program
to 1998, and analyses showed that the majority of Block Watch locations were in areas where call incidents had increased to a greater degree than in the city overall. This finding was not consistent with one of SPD's goals for the Spokane Block Watch, which was to reduce CFS. It should be noted, however, that implementation of Block Watch and other community-policing initiatives often results in increased CFS due to residents' greater involvement in crime issues, as well as their increased willingness to report crimes to the police (see Figure 3).

GIS was also used to investigate the geographic distribution of Block Watch participants. In addition to documenting a relatively low level of involvement and activity among identified volunteers, the analysis resulted in three findings. First, there are significant geographic concentrations of Block Watch participation and equally significant areas with little Block Watch participation. Second, the distribution of participants complements, rather than duplicates, COP Shop activity. Third, identifying participant concentration lets program managers address a frequently raised concern among Block Watch participants—that they have operated without information concerning the activities and experiences of other neighborhoods and Block Watch participants in their area. Taking advantage of current technology to provide that information is significant for future program activities.

**In Summary**

There were several other significant findings from the survey. A series of questions concerning COPS was presented to assess Block Watch volunteers' views of that program. Perhaps not surprisingly, Block Watch volunteers were more supportive of such policies and somewhat more willing to help the department in such activities than were the general citizenry.

When asked directly to assess the value of the Block Watch program—both to them personally and to Spokane—Block Watch participants were uniformly supportive of the program. Most rated it as of "Fair Value" or "Very Valuable" for them personally, to their neighborhoods, to the city and for crime prevention and apprehension of offenders. When asked to rate the program in terms of the support they received from the program office, a majority of participants again rated the program as quite satisfactory. Responding volunteers did indicate, however, that only about one-quarter of Block Watch members were truly active in the program.

The results of this survey have initiated an across-the-board comparison of community and public safety-based programs within Spokane. The goal is to look for duplication of programs and to determine if there are vast differences in the demographics of people who volunteer.
Each cell is 1000x1000 feet in dimensions, which is roughly the size of three city blocks. The call incidents received were summarized and tabulated for 1997 and 1998 for each cell. The percent change was calculated and displayed at either below, equal to or above the percent change in call incidents for the city as a whole. This was done to accurately measure whether or not an active Block Watch Neighborhood is impacting the change in calls received from that neighborhood while still considering the increased call loads in Spokane as a whole.

Figure 3
Percent Change in Call Incidents Received from the Public
Below, Equal to or Above Citywide Average (74%)
vs. Active Block Neighborhoods
In a related effort, SPD is preparing to place crime density maps on the Internet so Block Watch Captains can see hot spots and crime around their blocks, as well as throughout greater Spokane. The use of GIS has already enhanced this assessment process and will continue to be used to work and communicate with the Block Watch and the general community.