Institutionalizing the Use of Research in a Local Police Department: A Continuing Partnership

A Report Submitted to the National Institute of Justice

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Abstract

This project sought to develop and institutionalize a "learning capacity" within the Forest Park Police Department. Building on an earlier research partnership funded by the National Institute of Justice, the project implemented a computerized mapping system for the identification of problems and the assessment of responses by the police department. A collaborative effort between the University of Cincinnati and the Forest Park Police Department was undertaken with the goal of developing the skills and resources for continued analyses within the police department.

University researchers cooperated with administrative staff of the police department to develop a geographic database, establish routine data collection and reporting capabilities, and assist in the distribution of GIS information. Over the span of the project, university personnel worked as facilitators, instructors, and consultants to the department. In addition, a research assistant was assigned to work at the police department twenty hours per week to manage the system, provide requested maps, and train officers in the use of the software. Building on lessons learned in the first partnership project, both co-principal investigators believed that the continuation of collaborative research and changing the police department into a "learning organization" depends upon the development of an institutionalized research capacity and practice. This project attempted to support these types of changes in the operation of the police department.

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Introduction

In the December, 1997 issue of the *National Institute of Justice Journal*, William Geller (1997) asked and answered the question, "Suppose we were really serious about police departments becoming 'learning organizations'?" There is much in Geller's essay that is relevant to the continued research partnership between the University of Cincinnati and the Forest Park Police Department. As Geller recognized, what must be done is to develop a culture of learning which is part of everyday work.

Geller (1997:4) identified several obstacles to developing a "learning organization" culture in police agencies, most of which centered on a distrust of evaluation and external researchers, while a few reflected beliefs that research was somehow inapplicable and non-productive. More to the point, it is often the case that practitioners in any field do not feel they have the luxury to study and reflect (Zins, et al, 1997). Too often research is viewed as a time-consuming, arcane specialty which is impractical in the "real world" where problems must be quickly addressed (Petersilia, 1987). Police officers and commanders are often not given the opportunities to conduct research, nor rewarded for doing so. Nonetheless, effective officers and managers develop information on which to base decisions. While perhaps not rigorously scientific, much policing is, indeed, research based.

"Problem oriented policing" (Goldstein, 1990) requires a commitment to testing and learning, the basic building blocks of scientific research. As described by Spelman and Eck (1987), the SARA model of problem solving involves two distinct "research" phases; scanning and assessment. The first step is to scan the environment to identify patterns in the kinds of things the police are called upon to do, thus identifying problems. This activity is akin to

descriptive, or at least exploratory research. Once problems are identified and solutions proposed, it is necessary to assess the impact of the chosen response. This latter activity is an evaluation.

The goals of this research partnership between the University of Cincinnati and the Forest Park Police Department were to increase the capacity for institutional learning, develop knowledge-based practice in the police department, and ultimately create an enduring organizational culture supportive of organizational learning and research. This was attempted through the creation and use of geographic mapping in the analysis of police department workload and the assessment of organizational effectiveness. In collaboration with researchers from the University of Cincinnati, the command staff of the Forest Park Police Department began to engage in problem solving with the aid of a mapping system to assist in problem identification and the evaluation of responses.

Background to the Project

The Forest Park Police Department and the Division of Criminal Justice at the University of Cincinnati had traditionally enjoyed an exchange relationship. For over a decade university students had served internships with the police department, several members of the police Department had taken degrees at the university, and there had been numerous instances of cooperation on research and community service projects. What had been missing from this relationship was the element of collaboration. The two organizations had a tradition of cooperation characterized primarily by "quid pro quo" arrangements.

This relationship lacked a formal structure for shared decision-making and responsibility. There was no obligation for the two organizations to work together, so that each instance of

cooperation was unique. Seeking to formalize the relationship, the police department and university proposed to create a research partnership in 1996.

In January, 1997, the Forest Park Police Department and the Center for Criminal Justice Research at the University of Cincinnati initiated a formal research partnership with sponsorship from the National Institute of Justice. The partnership included sharing of principal investigator status between Dr. Lawrence Travis of the University of Cincinnati, and Capt. Kenneth Hughes, then deputy chief of the Forest Park Police Department. A graduate research assistant was assigned to the Forest Park Police Department, under the direct supervision of Lt. Roger McHugh, while Capt. Hughes spent approximately four hours per week in the Center for Criminal Justice Research. The project conducted a survey of police officers having community policing or crime prevention assignments in Hamilton County, Ohio. The survey sought information about the kinds of community problems encountered, the solutions employed by officers, and officer perceptions of the adequacy of their training and preparation for their assignments.

In June, 1997, Lt. McHugh retired from the police department, and in August, Capt. Hughes also left the police department. In September, 1997, the graduate research assistant accepted a faculty position at an out of state university, leaving only Dr. Travis of the original team. Dr. Travis began to work more closely with Chief Steven Vollmar of the police department, until Chief Vollmar retired in April, 1998. Beginning in January, 1998, the university partner began a "feasibility study" for the development of a geographic information system to be used by the police department. It was felt that this feasibility study could be shared with the incoming chief, who could decide whether or not to pursue the matter.

In short, by September, 1998, fully seventy-five percent of the original members of the partnership team were no longer involved in the project. By Spring of this year, it appeared that the partnership would not continue. The new command staff of the police department were not (and had not been) actively involved in the partnership. The police department was in a state of turmoil, and the new chief of the department had not yet been identified.

In June 1998, former captain Kenneth Hughes was hired by the City of Forest Park to be the new chief of police. Chief Hughes was strongly desirous of instituting a problem-oriented approach to policing in the Department. The goal of this project was to help change the culture of the police department to that of a "learning organization."

Between August, 1997 and July, 1998, Chief Hughes had directed the Tri-State Regional Community Policing Institute. Dr. Travis was the evaluator for this Office of Community Oriented Policing Services funded project. Thus, the two co-principal investigators continued a professional (and personal) relationship. Upon accepting the position as chief of police, Chief Hughes and Dr. Travis considered ways in which routine research could be encouraged and supported in the police department. They concluded that a data-driven problem orientation would necessitate and support on-going research within the police department.

In January 1999, the GIS project began and Julie Kiernan, a doctoral student, became the research assistant. In February 1999, the research assistant and Detective Bob Schwaeble attended a course in ArcView through the Geography Department at the University of Cincinnati. The research assistant began working regularly at the department starting in June, 1999.

Structure and Operation of the Partnership

The research assistant worked at the police department approximately twenty hours per week, and was given an office. For several months, the research assistant and Detective Schwaeble worked on updating the map of Forest Park which had been obtained from CAGIS. Forest Park had several new housing developments and businesses, so much of the information we had received required updating.

Throughout the course of the project, several data sources were used. First, offense reports and arrest data were obtained from Mike Neumann, who was a crime analyst with the Cincinnati Police Division. Forest Park did not have the capability to download this information from RCIC (the Regional Crime Information Center), so Mike agreed to provide us with data. Second, we were able to obtain calls for service data. This information was sent via email to one of the sergeants as an excel file. Third, one of the dispatchers began to create a master name file, which included information about people who had been interrogated in the field during the past five years.

We decided that we needed to educate officers about the system, and wanted to pique interest in mapping. In an attempt to do this, in February, 2000 the research assistant gave several presentations to inform officers about the system. Included in the presentations were descriptions of the types of data available, ArcView functions, how to create maps, and case studies detailing how other police agencies had used mapping.

In addition to group presentations, the research assistant worked with officers individually

to familiarize them with the data and mapping. To facilitate officers' ability to use the software, the research assistant created a guidebook (see Appendix A). The guidebook contained several

sections. The first section included basic instructions for using ArcView. Functions such as how to get into a project, performing queries, and creating maps were included. The second section listed descriptions of current projects officers could access. This allowed officers to select projects which contained pertinent information. The third section was a codebook for interpreting the offense tables. This codebook was necessary because items such as status of the case, location of offense, theft type, and method of operation were in code. The fourth section provided instructions on other functions such as creating counts of offenses, scaling the size of symbols, and saving an ArcView map as a PowerPoint slide.

The guidebook seemed necessary because only the research assistant and Detective Schwaeble had received formal training in ArcView, and we wanted officers to have some level of comfort with the software. In order to test the accuracy and readability of the instructions, two officers not trained in ArcView attempted to follow the instructions. The officers were able to create maps, so the instructions were located next to the computer so that any officer could use ArcView.

During the last month of the project, the research assistant worked extensively with Officer Todd Halusek to train him in the details of managing the system. Officer Halusek had expressed an interest in mapping and volunteered to become involved in the project. The guidebook served as a good introduction to basic functions, but did not cover management issues such as importing and cleaning the data, geocoding, and advanced functions. Since Officer Halusek did not receive formal training, extensive training with the research assistant was necessary.

How GIS was Used

The geographic information system was used in several ways at Forest Park. First, maps depicting offenses and/or calls for service were useful to officers for identifying and describing problems. Many of the requests from officers were to map problems in neighborhoods, shopping centers, or apartment complexes that were located in their beats.

Second, maps were useful for illustrating criminal events for court presentations. Crimes such as robberies, thefts, and the location of pop bottle bombs at the local high school were depicted using maps. Officers found these types of maps very useful for explaining a series of events to prosecutors, as well as to other officers.

Third, maps were often helpful for dispatchers. A map which contained the three beats outlined in different colors was posted to the wall next to the dispatcher desk. The map helped dispatchers quickly identify the corresponding beat to a call for service.

Finally, maps were useful for members of the community. First, maps were used at neighborhood meetings, allowing citizens to become aware of problems affecting their community. Second, maps which illustrated the three beats and the officers assigned to those beats were distributed to block watch members. This allowed residents to contact an officer assigned to that area.

Assessment of the Partnership

The partnership achieved several of its goals. First, we developed a geographic information system that ultimately included data such as offense reports, calls for service, auto accidents, arrests, and field interrogations. Second, officers were able to request maps identifying problems in their beats and receive them in a timely manner. Third, officers interested in creating their own maps were able to do this using a guidebook.

In order to further assess the partnership, we attempted to measure changes in officer attitudes toward the use of GIS was through a survey (see Appendix B). Surveys were initially distributed to police officers in February, 2000, prior to formal presentations. Surveys were subsequently distributed at the end of the project in June, 2000. A Likert scale was used with the labels and values: Strongly Agree (1), Agree (2), Not Sure (3), Disagree (4), and Strongly Disagree (5). Mean Survey scores are reported in Table 1 for both time periods. For each time period we have 18 completed surveys, though the surveys were not necessarily completed by the same officers.

As can be seen in Table 1., several of the mean scores decreased, indicating more positive responses by the end of the project. Having experience with crime mapping software was the most dramatic change, with a score of 3.78 to 2.94. At Time 1, only 22.2% of officers agreed that they had had experience with crime mapping software, with 44.4% of officers disagreeing, and 27.8% strongly disagreeing. In Time 2, 55.6% of officers agreed that they had experience with crime mapping software, with only 16.7% of officers disagreeing, and 16.7% strongly disagreeing.

Table 1. Mean Survey Scores

Question	Time 1 (N=18)	Time 2 (N=18)
I am comfortable using personal computers (PCs).	2.11	2.17
I have had experience with crime mapping software.	3.78	2.94
I have used crime maps in the course of my career.	2.78	2.78
I would like to be able to request crime maps.	1.89	1.72
I would like to be able to make my own crime maps. 2.11	2.33	
I think that crime mapping can help me do my job better.	1.94	2.00
I believe the use of crime mapping will be helpful to the Forest Park Police Department.	1.89	1.72

Scores:
1=Strongly Agree
2=Agree
3=Not Sure
4=Disagree
5=Strongly Disagree

Table 2. describes officer responses to question #8, which tapped possible uses for mapping. In both Time 1 and Time 2, identifying crime patterns was the most agreed upon use for mapping. Perceptions of measuring changes in crime, identifying suspects, and the open category of "other" remained the same. Two interesting findings seem to emerge. First, there was an increase in the percentage of officers who thought that crime mapping would be helpful in the allocation of patrol . Second, there was an increase in the percentage of officers who thought mapping would be helpful in communicating to the public.

Table 2. Officer Responses to Question #8

Question	Time 1 (N=18)		Time 2 (N=18)	
I think mapping would be helpful in:	Yes	No	Yes	No
Identifying crime patterns	94.4%	5.6%	83.3%	16.7%
Measuring changes in crime	72.2%	27.8%	72.2%	27.8%
Allocation of Patrol	44.4%	55.6%	61.1%	38.9%
Identifying Suspects	61.1%	38.9%	61.1%	38.9%
Communicating to the public	66.7%	33.3%	77.8%	22.2%
Other (please specify)	27.8%	72.2%	27.8%	72.2%

Despite the project's successes, there were also difficulties and goals that were not met by the end of the project. Due to a promotion of a detective to the rank of lieutenant, the research assistant was displaced from a semi-private office to a heavily trafficked, multi-purpose room. This situation created several difficulties. First, the research assistant no longer had a phone near the computer, so calls for technical assistance were no longer feasible. Second, the research assistant no longer had space to post maps. Third, the environment was distracting and made training officers less effective.

One goal that was not met, was the ability of the department to download offense and arrest reports directly. The process of downloading this information from RCIC was not a simple task, and it was never determined how to do this (RCIC is currently in the process of determining how Forest Park can best receive the information). For the length of the project, Forest Park depended on the Cincinnati Police Department for needed data. We typically received data from

the Cincinnati Police Department every two or three months. This process was problematic when officers requested maps containing recent information. Clearly, the Forest Park Police Department would benefit from having the ability to download data, in order to provide officers with more current maps.

Another goal that was not met was widespread use of the system. Despite efforts by the research assistant and some of the department's management to encourage officers to utilize the system, many officers failed to use it. When the research assistant suggested that officers should get some hands-on experience, one officer stated that they were told "not to touch it". Clearly, officers were receiving mixed messages about the use of the system, and this seemed to hinder its use as a research tool.

Future Goals

One future goal is to expand the use of a geographic information system. Maps depicting offense and/or calls for service information were helpful in identifying problems, but were not necessarily followed with strategies to solve these problems. In order to make better use of the system, management need to provide more guidance to officers. In addition, there needs to be analysis of the effectiveness of strategies that are a result of mapping.

Another goal may be to have additional officers trained in ArcView, or other mapping software. The only officer who received formal training was Detective Schwaeble who left the Forest Park Police Department in the spring of this year. While several officers worked with the research assistant to learn ArcView, the department would benefit from sending interested officers to ArcView training.

Finally, management hopes to use the system as a way of increasing officer involvement and accountability. It is hoped that more officers will view a geographic information system as a tool that is likely to make them more effective. By making officers more accountable for the use of their time and effort, management will be in a better position to assess individual officers, and make more informed decisions about the allocation of patrol.

References

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Zins, J., L. Travis and P. Freppon (1997) "Linking research and educational programming to promote social and emotional learning," in P. Salovey and D. Sluyter (eds.) *Emotional development and emotional intelligence.* (New York: Basic Books):257-274.

APPENDIX

A. Guidebook

B. Survey Instrument

Guidebook

Basic Instructions

TO GET INTO ARCVIEW:
From the main screen:

Double click on **Shortcut to**
forest park.apr
(You will see: The project forest could not be opened)
Click OK
Click File
Open Project
under c:
arcview folder
forest park.apr
OK

(You will see: getting printer information)
ArcView will then show the last view that was opened. If you want to work with a different view, you can see the available views if you:
Click Window
Tile
You should then see available views listed in the window titled, "forest park.apr". **Highlight** the view that you want and **Click Open**. You should see the view you want somewhere on the screen. To maximize the view, **click on middle box in upper right corner**.
To the left of the map you should see a basic legend which includes:
Offenses
Addresses
Streets
Buildings
Schools
Curbs
Streams
Parking
Parcels
Corporation limit
By clicking on box next to feature, you can check or uncheck item to make it appear or disappear from the view (map).
If you want to look at a particular offense, you must first have Offenses "raised". To raise Offenses, **click on or around the word Offenses**. Then **click Theme**
Query

Double Click offense under Fields
Click =
Double Click the offense that you are interested in (i.e. Burglary)
Click the following: Select from Set
Add to Set
X (in upper right corner)

Click Theme
Convert to Shapefile
OK
It will ask , "add shapefile as theme to the view?" **Click Yes**
You should now see another feature at the top of the legend which will be something like Theme41.shp. The next step should be to rename this theme so that you remember what type of crime you are looking at. First, make sure that the theme you just created is raised and **Click Theme**
Properties
You will see Theme Name. **Erase this name using mouse or arrow key and type in the name** of the offense that you are looking at. **Click OK**. You should now see the new name in the legend.

To change the symbol of the feature, **double click on the feature**. Then **double click on the symbol** to change it.
Scroll down the symbols. **Click on the symbol** that you want.
You can also change the size of the symbol from this screen. **To change the color** of the symbol, **click on the paintbrush icon,** select a color and **click on the color. Click X** on the palette screen, then **Click Apply** in the lower right corner. **Click X** in the upper right corner. Make sure that feature has check mark next to it. You should now see the crime you selected represented on the map.

TO PRINT MAP:
To print a basic map of what is on the screen:
Click File
Print
Setup (choose paper size & orientation)
OK
OK

To print a map that will have a title, scale of miles and legend:
Click View
Layout
Landscape
OK
New Layout
OK

If you want to change title of map before printing, **click T icon** (for text), then **click anywhere on the title**. Change title and **click OK**.

TO EXIT ARCVIEW:
Click File
Exit
It will ask if you want to save changes. **Click Yes or No.**

Description of Projects in c:\arcview folder

Description of Projects in c:\arcview folder

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basic map.apr
This project has addresses, streets, buildings, parcels, parking, streams, curbs, schools, and corporation limit. It does NOT contain any information about offenses, calls for service or arrests. This is just a basic map of Forest Park.

beats.apr
This project has the basic map information, and has the 3 beats outlined in different colors and labeled.

crimes.apr
This project contains the basic map information, and information about offenses (1997-present).

calls for service.apr
This project contains the basic map information and calls for service (December 1999-present). Also included are alarm drops, which are displayed using graduated symbols.

forest park.apr
The project contains the basic map information, offenses, calls for service, arrests, block watch members, and the master name file.

pop bottle bombs.apr
This is a specific project that contains the basic map information and details about pop bottle bombs that occurred in May 2000.

robbery.apr
This is a specific project that contains the basic map information and details about the pizza delivery robbery that occurred in December 1999.

*** apr is the three letter extension that arcview uses to indicate that the file is a project file.**

Codebook

Shape - Shape of the offense on the map (will be a point)

Incident_n - Incident or report number

Date_repor - Date the offense was reported by year, month, day (i.e. 19970628)

Date_from - Date the offense began

Date_to - Date the offense ended

Clsd - Status of the case
A=Death of offender
B=Prosecution declined
C=Extradition denied
D=Victim refused to cooperate
E=Juvenile/no custody
F=Arrest-adult
G=Arrest-juvenile
H=Warrant issued
I=Investigation pending
J=Closed
K=Unfounded
U=Unknown

Date_clsd - Date the case was closed

Ucr - UCR offense code

Dst - District the offense occurred in*
(*Information is not in table because Forest Park does not have districts)

Beat - Contains the jurisdiction (8F=Forest Park), the number 1 (no meaning) and beat number (1, 2 or 3)
(i.e. 8F13 means the offense occurred in Forest Park in Beat 3)
Beat 1 is South of Kemper Road and East of Winton Road
Beat 2 is South of Kemper Road and West of Winton Road
Beat 3 is North of Kemper Road

Offense - Type of offense

Location - Location the offense occurred in

Residential Structure

01=Single family home
02=Multiple dwelling
03=Residential facility
04=Other residential
05=Garage/shed

Public Access Buildings

06=Transit facility
07=Government office
08=School
09=College
10=Church
11=Hospital
12=Jail/prison
13=Parking garage
14=Other public access buildings

Commercial Locations

15=Auto shop
16=Financial institution
17=Barber/beauty shop
18=Hotel/motel
19=Dry cleaners/laundry
20=Professional office
21=Doctor's office
22=Other business office
23=Amusement center
24=Rental storage facility
25=Other commercial service location

Retail

26=Bar
27=Buy/sell/trade shop
28=Restaurant
29=Gas station
30=Auto sales lot
31=Jewelry store
32=Clothing store
33=Drugstore
34=Liquor store
35=Shopping mall
36=Sporting goods
37=Grocery/supermarket
38=Variety/convenience
39=Department store
40=Other retail store
41=Factory/mill/plant
42=Other building

Outside

43=Yard
44=Construction site
45=Lake/waterway
46=Field/woods
47=Street
48=Parking lot
49=Park/playground
50=Cemetery
51=Public transit vehicle
52=Other outside location

Other

77=Other

Theft_code - Larceny type

23A=Pocket picking
23B=Purse snatching
23C=Shoplifting
23D=Theft from building
23E=Theft from coin-operated machine
23F=Theft from motor vehicle
23G=Theft of motor vehicle parts/accessories
24O=Theft of motor vehicle
23H=Other

Weapon - Weapon type

99=None
11=Firearm
12=Handgun
12A=Automatic handgun
13=Rifle
13A=Fully automatic rifle
13B=Other fully automatic firearm
14=Shotgun
15=Other firearm
15A=Semi-automatic sporting rifle
15B=Semi-automatic assault firearm
15C=Machine pistol
16=Imitation firearm
17=Simulated firearm
18=BB/pellet gun
20=Knife/cutting instrument
30=Blunt object
35=Motor vehicle
40=Personal weapon
50=Poison
60=Explosives
65=Fire/incendiary device
70=Drugs/narcotics/sleeping pills
80=Other weapon
85=Asphyxiation
U=Unknown

Floor - Floor level of entry

1=Basement
2=1st Floor
3=2nd Floor
4=Other

Side - Side of building suspect entered

10=Front
20=Side
30=Rear
40=Roof
50=Other

Opening - Type of opening suspect used for entry

1=Door
2=Window
3=Garage
4=Skylight
5=Other

Forced - Forced entry

Y=Yes
N=No

Mo - Method of operation

01=Accomplice drives car
02=Accomplice takes part
03=Alarm cut
04=Alarm disconnected
05=Animal with suspect
06=Bound & gagged victim
07=Car-Abandoned
08=Car-Disables victim's car
09=Car-Hides in victim's car
10=Car-Takes victim's car
11=Car-Takes victim's keys
12=Carries gun
13=Disturbs very little
14=Does not take jewelry
15=Does not take money
16=Familiar with premises
17=Fingerprints/avoids
18=Gentlemanly
19=Handcuffed victim
20=Impersonates officer
21=Neatly dressed
22=Pretended to be delivery man
23=Pretended to be lost
24=Profane language
25=Ransacks premises
26=Rings doorbell or knocks
27=Safe broken into
28=Safe carried away
29=Says nothing
30=Solicited information
31=Solicited subscription
32=Stole key

33=Takes only jewelry
34=Takes only money
35=Takes only special items
36=Telephones victim
37=Telephone wires cut
38=Used auto
39=Used bike
40=Used light
41=Used matches
42=Used other illumination
43=Used motorcycle
44=Used narcotics
45=Used tobacco
46=Wore gloves
47=Wore silk stocking
48=Wore ski mask
49=Wore other mask
50=Works alone
51=Lures victim by newspaper ad
52=Shoplifting-Large purse
53=Shoplifting-Large coat
54=Shoplifting-Under dress
55=Shoplifting-Inside pants
56=Shoplifting-Booster box
57=Shoplifting-Used container
58=Shoplifting-Price switch
59=Shoplifting-Wears garment
60=Shoplifting-General
61=Uses bad checks/insufficient funds
62=Uses bad checks/account closed
63=Uses bad checks/stolen
64=Credit cards/stolen
65=Credit cards/over limit
66=Alters currency/checks/etc.
68=Acts as prostitute or john
70=Threatens victim
71=Uses ropes
73=Writes threatening letter
75=Defecates on premises
80=Sexual fetishist
85=Lures victim w/money, candy, etc.
86=Uses obscene material
87=Impersonates family member
88=Wore wig
89=Other

Hate_bias - Hate/Bias motivated offense

Racial Bias

11=Anti-White
12=Anti-Black
13=Anti-American Indian/Alaskan Native
14=Anti-Asian/Pacific Islander
15=Anti-Multi-Racial Group(s)

Religious Bias

21=Anti-Jewish
22=Anti-Catholic
23=Anti-Protestant
24=Anti-Islamic
25=Anti-Other Religion
26=Anti-Other Religious Group
27=Anti-Atheism/Agnosticism

Ethnicity/National Origin

30=Anti-Oriental
31=Anti-Arab
32=Anti-Hispanic
33=Anti-Other Ethnicity/Nationality

Sexual Orientation Bias

41=Anti-Male Homosexual
42=Anti-Female Homosexual
43=Anti-Homosexual
44=Anti-Heterosexual
45=Anti-Bisexual
46=Other Bias Incident

Address - Address where offense occurred

Dayofweek - Day of week offense occurred

1=Sunday
2=Monday
3=Tuesday
4=Wednesday
5=Thursday
6=Friday
7=Saturday

Timeofday - Time of day offense occurred (in military time). NOTE: If officer estimated time of offense as a range (i.e. 1300 to 1800), the time of day refers to the beginning of the range (i.e. 13).

Rpt_area - Area where offense occurred*
(*Information is currently incorrect because categories contain Cincinnati neighborhoods, not Forest Park neighborhoods)

Neighborho - Neighborhood where offense occurred*
(*Information is currently incorrect because categories contain Cincinnati neighborhoods, not Forest Park neighborhoods)

Nbr - Neighborhood code*
(*Information is currently incorrect because categories contain Cincinnati neighborhoods, not Forest Park neighborhoods)

Av_add - Geocoded address

Av_status - Status of geocoded address
U=Unmatched
M=Matched

Av_score - Level of accuracy address was matched at (i.e. 75=75%)

Newfield1 – Location of offense by streets

Other Functions

Counts

You may be interested in showing something on the map by the number of times it appears in the data. For example, you may want to show different number of thefts in an area. To do this, you need to perform a count. By creating a count, you will then be able to represent different numbers of thefts, etc. on the map using different sized symbols.

To create a count:

Make sure theme you are interested in is raised

Click on open theme table button

Click on heading in table that you want to count

Hit summarize button ( )

Under field select heading you are counting

Hit OK

You will now have a table named sum#.dbf

Go back to view

Once in view, select view

Add event theme

Select sum#.dbf as table

For both x field and y field select count

Hit OK

Once theme is in legend:

Click View

Geocode Addresses

In address table select sum#dbf

In Address Field and Display field select the appropriate address field for the theme of interest (usually location or address)

Double click theme.

Next to legend type select graduated symbol (or graduated colors)

Under classification field select count

Hit apply and make sure theme is checked. You should now see graduated symbols (or graduated colors) on map.

To make theme symbol change size with map size:

Make sure theme is raised (click next to theme)

Double click theme (you should now be in legend editor)

Click Advanced

Click box next to scale symbols (you should see a check in the box)

Click OK

Click Apply

Click box next to theme. Symbols should now be scaled.

PowerPoint

To save an ArcView map as a powerpoint slide:

In ArcView you must be in layout

Click File

Export

File Name _____

C: My Documents

Placeable WMF

Hit OK.

Get into powerpoint:

Click new slide, blank one

Insert picture from a file

Find file and hit OK.

Survey Instrument

Forest Park P.D. Crime Mapping Survey
June 15, 2000

Please circle the most accurate answer:

1. I am comfortable using personal computers (PCs).

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

2. I have had experience with crime mapping software.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

3. I have used crime maps in the course of my career.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

4. I would like to be able to request crime maps.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

5. I would like to be able to make my own crime maps.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

6. I think that crime mapping can help me do my job better.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

7. I believe the use of crime mapping will be helpful to the Forest Park Police Department.

1	2	3	4	5
Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

8. I think mapping would be helpful in (please circle all that you think apply):

Identifying crime patterns	Measuring changes in crime	Allocation of patrol
Identifying suspects	Communicating to the public	Other (please specify below)