

Crime Mapping News



A Quarterly Newsletter for GIS, Crime Mapping, and Policing

Volume 2 Issue 4
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Inside this Issue

The theme of this issue of *Crime Mapping News* is mapping traditional law enforcement data sources, such as crime and calls for service, with other non-policing data sources, such as school incident data or probation/parole information. The articles in this issue cover topics including 1) a brief summary of a lecture arguing for a coordinated approach to crime control using social, health, crime, and economic data, 2) a research study in Texas that integrates law enforcement and victim services data, 3) a study comparing crime incident data to environmental factors, school data, and land-use information, and 4) the development of a methamphetamine risk-model using crime, methamphetamine use, and demographic data.

Lecture Summary: Community Analysis: A Systems Approach to Crime Mapping	1
Mapping: A New Direction in Victim Services	2
Book Review	4
Contacting the Crime Mapping Laboratory	4
Applying Theory to Crime Mapping	5
Mapping in Action: Illinois Metham phetamine Risk-Model	8
Upcoming Conferences and Training	10
Office of Community Oriented Policing Services (COPS) on the Web	11
About the Police Foundation	12

On Wednesday, August 30th, Chief Jim Bueermann of the Redlands, California Police Department presented a lecture entitled "Community Analysis: A Systems Approach to Crime Mapping." Chief Bueermann's lecture was the third in the Crime Mapping Lecture Series, "Overcoming the Barriers: Crime Mapping in the 21st Century," jointly sponsored by the Police Foundation and NIJ's Crime Mapping Research Center. Since Chief Bueermann's lecture was of particular relevance to the theme of this issue of Crime Mapping News, a brief excerpt of his presentation follows.

Chief Bueermann has been involved extensively with the on-going development, implementation, and evaluation of "Risk Focused Policing," an innovative community policing strategy that integrates community oriented policing and problem solving, risk and protective-focused prevention, and advanced crime mapping technology. In 1998, he was not only appointed Police Chief, but also the Director of Housing, Recreation, and Senior Services of the City of Redlands.

Chief Bueermann argues that 21st century police organizations should be 1) data driven and results oriented, 2) systems oriented, 3) "boundaryless," 4) learning organizations, and 5) anticipatory. Concerning the notion of "boundarylessness," Chief Bueermann asserts that police agencies should coordinate their efforts and share data with other agencies such as courts, schools, social service providers, community groups, and housing professionals. For example, the Redlands Police Department compiles data from schools, voter registration, probation, recreation services, housing authority, social services, fire/emergency, as well as others and conducts analysis, specifically spatial analysis, that is distributed to various organizations and the community. Chief Bueermann suggests that police departments create "community analysis units" in which all types of information are combined and analyzed to examine community problems. The transition to community analysis requires an assessment of readiness, stakeholder analysis, and critical mass development, whereby those individuals that are critical to the success of the initiative are identified.

Note from the Editors: *The opinions expressed in the articles of this newsletter are those of the authors and do not necessarily reflect the views of the Police Foundation or the COPS office. In addition, only light editing has been done to the articles in order to keep each author's voice and tone.*

Mapping: A New Direction in Victim Services

by Reagan McClung, Research Specialist,
Office of the Texas Attorney General

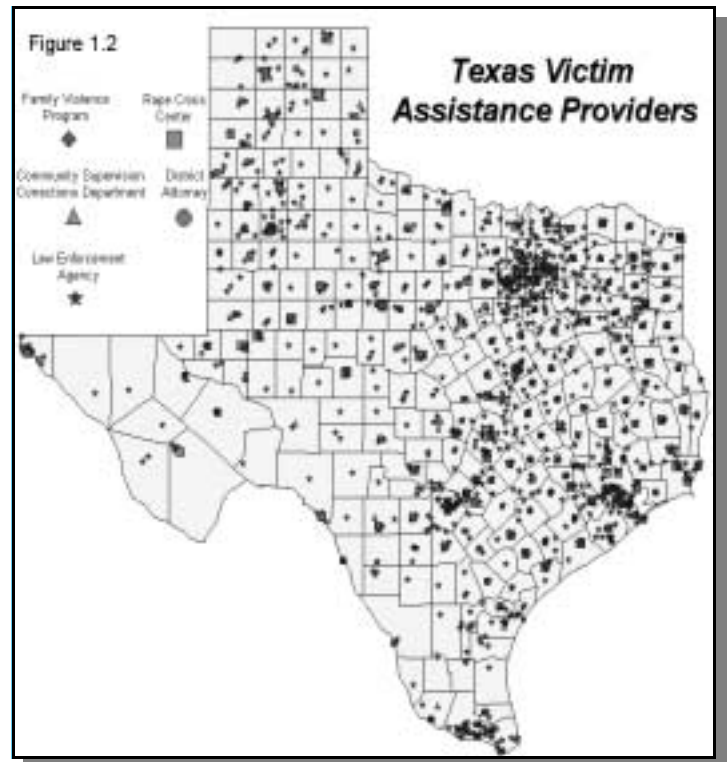
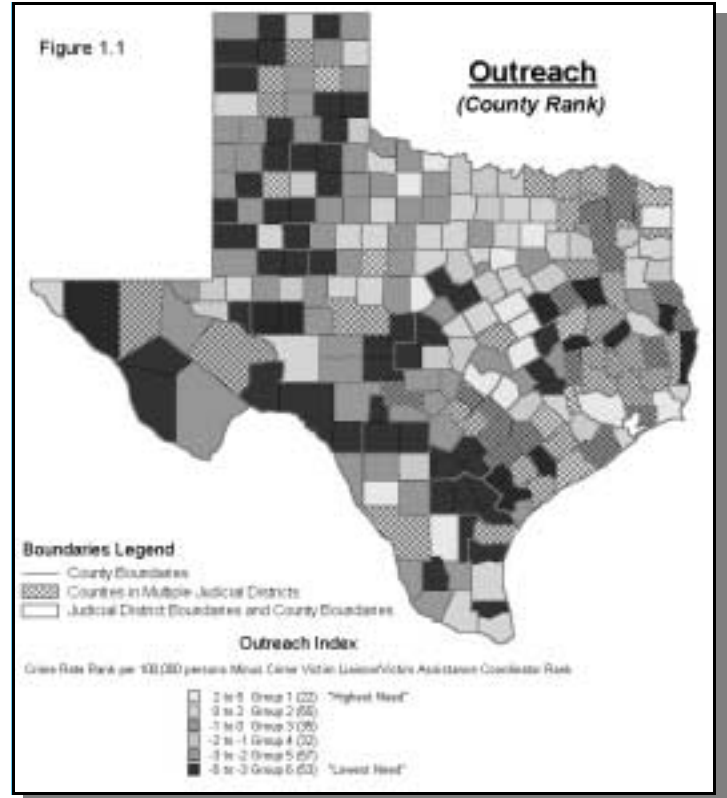
The Crime Victims' Institute (the Institute) within the Texas Attorney General's Office was created by the 74th Texas Legislature with the intent to study the impact of crime on victims, survivors, family members, and society. To assist the Institute in its legislatively mandated mission, Geographic Information Systems, or GIS, is utilized to assemble, store, analyze, and display geographically referenced information. The Crime Victims' Institute is one of the first agencies in the nation to apply GIS to victim services.

In 1998, the Institute surveyed providers and victims to document the services available to crime victims in Texas and to understand how these services meet the expressed needs of the victims. The data were published in the spring of 1999, "*The Impact of Crime on Victims: A Baseline Study on the Program Service Delivery*," which is available online at www.oag.state.tx.us/victims/cvi. The study issued a series of recommendations that are currently being addressed through pilot projects initiated by the Institute. GIS has played a key role in the planning, implementation, and evaluation of these projects.

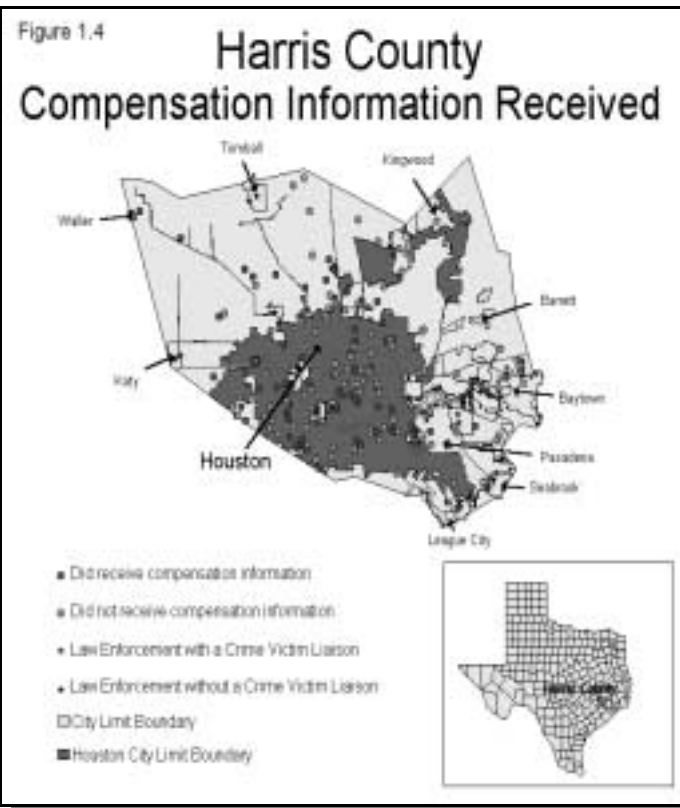
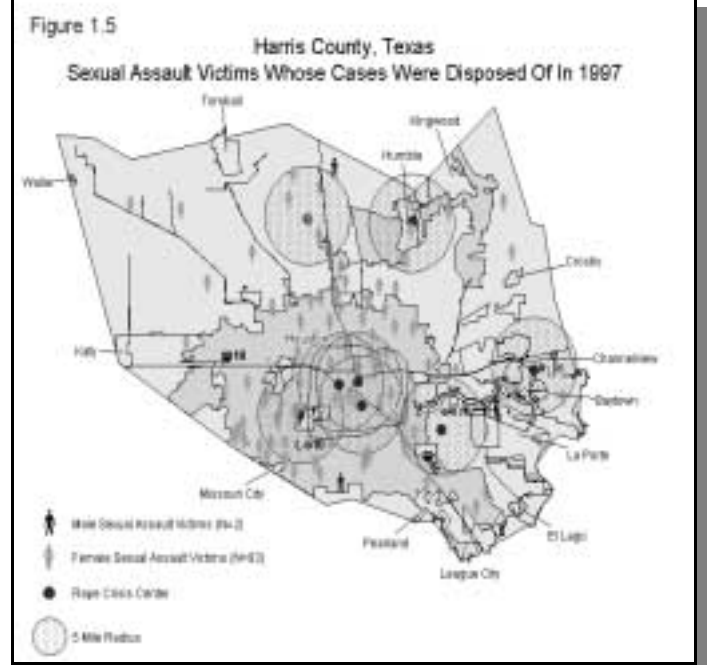
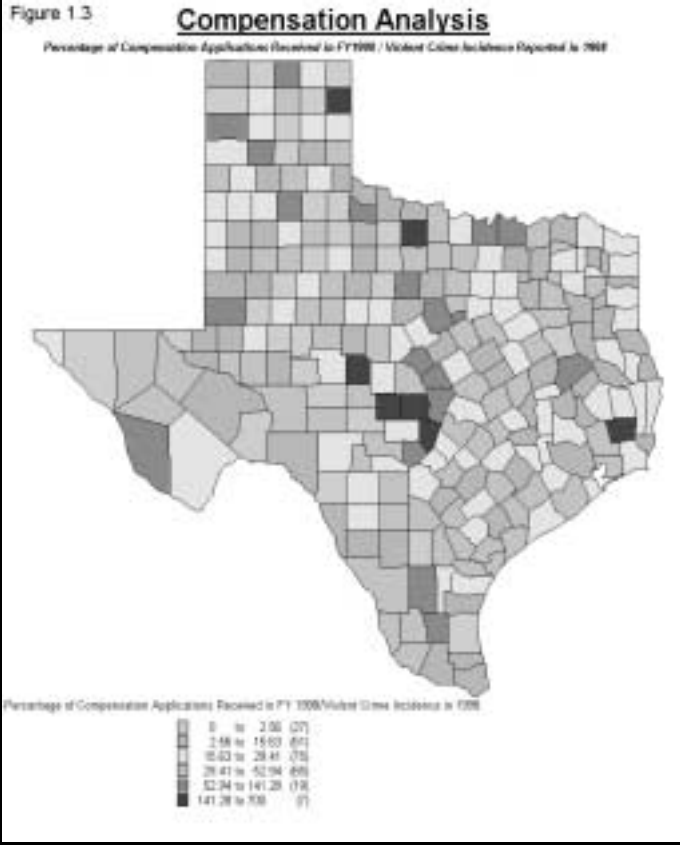
One of the recommendations from the study was to provide funding to federally mandated victim assistance positions. The Texas Legislature appropriated \$2 million to the Office of the Attorney General for this purpose. The Institute used GIS to create a statewide thematic map to aid Texas Attorney General staff in determining the criteria for awarding the grants to local law enforcement agencies and prosecutor offices. Figure 1.1 was created by dividing the index of victim assistance staff per agency by an index of the county crime rate. The areas with a lighter shade depict counties with a higher crime rate and fewer victim assistance staff, indicating a need for additional funding to staff victim assistance positions.

The need to develop a standard curriculum for training victim service providers was also a recommendation from the study. Through a grant from the Office for Victims of Crime (OVC), the Office of the Attorney General is now developing a state victim assistance academy. GIS analysis has also assisted in the selection of possible academic partners to participate in this collaborative effort. The first level of analysis was to determine which of the 35 public universities would provide the best geographic location. The second level of analysis was to determine the need for victim services based on crime rates. The third level of analysis plotted the location of victim service providers to identify potential students (Figure 1.2).

Service delivery by the Attorney General's Crime Victims Compensation Program has also been analyzed with GIS by dividing the number of compensation claims



by the total number of reported crime incidents. The map in Figure 1.3 indicates areas of the state that would benefit from additional compensation outreach to victims and providers. A further breakdown of this service is demonstrated by a map of Harris County (Figure 1.4) that displays locations of law enforcement offices with and without victim liaisons and the



general vicinity of victims that applied for compensation. With this map, officials are able to view areas where victims are not taking the opportunity to apply for compensation, which could warrant further study to determine cause.

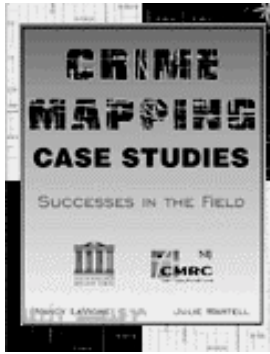
Figure 1.5 displays the proximity of rape crisis centers to victims of sexual assault in Harris County. A map was created displaying the general vicinity of the sexual assault victims to the nearest rape crisis center. A five-mile buffer was then created around each rape crisis center. The map indicates areas that would benefit from additional resources as well as gives service providers a proximity-based resource for victims.

The study also recommended the development of a statewide automated plan for victim notification. Maps have also been created for project management displaying the counties currently included in the pilot project and counties already using an automated victim notification system.

The Crime Victims' Institute is using technology to enhance crime victim services in the state of Texas. Our vision is to integrate the GIS application into a Web based system. Users will be able to create their own maps, perform their own area analysis, and print the results. The public will receive data and services that would normally cost thousands of dollars at the price of a local Internet connection.

Dr. Brian Ogawa leads the Institute and has been instrumental in implementing innovative services for victims in Texas. He is assisted by a team of researchers who specialize in varying areas of research. The Institute's GIS is managed by Reagan McClung, who holds a degree in Geography from Southwest Texas State University.

Reagan McClung is a Research Specialist in the Crime Victims' Institute within the Office of the Texas Attorney General. She can be contacted via e-mail at Reagan.McClung@oag.state.tx.us.



Book Review

Crime Mapping Case Studies: Successes in the Field, Volume 2 Edited by Dr. Nancy LaVigne and Julie Wartell

Reviewed by Chief Jim Bueermann, Redlands Police Department

In many fields—land use, public health and multiple private sector areas—practitioners and policymakers alike are realizing the power of visualizing large amounts of data through dynamic mapping applications called Geographic Information Systems (GIS). Similarly, many law enforcement agencies, criminal justice researchers, and social service providers across the country have integrated GIS data and computer mapping technology into their decision making processes.

Early crime mapping innovators are providing valuable insight to the rest of us who appreciate GIS' value but are not able, due to time or funding constraints, to engage in practical research and development into how the technology can best leverage our existing resources. Most practitioners want to access what others have discovered about crime mapping rather than reinventing developed processes.

This anthology of crime mapping case studies builds on the successful first volume in the series published in 1998, by displaying more practical, real-life crime mapping examples. The book's sections—Supporting Crime Control and Community-Policing Initiatives, Aiding Apprehension and Prosecution Efforts, and Improving Law Enforcement and Criminal Justice Operations—logically represent a balanced and comprehensive approach to the notion of using GIS as a tool to analyze criminal justice issues. Each section contains easy-to-understand articles written by and for practitioners, providing a comprehensive perspective on how GIS is currently used.

This compendium of successful GIS technology applications—those with measurable impact on criminal justice outcomes or practices—offers readers, regardless of their criminal justice role, important insight into the value of GIS in their work. For instance, there are community-policing examples of how crime mapping was used to analyze gun violence, the impact of a drug crackdown, and the effectiveness of a Neighborhood Watch program. Examples of how GIS was used to identify a serial sex crime suspect, invalidate an alibi through cell phone mapping, and predict a residential break-in pattern show how police can increase capacity to apprehend suspects and prosecutors to try them. And finally, suggestions for improving police and criminal justice operations are demonstrated through the presentation of how to use mapping in police redistricting, a sex offender registration compliance project, and a plan to optimize closed-circuit television use.

The book was printed in black and white, which slightly limits the impact of the maps but keeps the book affordable. Providing contact information for the author of each article would have also been helpful, but a reader could locate the authors with minimal effort.

These minor shortcomings aside, *Crime Mapping Case Studies: Successes in the Field, Volume 2* is a wonderful addition to the personal library of any thoughtful criminal justice practitioner or policymaker intent on leveraging the power of mapping to facilitate their data-driven decision making. It provides practical examples of how to use the power of GIS technology to leverage taxpayer investment in public safety and the criminal justice system. PERF and the NIJ Crime Mapping Research Center are to be applauded for their effort at disseminating this valuable crime mapping resource.

Crime Mapping Case Studies: Successes in the Field, Volume 2 provides the necessary knowledge to understand applications of this technology. This volume, edited by Dr. Nancy LaVigne, former Director of the National Institute of Justice's Crime Mapping Research Center and Julie Wartell, Senior Research and Technology Associate with the Institute for Law and Justice, is available for \$20 from the Police Executive Research Forum (PERF) by calling toll-free (888)202-4563, or through the organization's web site at www.policeforum.org.

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Applying Theory to Crime Mapping

by Melissa R. Johnson, Geographic Information Specialist III, New Jersey State Police

The following article is based upon an Undergraduate Independent Study conducted through Rutgers University's School of Criminal Justice with the assistance of Dean Lesley Kennedy. The Dover Township Police Department, Toms River, NJ, provided crime incident data that were applied to different characteristics of neighborhoods to test already established criminological theories.

The purpose of this study is to demonstrate that there are different analytical ways of looking at an area in a spatial context using criminological theory. Since established theories are crime specific, this article will compare a different theory for each crime. The Environmental Theory by Brantingham and Brantingham will be tested using residential burglary. The Routine Activity Approach, by Cohen and Felson, will be tested using robbery. Finally, the Social Disorganization Approach, by Shaw and McKay, will be tested in relation to criminal mischief and school attributes. By identifying neighborhoods that are more prone to crime, characteristics of the areas can be observed and corrected by different crime prevention techniques or community programs that may deter future crime.

Dover Township, NJ, resides within Ocean County. The township is located on the Jersey Shore and is adjacent to the Atlantic Ocean, the Toms River, and tributaries off of the Toms River. The Township is 41 square miles, the average household income is \$40,000, and the population is estimated at 83,776 people. Of the 80,000+ people, roughly 50,000 are Caucasian.

Dover Township has a student population close to 17,000 who attend seventeen schools within the Toms River Regional School District. There are three public high

schools, two intermediate schools, an alternate school, and eleven elementary schools. The Dover Township Police Department currently has 134 sworn personnel.

Environmental Theory: Residential Burglary

These theories will concentrate on paths, edges, districts, landmarks, and nodes of the burglarized area to generally conclude crime rates or neighborhood characteristics. The complexity of the street network and position of a burglarized house on a street will also indicate certain patterns of victimology and repeat victimization.

- Paths & Grid Pattern Streets: Paths are routes of travel that tend to dominate most people's images of cities, including highways and railways.
- Edges: Edges consist of boundaries that help to organize cognitive maps, including rivers and seashores.
- Districts: Districts are sub-areas with recognizable unifying characteristics possessing well-established cores but fuzzy borders, including financial districts and skid roads.
- Nodes & Corner Houses: Nodes are intense foci of activity, including major intersections, railroad stations, and corner stores.
- Landmarks: Landmarks are symbols which may not be entered but which are still used for orientation, including signs, buildings, and trees.

Zipf's Principle of Least Effort (1950) suggests that all people, including criminals, take the shortest route to a destination, take the least amount of time, and seek the easiest means of accomplishing something. At the 1999 International Crime Mapping Conference, Steven Gottlieb said it best, "We

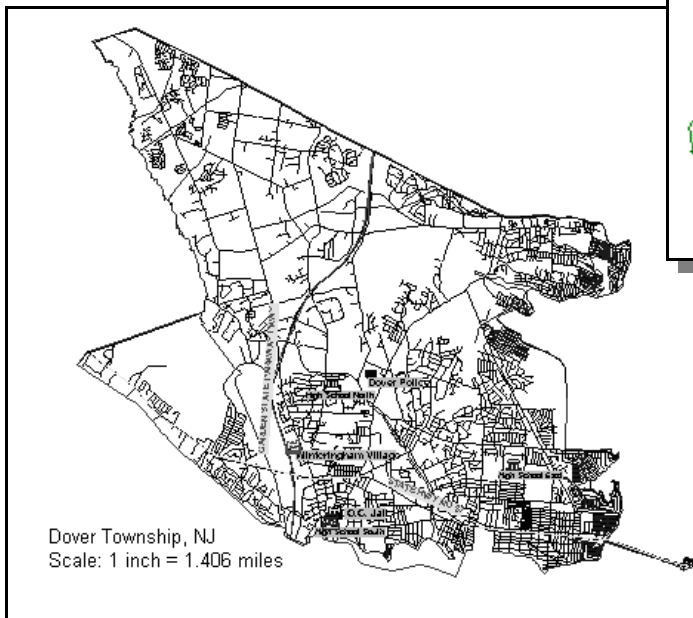
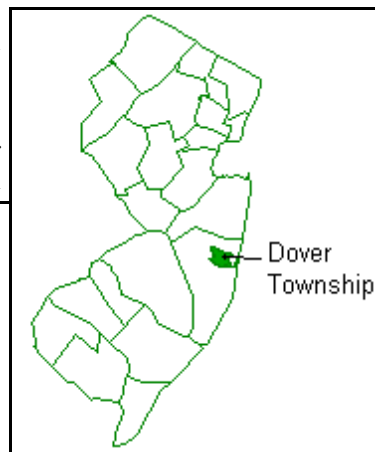
all know that it takes longer to get somewhere than it does to get home because everyone knows the easiest way to get home." With this principle in mind, it is understood that a criminal would choose to commit a crime in an area that is easy to access and is familiar.

Testing Outline:

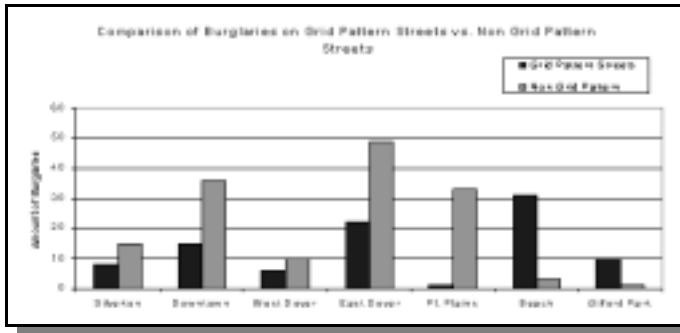
- Nodes: Find patterns relating to corners.
- Paths: Total amount of burglaries occurring on grid streets versus other street networks.
- Districts: Compare the neighborhoods of Dover Township.
- Edges: Compare neighborhoods near major highways or waterways to other areas.

Theory Testing Results

Based on the burglary data gathered from January 1999 to October 1999, the hypothesis of burglary "hot



spots” will concentrate on grid patterned streets that are not complex. The graph indicates that there were more burglaries occurring on grid pattern streets in the Gilford Park and Beach areas, while the other five sections show higher rates of burglaries occurring on non-grid patterned streets. When looking at the map of Dover Township, the areas experiencing more grid patterned burglaries have more grid pattern streets.



Routine Activity: Robbery

The Routine Activity Approach (Cohen and Felson), to crime rate analysis specifies three elements of crime: a likely offender, a suitable target, and the absence of a capable guardian. The theory suggests when all three elements are available, crime will occur. In order for all three elements to be present, a large population is needed in order for the chances of a victim and an offender to “converge in one place at the same time.” Victimization occurs when a target is “exposed” to crime, i.e. if a person spends large amounts of time in public places at night, there is a better chance of that individual becoming a victim of a crime than someone at home. The activity areas tend to be on major highways, near schools, shopping areas, and recreational centers.

Routine Activity states that criminals offend on their daily paths of travel between home, school, work, and a recreational place. According to Routine Activity, the economically prosperous areas with low unemployment and high population are prone to certain types of crimes. The possibility of guardians in a specific location will deter crime. “A fear with being involved with someone else’s problems” causes people to look the other way when such incidences occur.

Testing Outline:

- Total amount of robberies occurring on Rt. 37.

- Determine the shopping area level of risk of being a “Problem Mall.”
- Compare levels of risk, amounts of parking spaces, and the amount of stores for each problem area.

Theory Testing Results

A majority of the incidents occur on Route 37. Route 37 has two major strip malls within a block of Entrance #82 of the parkway. In the past ten years, 33 robberies have occurred on Route 37; 18 of which happened within one block of parkway entrance #82. Hooper Avenue seems to be another location for repeat robberies. Hooper Avenue is the home of the Ocean County Mall, which houses 137 permanent store facilities.

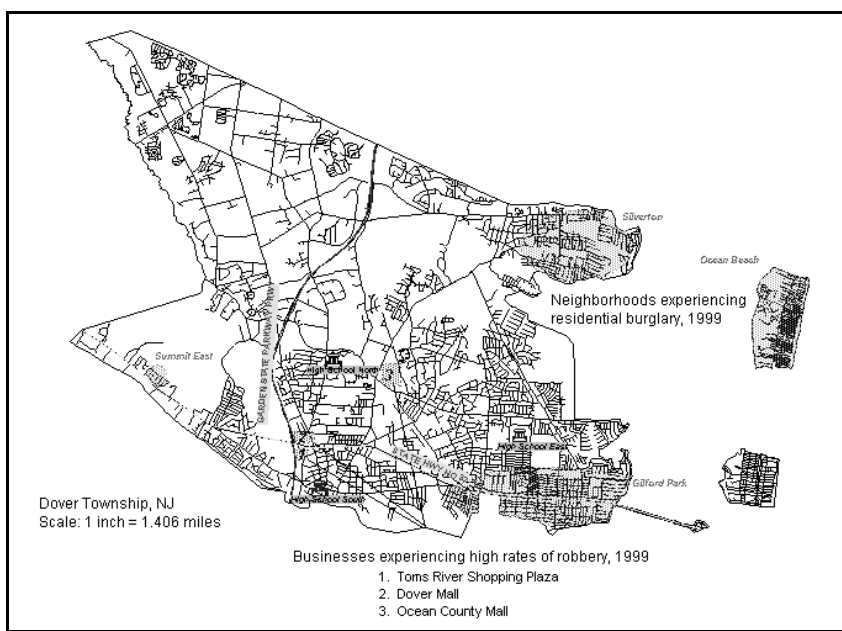
The next test applies Hollinger and Dabney’s “Problem Mall” theory. The two strip malls on Route 37 and the county mall on Hooper Avenue tested the themes set up by Hollinger and Dabney’s theory. These themes include: loitering young people, public transportation, and gang presence. For the purposes of this study, it cannot be determined if organized gangs exist within Dover Township. Therefore, the last theme of Hollinger and Dabney’s Theory has been excluded in this test.

Next, each robbery site was tested in relation to the

Variables	Ocean County Mall	Toms River Shopping Plaza	Dover Mall
Loitering Groups of Young People	X	-	X
Presence of Public Transportation	X	X	X
Presence of Organized Street Gangs	-	-	-
Problem Mall	2	1	2
Robbery	23	9	9

amount of stores and parking facilities available. This suggests that the more stores or parking there is, the more people there will be and therefore, the more crime will occur.

The ideas of more stores and parking facilities along with Hollinger and Dabney’s “Problem Mall” test draw from both the Routine Activity Theory and the Social Disorganization Theory. Both theories imply that the higher the population and busier the area is, the more crime will occur. Although the testing is logical, the conclusions listed above do not significantly account for the crime rate. There are several other variables that are not being considered within the “Problem Mall” test or the amount of store and



parking space availability. One of which is the difference in robbery rates between enclosed malls and outside strip malls.

Shopping Areas	Robbery	Stores	Parking Spaces
Ocean County Mall	23	137	4025
Toms River Shopping Plaza	9	28	871
Dover Mall	9	21	756

The fact that the stores are enclosed or outdoors may have a substantial impact on the robbery rates. But this study only encompasses one enclosed mall and two strip malls, which is not enough for a conclusive test regarding the matter.

Social Disorganization: Criminal Mischief

“Social Disorganization Theory (Shaw and McKay), suggests that the economic composition of a local community is related to crime rates.” When a community is not unified, lacks the values, and lacks the interest in protecting the neighborhood, an area is considered socially disorganized. A disorganized area is one in which social institutions such as the family, school, and commercial establishments have broken down and can no longer carry out their expected or stated functions. Indicators of this include high unemployment rates, high school drop out rates, mobility rates, low-income levels, and a large number of single parent households. Shaw and McKay believe disorganized areas are highly populated, economically poor, and transient.

Testing Outline:

- Specify areas districted for each high school.
- Compare high school population to drop out rate for each high school.
- Compare high school mobility rates.

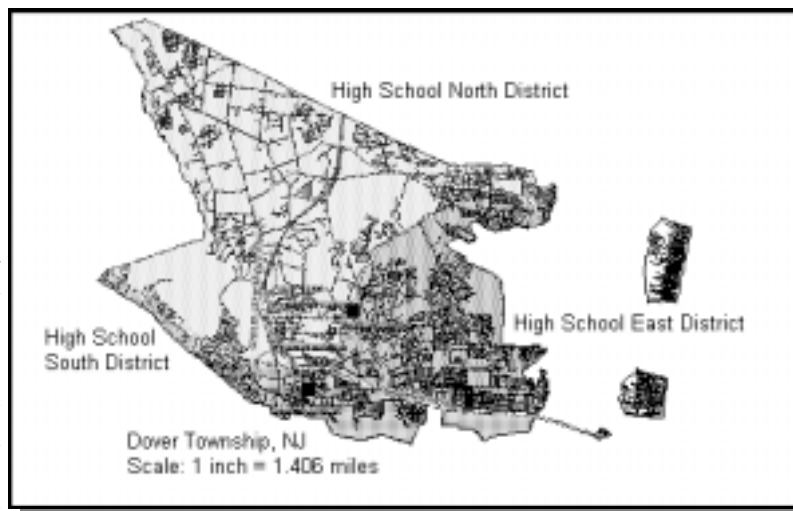
Theory Testing Results

The following map divides the three high school districting areas. According to the Social Disorganization Theory, when the districting information and characteristics of each high school are analyzed, the school with the highest drop out and mobility rate will be most susceptible to criminal activity. The results of the analysis show that the higher mobility rates are in High School East and North; thus, the Social Disorganization Theory suggests that the crime rates would also be higher in the respective district areas. Mobility

suggests that students change schools and perhaps addresses, therefore making a social, neighborhood cohesion difficult to obtain. The drop out rate of High School South makes up the majority for the entire system. Social Disorganization also encompasses the lack of values, education, and social breakdown that high school drop out rates portray. Results did not indicate that one district has significantly more incidents of criminal mischief than the others do even though mobility and drop out rates vary.

The purpose of this article has been to portray different themes that could be added to crime analysis. These analyses are only the “tip of the iceberg” in testing these theories. By using this and more complex type of analysis, crime analysts will begin to help identify better solutions and

preventative methods by beginning to determine the various causes. Are problems caused by issues centered around schools, unemployment, low-income housing, single parent households or spatial factors such as vulnerability of a corner house to burglary? These are questions that should be answered and examined creatively.



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Mapping in Action: Illinois Methamphetamine Risk-Model

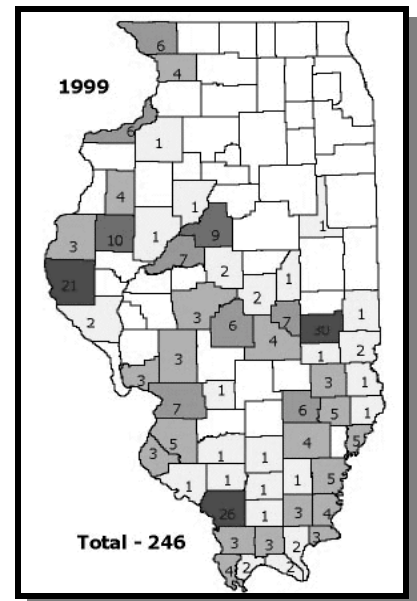
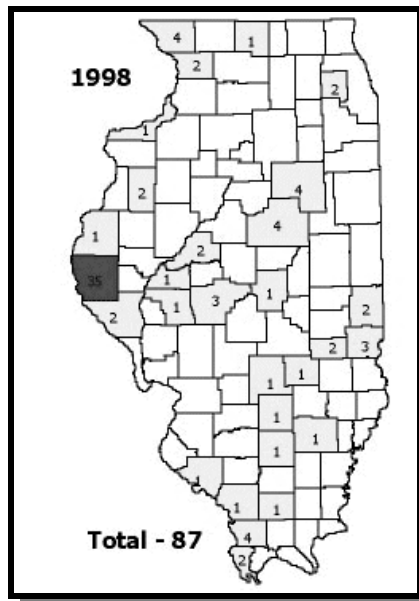
By Boyd Butler, Executive I, Illinois State Police

Methamphetamine, which is the product of a simple chemical synthesis that changes household chemicals and over-the-counter cold medication into a potent stimulant, continues to be a major threat to public safety across the United States. Western states such as California, Arizona, and Nevada have a historically high methamphetamine presence; however, new markets for the popular drug are constantly developing. Midwest states such as Kansas, Missouri, Iowa, and Arkansas have seen exponential increases in methamphetamine lab seizures in recent years. As the epidemic migrates eastward, other states in the region can expect the same infestation of methamphetamine in upcoming years. Illinois documented a minor methamphetamine presence in 1996 and marked activity increases in subsequent years. In 1999, more methamphetamine labs were seized than all previous years combined, and illegal activities related to methamphetamine were at an all-time high. The number of reported labs seized rose 925 percent over the last three years, from 24 labs in 1997 to 246 labs in 1999 (See maps below).

methamphetamine use and manufacture can be identified. The risk model serves as a strategic tool that assists law enforcement personnel and communities in forming proactive rather than reactive strategies to combat the resurgence of this drug.

Data collected for inclusion in the Statewide Risk-Model consisted of reported methamphetamine encounters (stationary, mobile, abandoned, and box labs; seizures, purchases, dealers, and anhydrous ammonia thefts) and methamphetamine addict information (People Seeking Treatment) from Great River Recovery Resources and the Western States Intelligence Network (WSIN).

Encounters: Illinois methamphetamine encounters were collected from 1997-1999 and stored in a Lotus Approach Database. Address information pertaining to each methamphetamine encounter was collected and mapped. Arrestee/Suspect demographic and geographic information such as age, gender, race, and prior criminal history served as the database from which factors for the risk-model were drawn.



In response to the growing epidemic, the Illinois State Police embarked on a statewide mapping initiative to identify trends and patterns of methamphetamine manufacture and abuse. In addition, a Methamphetamine Risk-Model was created to identify current as well as *potential* "hot spots" in the state that could be at risk to the methamphetamine epidemic. By integrating known characteristics of methamphetamine users and Illinois county demographics into a geographical model with the aid of ArcView Spatial Analyst, high-risk areas having the characteristics conducive to

People Seeking Treatment: Demographic information for methamphetamine addicts seeking treatment from Great River Recovery Resources, a Quincy, Illinois substance abuse treatment center, and the Illinois Department of Human Services was combined with Western States Intelligence Network - Treatment Center Submissions of methamphetamine addicts. Access to the data collected from these admissions allowed law enforcement to capture the characteristics of those who are addicted to methamphetamine. Characteristics occurring most frequently in this population such as age, gender, race,

education and income levels, and secondary drug problems were extracted to include in the Statewide Risk-Model.

Statewide Risk-Model

Through data collection and analyses, several factors have been identified as demographic and geographic characteristics contributing to methamphetamine activity. The factors were scored and aggregated using ArcView Spatial Analyst, resulting in numeric values for each statistical area (census block). Those areas with higher scores are defined as potential “hot spots” and are areas that should be closely monitored for new methamphetamine activity. However, not all “hot spots” identified by the model will see significant methamphetamine activity, and those deemed low risk could develop problems related to methamphetamine use and manufacture.

Risk-Model Factors

Percent of Caucasian individuals by census tract -

The People Seeking Treatment (92 percent) and Arrestees/Suspects (100 percent) databases indicate that the vast majority of users are Caucasian. In addition, the Office of National Drug Control and Policy (ONDCP) indicates that the majority of methamphetamine users are Caucasian.

Percent of individuals between 25 and 29 years of age by census tract -

The People Seeking Treatment and Arrestees/Suspects databases indicate the average age of methamphetamine abusers falls in or close to this age bracket (28.3 and 32.1, respectively). ONDCP also notes that most methamphetamine users are over age 26.

Percent of individuals 25 years old or more, having less than a high school diploma by census tract -

The People Seeking Treatment database indicates that the average educational level is 11.3 years. In addition, ONDCP states that the majority of methamphetamine users are blue-collar workers—individuals more likely to have less than a college level education.

Percent of unmarried individuals over 25 years of age by census tract -

The majority of individuals in the People Seeking Treatment database (79.8 percent) have never been married, are divorced, or separated.

Increase or decrease in the crime rate by county -

The majority of individuals in the Arrestees/Suspects database (69 percent) had been previously arrested for a crime. In addition, high crime rates and increased drug use usually correlate.

Percent change in drug arrest rate by county -

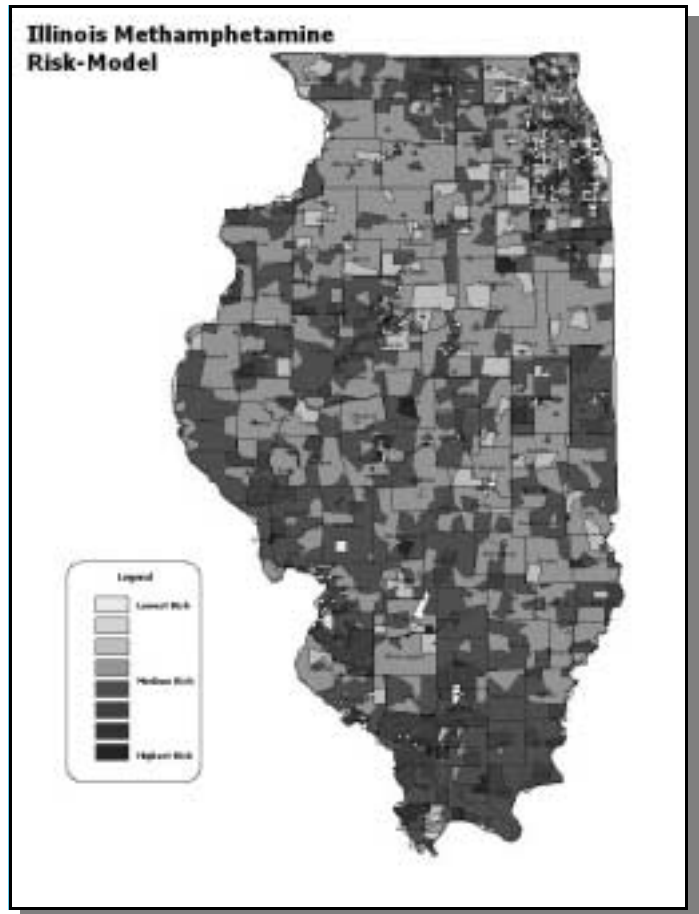
Many people arrested for a methamphetamine offense (39 percent) had a prior arrest for cannabis, drug paraphernalia, or controlled substance violations.

Poverty rate by census tract -

The People Seeking Treatment database reveals that 95 percent earn less than \$19,644 per year.

Urban vs. rural counties - Seventy-four percent (301) of the 399 methamphetamine encounters reported in 1999 were reported in rural counties. Rural counties were weighted heavier than urban counties in the risk model.

For each factor, a grid coverage was generated, classified, and scored based upon the prevalence of each of the selected factors. Once scored, Spatial Analyst was utilized to



add all grid factors together. The resulting grid was reclassified into nine groups and categorized as high, medium, and low risk areas. The highest scoring areas represent potential “hot spots” possessing the most prevalent characteristics for methamphetamine activity. These “hot spots” are dark red on the Statewide Methamphetamine Risk-Model graphic.

Boyd Butler is an Executive I on the Crime Trends and Research Team for the Illinois State Police. He can be contacted by e-mail at butler_isp@yahoo.com

Upcoming Conferences and Training

September

National Law Enforcement and Corrections
Technology Center (NLECTC)
Crime Mapping and Analysis Program (CMAP)
September 18-23, 2000
Gilbert, AZ
Contact: Alisa Anthony,
aanthony@du.edu or (800) 416-8086

GIS in the Rockies Conference
September 25-27, 2000
Denver, CO
<http://www.gisintherockies.org/>

Association for Geographic Information Crime
and Disorder Special Interest Group Seminar
September 29, 2000
London, England
Contact: Kritee Apajee, kritee@agi.org.uk
or 020 7334 3746

October

9th Annual California Crime & Intelligence
Analysts Association Conference
October 23-27, 2000
Rancho Mirage, CA
Contact: Michelle Jaska,
mjaska@sanbernardinosherriff.org

12th Annual National Training Conference for
Criminal Justice and Community Leaders
October 25-27, 2000
Green Bay, WI
[http://www.foxvalley.tec.wi.us/upcoming/
multijurisdiction/index.htm](http://www.foxvalley.tec.wi.us/upcoming/multijurisdiction/index.htm)

General Web Resources for Training Seminars and Conferences

<http://www.urisa.org/meetings.htm>

[http://www.ifp.uni-stuttgart.de/ifp/gis/
conferences.html](http://www.ifp.uni-stuttgart.de/ifp/gis/conferences.html)

<http://www.geoinfosystems.com/calendar.htm>

<http://msdis.missouri.edu/>

[http://magicweb.kgs.ukans.edu/magic/
magic_net.html](http://magicweb.kgs.ukans.edu/magic/magic_net.html)

<http://www.nsgic.org/>

<http://www.mapinfo.com/events>

<http://www.esri.com/events>

[http://www.ojp.usdoj.gov/cmrc/training/
welcome.html](http://www.ojp.usdoj.gov/cmrc/training/welcome.html)

<http://www.nlectc.org/nlectcrm/cmaptrain.html>

<http://www.nijpcs.org/upcoming.htm>

<http://www.usdoj.gov/cops/gpa/tta/default.htm>

<http://giscenter.isu.edu/training/training.htm>

<http://www.alphagroupcenter.com/index2.htm>

<http://www.cicp.org/>

<http://www.actnowinc.org>

Early Reminders!

**International Association of Crime Analysts
Training 2000: Dedication to Analysis
November 1-4, 2000, Denver, CO**
Registration information at
[www.iaca.net/Conferences/2000/
2KConference.htm](http://www.iaca.net/Conferences/2000/2KConference.htm)

**First Annual Birmingham
GIS Conference
November 27-29, 2000, Birmingham, AL**
For information, contact Brian Boyle
(800) 414-9408

**Fourth Annual International Crime
Mapping Research Conference
December 9-12, 2000, San Diego, CA**
Registration available at
www.nijpcs.org/upcoming.htm

The COPS Internet – Information on COPS and Community Policing is just a *Click* away

**Visit the redesigned and easier to use
COPS web site at www.usdoj.gov/cops.**

Five key channels provide up to date information on COPS and its programs:

News & Information: For the latest grant announcements, press releases, and upcoming events

Grants, Programs, & Activities: For a list of current funding opportunities complete with application kits and comprehensive descriptions on all our grant programs and more, including training and technical assistance, compliance and monitoring, and program assessment and policy support

Grantee Toolbox: Resources for our grantees including contact information, tips, grant owner's manuals, and progress report forms

Community Policing Resources: A repository of excellent community policing resources including COPS funded studies, reports, curriculums, tools, and tips, conference capsules, ongoing assessments, and promising practices from the field

Freedom of Information Act (FOIA): For FOIA contact information and an electronic reading room, including state listings of all COPS grantees



www.usdoj.gov/cops

New material posted to the site daily. Check it often for the latest news on the COPS program.

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The Police Foundation is a private, independent, not-for-profit organization dedicated to supporting innovation and improvement in policing through its research, technical assistance, and communications programs. Established in 1970, the foundation has conducted seminal research in police behavior, policy, and procedure, and works to transfer to local agencies the best new information about practices for dealing effectively with a range of important police operational and administrative concerns. Motivating all of the foundation's efforts is the goal of efficient, humane policing that operates within the framework of democratic principles and the highest ideals of the nation.

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