

Attachment 1: Geospatial Capabilities Survey



## 2014 National Institute of Justice (NIJ) Geospatial Capabilities Survey

OMB Number here

We recently sent you an invitation requesting your voluntary participation in the 2014 NIJ Geospatial Capabilities Survey. The purpose of the survey is to determine the geospatial tools, techniques, and practices used by law enforcement agencies and the potential for expanded use of such capabilities. The results of the survey will help NIJ determine how best it can meet the needs and enhance the effectiveness of geospatial capabilities in large law enforcement agencies through future technology development grants. The survey is being conducted on behalf of NIJ by The RAND Corporation.

**The responses on the completed questionnaire your agency submits will be made available to the public by Originating Agency Identifier (ORI)** on the National Archive of Criminal Justice Data website through the Interuniversity Consortium for Political and Social Research program at the University of Michigan (<http://www.icpsr.umich.edu/icpsrweb/NACJD/>).

If you have already completed and returned the survey questionnaire, please accept our sincere thanks. Since your agency has not declined to receive a print version of the survey questionnaire, we are sending you this paper version.

You may still use the electronic version of the survey questionnaire by accessing the 2013 NIJ Geospatial Capabilities Survey webpage at the following link: <http://www.rand.org/nij-gcs> Login name: **NIJLEsurvey** Password: **LZag2H9qc**

We prefer you to use the electronic form of the survey and return the completed survey as an Excel file attachment to [Geospatial\\_Survey@rand.org](mailto:Geospatial_Survey@rand.org). However, if you prefer to use the paper version, please complete questionnaire in this booklet and return the completed form in the enclosed business reply envelope by TBD date.

If you have any questions, please send an e-mail to [Geospatial\\_Survey@rand.org](mailto:Geospatial_Survey@rand.org) or call us toll free at 800 number TBD. We look forward to receiving your completed NIJ Geospatial Capabilities Survey Questionnaire. Thank you for your participation.

**Burden Statement:** Under the Paperwork Reduction Act, we cannot ask you to respond to a collection of information unless it displays a currently valid OMB control number. The survey will be sent to law enforcement agencies that had one hundred or more sworn officers as determined by the Bureau of Justice Statistics 2008 Law Enforcement Management and Administrative Statistics sampling frame. The average time required to complete the survey is estimated at 50 minutes. Send comments regarding this burden estimate or any aspect of this survey, including suggestions for reducing this burden, to the Office Director, Office of Science and Technology, National Institute of Justice, 810 Seventh Street, NW, Washington DC 20531. Do not send your completed form to this address.

Expiration date of this survey is TBD.

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**Originating Agency Identifier (ORI #)** \_\_\_\_\_

**Official Law Enforcement Agency (LEA) Name** (no abbreviations please)  
 \_\_\_\_\_

**Contact for clarifications to the LEA's responses to this survey** Name \_\_\_\_\_

E-mail address \_\_\_\_\_ Phone \_\_\_\_\_

Please check this box if NIJ can contact the LEA about data and questions beyond this survey.

**1. What software does the LEA use to maintain/store crime data?**

|                     | Product | Manufacturer |
|---------------------|---------|--------------|
| RMS                 | _____   | _____        |
| CAD                 | _____   | _____        |
| Relational database | _____   | _____        |
| Other software      | _____   | _____        |

**2. How many in the LEA's crime analysis unit are in the following categories?**

Please leave blank if LEA does not perform in-house crime analysis. Crime analysts perform any type of crime analysis (e.g., tactical, operational, strategic). Spatial analysts specifically look at crime mapping, distributions, or patterns.

|                      |                         | All Crime Analysts (include spatial analysts) |                      | Spatial Analysts Only |                      |
|----------------------|-------------------------|---|----------------------|-----------------------|----------------------|
|                      |                         | # Full Time                                   | # Part Time          | # Full Time           | # Part Time          |
| <b>LEA employees</b> | Sworn non-supervisor    | <input type="text"/>                          | <input type="text"/> | <input type="text"/>  | <input type="text"/> |
|                      | Sworn supervisor        | <input type="text"/>                          | <input type="text"/> | <input type="text"/>  | <input type="text"/> |
|                      | Civilian supervisor     | <input type="text"/>                          | <input type="text"/> | <input type="text"/>  | <input type="text"/> |
|                      | Civilian non-supervisor | <input type="text"/>                          | <input type="text"/> | <input type="text"/>  | <input type="text"/> |
| <b>Contractors</b>   | Supervisor              | <input type="text"/>                          | <input type="text"/> | <input type="text"/>  | <input type="text"/> |
|                      | Non-supervisor          | <input type="text"/>                          | <input type="text"/> | <input type="text"/>  | <input type="text"/> |

**For questions 3 through 7, please answer the questions with the formal LEA position or if the LEA does not have an official position, please state the opinion of the LEA manager with authority on the topic.**

**3. Which, if any, of the following factors are keeping the LEA from full utilization or initiation of computerized crime mapping?** Please check all that apply or leave blank if none apply.

- Limited computer resources
- Limited financial resources
- Limited time
- Limited training opportunities
- Limited working knowledge of how mapping is used in the field
- Limited qualified personnel
- Limited interest from administration
- Limited interest from support staff
- Difficulties with computer software

Other factors (Specify) a.

b.

**4. How useful would it be to the LEA if there were a software package that streamlines computer mapping to enable officers with minimal training to conduct common queries?**

- Very useful                       Useful                       Somewhat useful                       Not useful

**5. If training in computer mapping techniques and analyses were made available, how likely would it be that the LEA would make it possible for its employees to attend if travel and lodging were covered by the Department of Justice?**

- Very likely                       Likely                       Somewhat likely                       Not likely

**6. How likely would it be that the LEA would make it possible for its employees to attend training if travel and lodging were not covered by the Department of Justice?**

- Attend at a local site     Very likely     Likely     Somewhat likely     Not likely
- Attend at a non-local site     Very likely     Likely     Somewhat likely     Not likely

**7. How interested would members of the LEA be in attending a conference on computer mapping techniques and analyses with other police officers and crime analysts in attendance?**

- Very interested     Interested     Somewhat interested     Not interested

**8. Does the LEA currently perform computerized crime mapping in-house?**

[If yes, please continue survey with Question 9.](#)

If No, please check all that apply below, then skip to Question 39.

- LEA performs non-computerized spatial analysis by hand in-house. Describe types done by hand below.  
 \_\_\_\_\_  
 \_\_\_\_\_
- LEA has plans to initiate computerized crime mapping. Describe plans, hardware & software applications.  
 \_\_\_\_\_  
 \_\_\_\_\_
- LEA contracts with an external party for spatial analysis (e.g., partnership with other LEA, online provider).  
 Name of external party \_\_\_\_\_
- LEA does not do spatial analysis and has no plans to initiate computerized crime mapping.

**If No to Question 8 (any of the four boxes above is checked), please skip to Question 39.**

**9. What is the average years of employment of the LEA's employees who perform spatial analysis as one of their duties?**

- \_\_\_\_\_ years employed in the LEA's crime analysis unit     Please check this box if response is an estimate

**10. How many spatial analysts have the following?** Please only record highest level of education for each person.

|                                      | # Full Time | # Part Time |
|--------------------------------------|-------------|-------------|
| High school diploma or GED           | _____       | _____       |
| Associate's degree                   | _____       | _____       |
| Bachelor's degree                    | _____       | _____       |
| Advanced degree (e.g., Masters, PhD) | _____       | _____       |

**11. How does the LEA use spatial analysis?** Please check all that apply.

- Analysis of crime patterns
- Allocation of resources / Focused deployment
- Tactical analysis
- Strategic planning
- Statistical analysis for annual reports
- Statistical analysis to support required reporting to county and state entities

Other uses (List) a. \_\_\_\_\_  
 b. \_\_\_\_\_

**12. How many employees in the following units regularly use any of the LEA's crime mapping software?**

| # Full Time | # Part Time | Unit                       |
|-------------|-------------|----------------------------|
| _____       | _____       | Crime analysis / planning  |
| _____       | _____       | Patrol                     |
| _____       | _____       | Investigations             |
| _____       | _____       | Dispatch                   |
| _____       | _____       | Command staff              |
| _____       | _____       | Traffic                    |
| _____       | _____       | Drug                       |
| _____       | _____       | Other unit (Specify) _____ |

**13. What year (or best estimate of year) did the LEA produce its first computerized crime map?**

Year (yyyy) \_\_\_\_\_  Please check this box if response is an estimate

**14. Please indicate all methods the LEA uses to conduct hotspot analyses.**

- Visual identification of hot spots
- Computer program that identifies hotspots (e.g., ArcGIS, CrimeStat, STAC)

Other methods (List) \_\_\_\_\_

**15. How many spatial analysts received the following types of crime mapping training?** Please count all methods that apply.

| # Full Time  | # Part Time          | Crime Mapping Training                             |                      |
|--|----------------------|--|----------------------|
| <input type="text"/>   | <input type="text"/> | Self taught  |                      |
| <input type="text"/>   | <input type="text"/> | Informal instruction by colleague                  |                      |
| <input type="text"/>   | <input type="text"/> | Formal internal class conducted by LEA/city/county |                      |
| <input type="text"/>   | <input type="text"/> | Professional society                               |                      |
| <b>Formal College or Vendor Courses (List name of college/vendor and name of course)</b> |                      |  |                      |
|  |                      | College/Vendor Name                                | Course Name          |
| <input type="text"/>   | <input type="text"/> | <input type="text"/>                               | <input type="text"/> |
| <input type="text"/>   | <input type="text"/> | <input type="text"/>                               | <input type="text"/> |
| <input type="text"/>   | <input type="text"/> | <input type="text"/>                               | <input type="text"/> |

**16. What types of maps does the LEA produce and use?** Please check all that apply.

Pin maps

Hot spots / Kernel density

Choropleth (maps with regions colored by numbers of crimes or incidents)

Journey to crime

Other types (List)

**17. How does the LEA use the results produced by the crime mapping software?** Please check all that apply.

Inform patrol officers and investigators

Apply or evaluate specific interventions

Identify locations with repeat calls for service

Assist in resource allocation decisions

Assist dispatchers

Inform the community

Redistricting (e.g., beats, reporting areas)

Problem analysis

Support grant funding

Other use (Specify)

**18. Please indicate the versions of crime mapping & analysis software the LEA uses.** Write "Unknown" if version is unknown.

| Version              | Software Name                          |
|----------------------|--|
| <input type="text"/> | ArcGIS (ArcGIS Basic)                  |
| <input type="text"/> | ArcInfo (ArcGIS Advanced)              |
| <input type="text"/> | Atlas GIS                              |
| <input type="text"/> | CrimeStat                              |
| <input type="text"/> | Expert GPS                             |
| <input type="text"/> | Integrgraph Geomedia                   |
| <input type="text"/> | Mapinfo                                |
| <input type="text"/> | Near-Repeat Calculator                 |
| <input type="text"/> | OpenGeoDa                              |
| <input type="text"/> | PySAL                                  |
| <input type="text"/> | Quantum GIS (QGIS)                     |
| <input type="text"/> | SPIDER                                 |
| <input type="text"/> | Streets on Disk                        |
| <input type="text"/> | Think GIS                              |
| <input type="text"/> | Other software a. <input type="text"/> |
| <input type="text"/> | Other software b. <input type="text"/> |
| <input type="text"/> | Other software c. <input type="text"/> |
| <input type="text"/> | Other software d. <input type="text"/> |
| <input type="text"/> | Other software e. <input type="text"/> |

**Online Service Provider Products** (e.g, CrimeReports, Google Earth, RAIDS online)

**Name**

- a.
- b.
- c.

**Customized Software Developed Specifically for the LEA**

Who developed the customized mapping software?

The LEA

Private Vendor (Name)

Other developer (Name)

**19. If applicable, please indicate properties of the devices that have the LEA's crime mapping software installed.**

| Hardware  | Operating System        | # Devices        |
|---|-------------------------|------------------|
| <b>Networked laptops/desktops</b>                             | a.                      |                  |
|   | b.                      |                  |
|   | c.                      |                  |
| <b>Stand-alone laptops/desktops</b>                           | a.                      |                  |
|   | b.                      |                  |
|   | c.                      |                  |
| <b>Mainframes</b>   | a.                      |                  |
|   | b.                      |                  |
|   | c.                      |                  |
| <b>Servers</b>  | a.                      |                  |
|   | b.                      |                  |
|   | c.                      |                  |
| <b>Other Hardware</b> (e.g., mobile device, hand-held device) | <b>Operating System</b> | <b># Devices</b> |
| (Type)  |                         |                  |
| (Type)  |                         |                  |
| (Type)  |                         |                  |

**20. Please indicate how the LEA's crime mapping data is stored.**

|   |                         |                  |
|---|-------------------------|------------------|
| <b>Stand-alone computers</b><br>(e.g., laptops, desktops)       | <b>Operating System</b> | <b># Devices</b> |
| a.  |                         |                  |
| b.  |                         |                  |
| c.  |                         |                  |
| <b>Local Area Networks</b><br>(e.g., servers)                   | <b>Operating System</b> | <b># Devices</b> |
| a.  |                         |                  |
| b.  |                         |                  |
| c.  |                         |                  |
| <b>Storage Area Networks</b><br>(e.g., IBM TotalStorage DS4500) | <b>Name</b>             |                  |
| a.  |                         |                  |
| b.  |                         |                  |
| c.  |                         |                  |
| <b>Internet Area Networks</b><br>(e.g., Google Cloud)           | <b>Name</b>             |                  |
| a.  |                         |                  |
| b.  |                         |                  |
| c.  |                         |                  |

**21. In what form does the LEA archive and maintain geocoded data for crime mapping analysis?**

Please describe (e.g., annually in dbase file, Excel files) \_\_\_\_\_

**22. What types of data does the LEA geocode and map?** Please check all that apply.

Part I (Index Crimes) calls for service

Part II Crimes calls for service

All other calls for service

Arrest data

License Plate Reader (LPR) data

Automatic Vehicle Locator (AVL) data

Other types of data (List) \_\_\_\_\_

**23. From what source(s) did the LEA acquire its street map?** (e.g., from county, StreetMap USA)

Please specify \_\_\_\_\_

**24. What does the LEA geocode against?** Please check or list all that apply.

Street centerlines

Parcel data

Other (Please specify) \_\_\_\_\_

**25. How does the LEA ensure a high geocode rate?**

Address verification function in dispatch system or 911 call for service location identification

Address verification function in records management system

Extensive edits to street map data have been made

Officer or patrol car location (e.g., via handheld GPS unit)

Other (Please specify) \_\_\_\_\_



**26. Which levels in the LEA or jurisdiction make requests for computerized crime maps?** Please check all that apply.

**Internal**

- Command staff
- Patrol officers
- Investigative units
- Special task force

Other internal (Specify) \_\_\_\_\_

**External**

- Mayor
- City council
- Other city officials
- County
- State agency
- Governor
- Fusion center
- Community groups
- Citizenry
- Commissioner

Media (Specify) \_\_\_\_\_

Other external (Specify) \_\_\_\_\_

**27. How often does the LEA create geographic analyses reports that are transferred to command or patrol officers?**

- Daily
  Weekly
  Biweekly
  Monthly

As needed (Please explain) \_\_\_\_\_

**28. For what years does the LEA have geocoded data?**

RMS data \_\_\_\_\_

CAD data \_\_\_\_\_

Other data    Name \_\_\_\_\_    Years \_\_\_\_\_

**29. For how many years does the LEA keep its geocoded data?**

RMS data  years  LEA has no plans to delete geocoded RMS data  
 CAD data  years  LEA has no plans to delete geocoded CAD data  
 Other data Name   Years  LEA has no plans to delete geocoded data

**30. At what level and for what fee is the LEA's geocoded data available to external parties?** (Leave blank if not applicable)

| External Party                                | Fee                     | Level Available (e.g., by address, by beat) |
|---|-------------------------|---|
| General public                                | \$ <input type="text"/> | <input type="text"/>                        |
| Academic community                            | \$ <input type="text"/> | <input type="text"/>                        |
| State agency                                  | \$ <input type="text"/> | <input type="text"/>                        |
| Federal agency                                | \$ <input type="text"/> | <input type="text"/>                        |
| Other party <input type="text"/>              | \$ <input type="text"/> | <input type="text"/>                        |
| Comments or explanations <input type="text"/> |                         |   |

**31. Please indicate all external data sources the LEA uses in conjunction with its geocoded crime data.**

City planning data  
 Census data  
 Housing authority data  
 Education data  
 Foreclosure data  
 Business planning data  
 Other sources (List)

**32. Are the LEA's mapping analyses (including internal & external data) limited to the LEA's jurisdiction?**

Yes, limited to the LEA's jurisdiction alone  No

**33. Please list up to three LEAs or divisions (internal or external) the LEA's crime analysis unit works with most often in coordinated computerized crime mapping analysis.**

| Name of Other LEA/division<br>(e.g., LEA's Patrol Unit, State agency, HIDTA Program) | Collaboration Mechanism<br>(e.g., specialized task force, agreement to share data) |
|--|--|
| <input type="text"/>   | <input type="text"/>   |
| <input type="text"/>   | <input type="text"/>   |
| <input type="text"/>   | <input type="text"/>   |

**34. Does the LEA currently subscribe to any listserv related to crime mapping (e.g., the Geography and Public Safety Google Group Listserv; International Association of Crime Analyst's member list)?**

If Yes, please list listserv(s) the LEA subscribes to: \_\_\_\_\_

If No, how likely is it that the LEA would subscribe to a listserv about computerized crime mapping?

- Very likely
- Likely
- Somewhat likely
- Not likely

**35. What external funding sources have supported crime mapping in the LEA?** (e.g., the purchase of hardware or software, training, technical assistance) Please leave blank if LEA has never received external funding support for crime mapping.

COPS MORE

BJA Law Enforcement Block Grant

Byrne Block Grant

Partnership with State or Local Agency (Please specify) \_\_\_\_\_

Partnership with University (Please specify) \_\_\_\_\_

Private foundation (Please specify) \_\_\_\_\_

Please specify other or explain \_\_\_\_\_

**36. How much support is there for use of computerized crime mapping?**

**Internal** (e.g., LEA management)  Ample support  Some support  Little support  No support

**External** (e.g., Police Board)  Ample support  Some support  Little support  No support

**37. What is the LEA's current annual budget for crime mapping technology?** (e.g., hardware, software, upgrades, training)

\$ \_\_\_\_\_ (Please provide best estimate if budget figures are not available)

**38. The National Institute of Justice would find it helpful to see examples of maps the LEA is producing. If possible, please attach and label an example of (1) a typical map and (2) the most useful map produced by the LEA.**

Please check box if LEA will attach one or more maps.

**39. Please write any additional comments or elaborations on responses to this survey below.**

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**Thank you for completing this survey. Your feedback is very important to us.**

**Please return completed survey in the enclosed business reply envelope by TBD date.**