LAW ENFORCEMENT EXECUTIVE’S GUIDE TO OPEN DATA:
Supporting the Community in the Co-Production of Public Safety
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Many things have changed since I worked for the Redlands Police Department in California. The continuing rise of digital technology has created a wealth of new opportunities in law enforcement, tools for protecting public safety more efficiently and effectively than ever before. But the fundamentals of policing remain the same. We are still defending the rule of law, working with our communities to improve safety, and sharing information with our counterparts to improve the lives of all Americans – all part of protecting and serving.

Open data is an emerging tool that provides new opportunities for us as we carry out our responsibilities. In the context of law enforcement, open data provides members of both the public and the police with on-demand details about public safety in our communities. Releasing open data is more than a gesture of goodwill and trust on behalf of law enforcement agencies; it is a shrewd use of resources and a means of enlisting communities to solve some of their most entrenched crime problems. As such, it can be a key component in the co-production of public safety and one that we must embrace.

The idea of allowing unrestricted access to public safety information may be unsettling at first. In this line of work, there are times when total transparency may introduce privacy and other risks. Yet releasing open data does not have to compromise the safety and wellbeing of our communities, nor of the officers who serve them. With explanations and real-world examples, this guide is meant to address your questions about open data concepts and benefits. My hope is that it will prepare you to implement open data policies at your agency.

I would like to extend my thanks to the U.S. Department of Justice’s Office of Community Oriented Policing Services for supporting the production of this guide. The COPS Office sponsors the Police Data Initiative, a community of practice that we at the Police Foundation are very proud to facilitate and support. I encourage you to consider joining the Police Data Initiative as part of your commitment to transparency through open data.

Sincerely,

Chief Jim Bueermann (ret.)
President
Summary

This guide is intended to serve not as a technical manual but rather as a primer for law enforcement executives interested in the concept of open data. As such, it examines the expectations for increased transparency from members of both the public and the police and offers open data as a means of achieving this end. This guide also introduces the Police Data Initiative, a community of practice designed to support agencies seeking to better inform and engage the public through the release and use of open data. By joining the Police Data Initiative, law enforcement executives can connect and engage in a peer-support process with more than 130 agencies of all sizes across the United States that are currently working to release open data sets online.

“As one of the first agencies to join the Police Data Initiative and the first in the State of Florida to do so, we have benefited from open data’s ability to both help us understand critical issues in our community, such as domestic violence, and to bring facts to the table when holding us and others in law enforcement accountable. I encourage law enforcement leaders in large and small agencies to develop and release open data, engage your community around it, and confront together your most challenging concerns.”

— Chief John Mina, Orlando Police Department

Public and Police Expectations for Transparency

In October 2016, Gallup released poll results under the headline, “Americans’ Respect for Police Surges.” The poll found that 76 percent of Americans say they have “a great deal” of respect for the police in their area, an increase of 12 percentage points since 2015. Respect for law enforcement was up among Whites and non-Whites alike and cut across both political and age demographics. Similarly, a 2016 Cato Institute report shows that no demographic group is “anti-cop,” with nine out of 10 survey respondents opposed to reducing police presence in their communities.

Yet the same Cato Institute report also states that the public experiences significant “confidence gaps” in their opinions of the police with perceptions varying widely by race and political party. The prevalence of negative perceptions among significant portions of the population reflect problematic realities in policing today: allegations and, in some instances, findings or acknowledgments of excessive force, bias, public dissatisfaction, lack of internal and external legitimacy, and both over- and underpolicing of certain areas or demographic groups. Meanwhile, the Pew Research Center reported in January 2017 that 86 percent of officers believe that the American public does not understand the challenges and risks faced by police. These views point to a disconnect between events on the ground and the way in which these events are experienced by members of both the public and the police.
This disconnect has serious consequences for both public safety and officer well-being. It undermines community compliance and cooperation, leading to problems such as volatile encounters and underreported crime.\textsuperscript{a} For this reason, community and government leaders as well as members of the general public, oversight entities, and law enforcement agencies have acknowledged the need for change.

Transparency has emerged as a catalyst for that change. With increased access to accurate information, police officers and community members alike are empowered to develop a fact-based perspective on community-police relations by understanding the actual public safety and crime problems within their jurisdictions and how the police are responding to those problems. Given the nature of police work, law enforcement agencies already document this kind of information. By making it publicly available, law enforcement agencies can ensure mutual accountability and engage their communities in the co-production of public safety.

**Open Data Offers a Way Forward**

**What is Open Data?**

Various definitions of open data exist. Generally, open data is:

- ✓ a set of “granular” information (i.e., incidents rather than aggregations or summaries);
- ✓ in a downloadable, digital format;
- ✓ available online at no cost;
- ✓ machine-readable and analyzable (i.e., no PDF, image, or other locked files);
- ✓ nonproprietary and without restriction;
- ✓ released by the original information source in a timely manner.

For more information about open data, see “14 Principles of Open Government Data.”\textsuperscript{*}

For examples of open datasets, see the Police Data Initiative’s website at www.policedatainitiative.org.


Sharing information with the community is an established practice in law enforcement. For decades, police have provided information in the form of press releases, crime prevention programs, and annual reports on crime and police response. Government agencies, including police agencies, also spend considerable time and resources providing responses to open records or Freedom of Information Act (FOIA) requests.
In the increasingly digital world of today, a new way of sharing information has emerged: open data. Open data is different from the type of information that law enforcement has traditionally provided, such as statistics and published reports. It is unprocessed and presented at the “incident” or “unit” level, allowing members of the public to analyze and answer their unique questions, to explore and to learn about shared problems, and to become informed about how law enforcement is responding to the community’s issues. An example of open data is the “Assaults on Officers” data set, which displays information about each reported assault on a law enforcement officer in Montgomery County, Maryland. The data is available to the community via a county website that also offers online analysis tools for sorting, filtering, or visualizing the data set. Users can also download the data set and explore the information with their own tools such as Excel.

Enabling access to this type of incident-level information may be initially uncomfortable and is certainly not something we are accustomed to in law enforcement. Nevertheless, open data can be a powerful asset for agencies and communities alike. It increases public trust by demonstrating a commitment to accountability and provides a platform for problem solving and innovation that can ultimately help officers serve and protect their communities more effectively. Open data can also inform or correct perceptions and enables agencies to highlight performance accomplishments and resource needs. Open data is more than an information-sharing mechanism; it is a critical tool for supporting the community in the co-production of public safety, which is the essence of community policing.
Building Trust

“Publishing open data sends a powerful message that the police trust citizens. They are willing to share their data and willing to submit to independent analysis. When a police agency provides machine-readable, license-free, and downloadable data, they are in essence saying that they have nothing to hide and invite examination from those they serve.”

— Director Tom Casady, Lincoln Department of Public Safety and former Chief of Police, Lincoln (Nebraska) Police Department

Transparency is key to building trust, particularly when it comes to professions whose challenges are not well understood by the public such as policing. Transparency helps dispel myths and misunderstandings while inviting accountability. In so doing, it counteracts uninformed, negative speculation and demonstrates integrity.

Making data sets open is the ultimate act of transparency, especially when it comes to potentially sensitive or unflattering information. Examples of such information include data on citizen complaints and use of force. Proactively releasing this data can enhance the procedural justice that the public perceives, which in turn can help close any confidence gaps that may exist.

Promising Practices

The South Bend (Indiana) Police Department proactively releases open data on its web portal, the South Bend Police Department Transparency Hub. The transparency hub enables citizens to see ongoing analysis of South Bend’s crime data and provides an interactive story map to give context to the department’s use of force incidents.

A story map on use of force incidents from the South Bend Police Department Transparency Hub
Solving Problems

Open data is a platform for problem solving. Coupled with community engagement, releasing open data can equip members of the public to better understand chronic or emerging problems such as drug overdoses, pedestrian and bicycle collisions, gun violence, and hate crimes. It can also generate community support for addressing those issues.

Promising Practices

In 2016, many law enforcement agencies launched open data initiatives to solve problems in their jurisdictions. Some examples follow:

- The Tucson (Arizona) Police Department brought together officers, technologists, community members, and other government officials to gather and analyze bicycle collision data with the ultimate aim of reducing collision incidents.*

- Orlando (Florida) police assembled officers, advocates, and technologists to examine domestic violence data and develop improved prevention and enforcement mechanisms.†


Innovating Public Safety

What Is a Civic Hacker?

Many members of community coding groups self-identify as “civic hackers.” The term hacker in this context does not have a negative connotation. Rather, it refers to data and programming enthusiasts who are skilled at creating ad hoc applications or analyses using open data resources. This process, although known as hacking, is completely legitimate, as it does not involve gaining unlawful access to secure computer systems.

Making data publicly available allows law enforcement agencies to innovate their approaches to public safety and leverage community talent in the process. Many agencies have developed partnerships with community groups as well as government data experts to improve data quality, data usability, and visualizations and to create new tools to help solve problems.
Promising Practices

For the 2016 International Open Data Day, the Louisville, Kentucky government hosted an event in partnership with Code for America and the Civic Data Alliance. The event convened the police department, the city’s open data officer, community hackers, and other interested parties to improve firearm recovery data. To achieve this goal, participants converted the data into a format that could be mapped, and utilized Amazon’s Alexa service to make the police department’s crime data accessible to the community.‡

In Pittsburgh, the Western Pennsylvania Regional Data Center (WPRDC) is a partnership between the University of Pittsburgh, Allegheny County, and the City of Pittsburgh. WPRDC provides a home for a wide variety of open datasets, including contributions from Pittsburgh’s Bureau of Police. The partnership has resulted in the Burgh’s Eye View tool, an interactive map combining 311 requests, police incidents, arrests, citations, and code violations. Users can also view and export the data in table format for more intensive analysis. The goal of Burgh’s Eye View is to “help us understand what’s happening in our neighborhoods, and lead us to ideas and decisions that can make where we live better.”§ To that end, the City of Pittsburgh has participated in more than 20 community meetings as of July 2017.

Highlighting Performance

Law enforcement agencies continuously face the challenges of “doing more with less,” justifying resource needs, and demonstrating performance. Open data allows agencies to engage the community, as well as other local and regional agencies, around efficiency and improved performance. Many agencies use performance dashboards for this purpose and link the metrics back to open datasets that they have released.

Promising Practices

- The City of Rancho Cucamonga, California, created the RCStats Performance Dashboard to track city agency performance across a number of key metrics including traffic safety, crime reduction, police response times, and other engagement activities. In addition, to provide performance reporting in a visual manner, each performance metric expands with more details, and links back to an open dataset for additional analysis as desired.

- The City of San Francisco, California, has developed online Performance Scorecards in an interactive format, which enables members of the public to dive deeply into each metric with more data for performance analysis. The scorecards include information on how performance is measured and an explanation of factors that may contribute to or detract from agency performance. The scorecards measure crime levels, calls for service, response times, and the average local jail population.
Getting Started with Open Data

The move to open data does not need to be complex or costly. Most agencies already have the tools to begin releasing open data within days of making the decision to do so: an agency webpage, data sets, and the technical know-how to add a downloadable file to the agency’s webpage. While sophisticated approaches and solutions exist for producing open data resources, most agencies have the capacity to get started right away.

Here are some things to think about as you plan for releasing open data at your agency. See Appendix A for a checklist of considerations.

Choosing Data

In deciding what data to release, agencies face several considerations. First, what data is available? Your agency already collects data on topics such as calls for service, incident records, complaints, and assaults on officers; consider the information associated with accreditation or federal and state crime reporting programs. Tapping into your existing data collection practices minimizes the burden of making these records open. When deciding on additional data sets to release, agencies should consider the level of effort required to capture the data compared to the public benefit and desire to have that information.

Second, consider what data is in demand. By publishing the data sets that are most often requested, agencies can cut down on time spent fulfilling public records requests. Agencies can also seek input from the community to understand what data is desired—for instance, by sending out surveys, creating a working group of stakeholders, or inviting comments online.

Third, agencies must think through privacy and sensitivity issues that may arise as their data becomes more easily available. For example, privacy is fundamentally linked to safety in cases that involve domestic violence, sexual assault, and stalking. For data sets relating to such cases, agencies must minimize the re-identification risks before making them open.

Promising Practices

The Northampton (Massachusetts) Police Department established an open data advisory board to inform the department’s decisions on what data to release. Northampton also elicits feedback from members of the community by using its open data portal (web page) to ask what data they want to see, a practice shared by many other agencies.*

Engaging the Community

“As one of the 15 model agencies for Advancing 21st Century Policing, we believe that open data is an important part of providing full-service policing to our Tucson community. Our goal is to continually discover new opportunities to provide open data in various public formats, which includes hosting open data sharing events. The purpose of these events is to recognize current community topics of concern or conversation, identify and invite stakeholders, detect relevant data attributes, and analyze and discuss the results in a collaborative environment.”

– Chief Chris Magnus, Tucson (Arizona) Police Department

To leverage the benefits of open data, agencies should proactively inform the community about their initiatives, and we recommend doing so early and often. Engagement can include sharing release dates for new data sets; seeking input on what data to share; and leading events focused on data analysis, problem solving, or innovating public safety. Agencies should also send representatives to externally organized initiatives around the data, such as a hackathon or community coding event, to explain definitions, police practice, and data collection methods as needed.

Promising Practices

❖ The Tacoma (Washington) Police Department has held a series of open houses and media engagements to share and discuss data. The department plans to hold more events to ensure that the community is aware of the data and knowledgeable about the stories behind the data.††

❖ The Chattanooga (Tennessee) Police Department and the Chapel Hill (North Carolina) Police Department have partnered with local libraries to improve community engagement as well as data access and use.‡‡


Share What You Know

When releasing open data, agencies have the opportunity to help the community understand the data as well as the practices that go into collecting it. To this end, agencies should consider providing context, definitions, limitations, and descriptions for each data set as well as their own analysis of its contents. Agencies should also consider providing information that describes a data set, known as “metadata,” such as definitions of field names, variables, geographic parameters, and time frames. Agencies can do this by providing their own analysis of the data, highlighting key points and issues and labeling or tagging the data set.

Promising Practices

The Louisville Police Department’s data sets provide excellent examples of metadata. The data sets include a “data dictionary” with definitions for every field so that users know how to interpret the information that they see. Louisville also provides context around each data set, such as the date that the data was last modified and the geographical area it applies to. Another exemplary feature is a list of linked data sets, which allows users to explore the connections between different sets of information, such as firearms intake and assaulted officers.

The Police Data Initiative

More than 130 law enforcement and public safety agencies have joined the Police Data Initiative (PDI), a community of practice for law enforcement agencies who are releasing open data about policing, crime, and public safety issues. The PDI facilitates opportunities for peer-to-peer exchanges of information and best practices in the identification, production, and release of open data. Participating agencies attend regular calls and webinars on open data practices and are featured on the PDI website, which serves as a resource for members. The website is also a national platform that highlights the progress that PDI members are making towards transparency.
As of July 2017, member agencies have released more than 200 data sets with more on the way. The data sets currently span 12 categories, including accidents and crashes, calls for service, officer-involved shootings, and training. However, PDI agencies are constantly innovating their offerings to engage communities in preventing and solving crimes. Some agencies are now releasing data sets derived from the collection processes of Uniform Crime Reporting (UCR) or the National Incident-Based Crime Reporting System (NIBRS). These data sets have the added benefit of standardization and are available to the public as much as 18 months prior to UCR and NIBRS publication.

The PDI receives support from the U.S. Department of Justice’s Office of Community Oriented Policing Services (COPS Office), and agencies participating in the PDI are eligible for specialized assistance. The Police Foundation—with support from the COPS Office and private resources—facilitates, supports, and furthers this community of practice. For more information, see www.policedatainitative.org.
Footnotes


iii. Ibid.


vi. Ekins, Policing in America (see note 2)

Appendix A: Checklist for Releasing Open Data Sets

Open data from law enforcement agencies should be:

✓ Relevant
✓ Accessible
✓ Free of sensitive information

Is the data set relevant?

☐ The data helps the community to understand local public safety issues, the public safety services provided, and/or law enforcement operations.

☐ The data is reasonably current or timely.

☐ The data provides original or complimentary information. Any overlap, gaps, or potential conflicts with other available data sets have been addressed.

Is the data set accessible?

☐ The data will be posted online in a clear and intuitive location.

☐ The data set exists in a machine-readable and downloadable format, such as an unlocked .csv (tabular) or .xls (Excel) file.

☐ The data captures information at the incident level rather than in an aggregated or summarized form.

☐ The data set provides, at a minimum, basic useful attributes that enable meaningful analysis, such as time, agency/event identifiers, location information, the nature of the event involved.

☐ Explanations are provided to help users understand the scope and limitations of the data:

☐ What organization owns the data?

☐ How was the data produced?

☐ When was the data set last updated?

☐ How often will it be updated?

☐ What fields have been redacted or removed and why?

☐ What are the necessary disclaimers and limitations of the data?

Is the data set free of sensitive information?

☐ The identities of victims, witnesses, and juveniles are protected. (Note that location details, when specified or combined with other data, can sometimes be identifying and should be considered when the data includes sensitive incidents).

☐ Personal identifying information (PII), has been removed as appropriate. When in doubt, err on the side of more privacy. (PII is generally understood to mean any data that could potentially identify a specific individual, such as names, license plate numbers, addresses, etc.)

☐ Officer safety implications have been considered.