Expanding Federal Access to Local Violent Crime Data

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Acronyms

OPL- Office of Policy and Legislation

DOJ- Department of Justice

FBI- Federal Bureau of Investigation

UCR- Uniform Crime Report

LEA- Law Enforcement Agency

BJS- Bureau of Justice Statistics

SRS- Summary Reporting System

NIBRS- National Incident-Based Reporting System

NCS-X- National Crime Statistics Exchange

RMS- Record Management System

JAG- Justice Assistance Grant

BJA- Bureau of Justice Assistance

COPS- Community Oriented Policing Service Office

SAC- Statistical Analysis Center

JRSA- Justice Research and Statistics Association

ASUCRP- Association of State Uniform Crime Reporting Programs

SJS- State Justice Statistics Program

Executive Summary

Coinciding with the onset of the Covid-19 Pandemic, violent crime rates have risen over the past two years to concerning levels not seen in the 21st century. FBI data documented a 29% increase in the 2020 homicide rate, with similar trends documented in 2021 and the first few months of 2022 (Bates, 2020; Lopez, 2022). These trends are made worse by limited access to timely and high-quality crime data that would allow government agencies to respond effectively and efficiently to these recent increases in violent crime. Currently, the main source for comprehensive local violent crime data comes from the FBI's UCR report, released about 9 months after the year in which it pulls data from. OPL and the DOJ are seeking ways to increase access to more temporally pertinent local violent crime data that would help the DOJ adequately support local and state law enforcement agencies in their efforts to combat violent crime.

Siloed and disjointed crime data infrastructure exists in federal, state, and local governments across the country. At the federal level, the DOJ oversees crime data collection efforts in the FBI while providing financial and informational resources through various offices to LEAs across the country. At the state level, governments have created UCR Program Coordinator Offices and Statistical Analysis Centers (SACs) to transmit local violent crime data to the federal government and engage in rigorous data analysis of crime data. At the local level, law enforcement agencies continue to work towards NIBRS implementation to improve crime data quality. City governments have also begun to create open data portals to share violent crime data with the public. The DOJ should work through this existing crime data infrastructure when seeking to increase access to violent crime data.

While government offices that engage in crime data reporting and analysis already exist, efforts lack sufficient resources and coordination undermining their mission and goals. The DOJ needs to consider at what level of government an intervention would be most successful at improving the efficiency of crime data-sharing without reinventing existing offices. This report considers three policy alternatives across four evaluative criteria to determine what this intervention should be. It's recommended that the DOJ work with existing state-level crime data offices in order to improve data sharing. The DOJ should improve crime data sharing between SACs and UCR Program Coordinator Offices while providing additional financial resources and contractual services to SACs to support data analysis projects. This policy recommendation will have the most significant effect on increasing violent crime data access by helping the DOJ to obtain state-aggregated crime data. This recommendation can be implemented within a year if existing partnerships with state agencies and organizations are leveraged to generate agreement and align incentives. Better access to violent crime data will support current and future federal government initiatives to reduce violent crime rates nationwide. As Harvard Researcher Jane Wiseman, who has written extensively on this topic, has said, "the road to reform is paved by data" (Wiseman, 2021).

Introduction

Problem Statement

The Office of Policy and Legislation (OPL) in the Department of Justice (DOJ) is facing a shortage in robust, usable, and timely local violent crime data. As violent crime rates have continued to increase and reach levels not seen in the 21st century, the DOJ has struggled to accurately measure the severity and trends of violent crime in cities across the country amid disjointed violent crime data infrastructure.

Currently, OPL relies on the FBI Unified Crime Report (UCR), a comprehensive study of crime across the U.S. seen as the leading source for crime data used in analysis, and local open data portals to disseminate national crime trends. But a reliance on these sources has hindered OPL's ability to accurately assess rising violent crime rates over the past two years. The FBI releases the annual UCR roughly nine months after the reported year's end. This lag in the availability of relevant crime data, and the importance of tracking crime trends over short periods of time, negates the possibility of a timely and effective policy response by law enforcement agencies at all levels of government. Additionally, the data that the FBI uses to put together this report is difficult to access and use by other law enforcement agencies and the public prior to the release of the annual UCR. Crime data in local open data portals suffers from consistency and quality issues, making data difficult to collect and aggregate across many different cities and localities. These data sources do not adequately capture factors driving increasing violent crime rates.

Data from the FBI and local portals have been able to record the general increase in violent crime, but have been less effective in capturing trends month-to-month and contributing factors. Occurrences of violent crimes like homicides and aggravated assaults, incidents that involve the use of deadly weapons, began to increase within the first few months of the Covid-19 Pandemic (Cohen, 2021). After the initial Covid-19 lockdown period, violent crime rates began to climb and have followed this trend for nearly two years (Lopez, 2022). The 2020 UCR Report documented a 29% increase in the national murder rate and local data has shown similar trends for cities across the U.S. But OPL has struggled to obtain large amounts of high-quality data in a timely manner to understand nuances and patterns within rising levels of violent crime, negatively affecting the DOJ's ability to support local law enforcement's efforts to combat violent crime. Although analysis using UCR data helps LEAs to analyze crime trends and improve operations in the long-term, a significant gap remains in data available for short-term policy responses that could save hundreds of lives and millions of dollars while improving law enforcement interactions with the public (M. Scott, personal communication, March 22, 2022).

The steady increase in violent crime comes after years of neglect for crime and justice data infrastructure. According to Harvard researcher Jane Wiseman, who has written extensively about improving crime data collection and analytics, the federal government annually spends about $45 million on crime data and analysis to shed light on violent crime trends, a problem

estimated to cost the U.S. as much as $2.6 trillion (Wiseman, 2021). The Bureau of Justice Statistics (BJS), the arm of the DOJ tasked with tracking crime statistics and improving data access, has seen its budget reduced over the past decade as other federal data collection agencies have increased their budgets (2021). For the 2020 fiscal year (FY), the BJS budget was $43 million, ranking 10th out of 13 of the most prominent US Statistical Agencies (2021). In the 2021 FY budget, the DOJ requested $942.2 million to fund a multitude of programs and interventions aimed at tackling and reducing violent crime (*FY 2021 Budget Request At A Glance*, n.d., p. 202). However, the budget proposal did not specifically address data infrastructure and vaguely referred to "supporting state, local, and tribal law enforcement partners" (2022).

The lack of adequate funding and clear direction of federal crime-reduction initiatives has created a system of uncoordinated and inefficient data gathering and sharing, limiting short-term crime data access at all levels of government. Local governments, relying on partnerships between city data offices and police departments, have turned to open data portals and real-time crime centers to increase data availability. State governments have created many data offices which all seek to collect crime data, conduct rigorous statistical analysis, and act as a liaison between local and federal LEAs[1]. The federal government has established numerous offices, many within the DOJ, to collect and analyze crime data and provide funding for local LEAs. Important DOJ programs include implementation support for NIBRS through the NCS-X Program, the Edward Byrne Memorial Justice Assistance Grant Program (JAG), the Police Data Initiative, and grants within the Community Oriented Policing Service Office (COPS). Existing infrastructure must be bridged to make crime data more accessible to local, state, and federal LEAs as well as the public. These programs will be investigated to understand the existing crime data landscape to identify the most effective intervention for The Office of Policy and Legislation (OPL) and DOJ to pursue to address the shortage in real-time crime statistics.

Client Overview

OPL, an office within the Criminal Division of the DOJ, has recently sought to increase real-time crime data collection and analysis capabilities. Since the Covid-19 Pandemic began, OPL has spearheaded a project investigating rising violent crime rates throughout the U.S. In order to collect the most recent data available, analysts manually collect violent crime data from various public law enforcement open data portals. This data is used to compare violent crime rates and trends among a proportion of the country's fifty most populous cities about twice a month, generating an estimate of national violent crime trends. OPL has sent this report to the Office of the Deputy Attorney General since the DOJ and the Biden administration identified violent crime reduction as top priority. Manually collecting this data is onerous. Cities often fail to regularly

[1] These include Statistical Analysis Centers (SACs), UCR program coordinators, the Council of State Governments Justice Center (CSGJC), the Justice Research and Statistics Association (JRSA), and the Association of State Uniform Crime Reporting Programs (ASUCRP)

post crime data on a weekly or monthly basis in public data portals, and each city formats its data differently, making comparisons difficult. Although most local governments have established data portals as a part of transparency efforts, the posted data is less suitable for statistical analysis since its accuracy is not the first priority. But these portals have recently become a unique window into local crime for the DOJ. OPL specifically gathers crime data to draft reports and fulfill data requests to police departments, state and local governments, and senior officials at the DOJ in order to inform those policy decisions. Reliable and timely data is the DOJ's window to what is happening on the ground. The DOJ, and specifically OPL, need to develop strategies to improve crime data collection methods and data-sharing relationships. The accuracy of OPL's work would be greatly impacted with expanded access to updated and accurate violent crime data.

Consequences of the Crime Data Shortage

With the onset of the Covid-19 Pandemic, crime rates significantly deviated from past trends in 2020, marking the largest percent increases in murder and overall crime rates in over twenty years (Bates, 2020). According to the National Commission on Covid-19 and Criminal Justice, murder rates from January to October 2020 in 21 of the largest cities in the U.S. were 29% higher compared to the same time period in 2019 (Rosenfeld & Lopez, 2020). Aggravated assault and gun assault incidents increased by 10.1% during the same period as well (2020). Overall, 75 of the 100 largest cities in the U.S. experienced higher death rates from shootings (Bates, 2020). Deadly shootings also spiked in smaller towns across the country (Lopez, 2015). And these concerning trends have continued through the rest of 2021 and 2022. The Gun Violence Archive, a dashboard that tracks reported shooting incidents in real-time by tracking newspaper articles and social media posts online, has recorded over 4,600-gun violence deaths, excluding suicides, for the first three months of 2022 (*Gun Violence Archive*, 2022). Gun violence deaths are on track to at least equal recorded levels in 2020 (2022). Violent crime rates remain elevated but law enforcement agencies remain largely in the dark about the factors contributing to elevated rates. Articles have been published citing many theories including a reduced feeling of social cohesion, an increase in domestic violence from Covid-19 mitigation policies, changes in policing, a growing distrust for law enforcement since the murder of George Floyd, and large increases in guns sales since the start of the Covid-19 pandemic (Bates, 2020; Lopez, 2022). Even with Biden's call for an 11% increase in DOJ funding in March 2022 for discretionary spending to support local LEAs and violent crime prevention programs, funds totaling $20.6 billion, LEAs will struggle to combat violent crime without quicker, higher-quality violent crime data and established data-sharing relationships (*FACT SHEET*, 2022).

Overview of Current Crime Data Collection Infrastructure
The Federal Level
According to Professor Michael Scott, Director of the Arizona State Center of Problem Oriented Policing, the federal government has historically served two important roles with regards to crime data and statistics (M. Scott, personal communication, March 22, 2022). Firstly, the federal government is the largest collector and repository of crime data received from LEAs across the country, a purpose fulfilled primarily by the FBI (personal communication, March 22, 2022). To further promote crime data collection, the DOJ also supports data infrastructure in local and state governments through grants and funding, workshops and informational material, and the coordination of political and policy priorities. The federal government also fulfills a second important crime statistics role: funding robust crime data analysis and research (personal communication, March 22, 2022). OPL, through its commitment to data-driven policy, has sought to bridge the gap between the different functions and offices. OPL has many data analysts but it lacks reliable and timely crime data, highlighting the need to understand how the DOJ currently supports crime data collection efforts and where gaps in the Department's efforts exist.

Origins of FBI Crime Data Collection
The Uniform Crime Report (UCR) produced by the FBI is the primary source for crime data in the U.S. Its goal since its conception in 1929 by the International Association of Chiefs of Police has been to compile comprehensive and accurate crime data from across the U.S for around 18,000 law enforcement agencies (CJIS, 2020). In 1930, Congress authorized the U.S. Attorney General to collect crime data and designated the FBI as the principal agency involved in reporting data (Chaiken & Roberts, 1997). For most of the UCR's existence, data has been reported using the Summary Reporting System (SRS) which aggregates counts of specific crimes. But SRS only tracks eight specific offenses and only requires collection of minimal information about the nature of crimes, victims, and arrestees (Law Enforcement Support Section, 2013). The SRS system also suffers from two detrimental data collection methods that impact data accuracy: The hierarchy rule, which codes incidents with multiple crimes as only the most serious crime committed, and the hotel rule, which codes multiple crimes in hotels and other similar establishments as just one crime (2013). These rules, along with the limited scope of data produced by the SRS, call into question whether it accurately illustrates crime rates.

Why is NIBRS Better?
The National Incident-Based Reporting System (NIBRS) was introduced in 1988 to supplement and improve SRS by standardizing crime definitions and mandating the collection of more detailed crime data (Chaiken & Roberts, 1997). The fundamental difference between NIBRS and SRS is how crime data is organized. Instead of reporting aggregate crime counts like in SRS, NIBRS reports information organized by specific incidents, allowing for more information to be

collected and analyzed. NIBRS tracks 28 general offense categories and 71 subcategories of crimes (CJIS, 2020). Information about the incident relating to administration effort, property and location, arrestee(s), offender(s), and victim(s) is collected and reported allowing for more nuanced trends in crime to be deduced and tracked (2020). By allowing more information to be collected about specific incidents, NIBRS eliminates many imperfections in data collection, such as the hierarchy and hotel rules, and standardizes the many types of crimes that can occur. NIBRS ultimately seeks to standardize, improve, and increase the scope of violent crime data to inform better policy responses of observed violent crime trends. In December 2015, the Criminal Justice Information Services (CJIS) advisory police board at the FBI recommended a full transition to NIBRS to improve the quality of collected crime data (2020). The recommendation was approved by the FBI Director early in 2016 (2020). As of January 2021, Local LEAs are required to only submit NIBRS data (Dr. A. Cooper, personal communication, March 31, 2022).

The Current State of NIBRS

Although NIBRS reporting was mandated starting in 2021, the New York Times and sources from the FBI reported that only about 60% of law enforcement agencies sampled completed the transition to reporting crime statistics using NIBRS as of September 2021 (Asher, 2021b). While this shows an increase in participation from 2020 FBI data, 60% of U.S. law enforcement agencies submitting crime data does not meet the FBI's threshold for a representative sample (Gardner & Cooper, 2020). Eight states, including populous states like California, New York, Florida, and New Jersey, only began the process of creating state-wide programs that are certified to report crime data through NIBRS in 2020 (2020). Implementing NIBRS requires a stringent certification process conducted by the FBI that evaluates police departments and their data collection on system appropriateness, update capability and responsiveness, error rate, and statistical reasonableness (CJIS, 2020). The lagged adoption of NIBRS illustrates that many significant barriers exist to generating and sharing real-time crime data.

Determining Barriers to NIBRS Implementation

A DOJ report in 1997, produced following a workshop that convened 64 local LEAs from across the country to discuss barriers and successes in the NIBRS implemented process, outlined specific hurdles agencies were facing during the NIBRS transition (Chaiken & Roberts, 1997). A significant reported hurdle was technology constraints since most data recording systems at the time were not advanced enough to handle intricate NIBRS data (1997). Significant improvements in data collection and storage technology in the last three decades have helped to make this hurdle less relevant (Dr. A. Cooper, personal communication, March 31, 2022). But many other hurdles identified in the 1997 report remain relevant today. A workshop hosted by BJS, as a part of the National Crime Statistics Exchange (NCS-X) program, reaffirmed many of these hurdles while identifying new concerns (National Crime Statistics Exchange Team et al., 2021).

Insights from 2019 NIBRS Implementation Workshop

This workshop, held in December 2019, brought together hundreds of law enforcement officials from across the country to share information and experiences with transitions to incident-based reporting systems like NIBRS in an effort to help LEAs learn from successes and failures of other agencies in similar situations (2021). BJS coordinated this data-sharing opportunity and produced an accessible document summarizing best practices for transitioning to NIBRS (2021). The report discussed barriers that included the following:

- A lack of funding for large technology purchases like a new RMS
- An uncertainty of benefits associated with using NIBRS data to improve department operations
- Conflicting crime data policy goals between LEAs and state actors
- Internal administrative concerns and rigid internal data reporting systems
- Failure to create progress indicators and evaluation tools
- Failure to engage important stakeholders like police officers, local community representatives, and the general public in the transition process

Many local LEAs have already begun to tackle these barriers to NIBRS implementation. Their efforts could be key to improving data-sharing capabilities further and helping the DOJ identify worthwhile interventions to improve crime data collection and analysis.

Overcoming Benefit Uncertainties- Fort Worth Police Department

Fort Worth Police Department (FWPD) implemented NIBRS in 2005, making it one of the first large police departments in Texas to start contributing NIBRS data to the FBI (Fort Worth Police Department, 2018)). The relatively large department, reporting 1,500 sworn officers in its ranks, served a population of over 800,000 in 2018 (2018). The FWPD was able to smoothly implement NIBRS by combining two key tactics: instituting a technology overhaul to initiate the transition to NIBRS while simultaneously seeking buy-in from relevant stakeholders including leading officials, patrolling police departments, and elected officials (2018). The technology overhaul was coupled with a comprehensive training program that helped police officers learn how to use NIBRS-compliant technology and correct user errors (2018). The importance of getting all police officers onboard with a NIBRS transition cannot be overstated. The BJS 2019 workshop worked with participants to demonstrate the potential for NIBRS to be used for "advanced tactical and strategic crime analysis" while improving community relations (National Crime Statistics Exchange Team et al., 2021). Many departments acknowledged more meaningful relationships with communities as a result of more robust data and transparency, but others admitted to reverting to using older types of data due to a lack of guidance and frameworks surrounding the potential uses for NIBRS data (2021). FWPD solved this problem by demonstrating to rank-and-file officers how NIBRS would cut out inefficient activities, like calling in to headquarters to detail crime incidents to administrative staff who would write down notes to be uploaded at a

later point (2018). The NIBRS transition was also initiated when the Department installed a new RMS (2018). Not only was this new system capable of storing NIBRS data, but NIBRS data recording procedures were combined with training on the new RMS, which all police officers and staff had to complete (2018). FWPD has a useful crime data portal available online, but unlike other cities, useful information collected under NIBRS, like demographic information, is not posted on this public data portal. Lessons learned from the Department's transition to NIBRS could be taken even further to help the more frequent sharing of detailed incident-based crime data.

Overcoming Negative Public Perceptions- Fontana, California Police Department

Fontana, a city in San Bernardino County, California, implemented a NIBRS-compliant data collection system in 2021 (*Fontana P.D. Will Implement New System of Crime Reporting*, 2021). In an article released on the Fontana Herald News Site, police department officials sought to communicate the benefits of NIBRS data to police officers and the community (2021). It is important to inform the public about why crime rates will change and convince the public NIBRS data is a powerful tool police can use to fight crime in a more nuanced way. When an agency makes the switch to NIBRS there is often an increase in the number of reported crimes not from an increase in actual crimes committed, but instead due to more accurate reporting and labeling of crimes (Asher, 2021a). The article cites improvements in accountability, transparency, and improved communication as several benefits that are associated with the transition (*Fontana P.D. Will Implement New System of Crime Reporting*, 2021). The Fontana Police Department took important steps to acknowledge the worries of a skeptical public and provide important information during the transition process, overcoming a prominent hurdle many other LEAs reported at the 2019 BJS workshop

Overcoming Technology Hurdles- Minnesota State-Wide Police Departments

The Minnesota Bureau of Criminal Apprehension (BCA) began a multi-year technology transition in 2012 to address the lack of consistent data collection and record keeping among state agencies (*Going NIBRS, Part 1*, 2017). To identify how to help law enforcement agencies across the state transition to a common record system, BCA brought together agencies from both large metropolitan areas and rural areas to determine strategies and goals for the transition, including a consideration of goals around a NIBRS-compliant system (2017). BCA also chose to adopt the National Information Exchange Model (NIEM) which is a data system partnership between several federal agencies that allows for more efficient data-sharing to federal agencies (2017). Agencies selected this system above other systems used by various state agencies because it was compatible with NIBRS (2017). Ultimately, BCA began successfully submitting NIBRS data in 2017, partially due to two important strategies. BCA chose how it would upgrade its technology carefully and invested money in flexible and powerful software that was both compatible with FBI systems, and allowed BCA to record information beyond what was mandated by NIBRS (2017). BCA also implemented a robust communication system between participating law enforcement agencies in the state that included regular meetings, evaluation

reports, and defined communication schedules ensuring that agencies around the state had adequate support (2017). This communication system included other state lawmakers who provided adequate funding and resources for the transition. Minnesota LEAs were able to successfully overcome resource constraints and internal administrative concerns amid their NIBRS implementation.

Support for NIBRS Transition from the Federal Government
The DOJ has supported local LEAs that have successfully transitioned, or are attempting to transition, to NIBRS primarily through two strategies: funding programs, dissemination of information, and coordination of public policy priorities.

Funding through NCS-X Implementation Assistance Program
The 2019 BJS workshop was only one part of the National Crime Statistics Exchange (NCS-X), a partnership between DOJ, FBI, and police department stakeholder groups to help local LEA's transition to NIBRS. Another critical phase to this initiative was funding opportunities for local LEAs to overcome resource constraints. This phase of the initiative was ended in 2021 after the FBI's NIBRS requirement took effect (Dr. A. Cooper, personal communication, March 31, 2022). In 2018, the Assistance Program, run through BJS, gave out 27 awards totaling almost $21.5 million (Gardner & Cooper, 2020). BJS targeted funding to smaller LEAs, less than 750 sworn officers, that were a part of the 400 agencies selected to participate in the NCS-X Initiative in order to reach departments most in need of monetary resources (2020). One recipient of funding was the Suffolk County Police Department in New York state (*Suffolk County Police Department NIBRS Transition Project 2018*, n.d.). The department received an initial award of just over $2 million in 2018 to cover components of a new RMS system to help the county submit NIBRS data to the New York State Division of Criminal Justice Services (DCJS), which transmits state NIBRS data to the FBI (n.d.). Funding the County's RMS system will also support efforts of 18 local police departments in the county to submit NIBRS-compliant data (n.d.). According to BJS Director Alexia Cooper, financial resource constraints are one of the largest hurdles facing local agencies (Dr. A. Cooper, personal communication, March 31, 2022). Therefore, this is where the federal government can have a significant impact in supporting successful NIBRS implementation efforts.

Edward Byrne Memorial Justice Assistance Grant Program (JAG)
JAG is another important local LEA funding source. As of February 2022, the Bureau of Justice Assistance (BJA) stated that JAG funds can be used by agencies to hire more personnel or purchase supplies, contractual support, training, or other needs associated with "criminal justice" (*Edward Byrne Memorial Justice Assistance Grant (JAG) Program | Overview*, n.d.). The highly discretionary nature of JAG is often an advantage for local LEAs who can receive funding for a variety of needs but this also makes JAG less effective for data and technology interventions (Dr. A. Cooper, personal communication, March 31, 2022). JAG funding is also allocated to hundreds

of police departments across the country allowing smaller police departments a source of needed financial funds but in doing so prevents large-scale centralized efforts to create compatible data-sharing systems and relationships with JAG funds (*2021 Tennessee Local JAG Allocations*, 2021). For example, in 2021 Tennessee law enforcement agencies received a total of over $2.25 million but these funds were spread across 38 city and municipal governments (2021). JAG highlights the importance of another role the federal government can play when supporting and encouraging data collection and sharing, public prioritization and coordination.

The National Policing Institutes' Police Data Initiative

Following several high-profile murders of unarmed black men by law enforcement, then-President Barack Obama launched the Task-Force on 21ˢᵗ Century Policing (Smith & Austin, Jr., 2015). The task force brough data scientists together with law enforcement personnel effectively leading to the launch of the Police Data Initiative (2015). As of April 2022, the Initiative has grown from 21 jurisdictions to 120 law enforcement agencies since its inception (*Police Data Initiative- Home*, n.d.). The initiative attempted to highlight the role of better crime data and analysis to improve community relations and transparency as well as improve internal operations and policing efforts (n.d.). The Initiative was originally funded by the DOJ's COPS Office which works closely with local LEAs across the country to improve law enforcement's community policing practices and interventions (Dr. S. Hyland, personal communication, March 25, 2022).

The Police Data Initiative has comprised two main interventions. Firstly, the Initiative has sought to provide a place for police departments to publish various crime datasets for the public (Police Data Initiative, n.d.). Categories with the most posted datasets include stops, citations, and arrest; officers involved shootings; and hate/bias crimes (*Police Data Initiative- Home*, n.d.). In order to investigate datasets, the site includes links to an agency or city's open data portal. The Initiative has also sought to provide aid for police departments to overhaul record keeping technology and data analysis infrastructure by providing in-kind technology services to agencies who request assistance (Police Data Initiative, n.d.). When the Initiative was first launched, some high-profile technology interventions included helping the Oakland Police Department analyze body-worn camera footage and helping the Charlotte-Mecklenburg Police Department build a visual dashboard to aid community understanding of released data (Smith & Austin, Jr., 2015). These technology and data interventions were relegated to a relatively small number of agencies minimizing this effective strategy's impact. The Police Data Initiative is now housed in the National Policing Institute which has shifted the effort's focus to data analysis efforts and no longer receives government support (*National Policing Institute- Training and Technical Assistance*, n.d.).

Ultimately, the Police Data Initiative signaled to LEAs the federal government's commitment to improving crime data access and the importance of using crime data for improving policing efforts and community relations (Dr. S. Hyland, personal communication, March 25, 2022).

Executive actions prompted media coverage of efforts to improve police data and analysis. But federal officials did not embed the Initiative in a robust federal law enforcement agency, sapping its ability to generate long-term improvements to data infrastructure around the country. When presidential administrations changed in 2017, crime data transparency and policing informed by data analysis ceased to be executive priorities, undermining the Initiative's progress and potential.

The State Level

Since the establishment of federal crime data collection programs like SRS and NIBRS, state governments, often through the use of federal resources, have established agencies and offices to facilitate data-sharing partnerships between local and federal entities. While established federal programs exist to support state crime data agencies, the federal government allows states to make decisions about where and how to structure crime data agencies. However, this results in a large group of government bodies with significant differences in available resources and effectiveness. Nonetheless, officials at the local and federal levels indicate that state agencies and their coordinating efforts remain critical when establishing effective and efficient data-sharing relationships between levels of government. State agencies are especially valuable because of their established relationships with both a large group of local agencies and a small number of federal agencies.

Overview of State Statistical Analysis Centers (SACs)

After Congress passed the Omnibus Crime Control and Safe Streets Act in 1960, the federal government began to invest in local and state data collection and analysis infrastructure (*JRSA - History*, n.d.). Under the Comprehensive Data Systems (CDS) Program, established in 1972 by the now defunct Law Enforcement Assistance Administration, federal funds were given to state governments to establish SACs (n.d.). By the time BJS took over the supporting role to SACs in 1980, 41 states, in addition to the District of Columbia and Puerto Rico, had an established center (n.d.). State governments established these centers to improve the collection, analysis, and reporting of crime data and statistics. These centers typically house data scientists making them a unique source for crime data research and statistical knowledge within state governments, which often lack this expertise. While BJS provides only a small fraction of funding for these centers, these centers are important liaisons between local and federal LEAs (*JRSA - SACs: An Overview*, n.d.).

As of April 2022, every U.S. state, barring Texas, had an associated SAC (n.d.). These centers differ by their associated governing state or non-government agency, workforce size, available resources, and data access (n.d.). In a poll of 44 SACs conducted between 2019 and 2020, state administering agencies housed about 64% of SACs, other state agencies housed about 23%, and universities housed about 13% (Howley & Souza, n.d.). The average center had 6 full-time

employees and 2 part-time employees (n.d.). An important distinguishing factor between centers is data access to state data repositories (Myrent, 2020). Some SACs request data from state repositories on a case-by-case basis specifying information to other offices within state governments to pull relevant data (2020). Some SACs have remote access to repositories, and some SACs actively maintain or have direct access to data repositories and fulfill data requests to third-party organizations and researchers (2020). Important organizational relationships have been built up between SACs and state data repositories by prioritizing transparency and creating a "system of reciprocal benefits" where data and analysis or statistics are passed between offices (2020). SACs face many other challenges including insufficient funding, chronic vacancies, reliance on contractual work, and access to good quality data (Howley & Souza, n.d.). SACs began to address these problems through establishing networks among other SACs across the country and by building relationships with federal government agencies like the DOJ.

Other State-Level Crime Data Organizations and Networks
SACs established the Criminal Justice Statistics Association, now known as the Justice Research and Statistics Association (JRSA), in 1974 to improve information and research exchange as well as promote more stable relationships between state governments and the DOJ (*JRSA - History*, n.d.). This network is run by SAC personnel from across the country and coordinates non-partisan research and high-quality statistical analysis (Dr. A. Cooper, personal communication, March 31, 2022). In addition, equity and racial justice initiatives have been coordinated by JRSA recently (Howley & Souza, n.d.).

Another state-level network organization is the Association of State Uniform Crime Reporting Programs (ASUCRP). This organization includes all state agencies that receive NIBRS data from local LEAs and report UCR data to the FBI (*Association of State Uniform Crime Reporting Programs – ASUCRP*, n.d.). Program coordinating offices focus more on data collection and dissemination and have worked with LEAs to help implement NIBRS (S. Vert, personal communication, March 16, 2022). UCR program coordinators sometimes reside in the same state agency as a state's SAC, but these two offices are sometimes in two-different state agencies or only the program coordinating office resides in the state government (Dr. A. Cooper, personal communication, March 31, 2022). An example of this is Virginia where the UCR program coordinator resides in the Virginia State Police, but the Virginia SAC is an office in the Virginia Department of Criminal Justice Services. This can lead to competitive and frayed relationships between each organization due to perceptions of duplicating missions and tasks which can impact data-sharing.

Federal Support for SACs
BJS funds SACs primarily through the State Justice Statistics Program, awarding discretionary grants with the purpose of improving data collection and analysis capabilities (*State Justice*

Statistics Program, n.d.). In 2020, BJS gave out 33 awards totaling about $4.25 million (*State Profiles - SJS Program*, n.d.). An example of the type of project BJS funds was a 2019 award to the Missouri State Highway Patrol, which houses the Missouri SAC in the Research and Development Division (*Crime in Missouri Dashboard Project*, n.d.). BJS provided just over $70,000 to support improvements to the Crime in Missouri interactive dashboard, helping the Missouri SAC to add five new crime areas into the dashboard (n.d.). This dashboard provides easy to understand graphics that describe crime trends across the state of Missouri. Conversations with the Missouri UCR Program Coordinator, Stephanie Vert, revealed that Missouri has established strong and consistent data-sharing relationships with local law enforcement agencies in order to not only provide UCR Crime Data to the FBI but also for the purpose of publishing data for public understanding(S. Vert, personal communication, March 16, 2022) . Ms. Vert identified the dashboard as a transparency tool rather than a resource for statistical research, as evidenced by the lack of incident-based crime data available on the dashboard (personal communication, March 16, 2022). The Crime in Missouri dashboard illustrates just one way these state-level crime data agencies have sought to make crime data more accessible to the public. This model for data transparency has also become widely used by local jurisdictions.

The Local Level

Local governments, typically through partnerships between various city departments and associated police departments, have attempted to make crime data more accessible to the public in order to improve transparency and community relations. More readily available crime data has motivated police departments to use both real-time and vetted crime data to improve use of police resources and crime-reduction strategies. Local efforts are extremely important as these government agencies comprise the front-line of data capturing and processing. But homegrown strategies to promote real-time crime data collection, sharing, and analysis have often led to incompatible systems across the U.S., making data aggregation difficult (Dr. A. Cooper, personal communication, March 31, 2022). However, any improvement and prioritization of data collection and accessibility at the local level benefits state and federal crime data agencies. Therefore, it's important to understand how local governments are tackling this issue and prioritizing crime data infrastructure.

Open Data Portals

Hundreds of cities across the U.S. have established open data portals, publicly accessible online sites containing datasets describing city operations and characteristics of communities, in the last decade. Junar, OpenGov, and Socrata are three of the most widely used software packages for open data portals, providing easy to use systems for local governments (Mendelson, 2015). Improvements in available software for creating open data portals has allowed small and mid-

size cities to join this effort as well. A survey of Southern California cities revealed that cities pay anywhere from $2,500 to $50,000 annually to operate open data portals (2015).

Almost all of these open data portals have some form of crime data available, including calls for service, incident reports, officer involved shootings, and arrest reports. However, these crime datasets differ substantially in their organization, amount of detail, documentation, and update timeframes. The most useful data portals for robust research include incident-based data, a format NIBRS utilizes. Despite incident-based data being more useful and robust, many cities simply publish older SRS records which only include aggregate counts for crimes, opting to simplify data publishing or work around problems associated with differing data formats. Cities have many different public release guidelines impacting what information is made public. For example, many crime datasets exclude incidents involving juveniles and specific characteristics of suspects and victims, such as age (M. Morley & B. Ray, personal communication, March 29, 2022). Almost all portals ensure that datasets do not contain specific addresses and anonymize crimes to protect individual identities. Datasets also differ substantially in how well information and variables are explained. Many datasets have unique systems for coding categories of crimes and datasets are not always published with guides to understanding coding schemes. These documents are important when codes do not match national UCR codes. Datasets also differ in how often they are updated. Many larger cities like Nashville and Chicago have automated the process for updating datasets, allowing for almost real-time crime data to be published. On the other-hand, many cities have struggled to upload data in a timely manner, including Portland and St. Louis, two cities experiencing several months of crime data backlogs due challenges in NIBRS implementation and record system changes (Heffernan, 2021). Open data portals are operated by a variety of organizations such as:

- City police departments like the Jacksonville Sheriff's Department
- City governments like Cincinnati's Office of Programs and Data Analytics
- County governments like the Los Angeles County Sheriff's Department
- Regional partnerships like the Western Pennsylvania Regional Data Center based in the University of Pittsburgh
- State governments like the Missouri State Highway Patrol

Interviews with city government officials involved in operating open data portals in Cincinnati, Norfolk, and Nashville revealed a few things: several common themes motivating an open data portal's creation, and similar strategies that helped city government officials navigate city bureaucracy to establish robust and user-friendly resources. An important/big motivation officials identified was how open data portals are a tool to increase government transparency and engage with the public. Mr. Christian Rodriguez at Cincinnati's OPDA identified a desire to make data accessible to individuals without statistical expertise (C. Rodriguez, personal communication, February 10, 2022). Officials identified improving government operations and efficiency as another important function. Ms. Pamela Marino at Norfolk's CivicLab hoped to

implement a system where city programs were actively tied to data-tracking and analysis in order to determine effectiveness and future funding (P. Marino, personal communication, February 28, 2022). Cincinnati, Norfolk, and Nashville all established data portals after city leadership, typically in the Mayor's Office, signaled a commitment to transparency and making data-driven policy decisions. In Nashville, the Mayor's Office hired a "data portal guru" who was able to coordinate resources from multiple city departments to get the portal running (M. Morley & B. Ray, personal communication, March 29, 2022). Support from police departments and police chiefs was also vital in portals receiving crime datasets that were regularly updated (P. Marino, personal communication, February 28, 2022). Data portals required strong partnerships between city departments and relationships that provided reciprocal benefits where departments received internal consulting services to improve efficiency in exchange for data sharing (M. Clairbourn, personal communication, February 15, 2022). These successful partnerships could inform how state and federal crime data agencies establish data-sharing relationships with local governments.

Local open data portals show the potential for increasing data accessibility, but state and federal involvement would be needed to shift these portals towards pursuing goals beyond transparency, such as providing crime data for analysis purposes with the goal of creating crime reduction strategies. Police departments have attempted to move towards using crime data in this way by establishing real time crime centers (RTCCs), centers with detectives that use technology, such as body cameras or automatic license plate readers, for immediate data collection to help support officers as they respond to an unfolding event, all while putting together data to discern short and long-term patterns in crimes (*The Mission of a Real Time Crime Center*, n.d.). These centers are organized differently depending on the needs and given resources of specific communities, but all centers seek to provide information and analysis as quickly as possible to aid police department operations (n.d.). These centers have been criticized for their inability to filter out meaningful data quickly and their support of reactionary policing that could increase discriminatory or inequitable outcomes in interactions between law enforcement and the public (M. Scott, personal communication, March 22, 2022). Nonetheless, these centers offer insight into how local governments are attempting to use data to support operations and how local LEAs could be better supported by state and federal agencies, a recommendation this report seeks to provide to the DOJ.

Criteria for Evaluation
Effectiveness (30%)

This criterion captures a policy intervention's ability to increase crime data collection, sharing, and accessibility at multiple levels of government. OPL and the DOJ as a whole are seeking access to greater amounts of accurate, timely, and accessible crime data making this criterion an extension of the DOJ's goals. OPL currently gathers data by scraping local open data portals, a method that has a lot of potential to be improved upon. The effectiveness criteria will be broken down into four specific questions and areas of focus that are both quantitative and qualitative. Answers to each question will be taken into account to determine an alternative's overall effectiveness criterion score.

1. The number of data portals/amount of data that will be created/improved will be estimated.

2. The number of police departments/city governments/state agencies that will receive assistance will be estimated, numbers that will be put into context with information about population and demographic groups served by government entities involved.

3. Will the amount of easily downloadable and well-documented data available to government officials and the public be increased?

4. Will crime researchers have greater access to data for research opportunities?

Cost (20%)

This criterion will estimate the financial costs accrued by the DOJ and federal government to create and implement a specific alternative. While other stakeholders, including state and local governments, will also incur costs from an alternative, this report will only consider costs to the federal government in order to narrow the scope to information applicable to officials at the DOJ who may choose to pursue this report's recommendation.

Administrative Feasibility (25%)

This criterion will assess the efficiency and ease in which an alternative can be successfully implemented. Partnerships between multiple levels of government are difficult to create and maintain in a productive manner. The process for providing federal resources to local and state entities should be an efficient process that works at a sustainable pace and accomplishes its mission. Incentives at local law enforcement agencies must be aligned in order for resources to be properly used. This criterion will be broken down into five quantitative and qualitative questions. Answers to each question will be taken into account to determine an alternative's overall administrative feasibility criterion score.

1. How long will an alternative take to execute?

2. An estimate of the number of agencies and personnel involved in an alternative's implementation process.

3. Are there established/historical partnerships present between involved government entities?

4. How quickly are resources likely to be administered to local agencies?

5. Are incentives aligned/compatible between different levels of government?

Transparency and Public Accountability (25%)

This criterion will assess the ability for individuals not in government to voice opinions about an intervention's implementation and reap the benefits of increased crime data accessibility. Violent crime data is generated by government interactions with the public, giving the public a stake in how data is used. This data should be accessible to all individuals, even those without data expertise, and accessible data should be readily comprehensible, meaning that published data should be well documented and displayed in varying formats. Democratic institutions must be held accountable by the people they serve. Better access and understanding of crime data is a way to hold police departments and city governments accountable. These principles should be applied both in the process for increasing data accessibility and in an alternative's resulting data-sharing system. This criterion will be broken down into three quantitative and qualitative questions. Answers to each question will be taken into account to determine an alternative's overall transparency and public accountability criterion score.

1. Can the public access crime data and is the source for crime data easy to find?

2. Is data well-documented and presented in multiple forms to promote use (GIS maps, dashboards with summary statistics, and incident-based datasets)?

3. Will government officials involved in implementation be committed to sharing the process and products of an alternative with the public and be open to engaging in public dialogues?

Alternatives with Evaluations

Alternative 1: BJS Local Crime Data Portal Infrastructure Grant

The DOJ will work through BJS to distribute financial support to city governments for the establishment and expansion of local open data portals. Allowable uses for funding will include personnel and operating costs associated with a government's open data portal. City governments will also be allowed to use funding to ensure all data-reporting technology meets requirements under NIBRS and that NIBRS-compliant data is what open data portals report. Grants will range from several thousand dollars to no more than $250,000, depending on the size of the city and police department requesting assistance and the state of data collection and processing operations. A total of $600,000 will be allocated for awards. Grants will be given out on an annual basis to five cities and departments who demonstrate the greatest need for resources. Demonstrated need for funding will depend on three data-driven factors: the homicide and aggravated assault per capita rates for a city or jurisdiction, an assessment of current violent crime data access including whether pertinent data is shared with state and federal data-collection agencies, and the number/size of cities and jurisdictions within a metropolitan area that do not have an adequate crime data reporting system. This grant will be housed within BJS and will be modeled off of NCS-X Implementation Grants. Goals and metrics for progress and success will be established at a general and project-specific level to help guide the use of grants. But all grant recipients must demonstrate tangible progress towards increasing NIBRS crime data availability in data portals. This grant will combine the benefits of a discretionary grant like JAG with the more focused model of NCS-X grants, which targeted a smaller number of LEAs, in order to allow departments to have both adequate funding for major technology changes and the ability to address specific needs.

Effectiveness Evaluation

Evaluations of DOJ grants to state agencies and local LEAs demonstrate that targeted financial support has the potential to successfully accomplish specific and defined goals. Two large grant programs discussed previously, the JAG program and NCS-X Implementation grant, demonstrate differences in how law enforcement choose to use grants depending on the amount of discretion given. Between 2014 and 2016, the JAG Program allocated about $790 million to state and local jurisdictions. JAG's mission is "to improve the functioning of the criminal justice system," allowing awards to be used for a wide variety of purposes (*FY 2020 Program Summaries*, 2019). In FY 2016, 42% of funds accounted for in an audit of the program went towards personnel expenses, and 31% of funds went towards equipment, supplies, and technology (*Justice Assistance Grant Program: Activity Report, Fiscal Year 2016*, 2018). These two categories encompass money used towards improving data collecting and processing, but the broad mission of JAG does not lend itself to a specific focus on data infrastructure. Funding for data technology is often extremely expensive, making JAG less suitable to support that type of funding since money is allocated to over 1,000 local LEAs. On the other hand, NCS-X Implementation Grants awarded by BJS and the FBI had a very defined purpose of aiding local LEAs' transitions to NIBRS and supporting state UCR programs' ability to transmit data to the FBI. Between 2015 and 2018, BJS allocated $109.4 million to 26 state UCR programs and 71 local LEAs, helping these agencies to implement NIBRS-compatible data systems (*FY 2020 Program Summaries*, 2019). This funding was one of the most beneficial DOJ interventions supporting FBI efforts to completely transition to NIBRS and was endorsed by major law enforcement stakeholder groups.

Based on the results of funding allocated in these two grants, the defined scope of a BJS local open data portal grant will lead to tangible results for LEAs that receive this funding. Five local LEAs will receive funding to build or improve open data portals. Mid-size cities with populations of around 300,000 will be targeted for funding since these jurisdictions have significant rates of violent crime but likely lack the resources of larger cities to create comprehensive tracking programs. This means that about 1.5 million people will be reached by this grant program per year, with the potential for millions more to be indirectly benefited by living in associated metropolitan areas. Grants would likely result in an increase in accessible data on data portals that can be used for crime research purposes since specific conditions can be placed on how money must be used, similar to how NCS-X implementation grants required LEAs to use funds towards NIBRS (Gardner & Cooper, 2020). For example, grantees could be required to make data posted on data portals downloadable and organized by incidents. Grant sizes will support LEAs' ability to provide better data for research since funding will be able to cover startup costs for an open data portal or IT personnel costs that can lead to the automation of data processing (M. Morley & B. Ray, personal communication, March 29, 2022). A caveat is that open portal data is not generated for the explicit use of research and may impact the quality of research using this produced data. This alternative has an associated effectiveness score of 3 since it will lead to high quality and accessible data, but the number of LEAs impacted will be limited due to the grant's modest size, and associated data will not be produced for the primary purpose of research.

Cost Evaluation
In an effort to keep this grant manageable by two administrators in BJS, the grant of $600,000 per year will be distributed for a total of five years with the option to extend and expand the program after that point. Costs will include grant money, hiring one grant administrator, hiring one grant monitor, and annual advertising of the grant to encourage local LEAs and cities to apply, as detailed in Appendix A. The yearly cost of the grant will be $794,364 and the five-year total grant cost will be $3,971,820. DOJ employee salaries are based on typical starting salaries in OPL (*U.S. Federal Government Employee Lookup*, n.d.). A 2% annual discount rate was applied. This corresponds to a cost score of 2.

Administrative Feasibility Evaluation
Grant programs in BJS have a defined and actionable timeline of one fiscal year with clear guidelines around applying for, receiving, and using awarded grant money, as outlined by OJP's DOJ Grants Financial Guide (*DOJ Grants Financial Guide*, 2017). This proposed local open data portal grant is modest in size compared to other grants given out by OJP and BJS, ensuring that the workload can be handled by a small group of DOJ staff members. This grant program will involve a small group of BJS staff who work directly with 5 local LEAs annually. In addition, BJS will need to review an estimated 20 submitted applications from LEAs, based on grant application and acceptance rates for JAG and NCS-X grants (*FY 2020 Program Summaries*, 2019). BJS has established funding relationships with local LEAs, including the NCS-X implementation grant program. Established procedures to interact with local government agencies reduce ambiguity around providing financial resources through a grant program and tracking results. However, incentives may be misaligned between the DOJ and local LEAs in this program due to competing purposes for data in open data portals. UVA Professor Michele

Claibourn discussed how the DOJ would need to be straightforward about how it once used data, especially since there is a level of risk involved in publishing data (M. Clairbourn, personal communication, February 15, 2022). BJS Director Alexia Cooper detailed that signaling an intention to use data for research purposes may motivate agencies to publish data at a slower rate in order to vet data and guard against discrepancies in data published by state and federal agencies (Dr. A. Cooper, personal communication, March 31, 2022). Differences in transparency and research motivations may impact how BJS will be able to work with local LEAs. As a result, this alternative receives a feasibility score of 3.

Transparency and Public Accountability Evaluation
Officials involved in creating and operating open data portals in Cincinnati, Nashville, and Norfolk demonstrated a strong commitment to transparency and public engagement. Elected officials in each city had helped to jumpstart the process towards creating open data portals and in interviews these officials indicated that they prioritized providing user friendly data that community members would find useful and informative. Nashville, for example, provides incident-based crime data that can be downloaded and used for research but it also has created interactive dashboards allowing individuals to determine crime rates in neighborhoods and metro council districts. Data portals have not always been widely publicized but cities have begun to attract media attention for open data portal efforts in recent years, the launching of Nashville's crime dashboards being a significant example (M. Morley & B. Ray, personal communication, March 29, 2022). This alternative receives a transparency and public accountability score of 5.

Alternative 2: Training Resources for Building/Improving Open Data Portals

The adoption of NIBRS in police departments across the country was slowed by a technology knowledge gap (National Crime Statistics Exchange Team et al., 2021). OPL can overcome this hurdle by collaborating with a specific city that already maintains an existing crime data portal with the ultimate goal of publishing a comprehensive guide to creating and maintaining an online crime data portal with detailed and standardized data that is routinely updated. The produced guide should demonstrate benefits from collecting more detailed incident-based crime data, such as more efficient use of city and police department resources, and provide implementation and technical support. A partnership with a mid-size city that has comparable resources to many other cities around the country would help OPL establish a user-friendly and realistic guide that other cities could use. OPL will partner with BJS and the National Policing Institute to increase the resources, manpower, and expertise available to create this report. A six-month timeframe for the report's completion will be set, following the selection of the city partner. Media announcements should be made by senior DOJ officials to signal data-sharing as a priority for the Department. The guidelines of the report will be determined after further research, with inspiration from the federal government's support for police departments transitioning to NIBRS and past work of the Police Data Initiative. In order to promote use of produced resources, the DOJ will create benefits for city governments and police departments around the country by inducting agencies that use produced resources into the Police Data Initiative community where agencies can receive support from the National Policing Institute and support from the large group of participating agencies on open data portal initiatives.

Effectiveness Evaluation

The DOJ has provided a plethora of resources and training resources supporting local LEAs as they adopt NIBRS. These informational resources focus on key obstacles in the process and how departments can overcome these hurdles. Resources include reports from workshops, examination of case studies, and more general resource guides. An example is an implementation guide that focuses on funding and technology hurdles associated with NIBRS. The report covers underlying motivations behind adopting NIBRS, benefits and uses of NIBRS data, technology and resource needs and solutions, budget and funding sources, and an implementation plan timeline (*Incident-Based Reporting (IBR) Implementation Planning*, 2016). Similar training resources have been put together following DOJ-hosted conventions and workshops, including the 1997 and 2019 BJS conventions which sought to understand both progress and obstacles in NIBRS implementation (Chaiken & Roberts, 1997). In the 22 years between these two conventions, many LEAs made progress in NIBRS adoption but the FBI still failed to support a high enough number of LEAs submitting NIBRS data to generate representative samples of violent crime data, raising questions about uptake and effectiveness of produced resources (CJIS, 2020). Agencies consistently cited funding, misalignment of policy goals with state governments and politicians, and administrative/personnel concerns as hurdles to adopting NIBRS, concerns not easily remedied by making additional training material available (Chaiken & Roberts, 1997). Incentives in this alternative related to Police Data Initiatives may help to convince LEAs to use resources and work towards greater data accessibility. But growth in the Initiative has slowed since the DOJ stopped funding it, making this incentive less desirable (Dr. S. Hyland, personal communication, March 25, 2022). This existing evidence should create cause for concern if the DOJ chooses to only adopt this alternative.

Based on past examples of training resources produced by the DOJ, it is unclear how many LEAs and city governments would use produced resources and significantly benefit from them. Documenting a mid-size city's success, like Cincinnati or Norfolk, would make resources more useful to LEAs across the country that experience both serious violent crime concerns and a smaller pool of resource available for potential solutions. Over half of the 100 most populous cities lack reliable sources of crime data, many of which have significant levels of violent crime but limited available resources (Sharkey, n.d.). Cities like Cincinnati and Norfolk overcame financial and personnel constraints to create robust crime data portals that are user-friendly and provide up to date crime data ready for analysis. Interviews with Mr. Christian Rodriguez and Ms. Pamela Marino in offices that manage city data portals provided the beginnings of blueprints for scaling up data processing capabilities in roughly two-year processes (P. Marino, personal communication, February 28, 2022; C. Rodriguez, personal communication, February 10, 2022). A benefit of this alternative would be that produced resources could emphasize potential crime research opportunities and benefits which could help LEAs to work towards with DOJ priority. This alternative receives an effectiveness score of 2 or "poor," on account of uptake concerns and the ability of resources to help LEAs overcome obstacles.

Cost Evaluation

Creating training and implementation resources with a mid-size city with a robust open data portal would be a low-cost alternative because of its short timeframe and manageable workload. In addition, inducting cities into the existing Police Data Initiative would not create significant costs. Two DOJ employees will be tasked with working with the city that is participating in the program and coordinating with counterparts at the National Policing Institute. Expenses include average monthly salaries for two DOJ employees, travel and expenditure costs for employees when on-site, publishing and distribution costs once the report is completed, and costs incurred for media announcements, as detailed in Appendix A (*How Much Should You Pay for a Press Release? | LinkedIn*, n.d.). The total cost of creating training resources will be $121,396.

Administrative Feasibility Evaluation

This alternative has a designated 6-month timeline for completion, upon the selection of a partner city, making it actionable and manageable for two DOJ staff members. This alternative has a clear timeline for when finished products would be completed. Creating training resources would only require OPL to work directly with one local city government and police department. Inclusion of officials at the Police Data Initiative would add just one more office in coordination efforts. While an established relationship likely does not exist between OPL and the selected LEA, this would not be a difficult relationship to build from scratch. This alternative would entail a straightforward and productive relationship with aligned incentives since open data portal officials in interviews were enthusiastic when discussing their achievements and recommendations for other LEAs and city governments. During my interviews with Mr. Rodriguez in Cincinnati and Ms. Marino in Norfolk, I asked questions about the process for creating open data portals and what they each would recommend other city governments to do when establishing open data This alternative receives a score of 4 or "good" for the administrative feasibility criterion.

Transparency and Public Accountability Evaluation

While open data portals have primarily been put forward as tools for establishing transparency and improving community relations, this alternative takes a hands-off approach to supporting the creation and improvement of data portals, which may lead to less robust and usable data portals. Public engagement is dependent on the city partner that works with the DOJ and the extent to which this agency engaged public stakeholders when increasing access to crime data. Training resources are written for and distributed to LEAs and city governments. These documents can be technical and typically don't engage the public. Many existing data portals do not meet the metrics established in this criterion because they do not present crime data in multiple formats, data in these portals are not well documented, and data are difficult to find and extract. The DOJ would need to choose a city partner with an extremely robust and transparent crime data portal in order to overcome these concerns. Working closely with the Police Data Initiative to ensure that public use is prioritized may improve outcomes. This alternative receives a score of 3 for the transparency and public accountability criterion.

Alternative 3: Expanding the JRSA/ASUCRP National Conventions and the State Justice Statistics Program

In a 2019-2020 poll of 44 SACs, centers identified a lack of both manpower and access to high quality data as significant hurdles negatively impacting their ability to conduct robust crime data analysis and to be a reliable liaison between local and federal agencies (Howley & Souza, n.d.). OPL and partners within the DOJ can address these obstacles for SACs in two ways: improving state-level data-sharing relationships and increasing available resources by expanding the State Justice Statistics Program beyond financial support. BJS can seek to improve coordination and data-sharing relationships between SACs, state UCR Program Coordinators, and local LEAs. OPL can increase resources available to SACs by partnering with specific centers on large data analysis projects in exchange for access to state-level crime data.

SACs operate in a variety of state and non-government organizations making reliable data access a challenge (*JRSA - SACs: An Overview*, n.d.). Based upon strategies used to implement NIBRS in LEAs across the U.S., BJS should coordinate a conference and workshop between SACs, UCR Program Coordinators, and a group of LEAs located in the 100 most populous cities in the U.S.[2] This workshop will be an event at the JRSA and/or ASUCRP national conventions, helping to reduce costs and increase state agency participation. The goal of this workshop will be to bring together several important state and local stakeholders in crime data in order identify common goals in crime data collection analysis and strategies to reduce duplication of roles and tasks. An important concern identified by Dr. Alexia Cooper was that SACs and UCR Program Coordinators often view each other as competitors for limited crime data resources (Dr. A. Cooper, personal communication, March 31, 2022). BJS can encourage these entities to lobby state governments to combine offices or deliberately divide crime data tasks and commit to working together to improve services they each provide to local and federal LEAs. Local governments have an interest in improving access to rigorous data analysis while providing vital and near real-time crime data. These three groups of agencies have the potential to create relationships that benefit all involved parties. Having all involved parties in a space can allow for facilitated discussions about establishing and enhancing these networks efficiently. Through its coordination efforts, BJS will seek access to crime data and analysis produced by involved parties. BJS can create incentives for parties to work together through grants provided in its State Justice Statistics Program.

SACs also reported chronic vacancies and limited manpower that inhibited the completion of effective crime data analysis. According to the 2019-2020 poll, 27.3% of SACs were operating in a staff shortage and 63.5% of SAC staff were contracted workers (Howley & Souza, n.d.). OPL, through its expertise in data analysis, is uniquely positioned to work on a contractual basis with SACs to aid in the completion of large data projects. This alternative will include the establishment of a new position in OPL that works on state-level projects spearheaded by SACs, offered as part of the State Justice Statistics Program. This establishes a defined application process for SACs to apply for this type of aid. Other members of OPL could also temporarily assist on SAC projects, increasing OPL's flexibility depending on demand for its services. This

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[2] Large cities account for the majority of violent crimes and many operate robust data portals with crime data. These cities can improve crime data access by fostering direct relationship with state SACs. A goal of getting 20 LEAs to attend from this group of 100 cities will be set.

partnership will boost the ability of SACs to complete significant data projects while providing OPL with greater access to crime data. SACs have an average of 6 full-time employees indicating that OPL support can make a significant difference for SAC operations (n.d.). OPL must be up front with SACs that it has a desire to acquire crime data from SACs to aid its efforts to determine national crime trends and better inform policy decisions made by senior-level DOJ officials.

Effectiveness Evaluation

This alternative involves bringing together local, state, and federal LEAs in order to enhance data-sharing relationships to support more robust crime research. Establishing and reinforcing state and regional-level partnerships draws inspiration from many programs established by LEAs, including the DOJ, to combat violent crime. Anti-violence programs have often used community and problem-oriented policing strategies that require bringing community leaders and public officials together, groups often with conflicting interests and goals, in order to create effective solutions to systemic concerns. These programs seek to align incentives and pool resources to help communities struggling with violent crime. Strengthening relationships between state-level agencies and local governments in order to increase crime data accessibility and research has the potential to create similar conflicts that successful anti-violence programs have overcome. An overview of past community anti-violence programs can shed light on how to effectively bring various stakeholder groups together to achieve criminal justice objectives.

Boston's Operation Ceasefire, spearheaded by researchers at Harvard's Kennedy School of Government, was associated with significant decreases in violent crimes in the Boston area including a 63% decrease in youth homicides per month and a 32% decrease in shots-fired calls for service per month (*Reducing Gun Violence: The Boston Gun Project's Operation Ceasefire*, 2001). Operation Ceasefire brought the Boston Police Department together with researchers at Harvard, federal law enforcement officials at ATF and funding from the National Institute for Justice, the Suffolk County DA's Office, workers in the Department of Youth Services in Massachusetts, and community members with experience helping at-risk youth (2001). Operation Ceasefire was successful because it brought together groups often in conflict with one another and created a program that aligned incentives and created new strategies for lowering crime by addressing many different contributing factors. It used the expertise from each involved group, motivating involved parties to support the developed program

The DOJ has since implemented similar anti-violence programs through its launch of Project Safe Neighborhoods (PSN) which fosters relationships with state and local LEAs by providing federal resources to reduce violent crime and improve police operations (*PSN Blueprint for Success*, 2021). The DOJ has produced case studies analyzing the effects of PSN across the U.S. A significant success story was documented in the U.S. Attorney District of Nebraska (Hipple et al., 2007). This PSN program and others show that partnerships between multiple levels of government can be successful when groups foster trust and individual groups deliver meaningful results that advance the partnership's mission (Anonymous, personal communication, March 22, 2022).

Just as anti-violence programs like Operation Ceasefire and the DOJ's PSN Program have done, this alternative will seek to establish and strengthen relationships between many different

government entities. As documented in interviews with DOJ officials, SACs and state UCR program coordinators work together well in some states but come into conflict in other states due to institutional structures. The first step of this alternative will bring together SACs, UCR Program Coordinators, and LEAs from many different states in a workshop setting, similar to NIBRS implementation workshops led by BJS in the NCS-X initiative. This large-scale workshop will help the DOJ to improve data-sharing at the state level, impacting data from hundreds of cities and millions of individuals. The second part of this alternative will help OPL to build personal working relationships with several SACs, significantly increasing access to data suitable for crime research. While data will likely take longer to obtain compared to data scraping from open data portals, SAC crime data will be higher quality and more suited to research. This data is more likely to be NIBRS compliant and include many descriptive variables. OPL will likely work with 4 SACs a year on 12-week long projects. This alternative receives an effectiveness score of 5 of since it will increase access to large amounts of high-quality state crime data.

Cost Evaluation
The DOJ will incur two costs in this alternative. The DOJ will organize one part of a JRSA/ASUCRP conference that is designed to bring together state and local LEAs. Costs will include covering a portion of venue costs, a conference event app, food and hotel expenses, advertising, and speakers at the specific workshop, as detailed in Appendix A (*The Conference Cost Estimator for Budgeting*, 2020). The second cost will be hiring an additional OPL staff member to work on SAC crime data analysis projects. This staff member will work on state-level projects and help facilitate relationships with SACs to obtain state-level crime data for OPL. The cost of this alternative in the first year will be $201,900. After the first year, the only cost will be the additional OPL staff member.

Administrative Feasibility Evaluation
The DOJ can execute this alternative in about 1 year, with the potential for OPL to establish working partnerships with SACs sooner. In order to decrease the number of agencies that will need to be coordinated with, BJS and OPL should work with JRSA and ASUCRP and tap into their established country-wide networks. Each of these groups typically holds annual conferences which would allow the DOJ to add build upon existing programming. This alternative has the greatest potential for failure if one of the umbrella organizations does not agree to participate. But the DOJ already has established relationships with both SACs and UCR Program Coordinators. BJS has run the State Justice Statistics Program (SJS) for almost a decade, providing millions of dollars in funding to SACs to improve data collection and processing (*State Justice Statistics Program*, n.d.). The FBI and BJS have also worked with UCR Program Coordinators to implement NIBRS, providing funding and training (Gardner & Cooper, 2020). These two ongoing initiatives show that all involved stakeholders have aligned incentives in crime data collection and analysis goals. OPL will likely not have an established relationship with a SAC it partners with but this one-on-one relationship will not be difficult to create from scratch, especially if BJS facilitates the partnership in its State Justice Statistics Program. Partnerships between OPL and SACs could lead to results for both parties in a matter of months. Overall, this alternative receives a feasibility score of 3 due to risks associated with collaborating with many different organizations, fears that can be eased by working through existing programs.

Transparency and Public Accountability Evaluation

This alternative has the potential to make crime data accessible to the public but this has not always been a priority of SACs due to resource and manpower constraints. The Missouri SAC, housed within the Missouri Highway Patrol (MHP), has helped to create a user-friendly crime dashboard allowing people with little data experience to discern crime trends from data gathered by police departments across the state (*Crime in Missouri Dashboard Project*, n.d.). The dashboard features descriptive and engaging figures. The dashboard also engages the public by making community-specific data easy to find. Ms. Stephanie Vert, UCR & CJ Audit Program Manager at MHP, detailed how her department is committed to both assisting LEAs in reporting NIBRS compliant data to the FBI and providing crime data to the public for transparency purposes (S. Vert, personal communication, March 16, 2022). This dashboard was partially funded by BJS and shows that with proper support and resources, SACs may be more likely to prioritize public data accessibility (*Crime in Missouri Dashboard Project*, n.d.). But this alternative focuses primarily on establishing data-sharing relationships between government agencies, with pubic accessibility likely being an indirect result of increased data-sharing. This alternative receives a score of 3 in transparency and public accountability since SACs will likely have different levels of commitment to making data public.

Outcomes Matrix

	Effectiveness *Weight of 30%*	Cost per year *Weight of 20%*	Administrative Feasibility *Weight of 25%*	Transparency and Public Accountability *Weight of 25%*	Aggregate Score
BJS Grant	3, "fair"	$794,364 2, "poor"	3, "fair"	5, "very good"	3.3
Training Resources	2, "poor"	$121,396 4, "good"	4, "good"	3, "fair"	3.15
Convention and SAC Support	5, "very good"	$201,900 4, "good"	3, "fair"	3, "fair"	3.8

*The cost criterion is converted onto the 1-5 scale that all the other criteria are measured on.

5 = $0 - 100,000
4 = $100,001 - 300,000
3 = $300,001 - 500,000
2 = $500,001 - 1,000,000
1 = above $1 million

Weighting

OPL highly values how effective an alternative will be at generating accessible crime data that can be used to enhance violent crime analysis. Cost is not the moth important factor for the DOJ because many significant costs will be covered by local governments. The other criteria are more important than cost because they assess whether an alternative will be able to reach its full potential for effectiveness.

Recommendation

Based on evaluations of the effectiveness, cost, administrative feasibility, and transparency and public accountability criteria, OPL, in partnership with BJS, should pursue Alternative 3, expanding JRSA/ASUCRP conventions while offering contractual support to SACs. This alternative is by far the most effective because it will help OPL and BJS improve access to state-level crime data, which aggregates crime data from hundreds of LEAs in each state. This alternative is much cheaper than a grant program as well. There may be concerns about this alternative's administrative feasibility but these can be mitigated by working through established programs and relationships between state and federal LEAs. BJS and SACs have developed strong ties from the State Justice Statistics Program. BJS has also worked with many UCR Program Coordinator Offices for the purpose of implementing NIBRS on the local and state levels. Work can also be done to ensure that SACs are committed to making data more accessible to the public with extra resources and manpower offered by the DOJ. The DOJ has begun to focus on combating the recent rise in violent crime, with significant funding being devoted to this purpose by the Biden administration. Combating violent crime starts with having better crime data in order to target resources in an effective and efficient manner. This policy recommendation will be a step towards increasing DOJ access to more timely, high-quality, and comprehensive crime data.

This recommendation relies heavily on leveraging existing relationships between BJS and state-level crime data offices. If these offices became resistant to DOJ involvement at the state level, the DOJ would find interventions at the local level most effective at increasing access to temporally-relevant crime data.

Implementation

Next Steps

The first actions OPL should take to implement this recommendation are to establish relationships with BJS staff that work on the State Justice Statistics (SJS) Program. BJS has worked with many SACs through SJS since 2014 and the Bureau has a large budget relative to OPL (*State Justice Statistics Program*, n.d.). Dr. Alexia Cooper felt that SACs would be the most promising way of increasing DOJ access to more timely violent crime data (Dr. A. Cooper, personal communication, March 31, 2022). She was easy to get in touch with and was committed to keeping in touch for the purposes of my project. BJS has a stake in increasing access to crime data as well, as displayed through their grant programs, making them an ideal partner within the DOJ.

OPL, with the help of BJS, should then reach out to JRSA and ASUCRP executive team members to discuss the expansion of annual conferences to include a workshop involving SACS, UCR Program Coordinators, and a group of local LEAs. These two umbrella organizations include SAC and UCR Program Coordinator staff members which means that buy-in from these two groups for any DOJ intervention is critical. Transparency around the DOJ's purpose for getting involved in state-level data activities is important. But concerns can be limited by explicitly detailing the DOJ's overall vision, highlighting associated benefits for each party.

OPL, with BJS staff, will pitch their workshop idea which will be modeled off of the 2019 BJS NCS-X NIBRS implementation workshop (National Crime Statistics Exchange Team et al., 2021).

The final preliminary step that OPL can take in the first few weeks of implementation is to work with BJS to expand the State Justice Statistics Program beyond financial support. The FY 2022 SJS grant application deadline is May 16th which may indicate that an expansion will need to be applied in 2023 (*State Justice Statistics Program*, n.d.). OPL will pitch the idea of offering a full-time OPL data analyst to SACs in need of support on major data analysis projects. The OPL data analyst will work on roughly four 12-week projects with four different SACs. OPL can create a description of this expansion to SJS and share it with BJS before pitching the idea to senior DOJ officials for approval. The idea can also be presented to JRSA in order to better understand how DOJ contractual work can be designed to most benefit SACs. OPL could then apply for additional funding to add a position in its office that works with SACs and draft a job description in preparation for the hiring process.

Stakeholders and Incentives

Federal offices within the DOJ are seeking better access to real-time crime data from across the country in order to generate more accurate analysis of crime trends. DOJ offices have an incentive to invest in state and local LEAs in order to promote their goal of preventing and combating crime. But the DOJ has limited resources and there has been a history of duplication of grants and programs (*Office of Justice Programs FY 2010 Grant Management and Oversight Improvements*, 2011). While facilitating partnerships can have tangible benefits for DOJ offices, multiple offices will need to work together in this alternative to obtain successful results. Each office wants to use resources in the most efficient and effective way possible. The creation of any program needs to have demonstrated benefits for all offices involved.

SACs and UCR Program Coordinators, two primary stakeholder groups, operate differently in every state (Myrent, 2020). SACs and UCR Program Coordinators work well together in some states but have strained relationships in other depending on state institutional structures (Dr. A. Cooper, personal communication, March 31, 2022). But these agencies both support local LEAs in different ways. UCR Program Coordinators are dedicated to helping local LEAs transmit NIBRS data to the FBI and are dedicated to transparency, seeking to provide better crime data access (Gardner & Cooper, 2020). The Program Coordinator Office in the Missouri State Highway Patrol (MSHP) has shown a commitment to this mission with their public crime dashboard (S. Vert, personal communication, March 16, 2022). SACs focus on crime data analysis and producing robust, usable statistical analysis to improve crime reduction strategies in a state (*JRSA - SACs: An Overview*, n.d.). The Missouri SAC, also apart of MSHP, worked on the crime dashboard but sought to increase the amount of crime data in the dashboard through analysis of gaps in datasets (*Crime in Missouri Dashboard Project*, n.d.). In this way the Missouri SAC demonstrated a commitment to transparency through more analytic pathways. These two organizations have similar missions but most lobby state governments to establish more productive and efficient working relationships between these two state-level offices.

Local government and law enforcement have the largest spectrum of incentives and motivations when it comes to transparency and crime data. UVA Professor Michele Claibourn described a tension between transparency and preservation in local police departments (M. Clairbourn, personal communication, February 15, 2022). The more information a police department provides, the more scrutiny it will receive for its actions (C. Keenan, personal communication, February 17, 2022). Norfolk data manager Pamela Marino described how the Norfolk Chief of Police was instrumental in ensuring that accurate crime was included and regularly updated on the city's open data portal (P. Marino, personal communication, February 28, 2022). This is an example of how many police departments have recently attempted to become more transparent and public-facing in the wake of high-profile officer involved shootings of unarmed black individuals. All these different pressures will need to be considered when working with local law enforcement.

Obstacles in the Process

Two large data-sharing programs, one in the healthcare industry and one in crime data, shed light on possible implementation hurdles. The transition to electronic health records in hospitals across the world has led to several studies identifying hurdles that have slowed implementation. A qualitative study of German hospitals identified three hurdles slowing adoption: duplication of non-digital procedures, lack of interoperability between systems, and an absence of top-down guidance and regulation (Pohlmann et al., 2020). NIBRS adoption in the U.S., as mandated by the FBI, identified similar technology and resources barriers in addition to incentive gaps between different government entities (Chaiken & Roberts, 1997; National Crime Statistics Exchange Team et al., 2021). The DOJ is in a unique position to provide coordination and resources to data-sharing partnerships in order to overcome these identified implementation barriers. The hurdles highlight the multi-pronged approach that will need needed to increase access to timely and high-quality crime data. Establishing defined state agency roles and providing many different types of resources, the DOJ has the tools needed to successfully implement state-level crime data support operations.

Appendix

Appendix A: Cost Evaluation Charts

Alternative 1

Year	Grant Cost	Grant Administration	Grant Monitoring	Grant Advertising	Total	Per year total
1	600,000	100,000	100,000	10,000		
2	606,000	98,000	98,000	9,800		
3	594,180	96,000	96,000	9,600		
4	593,825	94,000	94,000	9,400		
5	569,815	92,000	92,000	9,200		
Subtotal	2,963,820	480,000	480,000	48,000	3,971,820	794,364

Alternative 2

Travel and Miscellaneous Expenses	DOJ Publishing Resources and Distribution	Improvement and Support Costs	Total
1000	0	0	
1000	0	0	
1000	0	0	
1000	0	0	
1000	0	0	
1000	1000	14,400	
6000	1000	14,400	121396

Alternative 3

Conference Costs		OPL SAC Costs	
Venue Costs	8,000	OPL Staff Member	100,000
Conference Event App	400		
Hotel, Food, and Travel	75,000		
Speakers	8,000		
Advertising	10,000		
Additional Staff	500		
	101,900		

Appendix B: Field Notes from Interviews

Christian Rodriguez, Data Solutions Manager and Chief Data Office at Office of Performance and Data Analytics in Cincinnati, 2/10/2022
Contact Information: christian.rodriguez@cincinnati-oh.gov
Background
- OPDA's mission is to make data available to the entire public, including people who lack statistics knowledge
  - Attempt to reduce barriers to using data
  - Help people explore problems they are experiencing in their community
- Develop connections to various data sources. Engage in data analysis that transforming city data to support leadership in making informed decisions
- OPDA was created by the city manager in 2014 in an effort to increase transparency in Cincinnati
  - This is why OPDA operates as its own department under the City Manager
  - OPDA's role with city is to help departments publish data and conduct analysis to improve operations
  - Goal is to leverage data to improve department services and efficiency

Relationship with police department and other city departments
- CPD is a large department in city (OPDA has a couple data analysts and CPD has own data analysts)
  - OPDA does more specialized tasks for CPD like data integration and automating tasks
  - CPD already has data and infrastructure so OPDA supports improving processes
    - An example was to automate creation of weekly reports by extracting data and inserting it into the report. This helps increase the capacity of CPD
- Relationship with CPD and other city departments has improved
  - Many departments saw OPDA as an enforcement department but now they receive work with OPDA and receive benefits as a result
- Challenges working with police data include several bureaucratic layers and procedures around transferring data
  - An example is the need to anonymize data so it can be used outside of the police department lots of procedures to follow
  - Another example is sentencing data: it is collected at the county level which introduces more levels of bureaucracy to coordinate
- OPDA works with many city departments to improve operations and automate procedures
  - Many strategies developed at one department can be applied to other similar departments (sewer department similar to water department)
  - Challenges here come from varying resources available to each department impacting what is possible

Expand capacity of OPDA
- A future goal of OPDA is to create an internal city data consulting service to improve data operations in all departments,
    - Be able to go in and asses situation and improve operations
        - This will require hiring additional staff
    - There are a lot of potential benefits from this service since many smaller departments still use paper forms

Aggregating crime data
- When aggregating crime data, bureaucracy issues with transferring data from one city to another will be a challenge to overcome
    - Various cities could track data differently which would make it difficult to combine
- It's more promising to aggregate at county level instead of adding cities one at a time
    - Many city operations already connected at this level
    - Aggregation of data could move to state level next

Recommendations for cities establishing data analysis offices
- See Bloomberg framework for Open Cities

Ben Horwitz, AH Analytics, Former Direct of Analytics at New Orleans Police Department, 2/14/2022
Contact information: bhorwitz@ahdatalytics.com
Background
- Helped establish internal audit unit at New Orleans police department
- Became first Director of Analytics position at NOPD
- Founded AH Analytics
    - Work with cities across country as well as businesses and nonprofits to help organizations make data-driven decisions
    - Expertise in collecting and analyzing violent crime
    - Compile homicide rates for about 100 cities in dashboard
        - Estimates are not precise but they capture directionality

Aggregating beyond city level
- Murder data is national in scope for AH Analytics
- Focus on large cities that account for majority of crimes
- Cities have more publicly available data than other government levels like counties
- Many potential issues when aggregating crime data at county level
    - Cities not within one county
    - County law enforcement only covers unincorporated areas

Obtaining data from local police departments

- Scrape data that is already available on portals

Strategies for cities creating analytics teams and data analysis capabilities
- Think about both internal and external reporting of data
    - Creating internal reports
    - Using data to create change
- Have data systems that collect the right data
- Publish data consistently
    - NOPD had homicide tracking sheet and ran into problem of double counting victims
- Think about who has access to data
    - Are IT and crime analytics in different spaces?
- Ensure analysis of data is positioned strategically within an organization so it has an impact on changing operations

Future goals of AH Analytics
- Keep working with law enforcement and continue to build analytics capability
    - Continue to pursue mission: use data to drive decisions
- Expand and work at federal level collecting data
- Collect data of homicides, shootings, and possibly other crimes
- Continue to use data to inform policy decisions

Professor Michele Claibourn, University of Virginia, 2/15/2022
Contact information: mpc8t@virginia.edu
City Technology for Data
- Cities use 2 to 3 software systems to make data portals
    - The same is true for GIS data
- Startup and maintenance costs are a significant hurdle.

Motivation to Publish Data
- Publish data to reduce asymmetry between public, advocates, and local government
    - Frame data as a resource to the public
    - Accessibility of data affects the public

Regional Partnerships
- Example of regional data partnership: Pennsylvania Regional Center (Consortium)
    - Supported by university nearby
        - Other examples include public libraries
    - Enter into voluntarily, coordinate and subsidize maintenance
- Important to build systems that sustain transition in government
- Accountability and transparency with public also important for these systems

Actors With Aligned Incentives

- A lot of fear around making data available
  - Consider how to make people comfortable with risk
  - Try things out, don't appeal to ideals
    - An example could be to be up front about how data could be used: it could be used to create efficiency and reduce resources since some resources will be better used
  - Widen scope of communication
- Use data for an internal consulting service
  - Answer internal questions
  - Create both internal and public streams
  - Availability of resources is a barrier
  - Thinking about if the DOJ could support this
- Conversations around data partnerships could take a year or more just to start
  - Helps to have a set of questions you want to answer
  - Also helps to have established governing principles around use of data

Cliff Keenan, Retired, D.C. Police and Office of U.S. Attorney, 2/17/2022
Background Experience
- Joined DC Police Department
- Became an Assistant U.S. Attorney
- Deputy Direction for pre-trial services agency (a federal government agency)
- CSOS, federal agency – work with people on parole

Local Crime Data
- Important to consider local police department motivations
  - Incentive to reduce amount of crime reported
  - Jewelry store example: discrepancy in inventory, not a theft
- Important to think about end product and goal with collected data

Federal Law Enforcement Programs with Local Agencies
- Project Safe Neighborhoods
- Project Exile
- David Kennedy- Operation Ceasefire in Boston
  - Using data to identify hotspots
  - Send in team that include police and social services
  - Federal, state, and local agencies involved

Relevant Offices in DOJ and other partnerships
- Office of Justice Programs (OJP)
- Bureau of Justice Statistics (BJS)
- GunStat
  - Every week LEAs get together and identify violent crime offenders

Pamela Marino, Acting Director, Norfolk Open Data Portal, 2/28/2022
Contact information: pamela.marino@norfolk.gov
Background and Creation of Data Portal
- Norfolk open data portal launched in March 2018
- Worked with Department of Communications which merged with IT Department
  - Felt strongly about government data transparency
- Existing data portal that was not public, tasked with cleaning up data portal to make it public
- Wrote open data policy to guide publishing of data
- Lots of help in kind from What Works Data, a Bloomberg foundation that has supported around 100 cities launching data portal initiatives
- Three internal teams to work with different city departments to get data to put on portal
  - Internal team that met weekly (mixture of IT and Communications with others including a data scientist)
  - Data leadership team with department heads, voted to approve datasets, met monthly
  - Data champions who are midlevel data workers that met quarterly to discuss best practices and progress

Crime Data in the Portal
- Data scientist and city attorney that help to approve datasets to assure legal cooperation
- Have police active warrants, arrest reports, and incident reports on the data portal
  - Data needed significant automated cleaning
  - Update active warrants every 24-hours
  - Arrest reports also updated daily
  - Incident reports for last five years
    - More careful about information that is in this dataset
  - Police use of force dataset
    - Supportive Chief of Police that helped to get this dataset in the portal
    - In response to recent BLM protests
- Have representatives from police department on leadership committee and have a good relationship with IT workers in department

Purpose and Use of Data
- Data is used to improve city department processes
- CivicLab sets up data for analysis and helps on specific projects but departments mostly conduct their own analysis

Aggregating Data Across Cities
- Difficult to partner with specific cities in area
  - Different portal software, Norfolk uses Socrata

- Have partnered with state of Virginia to federate data making it accessible on state data portals
  - Look at datasets, go to federated domains and can add state data into portal
- Chief Data Officer of Virginia produces Bits and Bytes Newsletter from Office of Data Governance
  - Can look at state operations

Future Goals for Data Portal
- Drafting 5-year plan with goals
- Model of gentle pressure on city departments not that CivicLab is its own department
  - Departments need to own their own data, departments need to update their own data and can't just leave it
  - Switched to program catalogue system
    - Budget items are part of program and there are specific metrics set to assess the efficacy of city department programs
    - Receive funding passed on data that is collected on efficacy or other important information about the workings of a department and program
  - Resident survey to understand what is important to residents in Norfolk

An Assistant U.S. Attorney, 3/22/2022
Violent Crime Cases and Sharing Data/Working with Local Law Enforcement
- The need to share data and coordinate actions comes up all the time
- All investigative work could be done at local level so need relationships to access that data
  - Could be a federal investigation but a state crime so evidence could be collected by multiple agencies
- Relationships differ among districts depending on size and number of local law enforcement agencies
  - Large geographic areas and more rural areas mean more local partners
- No issues in past obtaining data from local law enforcement agencies, if data exists
  - Issues with crime data are not resistance

Project Safe Neighborhoods
- Coordinator for small city PSN program, has experience in other small cities (focus on more rural areas)
  - But PSN only has programs in cities since this is where violent crime is usually a problem
- Overview of coordination efforts
  - All stakeholders meet once a month
  - Include state prosecutors and state law enforcement, FBI and ATF, and county and city law enforcement, and U.S. Attorney's Office personnel

Julian Brock

- o Important to be present in community
- Relationship with local law enforcement impacted significantly by history
    - o Establish a good relationship by having a lot of success prosecuting important cases that have a huge impact on making a community safer
    - o Local Chief of Police helped create good relationship with federal agents, wanted their presence and help
    - o Task force officers are local officers that become temporary federal agents for a case
        - ▪ Have power of federal agent but embedded in local or state agency
        - ▪ Should be good at building relationships

Professor Michael Scott, Director, Arizona State University Center for Problem Oriented Policing, 3/22/2022
Contact information: info@popcenter.org
DOJ Programs and Resources

- UCR and NIBRS- crime collection
- Bureau of Justice Statistics- research
- National Police Research Platform (funded by NIJ)- research
    - o More analysis of local data

About the ASU POP Center

- Founded in 2000 and funded by DOJ COPS Office for 12 years, no longer receives funding
- Seeks to compile research addressing nearly 75 identified crimes/problems with guidebooks
- Key is to move beyond broad aggregate research and focus on specific data questions
- Help police departments be action-oriented by applying data-driven research
    - o Can teach departments how to do analysis themselves as well
- Center focuses less on real-time data, more focus on long-term efforts (1-5 years)
    - o But many larger agencies have begun implementing real time crime centers (RTTCs)
        - ▪ These centers seek to interrupt crime patterns
        - ▪ Tradeoffs between real-time and delayed data that is verified

Example of Local Real-Time Crime Data

- ComStat created by the NYPD in the 1990s was a precursor to many centers today
- Looked at UCR crimes for each precinct on a monthly basis and then would compare months
- Criticized for being too short term and narrowly focused
- Model has been emulated by many departments to generate data and strategies quickly

Role of Federal Government with Crime Data

- Crime data collection
  - UCR and NIBRS
- Research
  - In the 1960s and 1970s the NIJ research arm was established
    - Fund research studying national and local crime
    - Support more in-depth local research and make it high quality
    - An example was Minneapolis domestic violence research in the early 1980s
  - COPS office devotes 2-3% of funding to encourage crime analysis

Dr. Shelley Hyland, Supervisory Program Specialist in the Resources and Technical Assistance Division, Community Oriented Policing Service Office in the Department of Justice, 3/25/2022
Contact information: Shelley.Hyland2@usdoj.gov
COPS Office Work

- Federal-local partnerships are what make this office's work effective
- Have direct engagement with field operations
- Involved with law enforcement stakeholder groups to promote community policing
  - Largest program is the hiring program (CPOs)
- Office also in charge of a lot of funding
  - Funding has typically been discretionary but past two years Congress has set requirements on it
    - Goes towards things like de-escalation projects and crisis teams, etc.
- Also have micro-grant program- this program gives agencies more space to use funding how they want to
  - Addressing violent crime will be a priority for this funding this year
  - Could attempt to link increasing access to data to reducing violent crime
- COPS Office is more focused on interventions than data

Other DOJ Offices and Programs That Work with Crime Data

- BJS- more equipped to house data programs
  - Give out NCS-X Implementation Grant to improve data capacity
    - This grant's goal was to help law enforcement submit NIBRS data to FBI so generate a representative sample
  - Also work on data visualization
  - Connect with BJS contact
- Providing funding is a key relationship builder between federal and local law enforcement agencies
  - When asking for data, should be prepared to offer something in return (something that has held NIBRS back)
  - Should convince how and why
  - Build up the relationship by making the effort about the local agency

- Other data programs and partnerships- aggregate data
  - State Analytical Centers
  - Need high quality RMS system that many agencies can input data to
    - Feed data into large system
    - Create access (cloud access helps this)
  - Obama-era Police Data Initiative
  - National Policing Institute
- Many local departments already share data with other nearby local departments to help investigations

Matthew Morley and Blaine Ray, Analysts, Metropolitan Nashville Police Department, 3/29/2022
Contact information: matthew.morley@nashville.gov
Launching Crime Data Accessibility and Dashboard
- Spearheaded by Metro Information Services Division
  - Established the process
- Department came in to share data bridging gap to get data to right place
- Had existing public release policy to guide process
- Initiative out of Mayor's Office
  - Appointed a guru for open data portal that worked throughout Metro Government, high level position with significant authority
  - Eventually moved to ITS Department
  - Buy-in from mayor key for moving process
  - ITS Department devoted manpower to project

Police Data
- Follow guidelines for public release
  - Names not provided, exclude juveniles
  - But sought to put out as much information as possible
- A lot of cleaning went into getting the data suitable for publishing
  - Made data able to be downloadable
  - Updating portal is now an automated process, key project to make portal more self-sustaining
- Transparency is key to this data
  - Not created as much for the purpose of conducting analysis
- Would be difficult process to add other smaller police departments' data into system
  - They have their own portals
- When releasing data make sure you really want whatever is being published to actually be out there
- Nashville sends crime data to TBI for FBI (this is a requirement)

Dr. Alexia Cooper, Unit Chief of the Law Enforcement Statistics Unit in the Bureau of Justice Statistics, 3/31/2022
Contact information: Alexia.Cooper@usdoj.gov
Federal Government Crime Data Collection
- Compiling UCR data
    - Challenges: Take local level data dan send through multiple steps, offices and reporting agencies
        - Law enforcement (officer and reporting agency tracks incidents)
        - Regional or state entity receives and sends data
        - Data received by federal law enforcement
    - Standardization- determining what is important enough to report
        - NIBRS addresses this making data comparable
        - But local agency many need to change processes to meet requirements
        - NIBRS failed in 1990s because of technology hurdles
        - Now, challenge is merging NIBRS with existing processes (requires support in funding, technology, and information)
        - Less of a willingness to support police IT initiatives compared to other police programs
    - Building a Data System
        - Many rigid hierarchical systems exist to classify incidents
            - Strengths: easy foundation on which to tell people what to do
            - Drawback: some incidents just don't match, rigid labor- and cost-intensive to change definitions
        - Better system that is harder to achieve is attribute system
            - Track characteristics of any incident and classify based on recorded attributes
            - Easier to change system

- Problems When Seeking to Release Data
    - Inherent tradeoff between speech and accuracy
        - Must verify incident that is still under investigation
        - Discrepancies between call for service and incidents
    - Sunshine states- once a record is official it can be made public, for the most part
        - Very careful about what is made official
    - Public perception of crime
        - What is crime numbers don't match between local, state, and federal counts
            - Statisticians know this as margin of error but media would likely jump on discrepancy
        - Reason why FBI receives data in April but releases in September
    - Most states trying to get monthly data but remains difficult
    - Pushback- already give federal government data, what more do you want?

Solutions to Speeding Up Data Processing, Sharing, and Publishing
- Bureau of Justice Assistance helping to fund Justice Counts with Council of State Governments Justice Center (CSGJC)
  - Announced in February 2022
  - New attempt for government wide data warehouse to improve data collection and accessibility
  - A lot of research on what's available
- State Analysis Centers (partially funded by BJS)
  - State level consolidating data agency
  - Analyze and release state data
  - Some states have a lot of resources for these centers but others don't
    - Data acquisition differs depending on state
  - State UCR program coordinator (gets NIBRS data for federal level) are sometimes in SACs
    - Others are different entities that don't always have good relationships (competition)
  - These centers play an important role because they have valuable data analysis skills
  - UCR office differ in size between states as well (10 full-time employees, 1 part-time employee)
- JRSA- partially funded by BJS
  - Research center
  - Criminal justice data focus, heavily involved in SACs
- Association of State Uniform Crime Reporting Programs (ASUCRP)
  - Members often work in SACs and other state data agencies
  - Look into annual conference
- Local Open Data Portals
  - Tradeoff of speed versus accuracy acute here (always exists with living data source)
  - Data in these portals may have different uses- may impact how often its updated
  - Truthfulness could be called into question with fast updating (misperception)
  - Analysis of this data could make cities more hesitant to publish
    - More of a temperature check tool
  - Important to educate users of system about shortcomings in accuracy
  - Has a lot of potential for local users and policymakers but there are limitations
  - Prioritizing internal systems more important, efforts will spill over to public data
- NCS-X Awards
  - Like funding policy and people-oriented projects
  - Tend to fund technology less even though it's a huge need
  - Money often used for other purposes
    - Example: Louisiana departments wanted to upgrade to NIBRS but needed to fix hole in ceilings from last hurricane
  - JAG award suffers from similar problem- too discretionary

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