ORT Prevention Grant Program

Local Evaluation Plan

LAPD RealTime

Submitted by:

Los Angeles Police Department

Prepared by:

Dr. Craig D. Uchida

cduchida@justicestrategies.com

(240) 687-3719

Date:

April 8, 2024

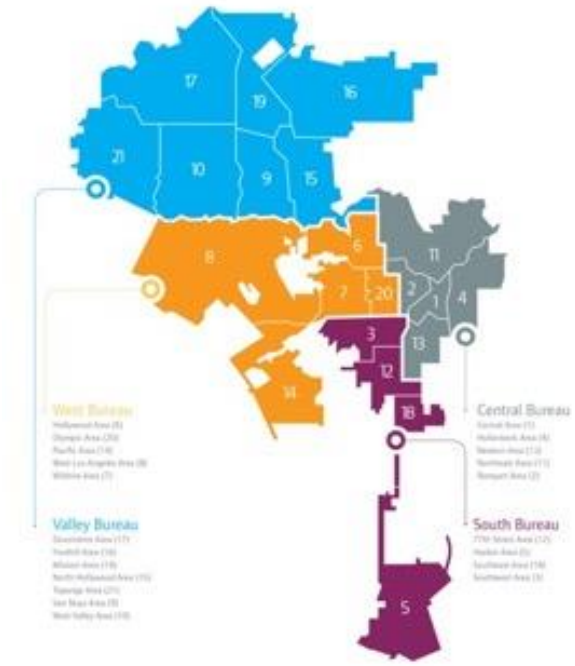
Project Period:

October 1, 2023 – December 31, 202

Project Background

Los Angeles, CA is the second largest city in the United States with a population of nearly four million residents distributed over 472 square miles. The Los Angeles Police Department (LAPD) is the third largest police force in the US with about 8,800 sworn and 2,300 civilian employees. Interim Chief Dominic Choi oversees the department that is divided into four offices – the Office of the Chief, Office of Operations, Office of Support Services, and Office of Special Operations. There are four patrol bureaus with 21 divisions within the Office of Operations.

This project includes the Commercial Crimes Division (CCD), patrol bureaus and the area divisions, and the Information Technology Bureau (ITB). CCD which is under the Office of Special Operations and Detective Bureau formed three task forces: The Taskforce for Regional Auto Theft Prevention (TRAP), the Organized Retail Theft Task Force (ORCTF), and the Cargo Theft Unit (CTU). The Information Technology Bureau is responsible for planning the implementation of the real-time crime centers across the city. Because of the decentralized nature of investigations at the 21 area stations spread out across the city, investigators have responsibility for business-related burglaries, theft, and robberies, and motor vehicle thefts that occur within their boundaries. Justice & Security Strategies, Inc. (JSS) serves as the local evaluator and assists with data collection, analysis, reporting, and the evaluation itself.



The Problem

Since 2020, acquisitive crime - property crimes and robberies where people acquire money or goods, have increased in L.A. In addition, with the decreases in police personnel in the LAPD, preventing, mitigating, and investigating these crimes have become serious issues.

COVID-19 led to an increase in motor vehicle thefts (MVT) and burglaries from businesses as people left their cars unattended and businesses were closed. As the pandemic waned in 2022, the recent uptick in ORT, MVT, and cargo theft reflect a return to somewhat normal living conditions. Opportunities for retail theft and commercial robberies have increased as shops reopened. Another factor may be the emergence of economic conditions, such as the rise in food, fuel, and housing prices that began in the final months of 2021 and accelerated sharply in 2022 and 2023.

Diminishing Resources

In the aftermath of the George Floyd Demonstrations, LAPD saw its force of 9,900 officers in 2020 decrease to 8,800 in 2024. Civilian personnel declined from 3,500 to about 2,300. This led to a reallocation of personnel across the Department and stretched its resources to the limit. While reallocation of officers occurred in every bureau, detective and administrative units were especially affected; some were reduced in size while others were eliminated entirely. While LAPD is recruiting more officers, the process for hiring, selecting, and training is long and will require several years before it achieves its goal of 9,700 officers.

Increases in crimes

ORT crimes are soaring in L.A. – the city experienced a 14.2% increase in retail theft in 2023. This rise is also recognized by consumers. According to a recent survey conducted by the National Retail Federation (NRF), most consumers believe retail crime has increased.

Furthermore, executives at Target, as well as other big-box brands such as Walmart, indicate that inventory loss has hit record-breaking levels. In fact, Target which has 29 stores in Los Angeles, has reported that it will lose $1 billion in inventory based on the surge in retail theft. In 2023, the top repeat locations were a Target store and The Grove (mall) in Wilshire Division, Westfield Century City Mall in West LA Division, and Figueroa at 7th (a mall) in Central Division. Five-year trends show that malls at Century City, the Grove, and Topanga have the highest numbers of retail thefts.

While MVTs have decreased slightly over the last five years, thefts of catalytic converters have increased by 33%. Hot spots for MVTs are in South LA, but catalytic converter theft is city wide.

Cargo theft has also made headlines. Stolen cargo from railways and railyards; fraud and fictitious pickups by commercial truck drivers; and stolen commercial trailers are among the problems associated with cargo theft. According to CargoNet, a nationwide clearinghouse for the industry, Southern California is the region for redirecting stolen cargo goods. Between January 2021 and March 2023, Los Angeles County was the top county in the U.S. for fictitious pickup thefts, accounting for 27.6% of the thefts nationwide.

In 2022 CCD formed the Cargo Rail Task Force in response to the increase of cargo theft from the Union Pacific rail line within L.A. United Parcel Service (UPS) advised that they were experiencing an increase in rail cargo container theft on Union Pacific trains as 80 rail cargo containers a day were being burglarized with a reported loss of over $20 million. The Cargo Rail Task Force worked in collaboration with over 40 retail corporations and 20 law enforcement partners and completed an 8-month investigation where $20 million of stolen merchandise was recovered and 35 people arrested.

The success of the task force made it clear that LAPD needed to continuously investigate and intervene in the problem. During the first half of 2023, it recovered over $10 million in merchandise stolen from cargo containers from the trucking industry.

LAPD RealTime

LAPD RealTime is the name of the program that involves real-time crime centers (RTCCs) at area stations, patrol Bureaus, and the Office of Operations. LAPD RealTime is supported by the Innovation Management Division (IMD) of the Information Technology Bureau (ITB). The purpose of LAPD RealTime is to manage real-time data and intelligence. By taking this data-driven approach, the Department can mitigate and investigate crime and provide situational awareness to increase officer and citizen safety.

Real-time crime centers are small conference rooms that bring together staff and a variety of technologies to support policing activities. This support includes both near–real-time assistance to field operations and analytic support to commanders' strategic decision-making. They serve as command and control centers for staff to gain awareness of what is happening in their areas and decide on responses. Their objectives are to improve their abilities to reduce crime, hold offenders accountable, improve officer safety, and reduce response times.

Overall, LAPD RealTime is an innovative and cost-efficient approach to addressing the problems of organized retail theft, robberies, burglaries, and larceny from motor vehicles in specific areas within patrol divisions. By integrating data, using private surveillance camera feeds, license plate readers, and other information, the Department creates a deterrent to crime and increases the likelihood of arrests when offenses do occur.

At the core of LAPD RealTime is the use of active surveillance feeds from private and public cameras. In addition, data from automated license plate readers (ALPRs) provide information

about stolen vehicles and allow crime analysts/intelligence specialists to track vehicles involved in criminal activity.

Goals and Objectives

There are three major goals with important objectives for this project:

Goal 1. Reduce crimes, especially ORT, MVT, and CT, through prevention and intervention.
Objectives:

- Connect businesses to LAPD's integrated technology platform
- Install ALPRs at locations where auto and catalytic converter thefts occur
- Monitor and review data at division stations and Bureaus; provide information to investigators, task forces and patrol officers.

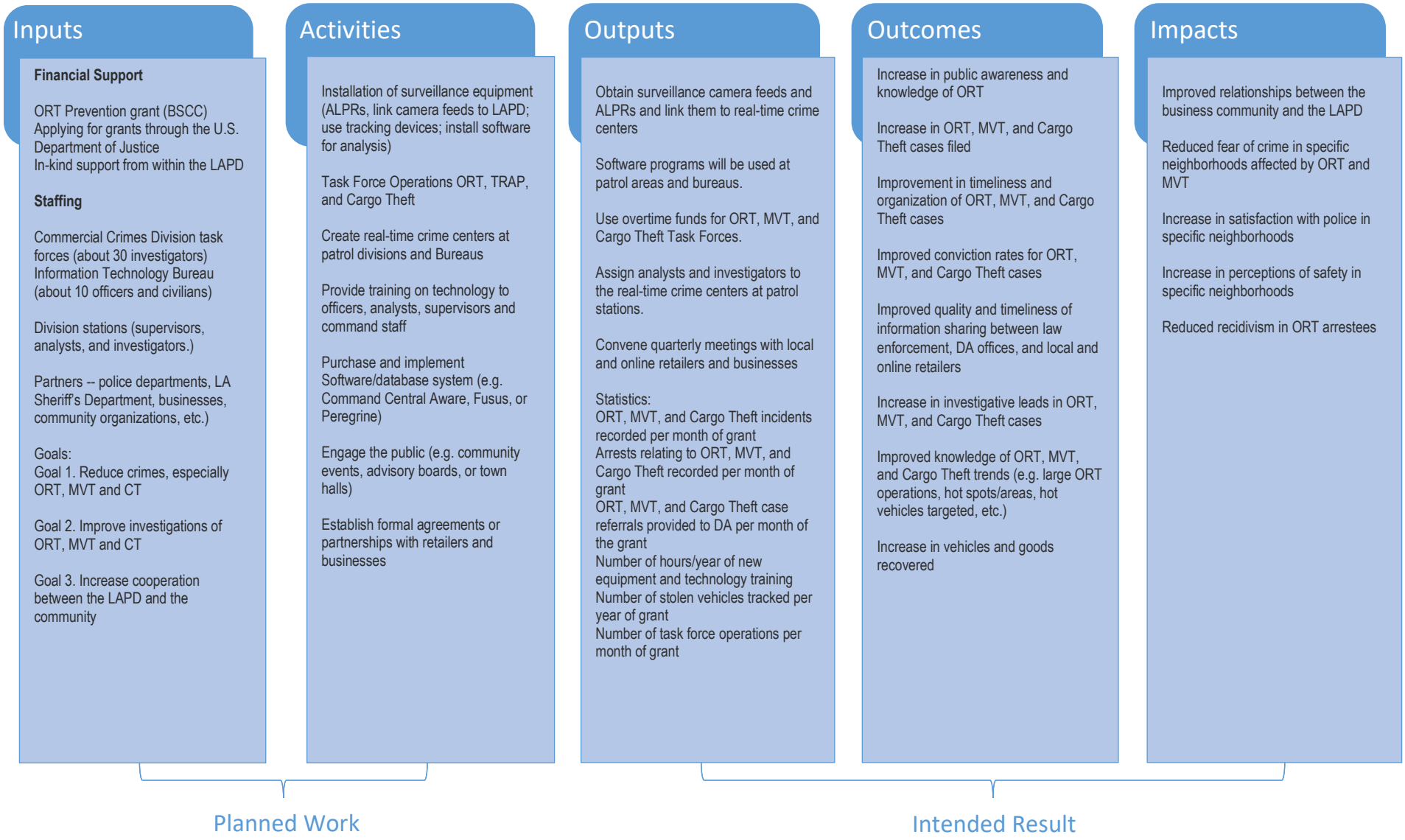
Goal 2. Solve more ORT, MVT, and CT crimes by improving police investigations.
Objectives:

- Enhance the ORT and Cargo Theft Task forces with equipment and supplies to conduct investigations
- Establish MVT liaisons to assist officer and investigators at the Divisions
- Train liaisons, officer, and civilian analysts on LAPD RealTime.
- Track ORT, MVT, and CT cases.

Goal 3. Increase cooperation between business owners, communities, and the police
Objectives:

- LAPD captains will meet with business owners; obtain letters of agreement; link security cameras to LAPD systems using the technology platform; and provide feedback information about crimes to business owners
- LAPD will work with law enforcement agencies through task forces to reduce ORT, MVT, and cargo thefts
- LAPD will educate the public about LAPD RealTime

LAPD RealTime Logic Model:



Process Evaluation Methods and Design

The evaluation will be conducted by researchers at Justice & Security Strategies, Inc. (JSS). Dr. Craig D. Uchida and his staff have worked with the LAPD on independent research and evaluation projects since 2008. (A complete description of JSS and biographies of staff are included in Appendix A.)

The purpose of the overall evaluation is to learn about the challenges and successes of the LAPD response to organized retail theft, motor vehicle theft, and cargo theft. There are two primary areas of focus. First, funds are devoted to the Commercial Crimes Division's task forces to specifically combat these crimes. The task forces involve investigators from LAPD and neighboring law enforcement officers. The methods of the task forces differ based on the crime; organized retail thefts are inherently different from motor vehicle and cargo thefts. Second, the LAPD will establish real-time crime centers at each of its 21 patrol divisions and at the four patrol bureaus. The purpose of these centers is to quickly and efficiently deal with near-real-time crime and improve the investigation of those crimes. By encouraging businesses to provide video feeds to the LAPD and by installing automated license plate readers (ALPR) in different locations, the Department hopes to obtain information to act on ORT, MVT, and cargo theft immediately. These two parts of the project require distinct evaluation methods and are discussed below.

Process Evaluation

In general, a process evaluation describes whether and how a project is implemented. A process evaluation seeks to answer several key questions:

- What resources were needed to implement the project?
- What activities occurred during the implementation of the project?
- Who were the targets of the project?

- What were the challenges that were encountered as the project unfolded?
- Was the project implemented as intended?
- What were the factors that led to successful implementation?
- To what extent were successes or failures a result of factors other than the strategy?

A process evaluation analyzes the early development and actual implementation of the strategy or program, assessing whether strategies were implemented as planned, and whether expected outputs were actually produced.

Process Evaluation: CCD Task Forces

The JSS research team will evaluate the work of the three task forces within CCD. However, emphasis will be placed on the Organized Retail Crime Task Force (ORCTF) as it involves the most LAPD resources (20 investigators) and represents the most serious criminal activities ('flash mob robberies'). The Taskforce for Regional Auto Theft Prevention (TRAP) has been involved with organized auto thefts for a number of years. It involves six LAPD investigators working with detectives from the Los Angeles Sheriff's Department. The Cargo Rail Task Force (CRTF), with five LAPD investigators, collaborates with multiple law enforcement partners and retail corporations.

For the process evaluation of the ORCTF, JSS will use multiple methods of data collection. These will include quantitative and qualitative data and descriptive analyses of ORCTF operations. Quantitative data collection will include:

Number of incidents referred to the task ORCTF by LAPD patrol divisions and outside entities;
Number of incidents accepted by the ORCTF;
Number of hours of surveillance per accepted case (estimated);
Number of search warrants generated;
Number of arrests made;
Number of arrests from 'blitzes';
Number of arrests presented to the district attorney;
Number of arrests filed by the district attorney;
Amount of property recovered (in dollars); and
Number of firearms recovered.

JSS has agreed to input information from incident and arrest reports of the ORCTF into a database. JSS research associates will work with investigators to update the current database and will input data routinely into it (two days per week). The narratives from the reports will provide in-depth information about what was done, the location, number of investigators involved, and the results of the operations. Descriptive statistics will be generated from these data. This practice will create reports of ORCTF activities every month and to provide information to the Captain and others in LAPD as needed.

As part of its qualitative approach, the JSS team will conduct interviews of ORTCF supervisors and investigators and when possible, the team will observe investigator activities in the field.

For the process evaluations of TRAP and the CRTF, JSS will collect a limited amount of quantitative information from the teams. Those data will be collected monthly and include:

Number of incidents referred to the task forces;
Number of search warrants generated;
Number of arrests made;
Number of arrests presented to the district attorney; and
Number of arrests filed by the district attorney.

Descriptive statistics will be generated from these data and provided to the Captain and others in LAPD monthly.

Process Evaluation: LAPD RealTime

The second component of the project is to plan, create, and implement LAPD RealTime. This means establishing real-time crime centers (RTCC) at LAPD patrol area stations and bureaus. LAPD intends to roll out the RTCCs to patrol stations beginning in June 2024. Three divisions – Central, Hollywood, and Van Nuys – will be the first to receive computer workstations and the first to test the new computer platform that incorporates surveillance video feeds from businesses

and ALPR data from newly installed devices. Data from LAPD's records management system (RMS) and from state systems will also be linked into the RTCCs.

The process evaluation of LAPD RealTime will document the following activities:

Selection, purchase, and implementation of a computer platform that integrates video surveillance footage, ALPRs, and internal and external databases;
Number of computer workstations implemented;
Number of formal agreements with retailers and businesses to share video footage;
Number of surveillance video feeds from businesses to the Department;
Number of ALPRs installed and connected;
Number of hours of training on the new technology to personnel; and
Number of engagements with the community about LAPD RealTime.

Process Evaluation Matrix

Input/Resource/Activity/ Output	Data Element(s)	Data Source(s)	Frequency of Data Collection
ORC Task Force TRAP CRTF	# of incidents # of arrests # of search warrants # of cases presented to the DA # of cases accepted by the DA	Separate databases for each task force; LAPD records management system,	On-going data collection by JSS Research team
Investigator overtime during the course of the grant for three task forces	# of hours of overtime	Commercial Crime Division database	Monthly
LAPD RealTime			
Selection, purchase, and implementation of computer platform	Agreements with vendors	Innovation Management Division personnel will track and monitor	One-time only
Implementation of RTCCs	# of computer workstations # of surveillance video feeds # of ALPRs purchased and installed	Innovation Management Division personnel will track and monitor	Monthly
Engagement with business community	# of meetings with businesses # of formal agreements signed	Innovation Management Division personnel will track and monitor	Monthly
Engagement with community	# of community policing advisory board meetings # of presentations in the community	Captains from divisions will keep track of this information	Monthly

Outcome Evaluation Method and Design

The outcome evaluation of the task forces and LAPD RealTime seeks to determine whether these interventions had effects on a variety of factors, including crime, those committing the crimes, and on community perceptions.

Outcome evaluation questions regarding the task forces include:

- What are the effects of the task forces on organized retail theft, motor vehicle theft, and cargo theft? Does crime decrease as a result of the task force activities?
- What are the effects on arrestees? Were they more likely to be convicted than before?
- What are the effects on the business community and residents?

To answer these questions, the research team will use the following data from the LAPD:

- Crime incident database which includes type of offense, location, date, and time (covering the period of January 1, 2019 to December 31, 2026);
- Organized Retail Crime Task Force database which includes the incident, offense, location, date, time, arrest, and cases presented to and accepted or not by the district attorney (August 21, 2023 to December 31, 2026);
- Cargo Rail Task Force database which includes the incident, offense, location, date, time, arrest, and cases presented to and accepted or not by the district attorney (October 1, 2023 to December 31, 2026);
- TRAP data which include incident, offense, location, date, time, and arrest (October 1, 2023 to December 31, 2026);
- Arrestee database which includes an identifier to link to the incident; name of arrestee, offense, location, date, and time (January 1, 2019 to December 31, 2026).
- Public sentiment data from ZenCity (February 2024 to December 2026).

As noted above, the research team will focus primarily on the ORCTF, but will also examine the effects of TRAP and CRTF on a limited basis. For the impact analysis of ORCTF, researchers will use an interrupted time series (ITS) design (see Campbell and Stanley, 1963 and Cook and Campbell, 1979), given the availability of preexisting data and an unambiguous start time of the intervention for the ORCTF (August 21, 2023).[1] The ITS is a robust quasi-experimental design

[1] TRAP and CRTF existed prior to 2023 and their start dates are difficult to determine.

and the JSS research team has used this design in multiple studies (e.g., see Uchida and Swatt, 2013). Basically, ITS includes three coefficients – the 'time coefficient' which indicates the trend before the intervention; the 'treatment coefficient' which indicates the increase in the treatment immediately after the intervention; and the 'time since coefficient' which indicates that the trend has changed after the intervention. This method, while not the 'gold standard' of an experimental design provides strong evidence that an intervention has an effect.

To determine the effects of the program on residents' perceptions, JSS will rely upon data from ZenCity, a firm that measures public sentiment across the city of Los Angeles. Through its Blockwise program, ZenCity measures key aspects of resident perceptions, including city residents' level of satisfaction with police and how safe they feel in their neighborhood. These survey questions are delivered and collected through digital advertising platforms. Since February 2024, Blockwise has collected 2,500 survey responses per month across the city. The methodology for the surveys has been validated by the National Opinion Research Center (NORC), and the data will be available at the division level of the LAPD in June 2024. JSS will work with ZenCity to analyze the data and determine whether shifts in public sentiment occur before and during the implementation of the project.

Outcome Evaluation Methods: Real-time Crime Centers

Very few studies of real-time crime centers exist in the criminal justice literature (Przeszlowski, Guerette, and Gutierrez, 2023) and only one could be found that conducts an outcome evaluation (Hollywood, McKay, Woods, et al. 2019). In this study, the researchers used a difference-in difference model to determine the effects of RTCCs on crime in Chicago. Much like an interrupted times series design, the difference-in-difference model seeks to determine whether

crimes decrease over time using Poisson regression and dummy variables. Out of 40 models, 15 showed significant reductions in average monthly crime counts after RTCCs were implemented.

For the purposes of this evaluation, the research team will evaluate the effects of the first three RTCCs on crime. That is, the LAPD intends to establish an RTCC in Central, Hollywood, and Van Nuys Divisions by June 2024. While a roll out of RTCCs will occur in the 18 other divisions and in four bureaus, those will take considerable time. Completion of the RTCCs will probably occur at the end of 2025 or in early 2026 leaving little time to determine the effects of those RTCCs on crime. By focusing on the first three divisions, the researchers will have about 30 months of data to determine the effects on crime (June 2024 to December 2026). Coupled with data from 2019 through June 2024, an interrupted time series or difference-in-difference models could be used in the analysis.

For the outcome evaluation of RTCCs, we ask:

- What is the effect on overall crime in the three divisions?
- What is the effect on business-related crimes thefts, robberies, and burglaries?
- What are the effects of surveillance video feeds and the placement of ALPRs on crime? Does crime decrease in and around those businesses and in the locations of ALPRs?

To answer these questions, the research team will use the following data:

- Crime incident database which includes type of offense, location, date, and time (covering the period of January 1, 2019 to December 31, 2026);
- Business locations that agree to provide surveillance feeds (specific addresses and/or latitude and longitude coordinates);
- ALPR locations (specific latitude and longitude coordinates)
- ArcGIS overlays of the three divisions;
- Census data of residents and businesses in the city of Los Angeles.

Outcome Evaluation Matrix

Outcome	Definition	Data Source(s)	Frequency of Data Collection
Increase in reported ORT incidents from businesses/retailers	Increase in the number of ORT incidents reported/called in by businesses/retailers	Internal database, LAPD crime incident data (records management system)	On-going
Increase in investigative ORT leads	Increase in the number of ORT cases being actively worked	Internal database	On-going
Increase in ORT cases filed	Increase in the number of ORT cases filed	Internal database	On-going
Improved conviction rates for ORT cases	Increase in the number of ORT convictions in relation to the number of ORT cases filed.	Internal database	On-going
Improved attitudes of community toward the police	Increase in satisfaction with police services	ZenCity/Blockwise data	Monthly
Improved quality and timeliness of information sharing between DA offices, law enforcement, and local and online retailer	Increase in collaboration between agencies in gathering information and evidence to file ORT cases	Internal database	On-going
Decrease in crime as a result of RTCCs	Decrease in business-related crimes	LAPD crime incident data	On-going
Increased use of technology	Increase in use of video surveillance and ALPR data	Observations by research team	On-going

References

Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research*. Boston, MA: Houghton Mifflin.

Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: design & analysis issues for field settings*. Boston, MA: Houghton Mifflin.

Hollywood J.S., McKay K.N., Woods D., et al. (2019) *Real-time Crime Centers in Chicago: Evaluation of the Chicago Police Department's Strategic Decision Support Centers*. Santa Monica, CA: RAND Corporation. https://www.rand.org/pubs/research_reports/RR3242.html

Przeszlowski, K., Guerette, R.T., Lee-Silcox J., Rodriguez, J., Ramirez, J., and Gutierrez A. The centralization and rapid deployment of police agency information technologies: An appraisal of real-time crime centers in the U.S. *Police Journal: Theory, Practice and Principles*, Vol. 96(4): 553-572. DOI: 10.1177/0032258X22107587

Uchida, C.D. & Swatt, M.L. (2013). Operation LASER and the effectiveness of hotspot patrol: A panel analysis. *Police Quarterly* (16): 287. Doi: 10.1177/1098611113497044.

Appendix A
Justice & Security Strategies, Inc.
Biographies

Expertise as Research Partner

JSS serves as the Research Partner for a number of law enforcement agencies and community-based organizations across the country. JSS has worked extensively with the Los Angeles Police Department (LAPD) as its Research Partner for over 16 years. Currently, we work with LAPD on US Department of Justice-funded programs involving body-worn cameras, improving homicide investigations, police and mental health strategies, and Asian hate crime. In addition, we work with the Miami and Baltimore Police Departments on their Crime Gun Intelligence Centers and have recently completed a project with the Bronx District Attorney's Office on violent crime. Lastly, we work with the Los Angeles City Attorney's Office on its community-based violence prevention initiative.

Staffing

Dr. Craig D. Uchida will serve as the Research Project Director. Dr. Uchida is a national expert on body-worn cameras, intelligence-led policing, police organizations, community policing, and police use of force. He is a former senior executive at the US Department of Justice and professor of criminology at the University of Maryland. He has more than 35 years of experience in criminal justice research, evaluation, planning, and administration. Dr. Uchida has conducted extensive research projects using different methodologies including quasi-experiments and experiments. Dr. Uchida received his doctorate from the School of Criminal Justice, University at Albany and holds two Master of Arts degrees, one in Criminology and the other in American History.

Dr. Shellie E. Solomon will serve as the Principal Investigator on this project. Dr. Solomon is the CEO of JSS and is an expert on technology in police agencies, geospatial predictive policing, police early warning systems, gang intervention, mortgage fraud and collective efficacy. She has worked in over 50 law enforcement agencies across the United States, the U.S. Virgin Islands and Trinidad and Tobago. Dr. Solomon received her Ph.D. in 2019 from the University of Maastricht, Netherlands, UNU Merit Program (United Nations University - Maastricht Economic and Social Research Institute). Dr. Solomon's dissertation, *Neighborhoods Matter*, adopts geostatistical methods from the physical sciences to examine neighborhood functioning as related to crime and housing at the micro-level. She also holds a M.S. from the University of Rochester in Public Policy Analysis and a B.A. in Economics with Highest Honors from the University of Oklahoma.

Dr. Marc L. Swatt is a Senior Research Statistician and Project Director at JSS. Dr. Swatt has extensive experience with a number of statistical methods, including generalized linear models, hierarchical linear models, structural equation models, item response theory models, time series analysis, data mining, survival analysis, missing data analysis, propensity score analysis and

other counterfactual models, and crime mapping and spatial analysis. He holds a Ph.D. from the University of Nebraska at Omaha

Dr. Alese Wooditch is a Senior Research Statistician at JSS and Associate Professor in the Department of Criminal Justice at Temple University. She received her PhD in Criminology, Law and Society from George Mason University in 2016 and her MA in criminal justice from Penn State University in 2009. Her research generally focuses on the geography of crime, risk assessment, and how methods from other disciplines can be used to inform our understanding of crime.

Research Associates (RA) and **Data Scientists** will assist Dr. Uchida with data collection, analysis, and report writing. At a minimum, they hold Master's degrees in a social science discipline and have the skill set to assist with the evaluation.