ORT Prevention Grant Program

Local Evaluation Plan

Newark Vehicle and Accessory Theft Prevention Program

Newark Police Department

Project Period:
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Project Background

The City of Newark is uniquely positioned in the San Francisco Bay Area, bordering Silicon Valley and situated between Oakland and San Jose. Newark is facing challenges with increasing crime rates, particularly in vehicle and vehicle accessory thefts, while also grappling with staffing challenges exacerbated by a nationwide trend of declining sworn personnel. Newark has a mall, a large biotechnology campus, and an increasing number of residential, retail, and commercial developments,[1] which makes it a target-rich environment for vehicle and vehicle accessory thefts. The Newark Police Department (NPD) has implemented a multi-faceted crime prevention program, the Newark Vehicle and Accessory Theft Program (NVATPP), leveraging technology and community partnerships. The plan includes the installation of automated license plate readers (ALPR) and the creation of the Catalytic Converter Label Identification Program (CCLI) in an attempt to combat the surge of vehicle and vehicle accessory theft. Through strategic deployment of resources and stakeholder collaboration, NPD aims to enhance public safety, increase prosecution rates, and reduce vehicle and vehicle component theft in the community. NVATPP emphasizes engagement with residents and businesses, technological implementation to increase evidence collection, and proactive policing strategies to achieve its goals.

Purpose & Problem

California leads the nation in vehicle thefts, with nearly 100,000 vehicles stolen during the first six months of 2023.[2] The California Highway Patrol (CHP) reported that nearly 203,000 vehicles were stolen in 2023, a 2.1% increase since 2022, with a total approximate value of $1,800,000,000.[3] CHP found that 21.6% of all thefts occurred in the San Francisco Bay Area, of which 53.8% of the thefts in the Bay Area occurred in Alameda County. There were over 23,500 vehicles reported stolen in Alameda County in 2023, ranking it second in the state behind Los Angeles, with San Diego in third with 12,085 reported thefts. The Council on Criminal Justice found that 29% more vehicles were reported stolen in 2023 than in 2022, continuing its upward trend.[4] NPD had a 90% increase in motor vehicle thefts in 2020, a 28% increase in 2021, and a 13% increase in 2022. Motor vehicle thefts continued on an upward trend in 2023.

Catalytic converter theft insurance claims increased 226% from 2019-2022,[5] while catalytic converter theft rose 1225% during the same time in Newark, rising from eight in 2016 to 106 in

[1] Newark. (2024). *About us.* Newark, California. https://www.newark.org/residents/about-newark
[2] NICB. (2024). *Vehicle thefts continue to increase to near-record highs in 2023.* National Insurance Crime Bureau. https://www.nicb.org/news/news-releases/vehicle-thefts-continue-increase-near-record-highs-2023
[3] CHP. (2024). *2023 California Vehicle Theft Facts.* California Highway Patrol. https://www.chp.ca.gov/FieldSupportSectionSite/Documents/2023%20Vehicle%20Theft%20Fact%20Sheet.pdf
[4] CCJ. (2024). *Crime trends in U.S. cities: Year-end 2023 Update.* Council on Criminal Justice. https://counciloncj.org/year-end-2023-crime-trends/
[5] NICB. (2023). *Catalytic converter thefts surge nationwide.* National Insurance Crime Bureau. https://www.nicb.org/

2020. From 2020 to 2021, there was an additional 144% increase and a 22% increase from 2021 to 2022. Catalytic converter and vehicle thefts occur in both residential and commercial areas in Newark, with 45% of catalytic converters stolen in commercial/industrial areas and 55% in residential areas. Stolen vehicles occurred primarily in commercial/industrial areas in 2019-2021, but rose to 55% in residential areas in 2022. NPD has also recognized an increase in cold-plating vehicles, using a license plate from a non-stolen vehicle to conceal a stolen vehicle, or using paper plates to bypass the ALPRs.

In addition to victims of vehicle theft and catalytic converter theft losing their mobility to get to and from work and care for others,[6] there is also an increase in victim, suspect, and officer injuries. In San Francisco, a police officer was struck while investigating a catalytic converter theft after a suspect hit the officer with his vehicle.[7] An adult male in Sunnyvale, CA, was shot after confronting catalytic converter thieves in his driveway,[8] and a victim was hit by a vehicle after interrupting a catalytic converter theft in Los Angeles County.[9] Suspects have also been injured and killed, including a suspect who was run over by the SUV he was attempting to steal a catalytic converter from in Los Angeles County,[10] and four suspects who were injured in a traffic accident with stolen catalytic converters found in the vehicle in Los Angeles.[11]

NPD's initial installation of Automated License Plate Readers (ALPRs) at city entrances and hiring their first Crime Analyst were instrumental in providing investigative leads in a multi-jurisdictional investigation resulting in the recovery of 17 stolen vehicles, 17 firearms, thousands of rounds of ammunition, ballistic vests, and auto theft technology equipment. The success with limited use of ALPRs led to this grant opportunity, allowing NPD to expand its ALPR system and utilize cameras to capture additional evidence with the goal of sending more cases with additional evidence to the District Attorney's Office to aid in prosecution.

Scope

The Newark Vehicle and Accessory Theft Prevention Program (NVATPP) will leverage the following technology and community partnerships to provide comprehensive, evidence-based public safety services to prevent vehicle and accessory theft:

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[6] Wheeler, J. (2023, February 16). *'Taking my freedom': Victims of catalytic converter theft speak out*. USC Annenberg Media. https://www.uscannenbergmedia.com/2023/02/16/taking-my-freedom-victims-of-catalytic-converter-theft-speak-out/

[7] Bay Area News. (2022, September 12). *SFPD officer investigating catalytic converter theft injured after being hit by suspect's car.* KRON 4. https://www.kron4.com/news/sfpd-officer-investigating-catalytic-converter-theft-injured-after-being-hit-by-suspects-car/

[8] Favro, M., & Ellison, S. (2023, August 23). *Sunnyvale man shot, injured after confronting catalytic converter thieves*. NBC Bay Area. https://www.nbcbayarea.com/news/local/south-bay/sunnyvale-man-shot-catalytic-converter/3301994/

[9] KCAL News. (2023, March 31). *Man run over while trying to stop catalytic converter theft in Lynwood*. KCAL News. https://www.cbsnews.com/losangeles/news/man-run-over-while-trying-to-stop-catalytic-converter-theft-in-lynwood/

[10] Mendoza, J. (2023, February 16). *Man in Calif. Fatally fun over by SUV he was trying to steal catalytic converter from, authorities say.* USA Today. https://www.usatoday.com/story/news/nation/2023/02/16/california-catalytic-converter-suspect-run-over-killed/11272274002/

[11] ABC 7. (2024, March 8). *4 catalytic-converter theft suspects in critical condition after Westlake crash involving stolen car.* ABC 7. https://abc7.com/4-catalytic-converter-theft-suspects-critical-after-westlake-crash/14504415/

- Launch a media campaign and website to publicize NVATPP to deter motor vehicle and accessory theft and leverage community partnerships to improve communication, raise awareness, and to encourage reporting.
- Improve the ALPR capability at City ingress and egress locations – addition of 6 FLOCK cameras to ensure that areas on the southern border of the city are being captured. Newark Police Department sergeants and officers identified the need to add this element to the program through an assessment of investigations where suspect vehicles were able to flee the city through camera system gaps.
- Addition of in-car cameras with ALPR systems for police vehicles. Various community meetings with Neighborhood Watch and Merchant Watch groups expressed a desire for more ALPR capability within the city limits, neighborhoods and shopping centers.
- Addition of shopping center/commercial pole cameras and mobile ALPR units for both residential and commercial use. Various community meetings with Neighborhood Watch and Merchant Watch groups expressed a desire for more ALPR capability within the city limits, neighborhoods and shopping centers.
- Collaborate with community partners Fremont Ford and Mission Valley Regional Occupation Program to expand the Catalytic Converter Label Identification (CCLI) Program. Frustrated catalytic converter theft victims expressed concerns to city council members, to various city staff, and to police department personnel. A catalytic converter theft victim made a recommendation to consider the CCLI etching program, and the department started a pilot program prior to grant funding approval. The grant allows for program expansion for CCLI applications to former theft victims and community members. Neighboring agencies have held one-day etching events. This program is unique in that CCLI application appointments are serviced weekly through both community partners.
- Hire and train a Police Service Aide (PSA) on pole camera/ALPR deployment and CCLI Program. Deployment locations will be determined by the NPD Crime Analyst.
- Purchase of a Crime Prevention Vehicle for PSA use.
- Cal State University East Bay's Dr. Michelle Rippy, Director of the Forensic Science Research Center, and its researchers will support the grant requirements for data collection, reporting, and evaluation to ensure objective and impartial evaluations.

Total efforts will include an increased use of community cameras and automated license plate readers, District Attorney's Office collaboration, a catalytic converter identification system with outreach prioritized to victims, and a social media campaign to raise program awareness. The program aims to increase the number of cases sent for prosecution, reduce vehicle and accessory theft, and improve community satisfaction with public safety services.

The National Institute of Justice's CrimeSolutions.gov reviews programs and practices to determine the effectiveness of the intended outcome.[12] CrimeSolutions.gov noted that utilizing closed-circuit television cameras at high-traffic and high-crime areas in Milwaukee, WI as a promising practice to increase crime clearance rates and reduce crime.[13] The program used a network of closed-circuit cameras in targeted high-crime intersections, resulting in a 14% higher clearance rate than those without cameras. Baltimore had a similar promising practice rating through utilizing a public surveillance system with cameras in multiple areas, with officers having the ability to actively monitor the cameras.[14] Surveillance cameras in some areas of Baltimore showed a statistically significant drop in crime.

NPD's Crime Analyst will track trends in vehicle and vehicle component theft to create a data-driven deployment of resources. CrimeSolutions.gov reviewed a micro-time hot spot program in Port St. Lucie, FL Police Department, where residential burglaries and thefts from vehicles were reviewed daily by crime analysts and published in a one-page bulletin combining multiple layers of data and suspect information.[15] The data resulted in directed patrol, contacting victims, and contacting known suspects, coupled with volunteer teams providing resources to the 'hot spot' areas. The efforts led to a statistically significant drop in crime in the 'hot spot' areas with additional patrol response and outreach.

Catalytic converter theft is not heavily researched in academia, with few journal articles found on law enforcement response. A study from 2021-2022 found that catalytic converters are most likely illegally removed from Toyota Prius and Honda Element vehicles, with over half of the thefts occurring in parking garages and parking lots.[16] Toyota models have a higher concentration of precious metals in catalytic converters, allowing for more money to be made when reselling the stolen vehicle components, and shields installed by manufacturers are out of the price range for many people.[17]

Etching of catalytic converters is listed as a preventative measure against theft on the California Department of Consumer Affairs Bureau of Automotive Repair website.[18] There is no published academic research outlining the benefits, if any, of etching catalytic converters relating to theft deterrence. The Catalytic Converter Labeling Identification Program that NPD has developed can contribute to a necessary area of academic research to inform others about the successes and

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[12] CrimeSolutions. (2024). *Crime Solutions*. National Institute of Justice. https://crimesolutions.ojp.gov/

[13] CrimeSolutions. (2021). *Program profile: Milwaukee's (Wis.) Closed-Circuit Television Camera Program*. National Institute of Justice. https://crimesolutions.ojp.gov/ratedprograms/728

[14] CrimeSolutions. (2014). *Program profile: Public Surveillance Cameras (Baltimore, Maryland)*. National Institute of Justice. https://crimesolutions.ojp.gov/ratedprograms/338#2-0

[15] CrimeSolutions. (2018). *Responses to Micro-Time Hot Spots for Thefts from Vehicles and Residential Burglaries (Port St. Lucie, Florida)*. National Institute of Justice. https://crimesolutions.ojp.gov/ratedprograms/626#2-0

[16] Reinhard, D., & McDowell, M. (2023). Highway to the danger zone: Spatial considerations of catalytic converter theft. *Criminal Justice Review*. Online first. https://doi.org/10.1177/07340168231162374

[17] Yip, J. (2022, May 2). Exhausting problems: Rise in catalytic converter thefts fills up dealership service departments. *Automotive News, 96*(7036), 16.

[18] Bureau of Automotive Repair. (2024). *Catalytic Converter Theft and the Smog Check Program*. California Department of Consumer Affairs. https://www.bar.ca.gov/consumer/smog-check-program/catalytic-converter-theft#:~:text=Mark%20your%20catalytic%20converter%20%E2%80%93%20Engraving,help%20to%20identify%20the%20owner.

challenges of establishing, running, tracking, and determining theft occurrences of etching programs.

Target

The target of this project is to implement the Newark Vehicle and Accessory Theft Prevention Program in the City of Newark, to address the significant increase in vehicle and vehicle accessory theft and attempted theft. The aim is to reduce victimization through an increased focus on vehicle and accessory theft, etching and tracking catalytic converters, launching a website and outreach program to encourage reporting and provide safety information, leveraging technology to collect additional evidence, and submitting more cases for prosecution.

The Newark Police Department Crime Analyst monitors and tracks organized retail theft, vehicle theft, and catalytic converter theft trends. A Proactive Policing Bulletin with crime trends and crime hot spot locations is disseminated to all staff for focused police patrol efforts. The mobile technology resources will be rotated according to the identified crime trends.

Goals & Objectives

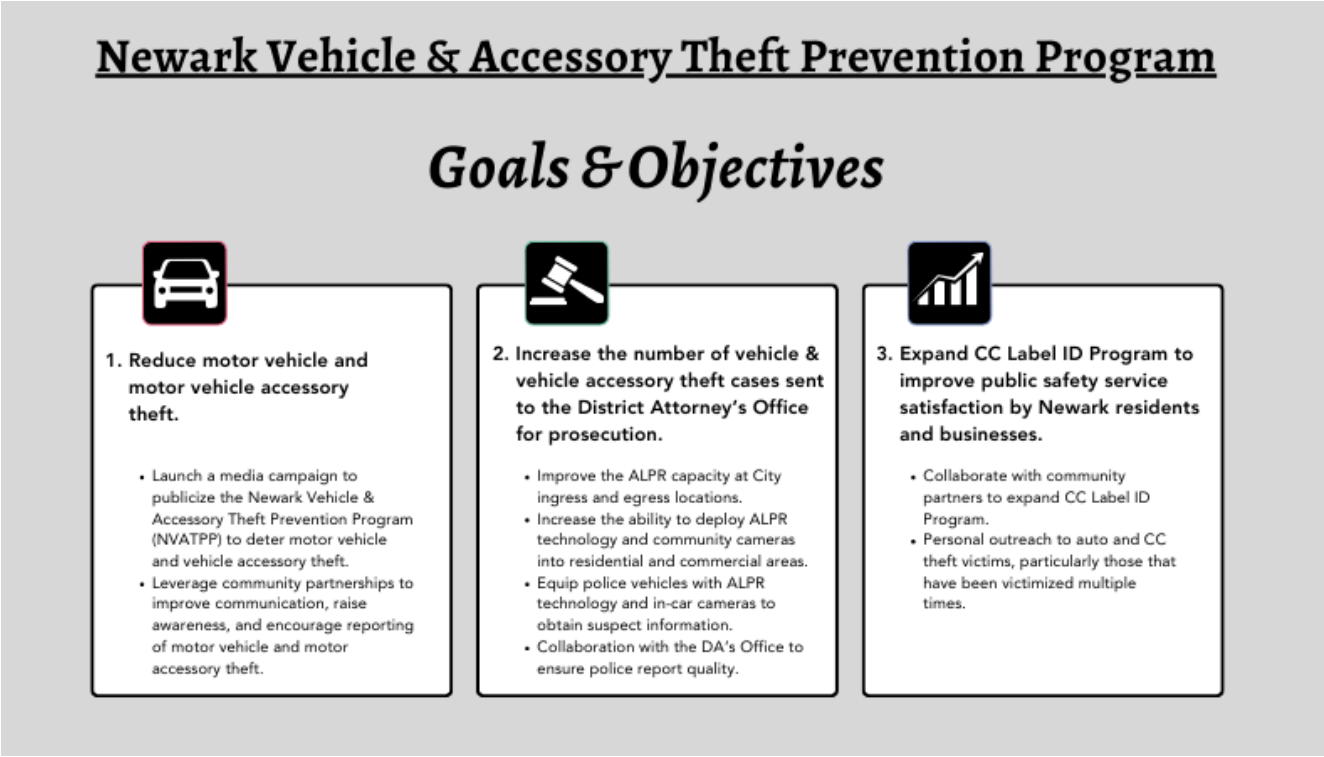
The NVATPP Program is guided by three goals and eight objectives. The goals are overarching statements that outline broad intentions and long-term outcomes of the NVATPP Program, and the objectives are crafted to describe precise, measurable tasks and activities necessary for realizing the goals.

- **Goal 1:** Reduce motor vehicle and motor vehicle accessory theft.
    - **Objectives:** 1.) Launch a media campaign to publicize the Newark Vehicle & Accessory Theft Prevention Program (NVATPP) to deter motor vehicle and vehicle accessory theft, and 2.) Leverage community partnerships to improve communication, raise awareness, and encourage reporting of motor vehicle and accessory theft.
- **Goal 2:** Increase the number of vehicle and motor vehicle accessory theft cases sent to the District Attorney's Office.
    - **Objectives:** 1.) Improve the ALPR capability at City ingress and egress locations, 2.) increase the ability to deploy ALPR technology and community cameras into residential and commercial areas, 3.) equip police vehicles with ALPR technology and in-car cameras to obtain suspect information, 4.) collaboration with the DA's Office to ensure police report quality.
- **Goal 3:** Expand the Catalytic Converter Label ID Program to improve public safety service satisfaction by Newark residents and businesses.

- **Objectives:** 1.) Collaborate with community partners to expand the Catalytic Converter Label ID Program, and 2.) personal outreach to auto and catalytic converter theft victims, particularly those who have been victimized multiple times.

Figure 1

Goals and objectives for the Newark Vehicle & Accessory Theft Prevention Program

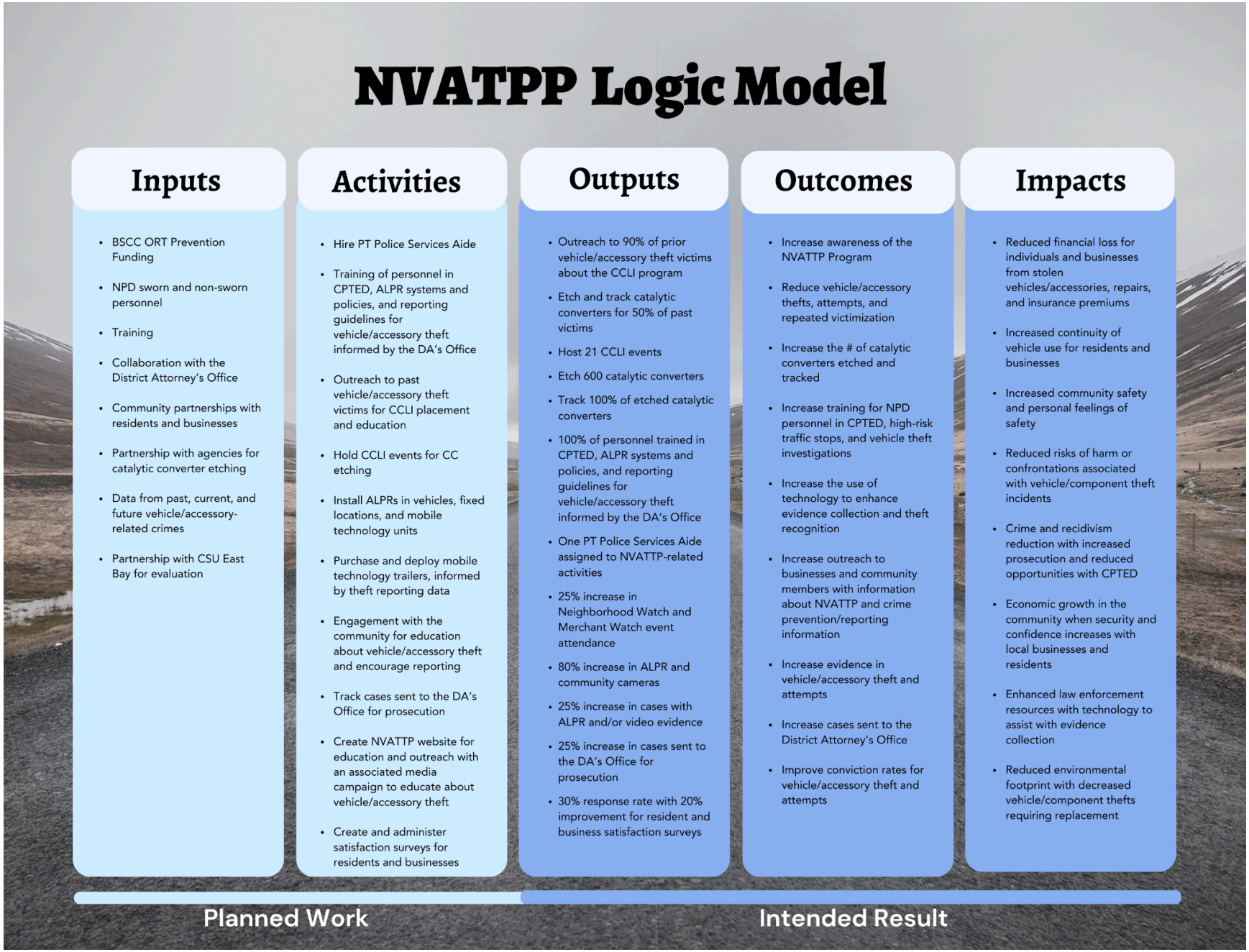


Project Logic Model

A project logic model is a visual representation of a program, reflecting the logical connections between its inputs, activities, outputs, outcomes, and impacts. The model guides stakeholders through the program's theoretical framework, intended operations, and expected results. By mapping the elements, the logic model assists in the planning, implementation, monitoring, and evaluation of the program's progress and efficacy.

Figure 2

NVATPP Logic Model


NVATPP Logic Model
Inputs
BSCC ORT Prevention Funding
NPD sworn and non-sworn personnel
Training
Collaboration with the District Attorney's Office
Community partnerships with residents and businesses
Partnership with agencies for catalytic converter etching
Data from past, current, and future vehicle/accessory-related crimes
Partnership with CSU East Bay for evaluation
Activities
Hire PT Police Services Aide
Training of personnel in CPTED, ALPR systems and policies, and reporting guidelines for vehicle/accessory theft informed by the DA's Office
Outreach to past vehicle/accessory theft victims for CCLI placement and education
Hold CCLI events for CC etching
Install ALPRs in vehicles, fixed locations, and mobile technology units
Purchase and deploy mobile technology trailers, informed by theft reporting data
Engagement with the community for education about vehicle/accessory theft and encourage reporting
Track cases sent to the DA's Office for prosecution
Create NVATTP website for education and outreach with an associated media campaign to educate about vehicle/accessory theft
Create and administer satisfaction surveys for residents and businesses
Outputs
Outreach to 90% of prior vehicle/accessory theft victims about the CCLI program
Etch and track catalytic converters for 50% of past victims
Host 21 CCLI events
Etch 600 catalytic converters
Track 100% of etched catalytic converters
100% of personnel trained in CPTED, ALPR systems and policies, and reporting guidelines for vehicle/accessory theft informed by the DA's Office
One PT Police Services Aide assigned to NVATTP-related activities
25% increase in Neighborhood Watch and Merchant Watch event attendance
80% increase in ALPR and community cameras
25% increase in cases with ALPR and/or video evidence
25% increase in cases sent to the DA's Office for prosecution
30% response rate with 20% improvement for resident and business satisfaction surveys
Outcomes
Increase awareness of the NVATTP Program
Reduce vehicle/accessory thefts, attempts, and repeated victimization
Increase the # of catalytic converters etched and tracked
Increase training for NPD personnel in CPTED, high-risk traffic stops, and vehicle theft investigations
Increase the use of technology to enhance evidence collection and theft recognition
Increase outreach to businesses and community members with information about NVATTP and crime prevention/reporting information
Increase evidence in vehicle/accessory theft and attempts
Increase cases sent to the District Attorney's Office
Improve conviction rates for vehicle/accessory theft and attempts
Impacts
Reduced financial loss for individuals and businesses from stolen vehicles/accessories, repairs, and insurance premiums
Increased continuity of vehicle use for residents and businesses
Increased community safety and personal feelings of safety
Reduced risks of harm or confrontations associated with vehicle/component theft incidents
Crime and recidivism reduction with increased prosecution and reduced opportunities with CPTED
Economic growth in the community when security and confidence increases with local businesses and residents
Enhanced law enforcement resources with technology to assist with evidence collection
Reduced environmental footprint with decreased vehicle/component thefts requiring replacement
Planned Work
Intended Result

Process Evaluation Method and Design

The process evaluation will assess how well the NVATPP is implemented based on its planned activities and procedures. The evaluation will focus on the implementation process, caliber and quantity of program delivery, and the degree to which activities align with intentions. Resource utilization, implementation fidelity, engagement, and challenges will be regularly assessed. The findings from the process evaluation will provide valuable insights into the efficacy of the program implementation, identify areas of improvement, and inform decision-making to enhance program outcomes. A regular review of the process can assist with the early identification of challenges and barriers, leading to increased adaptability, risk mitigation, improved effectiveness, and proactive problem-solving.

Inputs & Resources

Resources needed to successfully implement NVATPP include BSCC ORT Prevention funding, NPD personnel, internal and Peace Officer Standards and Training (POST) training, and data from vehicle and vehicle accessory theft and attempted thefts. Partnerships have been created with Fremont Ford and the Mission Valley Regional Occupational Program to etch catalytic converters and with California State University East Bay to complete the program evaluation. NPD will leverage community partnerships with residents and businesses to educate about vehicle and vehicle accessory theft, crime prevention through environmental design, and crime reporting processes. NPD will enhance its collaboration with the Alameda County District Attorney's Office to ensure reporting meets prosecution standards and gain additional insight into prosecutorial needs for vehicle and accessory theft cases.

Evaluation Tools, Data Sources, and Collection

Data elements are associated with each input/resource, activity, and output. The evaluation tool provides a specific measure of the input, resource, activity, or output to track the frequency of the task. At least one data source is associated with each task, ranging from the report management system (RMS), computer-aided dispatch system (CAD), training records, internal databases, installation records, and invoices. A majority of the data will be collected when the task is completed, which includes when an employee is trained, when a CCLI event is completed, when a camera is installed, when a case is filed, and when a mobile technology trailer is deployed. A review of all collected data will occur quarterly by the NPD project manager and evaluator to determine any barriers or challenges with data input and gathering.

Process Research Design

The evaluation will employ mixed methods research, amalgamating quantitative and qualitative data sources to construct a thorough assessment of NVATPP's implementation, including deploying and the use of technology for investigations, tracking cases sent to the District Attorney's Office, managing the CCLI project, training of NPD personnel in multiple topics and policy updates, engaging with diverse community constituencies through outreach efforts, enhancing evidence collection in motor vehicle/accessory thefts and attempts, and conducting community surveys to gauge satisfaction levels with police services. The quantitative data can inform the surveys, and the qualitative data from the surveys can inform process implementation, allowing for continuous process improvement.

Quantitative Data

The use of quantitative data in evaluating NVATPP will allow for systematic measurements of the program's implementation, identify areas of improvement, and make informed decisions to enhance its effectiveness. Quantitative data will be obtained from multiple sources, including NPD's report management system (RMS), computer-aided dispatch system (CAD, training records, internal databases, the International Security Registry, installation records, invoices, and District Attorney Office records. The evaluator will work regularly with NPD to ensure the necessary data is collected in a reliable and timely manner to assist with data analysis and create data collection plans to assist with validation and quality assurance.

Using the NPD case numbers for vehicle/accessory thefts and attempts, the evaluator will include multiple case and prosecution-related variables to include case completion, evidence collected, recovery, arrest(s), advancement to the District Attorney's Office, prosecution, and prosecution case results. Variables will be determined based on the available data and informed by similar evidence-based programs and practices. The data for each case will be obtained from multiple sources, cleaned, and triangulated to increase accuracy. Descriptive statistics summarize the data set by measuring frequency, central tendency, and variation, allowing for trends and patterns to be identified. Comparative statistics can be used to compare prior victims of vehicle/accessory theft to those who do not have recorded prior victimizations, CCLI marked accessory thefts, as well as victimization levels in neighboring jurisdictions.

For non-case-specific data, including training, outreach efforts, technology installations and use, personnel hiring, equipment purchasing, website views, and social media interaction and impressions, data collection and tracking will be used to determine benchmarks and task progress. Quantitative data analysis may include Statistical Package for the Social Science and Stata, with Tableau used to create data visualizations for stakeholder review and to determine progress completion.

Qualitative Data

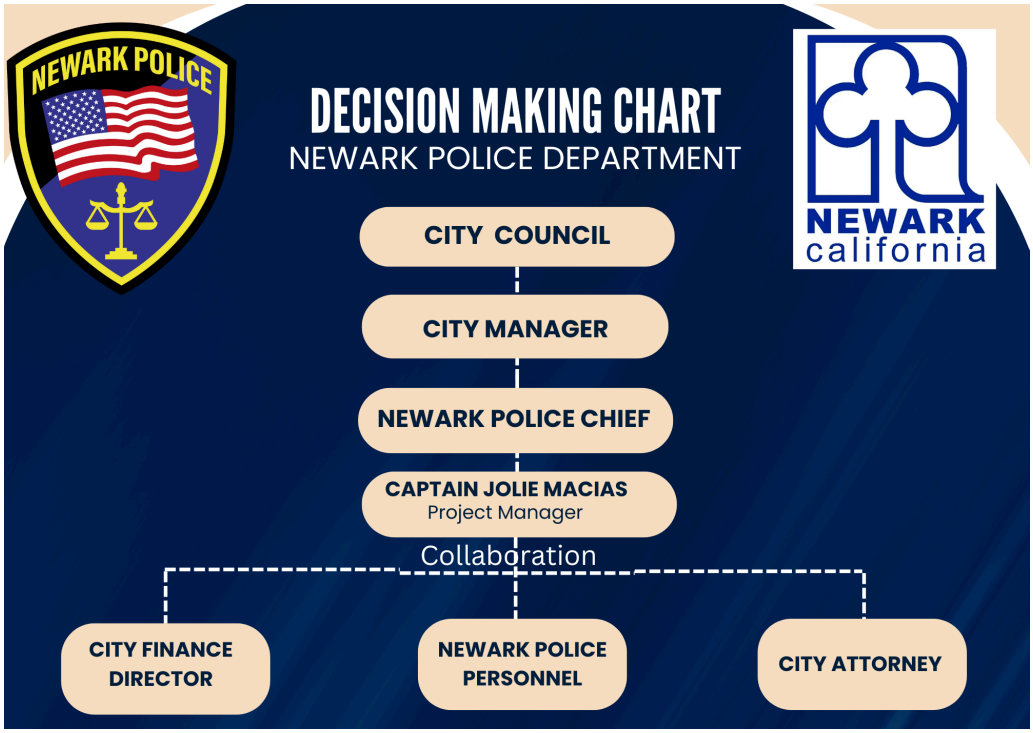
Qualitative data will be an important aspect of determining community perceptions of NVATPP, law enforcement response, and confidence in NPD. Surveys will be deployed to victims of vehicle/accessory thefts and attempts and available on the NVATPP website to gain feedback. The surveys will be created using best practices in survey research, including defining the survey objectives, using concise and clear questions, piloting the survey to implement reliability tests, and ensuring confidentiality and anonymity. Institutional Review Board approval will be earned for the surveys prior to deployment to ensure the participants are ethically protected. Qualitative data analysis software, such as NVIVO, will be used to code, identify themes, and analyze content. Iterative data analysis will be used to continuously review, analyze, and interpret data throughout the program implementation process. A feedback loop will be created to identify early indicators of successes or challenges, allowing corrective action to be taken as needed.

Project Oversight

The project is overseen and managed by Project Director, Police Captain Jolie Macias. The Project Director reports to the Police Chief, who approves all procurement, hiring, and policy recommendations. The Project Director collaborates with the City of Newark Finance Director and City Attorney before significant purchases and contract finalization, and all approvals adhere to City purchasing rules requiring either the Police Chief, City Manager, or City Council approval. The Police Chief is the ultimate decision maker on policy and ensures that all legal updates and changes are implemented into the policy management system. The Project Director makes hiring recommendations to the Police Chief, who obtains final hiring authorization from the City Manager.

Figure 3

Reporting/Decision-Making Diagram



Project Monitoring & Implementation

NVATPP will be monitored by systematically and transparently tracking the goals, objectives, and milestones of each program component. The implementation plan will be used to identify key performance indicators and their expected completion times. A monitoring plan for the frequency of review, data collection, and reporting will be created in addition to documentation requirements for monitoring and assessing the key performance indicators. The NVATPP project manager and evaluator will create the implementation and monitoring plan and meet bi-weekly to ensure activities are on track, outputs are being achieved, and outcomes are being realized. Regularly scheduled reviews of implementation will assist in the early identification of barriers and challenges to address issues or discrepancies as they arise. The NVATPP project implementation and monitoring process will include pre-implementation preparation, technical set-up and configuration, creation of a training schedule, pilot testing, deployment of technology, and the establishment of monitoring mechanisms and feedback opportunities. The feedback loop will allow for continued improvement while promoting transparency, accountability, and responsiveness.

Project Facilitators

Project facilitators are factors responsible for guiding and supporting project implementation, which is crucial in ensuring project objectives are met effectively, efficiently, and within the required timeline. Project facilitators for the NVATPP include the presence and activity of NPD personnel, collaboration with external partners, the availability of funding, and outreach efforts to different constituencies in Newark. NVATPP implementation monitoring will include documentation outlining required tasks and deliverables, including the person responsible, due date, required actions, and space to document challenges and barriers. The program manager and evaluator will complete audits of task completion and quality of work to track progress, performance, and facilitators. The regularity of project implementation and monitoring meetings will allow for continued communication, engagement with the project, and gathering data to identify challenges and barriers. Project barriers and challenges will be documented in the implementation monitoring tool and reviewed regularly for solutions by the program manager, internal stakeholders, and the evaluator.

Process Evaluation Matrix

A process evaluation matrix was established to outline the evaluation inputs, resources, activities, outputs, evaluation tools, and frequency of collection.

Table 1

Process Evaluation Inputs, Resources, Activities, Outputs, Evaluation Tools, and Frequency of Collection

Category	Input/Resource/Activity/Output	Data Element(s)	Data Source(s)	Frequency of Data Collection
ALPR	Use of ALPR for vehicle/accessory theft investigations	# of times ALPR was used for vehicle/accessory theft investigations	Report Management System (RMS), Computer-Aided Dispatch (CAD)	Each time a vehicle/accessory theft investigation is initiated
	Installation of fixed ALPRs	# of fixed ALPRs and location	Internal databases, invoices	Each time an ALPR is installed or moved
	Installation of ALPRs in patrol vehicles	# of ALPRs installed in patrol vehicles	Internal databases, invoices	Each time an ALPR is (un)installed
CCLI	600 catalytic converters etched/tracked	# of catalytic converters etched/tracked and registered in the International Security Registry (ISR), and local housed database	Internal database, International Security Registry,, installation records	Each completed etching event
	21 Catalytic Converter Labeling Identification (CCLI) events	# of CCLI events held, # of events at each location, # of labelings at each event	Internal database, installation records	Each completed etching event
	Effectiveness of CCLI program through review of vehicles/accessories stolen or attempted	# of vehicles/accessories with CCLI labels v without CCLI labels	RMS, CAD	Each time a case is reported
Equipment	Purchase a crime prevention vehicle for PT Public Service Aide (PSA)	# of vehicles purchased for PSA	Internal database, invoices	Each time a vehicle is purchased
Evidence	Increase evidence collection in vehicle/accessory theft with ALPR and/or video evidence by 25%	# of vehicle/accessory theft with ALPR and/or video evidence	RMS, CAD	Each time a case is completed
Mobile Technology Trailer	Purchase and deployment of mobile technology trailers	# of technology trailers purchased, # deployed, location of deployments. % time deployed	CAD; invoices	Each time a mobile technology trailer is purchased, deployed, and moved
Outreach	Officer outreach to businesses and Merchant Watch to discuss Crime Prevention through Environmental Design (CPTED)	# of outreach efforts and # of businesses personnel speak about CPTED	Call type via CAD	Each time an outreach event occurs
	Outreach to 90% of prior victims about vehicle/accessory theft about CCLI; goal of 50% having CCLI placed	# of outreach efforts, # of contacts, # of sign-ups for CCLIs, # of CCLIs placed	Internal databases, invoices	Each time outreach is completed, CCLI registration occurs, and when CCLI is completed
	Outreach Outreach to community members about the Catalytic Converter Labeling Identification program	# of outreach efforts, # of contacts, # of sign-ups for CCLI, # of CCLIs completed	Internal database; invoices	Each time outreach is completed, CCLI registration occurs, and when CCLI is completed

	Marketing and outreach to reduce vehicle/vehicle component thefts	# of outreach efforts, type of marketing, creation of a specific vehicle/component theft website, social media metrics, # of community partnerships, # of engagement activities, # of people reached	Internal database; website views; social media views/interactions	Quarterly
	Leverage community partnerships to raise awareness and encourage reporting of thefts for six events	# of new opportunities for NPD/community partners to engage in reporting vehicle/component theft in-person and virtually	Internal database, CAD	Each time an event occurs
Personnel	Hire a part-time Public Service Aide	# of Public Service Aide(s) hired	Internal database; personnel records	Each time a part-time public service aide is hired
Pole Cameras	Purchase and deployment of mobile surveillance pole cameras	# of mobile solar-powered surveillance cameras purchased and deployed; location of deployments; % time deployed	Internal database; invoices	Each time a mobile surveillance pole camera is purchased, deployed, and moved
Policies	Newark Police Department policies addressing technology used in the grant period, continuous policies addressing anti-bias-based policing, and officers trained in the policies	# of policies addressing technology used in the grant during the grant period, # of policies continually addressing anti-biased-based policing, # of sworn and non-sworn personnel trained in the policies	Internal training records; policy review	Annually and when policy changes occur
Prosecution	Cases sent to the District Attorney's Office for prosecution increased 25% over the duration of the grant	# of vehicle and vehicle component thefts and attempts sent to the District Attorney's office for prosecution pre/ante-grant	RMS, internal database	Each time a case is filed
	Detective Sergeant/District Attorney Liaison check-ins with the District Attorney's Office for updates on charging/evidentiary changes in vehicle and component theft	# of check-ins with the District Attorney's Office regarding charging/evidentiary changes in vehicle and component theft	Internal database	Quarterly
	Analysis of vehicle/accessory thefts referred to the District Attorney's Office resulting in guilty verdicts/pleas	# of vehicle/accessory theft cases referred to the District Attorney's Office resulting in guilty verdicts/pleas; content analysis of reports showing evidence used	RMS; CAD; District Attorney records	Report management system; CAD; District Attorney records
Training	Employee training in Crime Prevention through Environmental Design, high-risk vehicle stops, and vehicle theft investigation	# of employees who complete POST Crime Prevention through Environmental Design, high-risk vehicle stop training, and vehicle theft investigation training course(s)	Training records; POST	Each time training is completed
	Employees trained in evidentiary and reporting components of vehicle/accessory theft informed by the District Attorney's Office	# of employees trained in evidentiary and reporting components of vehicle/accessory theft informed by the District Attorney's Office	Training records; internal databases	Each time training is completed
	Train 100% of employees in ALPR, in-car systems, and related policies	# of employees trained in ALPR, in-car camera systems, and related policies	Training records	Each time training is completed
Satisfaction	Surveys to residents and businesses regarding law enforcement response, confidence, and trust, with a 30% response rate and 20% improvement pre/post-grant	# of residents/businesses sent surveys, # completing surveys, % improvement pre/post-grant	Survey system, RMS	Each time a vehicle/accessory theft or attempt occurs

Outcome Evaluation Method and Design

The outcome evaluation will assess NVATPP's overall impact and program outcomes. The evaluation focuses on measuring the extent to which the program goals and objectives were achieved. A comparison will be made of the actual results with the intended goals, including an assessment of known impact with a consideration of contextual factors. Outcome evaluations play a crucial role in assessing the effectiveness and impact of programs, allowing stakeholders to make informed decisions about future program directions and for resources to be more effectively distributed.

Outcomes

The NVATPP has eight categories of outcomes, including the CCLI Program, investigation, outreach, prosecution, community satisfaction, technology, theft reduction, and training. Individual outcomes include the increase in evidence collected and cases sent to the District Attorney's Office, improved conviction rates, reduced vehicle/accessory thefts, attempts, and victimization, increased number of catalytic converters etched and tracked, improved community satisfaction through the CCLI Program, increased training in crime prevention through environmental design and other vital training areas, increased outreach to community stakeholders, and increased use of technology for evidence collection. Data sources span from RMS and CAD data to internal databases, training records, survey results, social media and website analytics, and the International Security Registry.

Evaluation Questions

The evaluation questions are grounded in the NVATPP program's goals and objectives. The evaluation questions have multiple components, which are outlined below:

- Did NVATPP reduce motor vehicle and motor vehicle accessory theft?
    - How effective was the media campaign to publicize NVATPP?
    - How were community partnerships created and leveraged to improve communication, raise awareness, and encourage the reporting of motor vehicle and accessory thefts?
    - How much did Neighborhood Watch and Merchant Watch event attendance increase? How many community members were involved? How did the number of events during the grant compare to pre-grant levels?
    - What was the modality of engagement with constituents? How many events were created, and what was the attendance and engagement?
    - How did community attendance, engagement, and events compare before and during the grant?

    - How many people visited the NVATPP website, and how much engagement occurred on the website and through social media?
    - How was branded merchandise distributed? Did engagement with the NVATPP website and social media increase after distribution or specific events?
    - How did the reporting of motor vehicle and accessory thefts vary before and after the media campaign and outreach?
- Did the number of vehicle and vehicle accessory theft cases sent to the District Attorney's Office for prosecution increase?
    - How were the ALPR capabilities at Newark ingress and egress improved?
    - How much did the use of ALPR technology and community cameras increase during the grant period? How did the use compare to pre-grant metrics?
    - How was the ability to deploy fixed and mobile ALPR technology increased in residential and commercial areas?
    - How was the ability to deploy community cameras increased in residential and commercial areas?
    - How many police vehicles were equipped with ALPR and in-car cameras? How many NPD personnel were trained in ALPR and in-car camera technology? How many NPD personnel were informed of new technology-related policies?
    - How often did NPD and the District Attorney's Office collaborate regarding vehicle and vehicle accessory theft cases?
    - How did information from the District Attorney's Office shape vehicle and vehicle accessory theft and attempted theft investigative reports?
    - How many cases were sent to the District Attorney's Office for review? How does the number of cases sent to the District Attorney's Office during the grant compare to pre-grant submissions?
    - How many cases cited the use of video and/or ALPR evidence before and during the grant period? Did the use of video and/or ALPR evidence increase? If so, how much?
    - Which policies were created or updated to reflect the use of new technology and industry best practices? How many personnel were notified and trained about the new policies?
- How was the CCLI Program expanded to improve public safety service satisfaction by Newark residents and businesses?
    - How many CCLI events were hosted with agency partners? How many were held at each site?
    - How many vehicles received catalytic converter etching/marking? How many of the etched/marked catalytic converters were tracked? How many were tracked in an internal database and in the International Security Registry?
    - How many prior victims were notified of the CCLI program?
    - How many prior victims participated in the CCLI program?

- How many satisfaction surveys were distributed? What was the response rate?
- What were the pre-, ante-, and post-survey results for residents and businesses to determine satisfaction?
- How many mediums were the surveys available to community members?
- What were the changes in satisfaction, response, confidence, trust, etc., in NPD pre- and post-grant?

Activity Evaluation and Outcome Success

An activity evaluation matrix was established to outline the activity category, the activity and metric, the steps required to accomplish the activity, and how an outcome will be deemed successful.

Table 2

Activity Category, Activity, Steps Required, and Success of the Outcome

Category	Activity	Steps Required	Success
ALPR	Track # of ALPRs available at ingress/egress and throughout the City of Newark	Purchase, install, and track ALPR technology, record location of ALPR technology and time at location(s)	80% increase of ALPRs and cameras in Newark compared to pre-grant status
ALPR	Track # of NPD personnel trained in ALPR, in-car camera systems, and related policies	During the deployment process, host training sessions on the ALPR, in-car camera systems, and related policies for NPD personnel, record attendance	Train 100% of NPD personnel in ALPR, in-car camera systems, and related policies
CCLI	Track # of CCLI placements on vehicles	Community member enrollment in CCLI program, successful etching/marking of catalytic converter, recording of etching	600 vehicle catalytic converters with markings/etchings through CCLI
CCLI	Track # of CCLI events, locations	Collaborate with community partners to create and broadcast dates and locations of CCLI events, track number of vehicles etched/marked during each event	21 CCLI events completed, 12 at car dealerships and 9 through the Mission Valley Regional Occupational Center

CCLI	Track # of CCLI placements submitted to the International Security Registry and locally-housed database	Community member enrollment in CCLI program, successful etching/marking of catalytic converter, recording tracking number off etched/marked catalytic converter, registering the etched/marked catalytic converter to the International Security Registry and the locally-housed database	100% tracking of CCLI markings/etchings in the International Security Registry and a locally-housed database
CCLI	Track # of CCLI placements on victims of previous vehicle/accessory theft	Outreach to previous victims of vehicle/accessory theft, encouragement to participate in the CCLI Program, assisting with creating appointments, recording if etching/marking is completed through the CCLI Program	50% of previous vehicle/accessory theft victims have CCLI etchings/markings placed
Equipment	Purchase and installation of fixed ALPR	Research, purchase, and deployment of fixed ALPRs, track location installed	6 fixed ALPRs purchased and deployed
Equipment	Purchase and deployment of mobile surveillance pole cameras	Research, purchase, and deployment of mobile surveillance pole cameras, % of time deployed	3 cameras purchased and deployed
Equipment	Purchase a vehicle for the deployment of mobile technology ALPR speed trailers and community pole cameras trailers and NVATPP events, track # of purchases	Research and purchase a vehicle for staff and grant-funded PT PSA use	Purchase one vehicle for NVATPP events and technology deployment
Investigation	Track # of cases with ALPR and/or video evidence	Use current Report Management System to track when ALPR and/or video evidence is used in vehicle and vehicle accessory theft and attempted theft cases; record data	25% increase in the use of ALPR and/or video evidence used in vehicle and vehicle accessory theft and attempted theft cases compared to pre-grant status

Outreach	# of previous vehicle/accessory theft victims notified of the CCLI Program and online resources	Data obtained from the RMS for past victims of vehicle/accessory thefts for five years prior to the grant, outreach from NPD personnel via multiple methods to notify victims of the CCLI program and online resources	90% notification of past victims of vehicle/accessory theft being notified of the CCLI program and online resources
Outreach	Track # of community events hosted and attended by NPD personnel and the modality	Create, broadcast, and market community events, record NPD and community attendance and modality	Hold ten events annually for the duration of the grant.
Outreach	Track # of events with Merchant Watch attended by NPD personnel	Attend and participate in event, relate content to NVATPP, record attendance through CAD coding	25% increase in event attendance comparing pre-grant attendance to attendance during the grant period
Outreach	Track # of events with Neighborhood Watch attended by NPD personnel	Attend and participate in event, relate content to NVATPP, record attendance through CAD coding	25% increase in event attendance comparing pre-grant attendance to attendance during the grant period
Outreach	Creation and track # of visits to the NVATPP website and social media posts	Create, update, and track # of visits to the NVATPP website and associated social media post impressions, marketing efforts to share NVATPP website	Creation and tracking of visits to the NVATPP website
Personnel	Hire 1 PT Police Services Aide (PSA)	Create job announcement with Human Resources, broadcast the position, review applications, interview, background, and hire for PT PSA	1 PT PSA hired
Prosecution	Track # of cases sent to the District Attorney's Office for prosecution	Use RMS system to record the vehicle/accessory theft and attempted theft cases forwarded to the District Attorney's Office for prosecution	25% increase in vehicle/accessory theft and attempted theft cases to the District Attorney's Office for prosecution compared to pre-grant status

Satisfaction	Distribute satisfaction surveys to businesses about NPD response, confidence, and trust, track # of surveys distributed and # of responses	Survey creation, IRB approval, pilot testing, distribute survey using previously created business contact list, availability of survey on NVATPP website, review findings	30% survey response rate with 20% improvement in satisfaction for the duration of the grant
Satisfaction	Distribute satisfaction surveys to residents about NPD response, confidence, and trust, track # of surveys distributed and # of responses	Survey creation, IRB approval, pilot testing, distribute survey using created resident contact list, availability of survey on NVATPP website, review findings	30% survey response rate with 20% improvement in satisfaction for the duration of the grant
Training	# of employees trained in Crime Prevention through Environmental Design, high-risk traffic stops, vehicle theft investigation, evidentiary and reporting components of vehicle/accessory theft informed by the District Attorney's Office, and ALPR and in-car camera systems and related policies	Assign employee(s) to attend POST Crime Prevention through Environmental Design Course, create training on all other topics listed, administer training, record attendance and policy review	100% of NPD employees trained in Crime Prevention through Environmental Design, high-risk traffic stops, vehicle theft investigation, evidentiary and reporting components of vehicle/accessory theft informed by the District Attorney's Office, and ALPR and in-car camera systems and related policies

Outcome Evaluation Research Design and Data Analysis

The outcome evaluation will employ mixed methods research, combining quantitative and qualitative data sources to conduct a thorough assessment of NVATPP's medium-to-long-term outcomes to Newark and its community. The use of mixed methods in outcome evaluation offers a robust and nuanced approach to understanding program effectiveness and impact from multiple perspectives. Quantitative data can inform qualitative surveys, and qualitative data offers additional insight into quantitative data. Regular, recurring meetings with the NVATPP program manager and evaluator can verify the collection of required data in a reliable and timely manner to assist with data analysis, validation, and quality assurance, and actively track progression towards outcomes.

Quantitative Data

Using quantitative data in evaluating NVATPP enables a systematic assessment of the program's outcomes and impacts. Quantitative data will be sourced from various sources, including NPD's RMS, CAD, training records, internal databases, International Security Registry, website and social media analytics, internal databases, and District Attorney Office records.

Using the NPD case numbers for vehicle/accessory thefts and attempts, the evaluator will include multiple case and prosecution-related variables to include case completion, evidence collected, recovery, arrest(s), advancement to the District Attorney's Office, prosecution, and prosecution case results. Variables will be determined based on the available data and informed by similar evidence-based programs and practices. The data for each case will be obtained from multiple sources, cleaned, and triangulated to increase accuracy. Descriptive statistics summarize the data set by measuring frequency, central tendency, and variation, allowing for trends and patterns to be identified. Comparative statistics can be used to compare prior victims of vehicle/accessory theft to those who do not have recorded prior victimizations, CCLI marked accessory thefts, as well as victimization levels in neighboring jurisdictions. Inferential statistics can be used to test hypotheses associated with outcomes and control for potentially confounding variables, when comparing vehicle/accessory theft and attempts to nearby jurisdictions.

For non-case-specific data, including training, outreach efforts, technology installations and use, personnel hiring, equipment purchasing, website views, and social media interaction and impressions, data collection and tracking will be used to determine benchmarks and outcome progress. Quantitative data analysis may include Statistical Package for the Social Science and Stata, with Tableau used to create data visualizations for stakeholder review and to determine progress completion.

Qualitative Data

Qualitative data will be an important aspect of determining community perceptions of NVATPP, law enforcement response, and confidence in NPD. Surveys will be deployed to victims of vehicle/accessory thefts and attempts and available on the NVATPP website to gain feedback. The surveys will be created using best practices in survey research, including defining the survey objectives, using concise and clear questions, piloting the survey to implement reliability tests, and ensuring confidentiality and anonymity. Institutional Review Board approval will be earned for the surveys prior to deployment to ensure the participants are ethically protected. Qualitative data analysis software, such as NVIVO, will be used to code, identify themes, and analyze content. Iterative data analysis will be used to continuously review, analyze, and interpret data throughout the program implementation process. A feedback loop will be created to identify early indicators of successes or challenges, allowing corrective action to be taken to achieve the desired outcomes.

Limitations

Using the data obtained from various sources and aspects of the grant, a holistic view of the program's implementation and efficacy is expected. This research is not a randomized control trial where the effectiveness of interventions can be tested between groups, so there will be limitations outside the scope of the grant that may directly affect its results. Law enforcement staffing is a continued challenge in the profession nationally, with the grant constructed with staffing levels in October 2023. NPD's staffing levels may change dramatically, which can affect their ability to organize and attend events while maintaining baseline staffing for calls of service. The availability of community partners to complete the CCLI program can also change, coupled with unknown interest levels of community members to participate in the program. Equipment availability can be delayed with supply chain bottlenecks, as can the procurement process in city administrations. The aforementioned variables and others that surface during the evaluation will be noted on a timeline as to when changes occur, how the change is addressed in the implementation process, any unanticipated outcomes, and adjustments made to NVATPP to accommodate the changes. The timeline and data will be included in the Local Evaluation Report, with significant disruptions also listed in the Quarterly Progress Reports.

Data Sources & Collection

Nine data sources will be used for completing the outcome evaluation. Data sources include the RMS, CAD, the International Security Registry, internal databases, website analytics, social media analytics, training records, District Attorney records, and community surveys. Most of the data will be collected immediately after the aligned task, such as when a case is filed, when a case is adjudicated, after a CCLI is placed, and when training is completed. Three activities will be monitored quarterly, including website and social media analytics, comparing thefts quarter-on-quarter, and evaluating the usage of video and ALPR evidence in cases over time. All data sources, with the exception of the survey tool, are currently available through existing records or systems, with the survey tool being a new system implemented specifically for the project.

Outcome Evaluation Matrix

An outcome evaluation matrix was established to outline the outcome category, the outcome, definition, data source, and frequency of data collection.

Table 3

Outcomes, Definitions, Data Sources, and Frequency of Data Collection

Category	Outcome	Definition	Data Source(s)	Frequency of Data

				Collection
CCLI	Increase the number of catalytic converters etched/marked and tracked	Increase in tracking efforts and assist in diversion with window stickers for catalytic converters etched/marked	Report Management System (RMS), internal database	Each time a catalytic converter is etched/marked
	Reduce repeat vehicle/accessory theft victimizations	Reduce the number of repeat victimizations for vehicle/accessory theft through CCLI etching priorities and outreach	RMS, internal database, International Security Registry	Quarterly
Investigation	Increase evidence in vehicle/accessory theft and attempts	Expanded use of digital evidence from ALPRs, pole cameras, and other technology to enhance investigations and evidence collection for suspect identification and prosecution	RMS, Computer-Aided Dispatch (CAD)	Each time a case is submitted
Outreach	Increase outreach to businesses/community members with information about the Newark Vehicle and Accessory Theft Prevention Program	Increase outreach efforts, social media posts, and create a NVATPP website to inform and educate businesses and community members about the Catalytic Converter Labeling program, crime reduction through environmental design, and other crime reduction efforts	Internal database; social media analytics; website analytics	Quarterly and after specific outreach efforts are completed
Prosecution	Increase cases sent to the District Attorney's Office for prosecution	Increase the number of cases investigated and sent to the District Attorney's Office for prosecution	RMS, internal database	Each time a case is submitted
	Improved conviction rates for vehicle/accessory theft and attempts	Increase the number of successful prosecutions for vehicle/accessory thefts and attempts; increase collaboration and training for officers aligned with DA requirements for filing and convictions	RMS, training records, District Attorney records	Each time a case is adjudicated
Satisfaction	Improving community satisfaction through Catalytic Converter Label Identification Program	Community satisfaction centered around response, confidence, and trust	Survey to participants	After each CCLI placement
Technology	Increase the use of technology (ALPR, cameras, mobile technology trailers) to increase evidence collection and theft recognition	Increase technology usage for stolen vehicle recognition and evidence collection for vehicle/accessory thefts and attempts to assist with case filing and successful prosecution by the District Attorney's Office	RMS, CAD, internal databases	Quarterly
Theft Reduction	Reducing vehicle theft and attempts in Newark	Reduction in the number of motor vehicle thefts and attempts	RMS, internal database	Each time an incident is reported
	Reducing vehicle accessory theft and attempts in Newark	Reduction in the number of vehicle accessory thefts and attempts	RMS, internal database	Each time an incident is reported
Training	Increase training for employees in Crime Prevention through Environmental Design, high-risk vehicle stops, and vehicle theft investigation training	Improve evidence recognition and collection; increase knowledge of crime prevention through environmental design, and increase proficiency in high-risk vehicle stops	Training records, internal database, POST	Each time training is completed