How Many Crimes Do Automated License Plate Readers (ALPRs) Solve, Anyway?
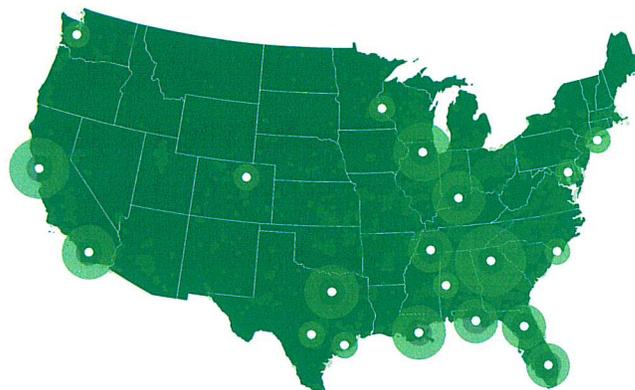
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As Automated License Plate Reader (ALPR) technology has become more ubiquitous, discussion has shifted from the proven utility to **understanding how they contribute to solving crimes**.

Recent studies highlight significant positive outcomes, such as increased follow-up arrests, identification of stolen vehicles, and improved case closure rates.

To better understand effective deployment and usage of ALPR cameras, Flock Safety, the leading provider of ALPR technology to 4,000+ communities across the United States, conducted a large-scale analysis of ALPR outcomes correlated with crime clearance and reduction data.

Methodology

The study utilizes a comprehensive survey of Flock Safety ALPR customers, conducted from April to June 2023. Individual agencies' crime clearance data is analyzed in conjunction with FBI-reported crime data, employing multilinear regression to isolate the impact of ALPR-centric, agency-centric, and jurisdiction-centric factors. The survey focuses on raw numbers of crimes solved, filtering out minor offenses. Data which did not meet rigorous criteria for inclusion are also filtered out, leading to 123 survey respondents, representing a diverse range of sizes and demographics, with sufficient granularity for analysis.

The study employs single and multilinear regression to identify factors most associated with ALPR-assisted clearance rates. Notable findings include the importance of ALPR-centric factors, agency behavior, collaboration with other agencies, and surprising success in challenging environments.

10%	200x	9.1%
Flock Safety devices are now helping solve 10% of reported crime in the U.S.	A typical agency that works with Flock will have access to more than 200 times the number of cameras that they own	A typical agency that acquires an additional 1 Flock Device per Sworn Officer, may expect a 9.1% increase in clearance rate

Key Findings

Access to Evidence

Agencies with more Flock Devices per Sworn Officer and shared devices exhibit higher clearance rates, emphasizing the power of additional investigative evidence.

Agency Behavior

Broad access to ALPR technology within an agency correlates with higher success in solving crimes, highlighting the role of officers in the field and the importance of proper technology use. Agencies who provide Flock access and training to a broad spectrum of officers, from patrol to their investigative bureau and beyond, see more success with the technology.

Collaboration with Other Agencies

Network effects, both locally and on a national scale, should agencies choose to engage in such, can play a significant role. In fact, the number of nearby Flock customers and shared devices per sworn officer may greatly impact clearance rates. As an example, the addition of 20 Flock customers near an agency can lead to a 1% increase in clearance rate.

Overcoming Challenging Environments

Agencies with fewer sworn officers and larger population areas achieve higher clearance rates when using ALPR, suggesting ALPR's effectiveness in addressing resource challenges. This is especially important when considering the current hiring and retention challenges that agencies across the country face.

This research provides valuable insights into ALPR technology's impact on law enforcement outcomes. The identified factors can guide agencies in optimizing their use of ALPR technology for enhanced crime clearance rates.

Applying this framework to all of Flock's customers and estimating the totals, over 700,000 crimes each year are solved using Flock Safety technology. This represents roughly 10% of reported crime nationwide.

These findings warrant further research specifically examining the impact of ALPR usage on specific categories of crimes, especially in examining the before-and-after impacts of those changes. Such a study is presently underway as part of a joint research project by Texas Christian University and the University of Texas at Tyler.

Read the full white paper, published on Researchgate.

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Protect Your Neighborhood And Everyone in It

Flock Safety's license plate reading (LPR) cameras increase a business' ability to:

- Generating investigative leads with vehicle data for local law enforcement
- Intercepting potential threats to the community before they escalate
- Helping solve crimes more quickly by providing objective evidence

Why neighborhoods & HOAs choose Flock Safety

1 **INFRASTRUCTURE-FREE**
Runs on solar power and LTE, so it can be installed almost anywhere in your neighborhood with no additional utility bills

2 **VEHICLE FINGERPRINT® TECHNOLOGY**
Flock LPR cameras capture license plates 24 hours/day to protect your neighborhood morning, noon and night

3 **REAL-TIME ALERTS**
Automatically notify law enforcement when a wanted vehicle enters the neighborhood

4 **SUBSCRIPTION SERVICE MODEL**
Includes camera setup, installation, and maintenance for a turn-key experience

"Just knowing that we have a way to deter crime, and if crime did happen – we have a way to solve crime. That's the number one thing that I like."

LARRY HUBBARD
HOA Board Member | Collierville, Tennessee

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flocksafety.com
(886) 901-1781 | support@flocksafety.com

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Join thousands of neighborhoods and HOAs across the U.S. that already trust Flock Safety to **protect their community**

FLOCK SAFETY PROVIDES PROTECTION AGAINST:

- Arson
- Burglary
- Home theft
- Mail theft

- Motor vehicle theft
- Vandalism
- Illegal dumping
- Amber alerts

Over 4,000+ communities use Flock with more than 2,200+ crimes solved per week.

"I've been in law enforcement about 20 years. And it is the single greatest law enforcement tool I've ever seen."

CAPTAIN RYAN SMITH
St. Johns County Sheriff's Office

Source: FirstCoast News

Color/Make
Black Chevrolet

Seen in the last
30 Days

Vehicle Fingerprint®
Bumper sticker

License plate
OR 093LKD

HAVE QUESTIONS OR WANT A DEMO?
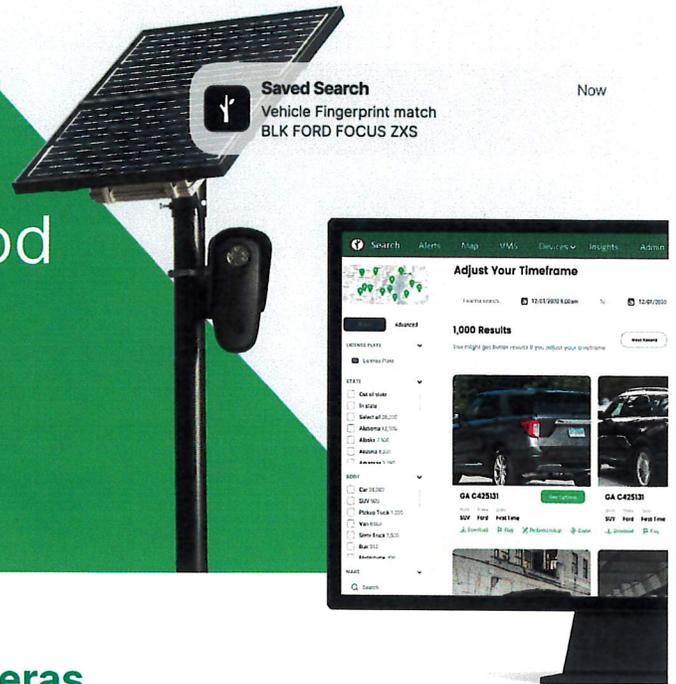
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Protect your neighborhood and everyone in it with Flock Safety

Flock Safety's license plate reading cameras improve safety and peace of mind by:

Generating investigative leads with vehicle data for local law enforcement

Intercepting potential threats to the community before they escalate

Helping solve crimes more quickly by providing objective evidence

Why neighborhoods & HOAs choose Flock Safety

Infrastructure-free
Runs on solar power and LTE so it can be installed almost anywhere in your neighborhood with no additional utility bills

24/7 Protection
Flock cameras capture license plates 24 hours/day to protect your neighborhood morning, noon and night

Real-time alerts
Automatically notify law enforcement when a wanted vehicle enters your neighborhood

Subscription service model
Includes camera setup, installation, and maintenance for a turn-key experience

Have questions or want a demo? Reach out to:

Join thousands of neighborhoods and HOAs across the U.S. that already trust **Flock Safety** to **protect their community**

Flock Safety provides protection against:

- ✔ Arson
- ✔ Burglary
- ✔ Home theft
- ✔ Mail theft
- ✔ Motor vehicle theft
- ✔ Vandalism
- ✔ Illegal dumping
- ✔ Amber Alerts

Flock Safety by the numbers

75%
Crimes involve a motor vehicle*
*According to: Gardner, Thomas and Terry Anderson.
Criminal Evidence: Principles and Cases. 2015

1,000+
Crimes solved per week with Flock

2,000+
Cities use Flock Safety

> *"Just knowing that we have a way to deter crime, and if crime did happen – we have a way to solve crime. That's the number one thing that I like."*
>
> Larry Hubbard, HOA Board Member
> Collierville, Tennessee

> *"Flock has proven time and again to keep us safe. We couldn't ask for a better system to stop neighborhood crime."*
>
> Andy Mosely, HOA Board Member
> Conifer Place

> *"I've been in law enforcement about 20 years. And it is the single greatest law enforcement tool I've ever seen."*
>
> Captain Ryan Smith, St. Johns County Sheriff's Office
> Source: First Coast News

Name _____ Email _____ Phone Number _____

Historical Brookhaven Neighborhood Association

About Historical Brookhaven Neighborhood Association

The Historical Brookhaven Neighborhood Association (HBNA) is located in the Northeast metro-Atlanta region. The purpose of HBNA is to ensure the wellbeing of the neighborhood through beautification efforts, understanding planning and zoning efforts, and ensuring the safety of the neighborhood.

Historical Brookhaven Neighborhood Association Partners with Flock Safety

In an effort to prevent and solve crime in the neighborhood, HBNA implemented Flock Safety's ALPR cameras throughout the neighborhood

Since first installing the LPRs in late 2018, there have been 240 alerts to officers patrolling in Historic Brookhaven, 86 of which resulted in arrests. During the first six months of 2021 there were 37 alerts, 19 resulting in arrests. The majority of these arrests were theft of stolen vehicle or stolen license, but others involved possession of cocaine, flight/escape offense, wanted person, and theft of stolen property. Because cars are most often stolen for use in future crimes, these cases likely represent a significant number of crimes averted in Historic Brookhaven and surrounding areas.

SINCE 2018

240
ALERTS TO
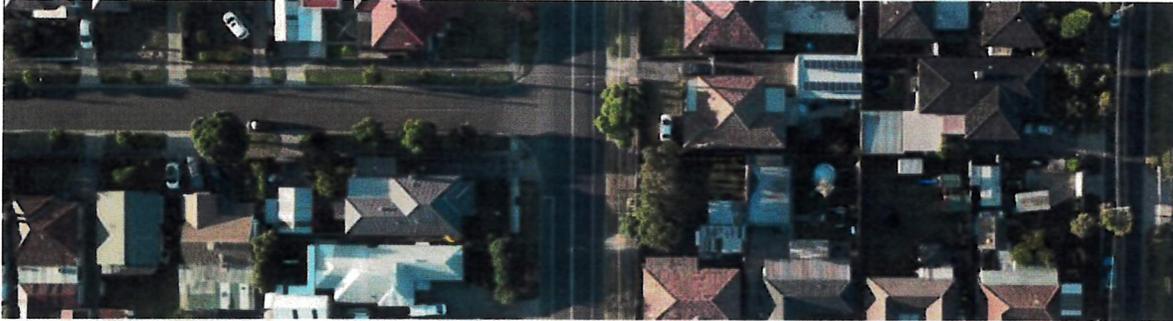PATROLLING OFFICERS

86
TOTAL
ARRESTS

FIRST SIX MONTHS OF 2021

37
ALERTS TO
PATROLLING OFFICERS

19
TOTAL
ARRESTS

f†ock safety

📁 **Historic Brookhaven Case Example**

WANTED PERSON LOCATED - E BROOKHAVEN DRIVE - APRIL 1, 2021
Officers responded to the area of East Brookhaven Drive in reference to an LPR hit for a wanted person. The registered owner was confirmed to have an active warrant from Woodstock Police Department. The vehicle was located unoccupied, and officers walked around the residence attempting to locate the registered owner. A few moments later, the SUV was observed driving away and the officers stopped the vehicle. The driver was confirmed to be actively wanted for failure to appear and was subsequently arrested.

📁 **Greater Atlanta Case Example**

WITH THE LPRS: HOMICIDE - APRIL 4, 2021 Officers responded to calls about a person shot near Lenox Mall. Multiple witnesses provided a similar description of the suspect vehicle, with unique identifiers related to the spoiler and exhaust. With these statements provided, officers immediately began checking LPR systems in the area and quickly identified a vehicle that matched the description provided by witnesses. Once the tag was located with assistance of the LPRs, additional queries showed the vehicle hitting multiple LPRs in the area before and after the shooting. This additional information corroborated other information received, and the vehicle identified soon became the primary suspect vehicle. Within hours this vehicle was confirmed to be the suspect vehicle and the suspects were identified. Ultimately warrants were obtained for felony murder on the identified suspects as associated with the vehicle identified through the LPRs.