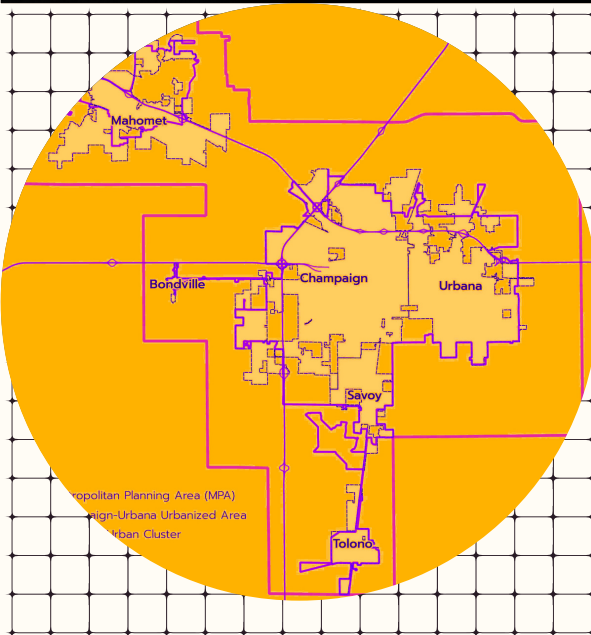
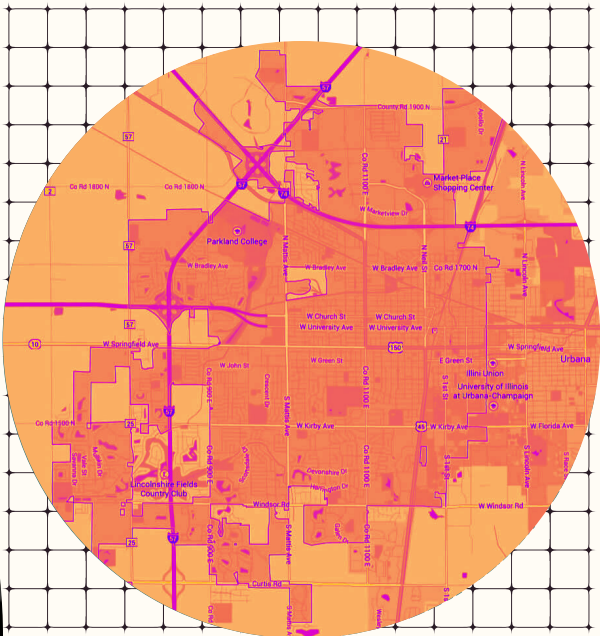


# Automated License Plate Readers (ALPRs): Surveillance & Policing

ALPRs in Champaign Urbana  
*Overview, Effectiveness, and Ethical Concerns*



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2023

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# 01 / Automated License Plate Readers

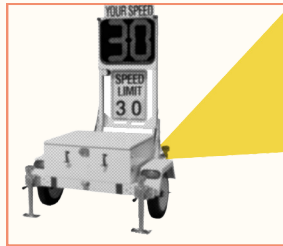
## WHAT ARE ALPRS?

ALPRs, or Automatic License Plate Recognition Systems, are designed to automatically capture, process, and interpret license plate information from vehicles employing a combination of hardware and software components that compare the plate numbers to local and national databases containing vehicles of interest.

## HOW DO ALPRS COLLECT DATA?



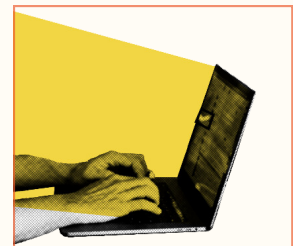
Stationary  
ALPR Cameras



Semi-Mobile ALPR  
Cameras



Mobile ALPR Cameras



Centralized Database  
A centralized database that stores and manages the captured license plate data for further analysis.

## WHAT TYPES OF DATA DO ALPRS COLLECT?

- **License Plate Numbers:** The alphanumeric characters on license plates.
- **Timestamps:** The date and time when each license plate is captured.
- **Location Information:** The specific location where the license plate was detected.
- **Vehicle Images:** Images of the vehicles associated with the captured license plates.

## HOW IS ALPR DATA USED FOR POLICING?

- **Identifying "suspicious" vehicles:** ALPR systems are used to compare license plate data against watchlists to send alerts when a vehicle of interest is detected.
- **Investigations:** ALPR data is used to provide leads and evidence in criminal investigations by tracking the movements of vehicles linked to activity deemed suspicious.
- **Traffic enforcement:** ALPRs are used to enforce traffic regulations, such as identifying vehicles with expired registrations or outstanding fines.

## WHAT IS ALPR DATA USED FOR BY CHAMPAIGN CITY POLICE?

Under Department Policy 41.18, ALPR units may be used to investigate license plate information related to:

- Identifying the license plate numbers of or associated with **stolen vehicles, wanted subjects, missing persons, AMBER Alerts**, or other criteria as determined by a Deputy Chief of Police.
- ALPRs may also be used to gather information related to **active warrants, homeland security, electronic surveillance, suspect interdiction, stolen property recovery**, or other legitimate law enforcement purposes.

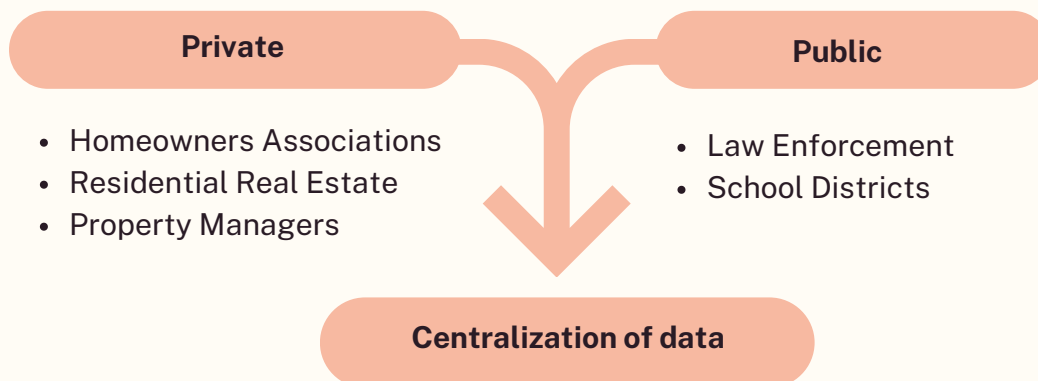
# 02 / Flock Safety: ALPR Vendor Overview

The Champaign Police Department contracted with **Flock Safety, Inc.** to install Automated License Plate Reader (ALPR) units for use throughout the community; in total, **46 ALPR units were installed by Flock Safety by the City of Champaign in the Spring and Summer of 2022.** The ALPR units were initially authorized for two years of use. This is in addition to the **12 ALPRs** installed by Champaign County and **5 ALPRs** installed by the University of Illinois Urbana-Champaign.



## Business Model: A public/private license-scanning network

- Fixed cameras have been installed in **1,400** cities across the United States.
- **1,000,000,000** monthly plate reads. On average, this is **23,000+ scans/minute.**
- Access to Hotlists: Private, state police watchlists and the FBI's primary criminal database, the National Crime Information Center (NCIC)
- Each camera costs Champaign **\$2,500/year** in addition to a one time installation fee of \$250



## AI-Driven Mass-Surveillance System

By consolidating all the data collected from its customers, including law enforcement agencies, into its centralized servers, Flock establishes a **highly influential public-private apparatus** that gathers information about Americans' activities. While **mass surveillance** by law enforcement alone is already concerning, the involvement of a private company introduces **potentials for misuse.**

# 03 / Champaign City Police Department & ALPRs

## ANALYSING 54 "SOLVED" CRIMES USING ALPRs

Champaign's local CBS affiliate station, WCIA, reported that Champaign Police had used Automated License Plate Readers (ALPRs) to help "solve" 54 crimes from May 2022 through February 2023.

We used **Freedom of Information Act (FOIA) requests** to find out how and when CPD used ALPRs in the first nine months after installation. After our FOIA request was fulfilled in April 2023, each individual usage of the ALPRs was tagged with additional information, including whether it was related to another instance in the group, the type of crime most likely to be charged, if the crime involved guns, and what the outcome of the case was, if known. In this way, we were able to **sort, group, and filter** the instances into different categories for our analysis.

### 54 Total number of ALPR uses

↓ Total number of ALPR uses: 54 unique uses of the ALPR system logged between installation of first camera May 1, 2022 through the publication date of the WCIA article Feb 17, 2023

### 43 Incidents involving a "crime"

↓ 11 records were removed for being unclear, related to another usage, or that were explicitly not related to a crime, such as wellness checks.

### 31 Potential Felonies

↓ 12 records were removed for being associated with misdemeanors, such as theft under \$500, fleeing and eluding an officer, and battery.

### 14 Gun-related felonies

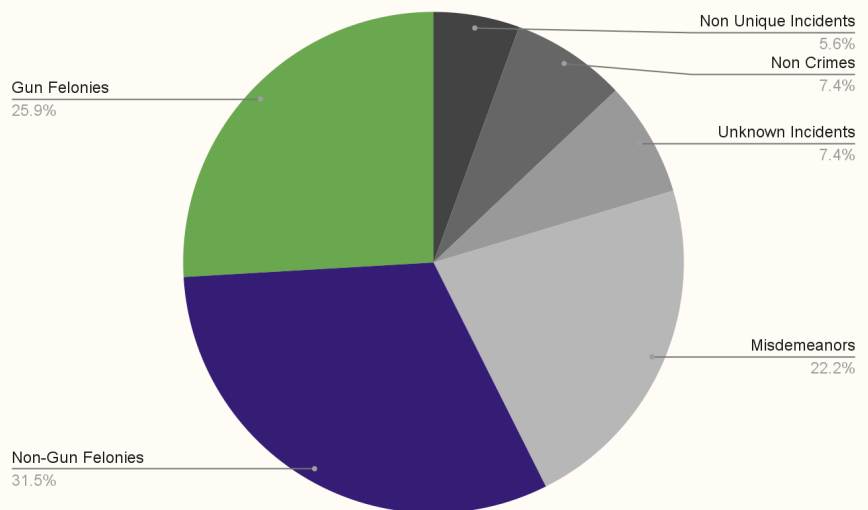
↓ 17 records were removed for being associated with felonies that did not involve a gun, such as vehicle theft and arson.

10

↓ Gun related felonies with an arrest/arrest warrant

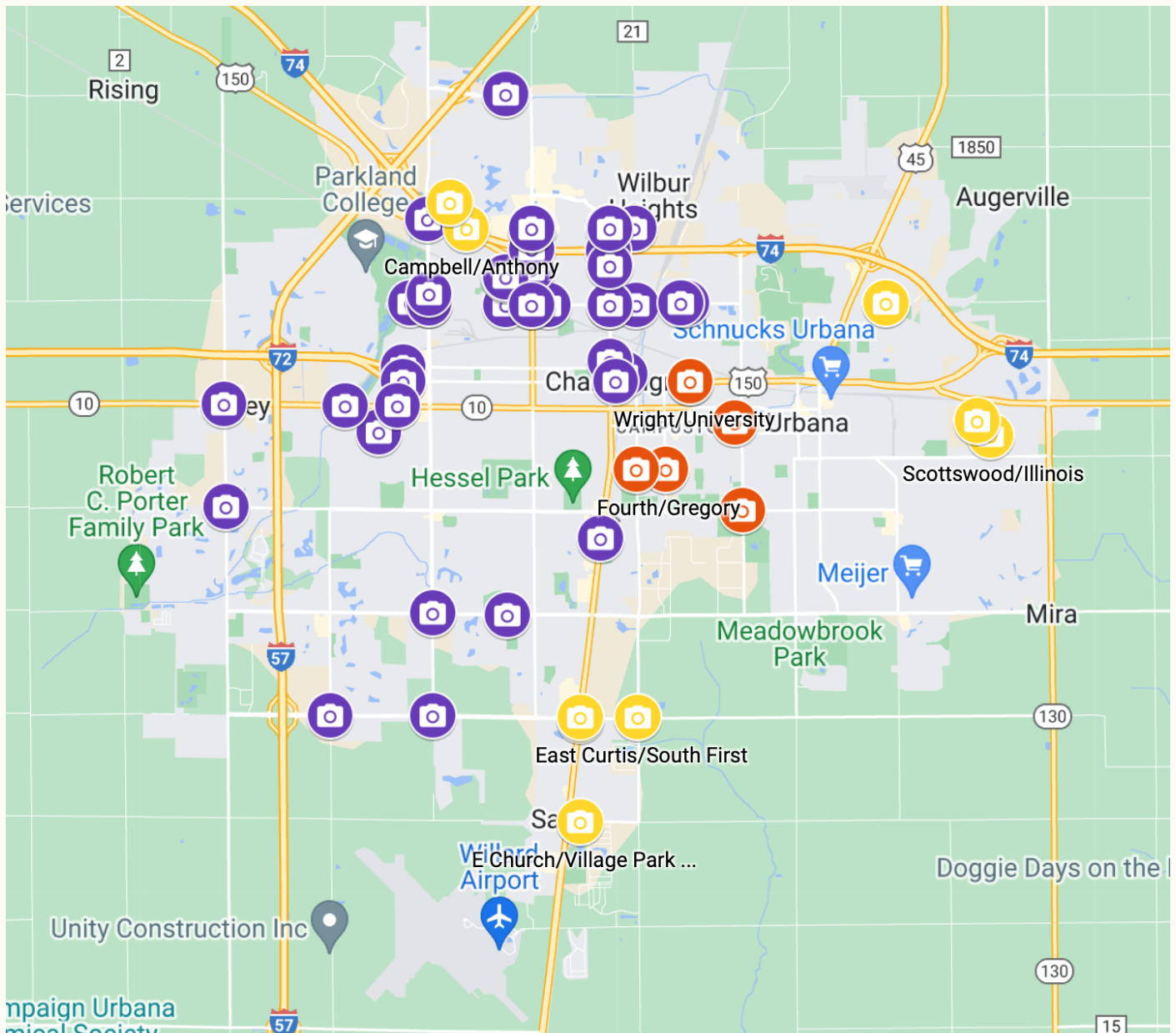
2

Only 2 of those 10 arrests were attached to charges at time of information retrieval.



54 Crimes: breakdown by level of likely criminal charge

# 04 / Champaign City ALPR Map



## External organizations with access to data

Bloomington IL PD, Bradley IL PD, Champaign County IL SO, Charleston IL PD, Chatham IL PD, Chesterfield County VA PD, Danville IL PD, Decatur IL PD, Dewitt County IL SO, Elk Grove IL PD, Illinois State Police, LeRoy IL PD, Mahomet IL PD, Normal IL PD, Parkland College IL PD, Rantoul IL PD, Springfield IL PD, University of Illinois at Urbana - Champaign IL PD.

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