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Investigators need one of three elements to solve a crime: a witness, physical evidence, or a confession (Klockars & Mastrofski, 1991 as cited in Willis, et al., 2018). These elements may not be as reliable as desired — witness statements may be misrepresented, physical evidence may be unavailable, and suspect confessions may be fabricated. However, the use of ALPR can help corroborate or disprove these elements by providing objective data on a vehicle's whereabouts during a specific time and place (Byrne & Marx, 2011 as cited in Willis, et al., 2018). A 2020 survey conducted by the Bureau of Justice Statistics (BJS) found that 65% of participating local police departments used ALPR (Goodison & Brooks, 2023).

ALPR can be used to assist in locating a person of interest (e.g., suspect, victim, missing person), provide information and assistance to an ongoing investigation, or for crime prevention and public safety strategies, but the most notable usage of ALPR is for identifying and locating stolen vehicles. Colorado continues to lead the nation in motor vehicle thefts (MVT) with a rate of 785.7 per 100K residents compared to the U.S. rate of 282.7 in 2022. In 2023, the MVT rate per 100K residents was at 654.8, a 17% decrease from 2022 (see Figure 1). The use of ALPR technology has the potential to assist law enforcement in reducing these high rates.

In 2022, the majority (79%) of secondary crimes related to MVT were property crimes, most notably destruction and vandalism (33%), theft from motor vehicles (21%), and stolen property (15%) (CBI, 2022). Using ALPR to help reduce MVT has a potential domino effect on reducing crimes as a whole.

Figure 1. Colorado Motor MVT rate versus U.S. MVT rate per 100K residents, 2014-2023.
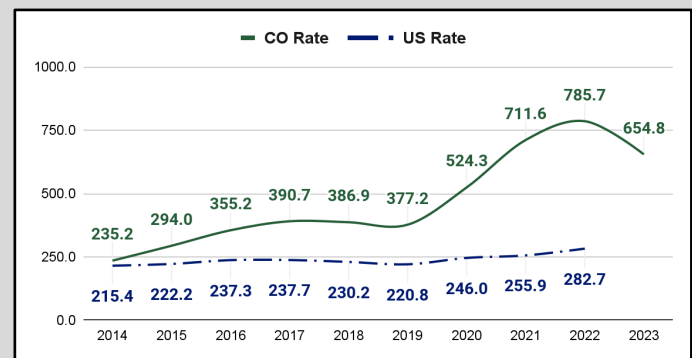
Source: Colorado Bureau of Investigation & Federal Bureau of Investigation, Crime Data Explorer (retrieved, 2/16/2024).

ALPR Usage for Officers

- Hotlists automatically identify and track vehicles and license plates of interest and send alerts when hit.
- Increase arrest rates due to quicker response times using real-time data and alerts.
- Collects millions of vehicle and license plate data to investigate current and historical crimes.
- Data collected can provide a geographic timeline of vehicle travel patterns (EFF, n.d.).

Additional Information & Resources

- Major Cities Chiefs Association (MCCA), ALPR Working Group, Recommendations & Considerations *(pdf)*
- CATPA: Template Guide for Funding an ALPR System - ALPR Standards and Requirements *(pdf)*
- IACP: License Plate Reader (LPR) Systems: Use Cases *(pdf; IACP, 2024)*
- Check if a vehicle is stolen: Colorado Bureau of Investigation (CBI): Motor Vehicle (VIN) Verification System
- Check if a VIN matches the vehicle: National Highway Traffic Safety Administration (NHTSA) VIN Decoder

References

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