

Ethical Recommendations

Our review of LAPD crime data shows significant differences in how quickly crimes are reported, depending on the area, the people involved, and the type of crime. Even though the XGBoost model predicts these patterns with 98% accuracy, strong results do not mean it is always ethical to use. Before using these models to decide where to send patrols, we need to address three important concerns.

First, sending more police to areas flagged as hotspots can lead to over-policing in communities that already have frequent law enforcement contact. Central, Hollywood, and Pacific, for example, have both high crime rates and longer delays in reporting, but just adding more officers does not solve the reasons people wait to report crimes. Issues like language barriers, distrust of police, fear of retaliation, and not knowing how to report are likely causes. These communities might benefit more from tools in multiple languages, community liaison programs, and working with local organizations that residents trust.

Second, losing half the data because of missing information makes us question if our models truly represent all parts of Los Angeles. Missing data is not random; it often stems from problems in data collection, which likely affect marginalized neighborhoods the most. Before using the model, we need to ensure it works well across every LAPD area and group, not just where the data are complete. People should also know how their communities are labeled as hotspots and what that means for them.

Third, we must be careful not to let patterns in the data lead to stereotypes or make us pay less attention to certain cases. Our results show that violent crimes happen more to younger people, fraud affects older adults, and reporting times vary by victim sex. Still, these trends do not tell us about each person's experience. Just because weapon-related crimes are reported faster

does not mean we should doubt victims who take longer to report, since trauma affects everyone differently (Lanthier et al., 2018). Prevention programs should be shaped with community input to avoid messages that might stigmatize anyone.

In the end, crime is often a sign of bigger social issues like poverty, inequality, and past trauma (Patterson, 1991). Predictive models can help guide decisions, but using them responsibly means also investing in social support and solutions.

Works Cited

1. Lanthier, S., Du Mont, J., & Mason, R. (2018). Responding to delayed disclosure of sexual assault in health settings: A systematic review. *Trauma, Violence, & Abuse*, 19(2), 251-265. <https://doi.org/10.1177/1524838016659484>
2. Patterson, E. B. (1991). Poverty, income inequality, and community crime rates. *Criminology*, 29(4), 755-776. <https://doi.org/10.1111/j.1745-9125.1991.tb01087.x>