License plate readers

07-24

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My Background

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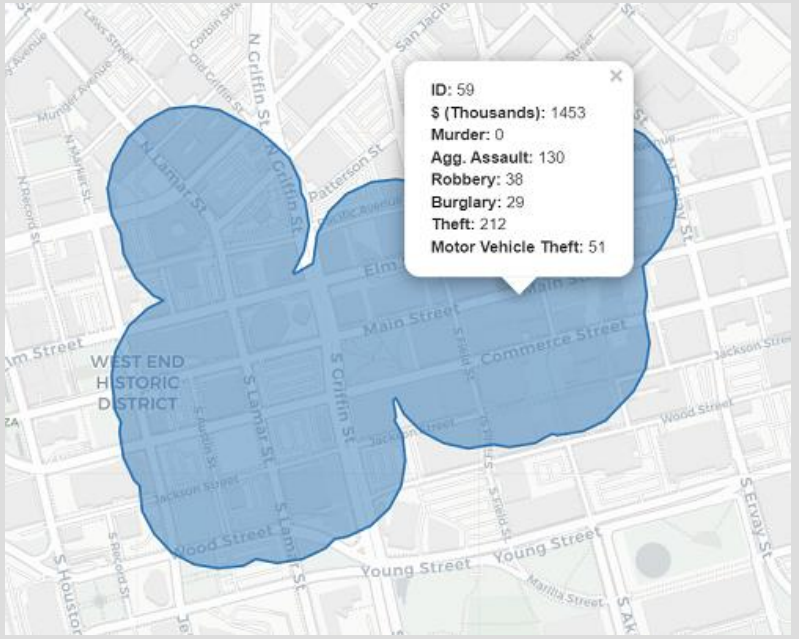
PhD Criminal Justice

- Statistical Analysis
- Operations Research
- Predictive Modeling
- Policy Analysis



Examples of Prior Work

- ALPRs and roadblocks in Buffalo (Wheeler et al., 2018)
- Cost of crime hotspots (Wheeler & Reuter, 2021)
- Impact of drive times on gun shot survival rates (Circo & Wheeler, 2021)

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What are LPRs?

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Cameras that take a pic of license plate

- **Check to see if plate is in a list of stolen vehicles & alert officers**
- **Cameras can be *fixed* locations or *mobile* (within a patrol car)**

Stephen Speranza for The Washington Post

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How LPRs are used

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Reactive

- Wait for car to pass by and alert

Direct Investigations

- Can search of license plate, see where a hit occurred in the past (with lat/lon coordinates)

- Most PDs have ad-hoc policies about data retention (e.g. one month, six months)

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Are LPRs effective?

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LPRs can maybe increase arrests

- Some weak evidence they increase clearances (Koper & Lum, 2019)
- Since they are cheap, can be good ROI even if only increase a few arrests (Ozer, 2016)

Does surveillance tech deter crime?

- LPRs probably not by much if at all (Lum et al., 2011; Wheeler et al., 2018)
- This is consistent with other tech (CCTV, Acoustic Gun Shot)

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How LPRs can be abused

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There are no rules for searching LPR databases

- Do not need a warrant to do a search
- Mobile can effectively map your movements in vehicle in entire city
- Flock extra layer of exposure, since can share with neighboring PDs

What can we do about it?

- State level policies on data retention & when can search
- Who watches the watchmen?

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