Assessing Risk Assessment in San Francisco (and other projects)

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Outline

• How we started working together

• What is risk assessment?

• What next?
We show that statistics have human consequences

Data science and police accountability

Statistics and Covid-19
Most of the available data on the impact of the pandemic in different regions is biased and insufﬁcient. Using available data from Mexico, we demonstrate that a more complete analysis could be used to make more effective and ethical decisions. 

Finding Mexico’s hidden graves
For more than ten years, Mexican authorities have tried to estimate the number of unidentiﬁed bodies collected at graveyards, but modelling has been hampered by a lack of data. Using an improved method, we demonstrate how to more reliably estimate the numbers of victims.
Pre-Trial Risk Assessment

- Attempts to categorize individuals post arrest and pre trial into “risk categories”

- Different outcomes to model “risk”:
  - Failure to appear for court date (FTA)
  - Potential re-arrest for new criminal activity (NCA)
  - Potential re-arrest for new violent criminal activity (NVCA)
Pre-trial risk assessment - concerns

- “Fairness” of predictive performance
- “Fairness” of inputs
Fairness

- [https://shiraamitchell.github.io/fairness/](https://shiraamitchell.github.io/fairness/)

- [https://facctconference.org/](https://facctconference.org/)
“Because of the partial and selective nature of the police data, comparisons based on them of variations in ‘actual crime’ over time, between places, and among components of the population, are all held to be grossly invalid.”

“The Interpretation of Criminal Statistics,” Journal of the Royal Statistical Society 60 (1897)
Risk Assessment in San Francisco

- Arnold Ventures Public Safety Assessment (PSA)
- Pilot run 2016-2017
- SB 10: Pretrial Release and Detention
PSA - covariates

- Age at current arrest
- Pending charges at time of current offense
- Prior misdemeanor convictions
- Prior felony convictions
- Number of prior violent convictions
- Prior FTA
- Incarcerated as result of past conviction
- Whether current booked offense is violent
PSA - process

1. Calculate FTA, NCA, NVCA

2. Determine “charge-based exclusion” automatically categorizing as “release not recommended”

3. Determine recommendation from “decision-making framework”

4. Determine if any charges result in “bump up” to more restrictive recommendation
<table>
<thead>
<tr>
<th></th>
<th>NCA 1</th>
<th>NCA 2</th>
<th>NCA 3</th>
<th>NCA 4</th>
<th>NCA 5</th>
<th>NCA 6</th>
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<tbody>
<tr>
<td>FTA 1</td>
<td>OR - NAS</td>
<td>OR - NAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FTA 2</td>
<td>OR - NAS</td>
<td>OR - NAS</td>
<td>OR - NAS</td>
<td>OR - Minimum</td>
<td>SFPDP - ACM</td>
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<td>FTA 3</td>
<td>OR - NAS</td>
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<td>OR - Minimum</td>
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</table>

* Release Not Recommended if any booked offense is a felony or violent misdemeanor per PSA Violent Offenses List; SFPDP – ACM if booked offense(s) are non-violent misdemeanors.
Overbooking

- Owens et al (2017) find that “[p]eople of color receive more serious charges at the initial booking stage, reflecting decisions made by officers of the San Francisco Police Department.”
Data

- PSA records for Public Defender clients (scanned images)
- Court data with unique identification number, name, date of birth, list of booking charges, list of charges led by the district attorney, and the disposition code for each individual charge
Analysis

- Link PSA and court data
- Confirm calculation of PSA recommendation
- Re-calculate recommendation using convicted charge (not booked)
Results

Percent of cases for which each component of PSA was higher under booking charges compared to convicted charges

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Exclusions</td>
<td>21%</td>
</tr>
<tr>
<td>Bump-ups</td>
<td>17%</td>
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<tr>
<td>NVCA</td>
<td>11%</td>
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<tr>
<td>Recommendation</td>
<td>27%</td>
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Next Steps

- Ongoing PSA working group meetings with PDO and other groups
- New collaborations with District Attorney’s Office
An introduction to the Citizens Police Data Project

The Citizens Police Data Project (CPDP.co) is a tool for holding police accountable to the public they serve.

CPDP takes records of police interactions with the public – records that would otherwise be buried in internal databases – and opens them up to make the data useful to the public, creating a permanent record for every CPD police officer.
Thank you

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