

Crowdsourced Police Shooting Data: What We Know and What We're Missing

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114th Annual Meeting of the American Sociological Association
New York, NY
August 13, 2019

Background

- Official data on OIS are “a national embarrassment”¹
- Rise of crowdsourced data
 - WAPO, The Guardian, Fatal Encounters, Mapping Police Violence...
 - Accompanying increase in studies utilizing these data²⁻⁵
 - ...Accompanying increase in our understanding of OIS?
- BUT NEVER FORGET:
 - All of these databases only track ***fatal*** OIS

The New York Times

More Racial Diversity in U.S. Police Departments Unlikely to Reduce Shootings: Study

New York Times, 23 Jul 2019

U.S. | More Racial Diversity in U.S. Police Departments Unlikely to Reduce Shootings: Study (Reuters) - White police officers in...

YAHOO! NEWS

There Is No Epidemic of Racist Police Shootings

Yahoo! News, 31 Jul 2019

The Democratic presidential candidates have revived the anti-police rhetoric of the Obama years.

THE HILL

Study: Increasing police forces' diversity does not reduce racial disparity in shootings

The Hill, 23 Jul 2019

Increasing diversity among officers may not be enough alone to lead to lessening racial disparity in police shootings...

SFGate

Police are more likely to kill men and women of color

SFGate, 05 Aug 2019

(The Conversation is an independent and nonprofit source of news, analysis and commentary from academic experts.) Frank Edwards...

What's the Big Deal?

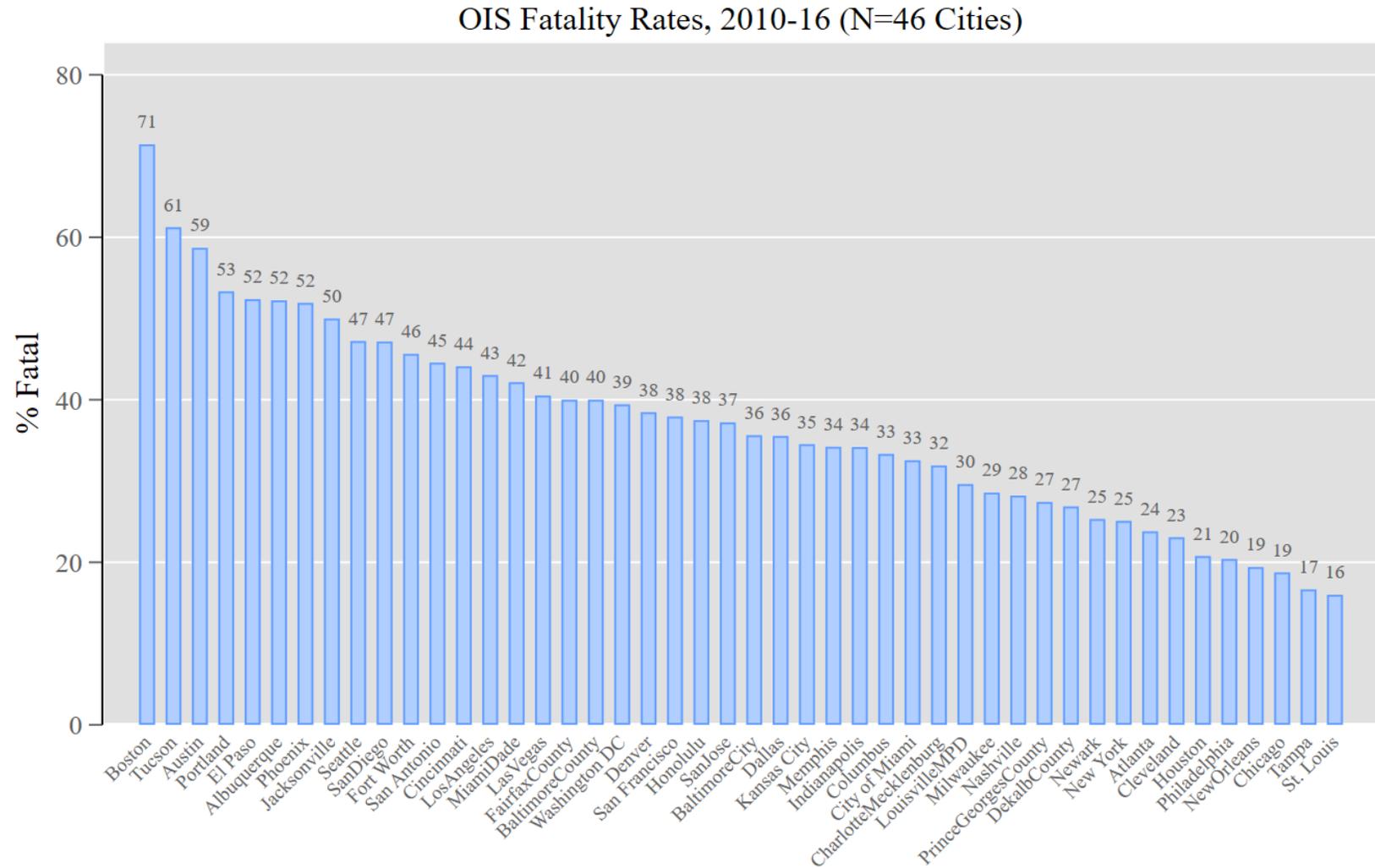
- Deadly force = “physical force *capable of or likely to* kill; it does not always kill” ⁶
 - Police officers often miss
 - People often survive gunshot wounds
- What factors influence the likelihood of an OIS becoming *fatal*?
 - Rounds fired/landed, gun caliber, proximity to trauma centers, whether officers administer aid
 - Whether bullets hit vital organs

VICE News Data

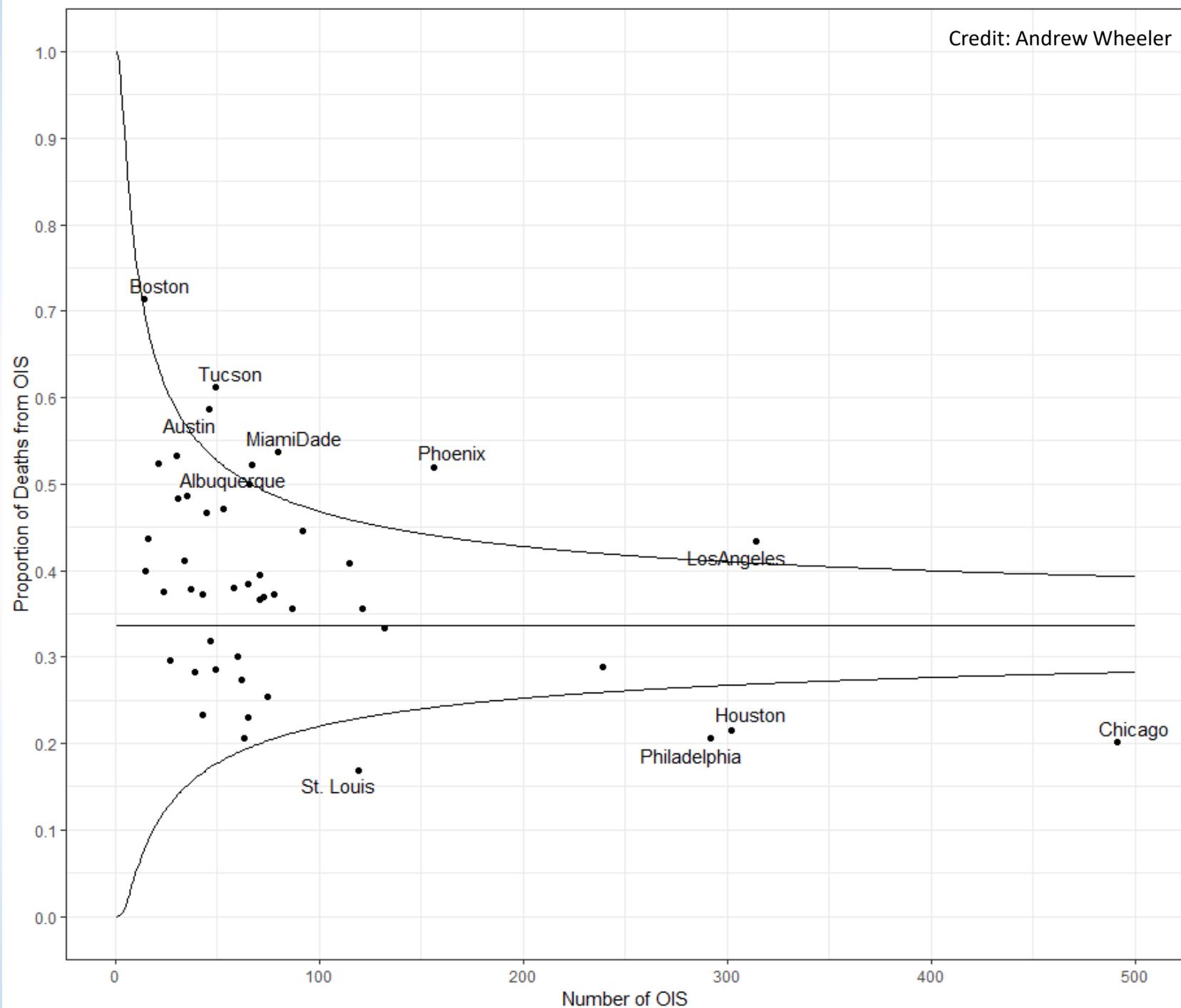
- Sought information on all OIS by the 50 largest jurisdictions in the US, from 2010 to 2016
- FOIA requests, district attorneys, some crowdsourcing
- Some apparent shenanigans with a few agencies
- Final sample: 4,117 OIS across 47 jurisdictions*

Variation Across Jurisdictions

- Overall fatality rate = 37%
- Ranges from low of 16% (St. Louis) to a high of 71% (Boston)
- Caution against ranking



- A lot of the variation is noise
- Even the outliers aren't that far outside the predicted funnel
- Still, some interesting regional patterns



Takeaways

- OIS are statistically rare events
 - Very hard to “predict” them with regression models
 - Especially without a meaningful benchmark ⁷
- Fatal OIS are not a random sample of all OIS
 - Fatality rate varies across both time and space
- Aggregation bias
- **Are we misleading ourselves when we analyze datasets that only capture fatalities?**

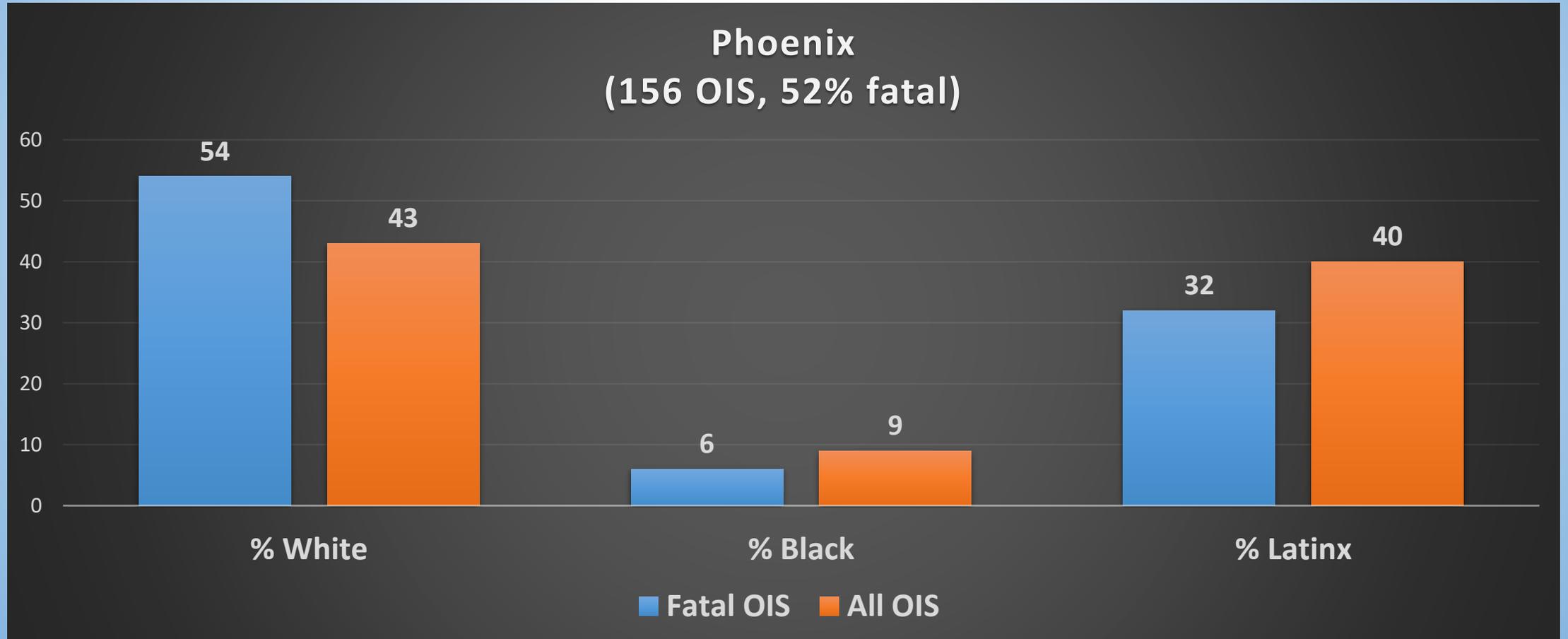
An Example Using VICE

- What percentage of people shot at by police were White, Black, or Latinx?

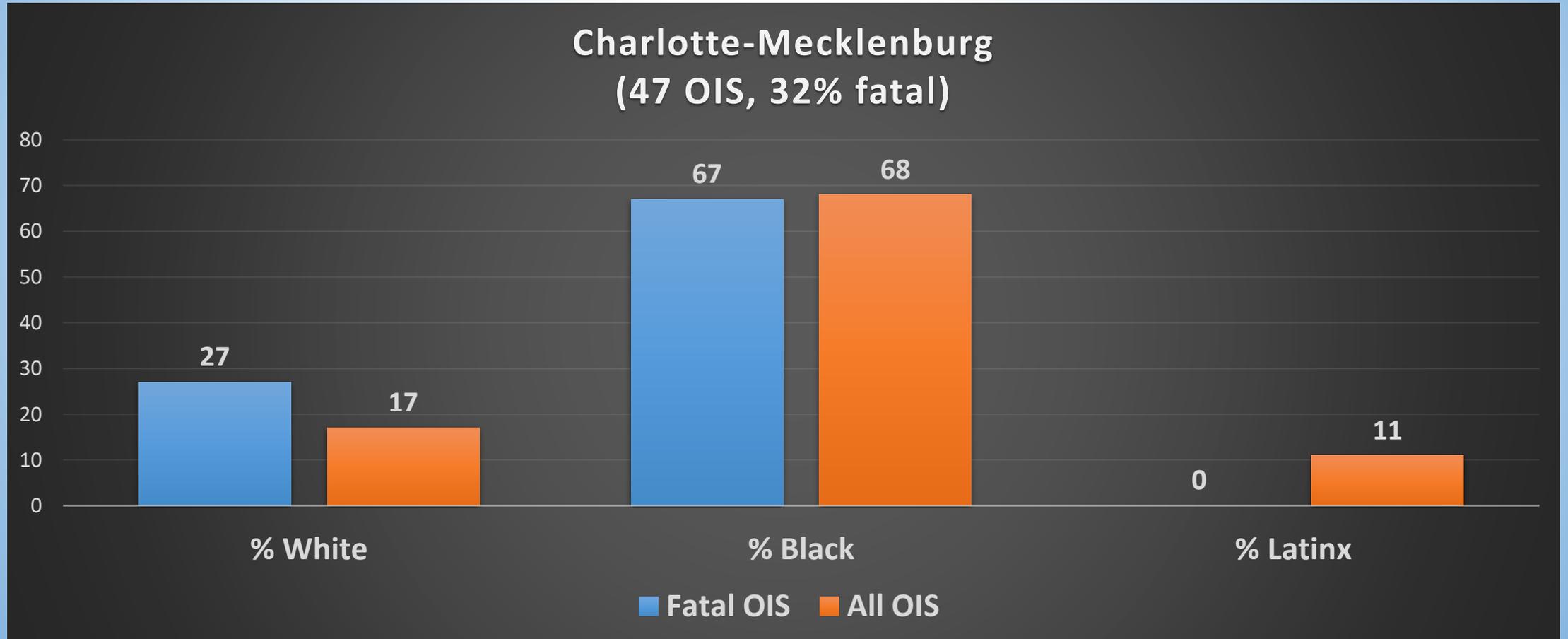
| | FATALITIES ONLY | | | | ALL OIS | | | |
|----------|-----------------|-----------|-----|------|---------|-----------|-----|------|
| | Mean | Std. Dev. | Min | Max | Mean | Std. Dev. | Min | Max |
| % White | 35.6 | 22.0 | 3.0 | 81.8 | 30.7 | 20.0 | 4.8 | 76.7 |
| % Black | 44.3 | 30.0 | 4.0 | 90.3 | 48.0 | 28.2 | 4.8 | 87.4 |
| % Latinx | 16.1 | 19.7 | 0.0 | 56.0 | 17.4 | 16.6 | 0.0 | 51.2 |

* NOTE: N = 21 jurisdictions

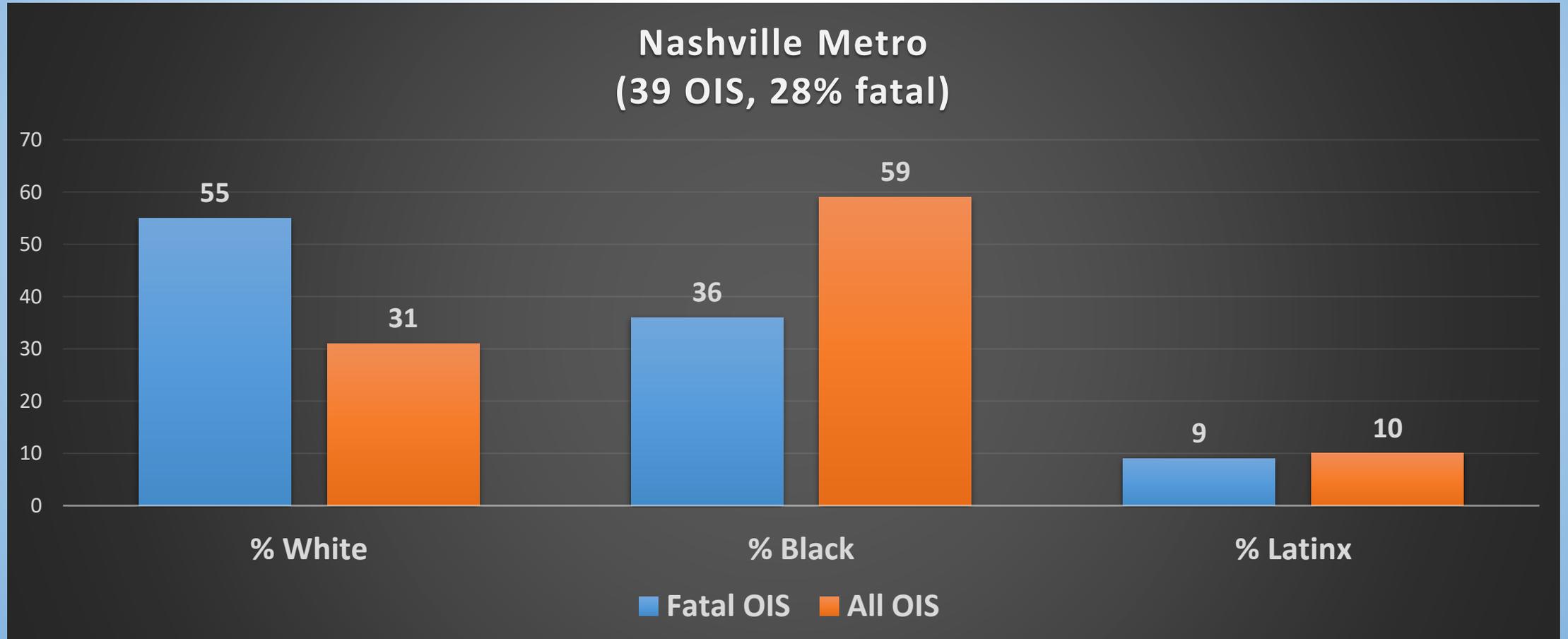
An Example Using VICE



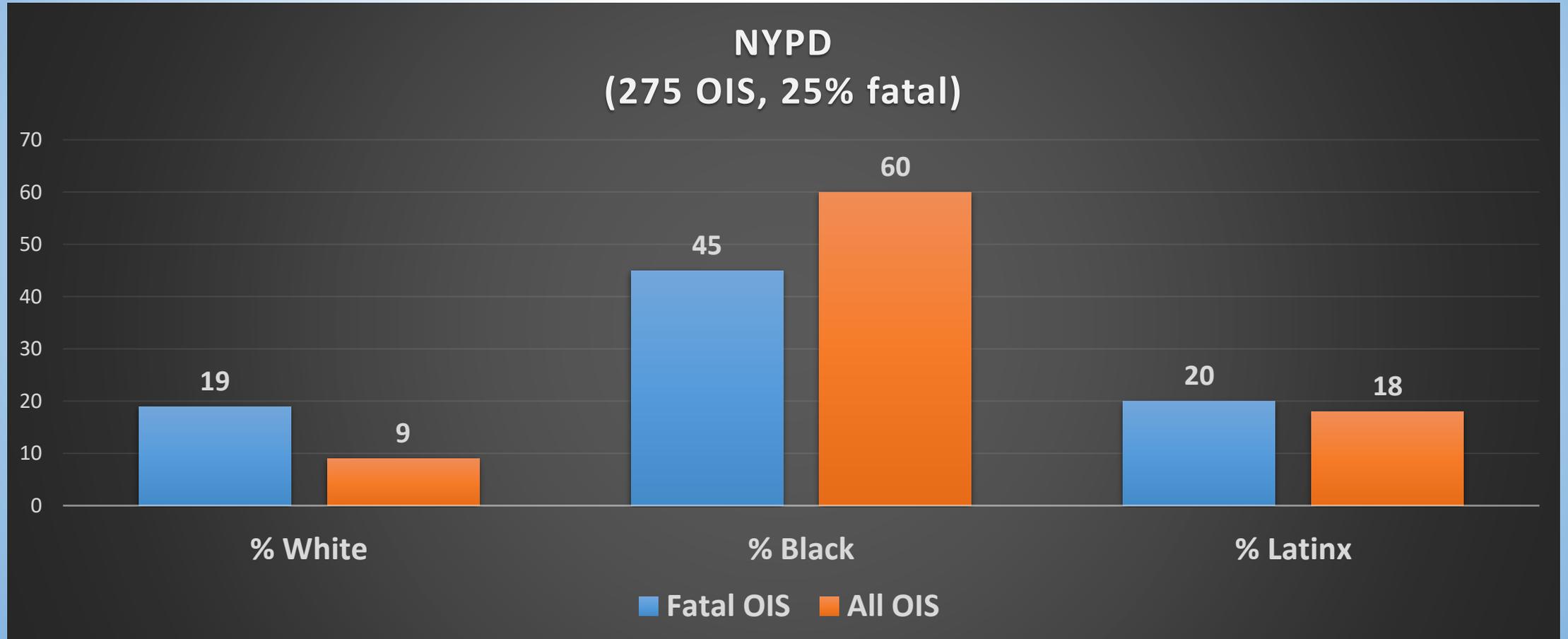
An Example Using VICE



An Example Using VICE



An Example Using VICE



Implications

- We need to know about **every** time an officer shoots at someone
 - Ideally, every time they point their guns ⁸
 - Many major city departments are leading the way in terms of transparency
- Rethink waiting for EMS?
 - Difference between life and death can be minutes
 - EMTs often administer painkillers, which can make it difficult for surgeons to communicate with victims
- Researchers: remember what we can and cannot conclude by analyzing crowdsourced fatal OIS data

References

1. Alpert, G. (2015). *Listening Session on Policy and Oversight: Use of Force Research and Policies* [Oral testimony]. Cincinnati, OH: President's Task Force on 21st Century Policing.
2. Nix, J., Campbell, B., Byers, E., & Alpert, G. (2017). A bird's eye view of citizens killed by police in 2015: Further evidence of implicit bias. *Criminology & Public Policy*, *16*(1), 309-340.
3. Bor, J., Venkataramani, A., Williams, D., & Tsai, A. (2018). Police killings and their spillover effects on the mental health of black Americans: a population-based, quasi-experimental study. *The Lancet*, *392*(10144), 302-310.
4. Cesario, J., Johnson, D., & Terrill, W. (2019). Is there evidence of racial disparity in police use of deadly force? Analyses of officer-involved fatal shootings in 2015–2016. *Social Psychological and Personality Science*, *10*(5), 586-595.
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6. Fyfe, James J. 1978. *Shots Fired: An Examination of New York City Police Firearms Discharges*. Ann Arbor, MI: University Microfilms International.
7. Tregle, B., Nix, J., & Alpert, G. (2019). Disparity does not mean bias: making sense of observed racial disparities in fatal officer-involved shootings with multiple benchmarks. *Journal of Crime and Justice*, *42*(1), 18-31.
8. Wheeler, A., Phillips, S., Worrall, J., & Bishopp, S. (2017). What Factors Influence an Officer's Decision to Shoot? the Promise and Limitations of Using Public Data. *Justice Research and Policy*, *18*(1), 48-76.