

Technology Will Not Save Us

The Case Against ShotSpotter and ALPR

By: Stop ShotSpotter Detroit Coalition
(With thanks to the Action Center on Race & the Economy)

Project Greenlight and the Community Input Over Government Surveillance Ordinance

- DPD's secret purchase of surveillance technology containing facial recognition software created public outcry
- Facial recognition was opposed, in part, because it is deeply flawed
- Organizers and residents fought for the CIOGS Ordinance to prevent similar issues in the future
- ShotSpotter is like facial recognition in that it is surveillance that is also deeply flawed and is disproportionately used to implicate Black and Brown people in alleged crimes
- CIOGS intention is to include Detroiters in the decision to acquire the technology that surveils them, weighing cost and effectiveness
- DOJ recently released its findings that Project Greenlight has no effect on gun violence

Civil Rights and Civil Liberties Implications of ShotSpotter

- Only being deployed in predominantly poor Black and Brown communities which are already overpoliced
- ShotSpotter methodology and algorithms have not been peer-reviewed or otherwise independently evaluated
- ShotSpotter's close relationship with law enforcement calls into question its use as "objective data" in criminal cases
- ShotSpotter false alarms frequently send police into communities on high alert expecting deadly gunfire
- Police engage in more stops and pat downs (stop & frisk)

Source: ACLU's [Four Problems with the ShotSpotter Gunshot Detection System](#)

ShotSpotter Does Not Reduce Gun Violence

- A 2021 **study** of 68 large metropolitan counties that adopted ShotSpotter over the course of 17 years—from 1999 to 2016—found that “implementing ShotSpotter technology has no significant impact on firearm-related homicides or arrest outcomes.”
- A 2020 **study** of ShotSpotter in St. Louis concluded that the ShotSpotter system produced “no reductions in serious violent crimes, yet . . . increase[d] demands on police resources.”
- The same 2020 study found that “citizen-initiated calls for service are over seven times more efficient in uncovering and responding to criminal behavior” than ShotSpotter alerts, and that ShotSpotter did “not appear to deliver a consistent improvement in the response time to calls for shots fired.”
- A 2018 **study** of a similar acoustic gunshot detection system in Philadelphia found that the system “did not significantly affect the number of confirmed shootings, but it did increase the workload of police attending incidents for which no evidence of a shooting was found.”
- A 2017 **study** of OEMC data from Chicago published in the South Side Weekly found that “[o]f the 508 ShotSpotter alerts that lead to opened cases, 435—eighty-five percent—were also reported within five minutes by civilian calls to 911, police reports, or other on-the-ground witnesses. The same study found that ShotSpotter was only 2.2 seconds faster than human reports of gunfire.”

MacArthur Justice Center and Chicago's OIG Finds ShotSpotter Leads to Dead End Deployments

ShotSpotter Alerts That **DO NOT** Lead To An Incident Involving A Gun-Related Offense:

- 41,830 confirmed alerts with a disposition
- 4,556 indicate evidence of a gun-related criminal offense
 - 9.1% of ShotSpotter alerts
- **90.9% of ShotSpotter alerts DID NOT result in police recording any kind of incident involving a gun**
- Only **2.1%** of alerts resulted in at least one investigatory stop
- There were **more than 61 dead-end deployments** every day

Myth: ShotSpotter has a 97% accuracy rate

Fact: That number is based off of reported false positives

Myth: ShotSpotter reduces gun crimes

Fact: There is no evidence to support that claim; and ShotSpotter leads to changed police behavior

Automatic License Plate Readers: Civil Liberties Infringements

- DPD claims in their [STSR](#): “LPR technology does not intrude upon any constitutionally protected areas”
- Recent court precedent on location logging technologies, such as GPS, has distinguished those from manual ‘limited monitoring’ done by officers
 - [Carpenter v. U.S.](#) [USSC]: Police must get a warrant before they can obtain historical information from cell phone providers due to the “**depth, breadth, and comprehensive reach**” of this data and the “**the inescapable and automatic nature of its collection**”
 - [Green v. City and County of San Francisco](#) [USCA]: In the case where an ALPR ‘frequently’ makes mistakes, an ALPR hit remains insufficient to justify a traffic stop.
- DPD at the same time is electing to share their data with over 2000 other private firms and government agencies, per the [contract](#) presented to city council
 - Any individual in that sharing agreement (e.g. at a bank, repo service, or investigative agency) could access location logs of individuals driving around Detroit.

Automatic License Plate Readers

“Why are you now placing these children on the ground face into the concrete? It's hot! In front of all of us? Screaming at them. They are telling you they are hurt” - Witness to a Black family being detained after an ALPR **misidentified** their van's plate as a stolen motorcycle

- In August 2020, an Aurora PD license plate reader read the license plate of a passing family van and compared it to a 'hot list' of stolen vehicles.
- The state of origin on the plate was misidentified and the plate was matched to that of a stolen motorcycle from another state.
- The police officers did not verify the make of the stolen vehicle to that of the family van and initiated a detainment of the family.
- Over a dozen officers arrived to surround the mother and her children, all who were handcuffed on hot pavement.

Automatic License Plate Readers: More Of the Same Tech Issues!

- Sound/Image matching algorithms are 'probabilistic', NOT 'deterministic'
 - Using the data submitted, the computer program makes a guess at what it is hearing/seeing
 - It does not make a determination that is necessarily correct, exclusively, among all possible alternatives
- Probabilistic classification is rarely highly accurate
 - Even a 99% accuracy rate would imply 10 out of every 1000 cars is misclassified
 - In California, a randomized control [trial](#) found that ALPRs had an error rate of 37 percent!
 - [I-94](#) sees over 30,000 cars pass by every day!

Addressing Root Causes of Violence Creates Safety

- Affordable and Quality Housing
- Living Wage Jobs
- Quality Education
- Trauma Informed Mental Health Centers
- Unarmed Response Teams- Domestic Violence and Mental Health
- Substance Abuse Resources
- Universal or Guaranteed Basic Income
- Unfettered Access to Clean Water
- ARPA and Taxpayer Dollars should be used more effectively at preventative measures
 - NOT millions of dollars on technology that does not prevent or deter gun violence

RECOMMENDATIONS!!!

1. Vote to rescind the BOPC's approval of ShotSpotter unless and until DPD presents independent data demonstrating that such technology is accurate and effective
2. Vote to reject DPD's STSR on ALPRs
3. Refuse to approve any BOPC policy that calls for the use of ALPRs
4. Sign a moratorium on ARPA spending for any surveillance technology. City council has agreed that surveillance is not an apt use of ARPA funds per their request that only police allocated funds be used.
5. Request an independent audit of any proposed technology, paid for by the vendor, in order to verify accuracy to raise the standard of BOPC approval of DPD requests
6. Propose amendments to CIOGS that:
 - a. Add a cause of action provision against the City if the ordinance is violated;
 - b. Allow City Council to amend a department's technology specification report prior to approval; and
 - c. Clawback a technology's use if the requesting department does not abide by the procurement or permissible uses outlined in CIOGS or the relevant STSR