

Perceptions of Policing Surveillance Technologies in Detroit: Moving Beyond “Better than Nothing”

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ABSTRACT

In Detroit, the largest Black-majority city in the United States, municipal authorities have deployed an array of surveillance technologies with the promise of containing crime and improving community safety. This article draws from a cross-sectional survey of over two thousand Detroit residents and multi-year community-based fieldwork in Detroit’s Eastside to examine local perceptions of policing surveillance technologies. Our survey reveals that respondents, notably those in more vulnerable positions, report higher perceived safety levels with policing surveillance cameras in their neighborhoods. However, when triangulating these results with insights from our fieldwork, we argue that these survey findings should *not* be taken as public support for surveillance. Alongside this seeming buy-in is a widely shared “better than nothing” imaginary among residents from impacted communities. “Better than nothing,” for the residents, is a pragmatic compromise and maneuver between being aware of the inherent flaws of surveillance technologies and settling for any available resource or hope. This notion of “better than nothing” unveils residents’ prolonged wait for digital justice and institutional accountability, which we show is where racialized infrastructural harm and exploitation are enacted along the temporal dimension. Our findings offer practical insights for counter-surveillance advocacy efforts.

CCS CONCEPTS

• **Human-centered computing** → **Empirical studies in collaborative and social computing**; • **Social and professional topics** → **Surveillance**.

KEYWORDS

policing surveillance, Detroit, counter-surveillance advocacy, techno-failure, mixed methods

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1 INTRODUCTION

Detroit is the largest Black-majority city in the United States (U.S.). The city has witnessed significant changes in its landscape of policing and surveillance, especially since its municipal bankruptcy in 2013. Post bankruptcy, Detroit has become a testing ground for various digital surveillance technologies, leading to an ever-expanding policing surveillance infrastructure across the city [4, 36]. Detroit Police Chief James White summarizes this trend by stating, “The criminals are getting smarter, so we have to be smarter... Technology is here. You can’t run from it” [49]. The pervasive expansion of policing surveillance technologies in Detroit and many other cities is heavily influenced by the techno-solutionist trope, which narrowly frames safety as a problem solvable solely through technological means [58].

Against this backdrop, the city and the Detroit Police Department (DPD) implemented Project Green Light (PGL), a “public-private partnered” surveillance infrastructure that involves installing real-time surveillance cameras and a flashing green light at businesses across the city, such as gas stations, liquor stores, and fast food restaurants. The camera feeds are connected to the DPD’s Real-Time Crime Center and facial recognition system. To participate in PGL, businesses must invest substantially, purchasing cameras from third-party vendors, which grants them priority in police responses. In 2024, there are over 900 PGL sites across the city. While the DPD claimed lower crime rates at PGL sites [29], local activists and legal professionals have called out concerns about the fairness and injustices around data-driven surveillance and its racialized impacts on local Black and brown communities [4, 54]. In fact, under PGL and the facial recognition system, three innocent Black folks have been misidentified, wrongfully accused, and arrested. The deployment of PGL, along with the continuous expansion of policing surveillance infrastructure in the city (including ShotSpotter the automatic gunshot detector [2], Automatic License Plate Reader [55], and the more recent highway surveillance [22]), has consumed millions from the municipal budget.

To disrupt this ever-expanding policing surveillance infrastructure and facilitate counter-surveillance advocacy efforts, our paper addresses a seemingly simple but critical question: How do Detroit residents perceive the policing surveillance technologies deployed in the city and neighborhoods? To address this question, we present



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a mixed-method study that consists of a cross-sectional survey of over two thousand Detroit residents and 2.5 years of community-based fieldwork in Detroit’s Eastside.

Our survey reveals that respondents, particularly Black residents, women, and older adults, reported higher levels of perceived safety with Project Green Light cameras in their neighborhoods and local businesses. Yet, triangulating these quantitative findings with insights gathered from our fieldwork, we contend that the survey results should *not* be taken as conclusive evidence of public support or approval of policing surveillance technologies. Alongside this seeming buy-in is a “better than nothing” sentiment widely shared among residents from impacted communities. As we will further illustrate, this “better than nothing” sentiment reflects residents’ pragmatic compromise between being aware of the inherent flaws of surveillance technologies and settling for any available resource or hope. Attending to the subtleties and complexity of “better than nothing” provides important theoretical and practical contributions to the growing liberatory research and abolitionist practices focused on resisting and reimagining policing and surveillance. We discuss how understanding “better than nothing” can help tease out the racialized infrastructural harm and exploitation enacted through the reproduction and maintenance of policing surveillance infrastructures, especially along a less-attended temporal dimension. We also unpack how practitioners and researchers can rely on “better than nothing” as a starting point for public education and a rhetorical tool of resistance to demand infrastructural accountability in counter-surveillance advocacy and abolitionist interventions.

2 RELATED WORK

2.1 The Expanding Policing Surveillance Infrastructure and its Interlocking Harm

Addressing crime control and prevention through surveillance technologies can find its origin in criminologist situational crime prevention theory [18, 47]. Public and private law enforcement has adopted surveillance apparatuses like security cameras to secure places of commerce and police neighborhoods. Yet there is an ongoing debate among researchers and critics on such surveillance cameras’ effectiveness in reducing crime (especially violent crime). Evidence has shown that surveillance can lead to the displacement of crime—shifting the crime to other places, times, targets, and types [15, 60]. Importantly, reducing crime through heightened surveillance faces three major critiques. First, the root causes of crime are left unattended. Second, they reproduce pre-existing biases and anti-Black violence by disproportionately profiling men, people of color, and young adults [52, 58]. Third, they limit exploring alternative ways of living and becoming that center on peace, joy, and thriving, suppressing transformative societal changes [51, 56].

With technological advancements and the rise of big data, police increasingly rely on data-driven technologies, making policing surveillance infrastructure more ubiquitous and black-boxed [37]. Technologies like predictive analytics [9, 23], police body cameras [12, 25], and facial recognition [27, 38] have greatly changed the capabilities and landscape of policing surveillance. As noted earlier, Detroit has followed this trend, turning the city and neighborhoods into playgrounds to test and deploy new surveillance technologies.

Against this backdrop, racialized and gendered extraction and oppression undergirding the flow of labor, practices, and technological artifacts have been aggregated in the nexus of the “prison industrial complex” and “surveillance industrial complex” [20, 32].

Policing surveillance technologies are never neutral. The ever-growing policing surveillance is disproportionately harming minoritized communities, especially poor and racialized people and communities [5, 19, 37, 58]. To this end, Simone Browne’s now-classic work is critical in centering the anti-Black logic of surveillance technologies while thinking through the discursive and material consequences of both historical and contemporary surveillance [11]. She discusses the concept of racializing surveillance, defining it as the process by which “enactments of surveillance solidify boundaries along racial lines, thereby reinforcing race, and often leading to discriminatory and violent outcomes” [11, p.8]. Such racialized violence is deeply rooted in the enactment of the carceral state in the U.S. through policing, criminalization, mass incarceration, and redlining [5, 59]. These include ongoing racial profiling and suppression [5, 14, 39, 56], the use of racially-biased training datasets like arrests data [9], and the institutionalized inequalities brought about by self-fulfilling prophecies [8].

Black scholars, activists, and grassroots movements have been pivotal in adopting abolitionist perspectives to challenge systemic anti-Blackness and material oppression (e.g., [5, 20, 50, 51, 56]). Their work engages deeply in laying the groundwork for alternatives to anti-Black structures of expertise, institutions, and labor practices. These efforts focus on community-driven strategies that tackle the root causes of social harm, fostering alternatives to policing and surveillance through initiatives based on mutual aid and care [31]. Detroit, a city emblematic of the profound social inequalities within the U.S., has a rich history of Black liberation movements [36]. In response to the expanding policing surveillance technologies, local Black-led anti-surveillance coalitions, community organizations, community leaders, and residents have put efforts in grassroots organizing and political education efforts (e.g., [4, 54]). Scholars have also engaged in important work in speculating alternatives through community-based research. For instance, Dillahunt and colleagues collaborated with a Detroit-based organization to engage working-class residents in reimagining alternative economic models beyond capitalism through participatory speculative design [21, 46]. Similarly, Lu et al. worked with residents from Detroit’s Eastside to redefine the relational and pluralistic meanings of safety via a photovoice project, advocating a reorientation from the prevailing “surveillance-as-safety” paradigm to what they call “safety-through-noticing” [44, 45]. Our work is situated in this line of work. We seek to trace how residents’ perceptions of surveillance technologies are shaped by and shape the ongoing interlocking harm and infrastructural exploitation enacted by the ever-expanding policing surveillance infrastructure, and identify practical recommendations to support grassroots counter-surveillance advocacy.

2.2 Policing Surveillance Infrastructure as a Techno-Failure

Given its limited effectiveness and constant malfunctions, we can think of the ever-growing policing surveillance infrastructure in relation to what STS scholars Appadurai and Alexander call a

“techno-failure.” By techno-failure, they speak to “the breakdown or malfunction of technological tools such as mobile devices, digital interfaces, or personal computers” [3, p.20]. While these authors originally referred to contexts of the internet connection and digital artifacts, we extend techno-failure to the understanding of policing surveillance infrastructures in this article. Breakdowns and malfunctions of digital infrastructures are frequent and constant, but they are often made invisible [7, 35]. Such invisibilization of techno-failures obscures the infrastructural power and economic reasoning, disadvantaging end users and alienating them from the knowledge-power structures integral to these infrastructures. For example, Bridges uses the term “infrastructural obfuscation” to show how the racialized carceral logics and malfunctions in Ring camera networks are deliberately obscured, hindering affected communities from infrastructural accountability and transparency [10].

The understanding of techno-failure is also deeply intertwined with cultural discourses and the political economy of technological progress. Appadurai and Alexander highlight a common tendency to trivialize or forget the frequent failures and harms of technology, attributing this tendency to a broader cultural fantasy of technological utopias [3]. Similarly, media and cultural theorist Chun comments on the “quasi-religious” quality of technologies, stressing that digital media failures often occur and are sustained within a discourse that celebrates their almost magical qualities [16]. This perspective prompts us not to view failure as an inherent state or quality of technologies but as a product of *judgments* that “reflects various arrangements of power, competence, and equity in different places and times” [3, p.1]. Seeing failures as an intentional product of judgments, therefore, allows us to tease out the power interplay, shifting materiality and relationships, and the political economy that enacts the maintaining and sustaining of anti-Black policing surveillance infrastructures even though they have been repetitively failing, breaking the promises of addressing safety, and displacing the most vulnerable and affected communities as risk.

Considerable work in critical computing and STS has shown us how public institutions and private entities have engaged in these judgment processes of producing and sustaining broken promise machines, especially how this process is often rhetorical, performative, and black-boxed. In this article, we seek to shift the analytical focus of techno-failures conceptually from top-down public and private entities to the users of the technologies or, in our context, ordinary Detroit residents who live their everyday lives under an ever-expanding policing surveillance infrastructure. Our goal is to tease out residents’ on-the-ground judgments in relation to surveillance infrastructures by attending to our seemingly simple research question, “How do Detroit residents perceive the policing surveillance technologies deployed in the city and neighborhoods?”

3 METHODS

In this paper, we adopt a mixed-methods approach to address the above research question: “How do Detroit residents perceive the ubiquitous surveillance technologies deployed in their city and neighborhoods?” In particular, we draw from a 1) cross-sectional survey deployed among over 2.3K Detroit residents, and 2) two-year community-based research with two Detroit community organizations and their respective members and residents.

3.1 Cross-Sectional Survey

This survey was part of an ongoing research initiative at a large Midwestern university. We sent invitations to 2,687 previously enrolled panelists and 6,800 invitations to a randomly selected address-based refreshment sample of Detroit households. Surveys were self-administered online or interviewer-administered via telephone between June 16 and August 26, 2022. The survey was approved by the university’s institutional review board. We report results for the 2,339 Detroit residents who completed the survey. We obtained an overall response rate of 26.8% (using AAPOR Response Rate 1), 67.2% for existing panelists, and 9.3% for new panelists. The survey asked questions about neighborhood safety, crime, and community resources. For this paper, we analyze survey questions around Project Green Light and policing surveillance technologies.

3.1.1 Panel Demographics. We identified four target demographics for our analysis: gender, race, age, and household income. Initially, we prepared our dataset by removing any of the 2,332 respondents who did not answer at least one of the four aforementioned demographics. Furthermore, we removed any respondents who did not identify as a Man or Woman. Although we recognize the importance of including non-binary genders, we failed to obtain a large enough sample size ($n < 8$) in our data collection to draw significant conclusions for these populations. Women are over-represented in the dataset, which is likely because women are more likely to participate in online surveys [57]. Regarding age, we created custom bins corresponding to young adults (< 40), middle-aged adults (40–59), and older adults (≥ 60).

We developed a binary race variable, Black and non-Black, with multi-racial individuals categorized as non-Black. This decision was twofold: 1) Non-Black races comprised a smaller proportion of our population. As such, many races (i.e., American Indian and Alaska Native ($n=7$)) did not reach a significant sample size. 2) In the context of facial recognition in Detroit, a predominantly Black city, we sought to focus on the experiences of Black people and communities who have long been unequally targeted and profiled by surveillance. It was challenging to assume the experiences of multi-racial individuals in relation to the systemic profiling and violence of policing surveillance that disproportionately affects Black people and communities.

Our complete dataset consists of 1,908 respondents. Among them, 1,365 were women (71.5%).¹ Most of the respondents were older adults (38.8%), followed by middle-aged adults (34.8%). And a majority of respondents were Black (69.5%).

3.1.2 Survey Data Analysis. To understand Detroit residents’ perceptions of facial recognition and Project Green Light, we utilize nested independent t-tests and ANOVA tests with respect to three survey questions: 1) How comfortable are you with the use of facial recognition technology in police investigations? 2) When visiting a local business, how would the presence of a Project Green Light security camera and flashing green lights make you feel? 3) Would increasing the presence of Project Green Light security cameras in your neighborhood make you feel less safe, more safe, or would it not affect how safe you feel? In response to the first question, participants could answer: very uncomfortable, somewhat uncomfortable,

¹Hereafter, percentages are calculated from a total of 1,908 respondents.

somewhat comfortable, very comfortable, don't know, or skip the question. In response to the latter two questions, participants could answer: less safe, no effect, more safe, don't know, or skip the question. These responses were converted to a Likert-like response scale (ranging from 1-4 and 1-3, respectively). I don't know, or skipped responses were omitted from the analysis.

3.1.3 Limitations. Our analysis was not able to assess the sentiments of non-binary respondents due to the small sample size. To maintain statistical integrity, we excluded these data from the analysis. We acknowledge that this limits the scope of our findings and prevents us from understanding the gendered impacts of surveillance. Future studies should aim to recruit a more diverse gender representation to better understand their perspectives. In terms of race, we made the difficult decision to bin participants as either Black or non-Black, with multi-racial individuals categorized as non-Black. We recognize that multi-racial individuals are frequently overlooked in survey research and fairness literature [1]. While simplifying analysis, this decision may not accurately reflect the intersectional lived experiences of multi-racial participants who might share with Black individuals.

3.2 Fieldwork in Detroit

This paper also draws from extensive community-based participatory research (CBPR) conducted in Detroit since the fall of 2021. Our approach also involves continuous engagement with a range of contextual materials, such as local media reports, news articles, and public records, including presentations from local government bodies and police departments. These sources provided insights into the expansion of policing surveillance technologies in Detroit.

In our CBPR initiatives, we partnered with two community-based organizations on Detroit's Eastside. The first is a community development organization dedicated to fostering sustainable neighborhood growth, and the second is a community organization that provides social support and basic resources to residents of a public housing community. Our collaboration focused on engaging with long-standing residents from respective communities to understand their experiences with various surveillance technologies and their social and political implications. Both CBPR projects were approved by the university's institutional review board.

Based on the U.S. Census in 2021 [13], the median household income in the zip code encompassing our fieldsites is \$28,718, significantly lower than Michigan's median household income of \$63,202. In this area, over 96% of the residents are Black, and the poverty rate is 36.7%, considerably higher than the state-wide rate of 13.1%. We engaged with 22 Detroit residents across our two CBPR projects. All participants were Black, and the majority were women (n=19). Predominantly older adults, our participants had an average age of 61 years. Regarding income levels, the majority, with 80% of participants, reported an annual household income below \$30,000.

Both CBPR projects consisted of focus groups, individual interviews, and educational workshops. In these engagements, we held group and individual discussions to understand how residents perceive and interact with surveillance technologies, navigate personal

and communal safety, and contextualize surveillance technology within their situated experiences of navigating everyday safety.²

Most of the qualitative data in this paper comes from fieldwork by the first author, including focus groups, individual interviews, and field notes from two CBPR projects. Our analysis followed Clarke's situational analysis [17]. Initially, the first author open-coded the audio transcripts using ATLAS.ti. This was followed by weekly discussions with the second author and a postdoctoral collaborator to review and refine the generated codes and themes. The first author then similarly coded field notes to triangulate the data from interviews and focus groups. Following Clarke's mapping approach within situational analysis [17], we developed situational, discourse, and social world maps along with analytical memos to comprehensively examine our data. All authors regularly met throughout the analysis process to discuss and interpret the maps, memos, and findings. We also maintained ongoing check-ins with our community partners to consult and validate our findings.

3.3 Researcher Positionality

The survey deployment was conducted as an internal research project within the university, involving an ethnically and racially diverse group of researchers from different disciplines. Our team comprises students (undergraduate and graduate) and faculty members, and we brought unique insights shaped by our disciplinary perspectives and research experiences. While none of us were born or raised in Detroit, several of us have extensive experience working and collaborating with local community-based organizations in Detroit. The first author has engaged with local abolitionist anti-surveillance and anti-policing organizing efforts. The last author has engaged with local community organizations for over a decade. These experiences have shaped how we approach and interpret the quantitative and qualitative data in this work.

The analysis and interpretation of the survey data were solely the responsibility of our research team, without direct partnership with community organizations for this phase. Recognizing the limitations that this might introduce, we triangulated our results with our prior research conducted using a CBPR approach. These studies were done in collaboration with two community-based organizations in Detroit, which ensures our current interpretations are informed by and reflective of sustained community engagement.

4 FINDINGS

To address our research question, we first present results from our analysis of the cross-sectional survey, which showcases a seeming public support for policing surveillance technologies deployed in the city and its neighborhoods. Thereafter, we turn to the insights uncovered in our fieldwork. In doing so, we tease out the nuances and compromises residents made regarding this seeming buy-in.

4.1 Seeming Public Buy-In of Policing Surveillance Technologies

On the surface, survey data suggested respondents, particularly women, older adults, and Black respondents, had a higher perceived

²Readers can refer to [43–45] for detailed fieldwork processes and descriptions.

	Percent	n
Awareness of Project Green Light		
Yes	90.9%	1,735
No	8.6%	169
Skipped	0.2%	4
Seeing PGL in Neighborhoods		
Yes	81.8%	1,560
No	18.0%	343
Skipped	0.3%	5
Awareness of DPD Facial Recognition		
Yes	64.4%	1,229
No	35.5%	677
Skipped	0.1%	2

Table 1: Frequencies of respondents' awareness of facial recognition technologies used by DPD and Project Green Light ($n=1,908$)

level of safety with the presence of PGL cameras in their neighborhoods (see Table 2). Understanding how Detroiters' perceptions of safety amidst PGL varied across demographic groups, we conducted a series of ANOVA and t-tests. In this section, we present the results from these analyses and additional quantitative findings to examine respondents' sentiments about police surveillance technologies.

4.1.1 Awareness of Policing Surveillance Technologies. Respondents were aware of policing surveillance technologies deployed in the city, as shown in Table 1. When asked about PGL, 1,735 of the 1,908 respondents (90.9%) had heard of the technology before the survey, and 1,560 of the 1,908 respondents (81.8%) had noticed the green lights in their neighborhoods. When asked about the use of facial recognition in Detroit Police Department (DPD) investigations, over 64% of the respondents were aware that DPD utilized such technology before this survey.

4.1.2 Surveillance Technologies and Perceived Safety. To analyze Detroit residents' perceived safety regarding policing surveillance technologies, we refer to the three survey questions outlined in section 3.1.2. We found that respondents reported an average perceived comfort level of 2.50 out of 4 ($SD=1.05$) for the use of facial recognition in police investigations. They indicated a higher perceived level of safety with the presence of PGL at local businesses ($M=2.49$, $SD=0.57$), and have a higher perceived level of safety with the increased presence of PGL cameras in neighborhoods ($M=2.52$, $SD=0.57$).

Further dissecting these survey questions to understand perceptions of policing technologies across demographic groups, we employ nested ANOVA and t-tests. As shown in Table 2, our first set of independent t-tests revealed that Black respondents tend to have a higher level of perceived safety in the presence of PGL cameras when visiting a local business ($M=2.51$, $SD=0.57$) than non-Black respondents ($M=2.43$, $SD=0.58$), $t(1,783)=2.72$, $p<0.01$. Similarly, Black respondents indicated a higher level of perceived safety with the prospect of an increased presence of PGL cameras ($M=2.56$, $SD=0.55$) than non-Black respondents ($M=2.44$, $SD=0.61$), $t(1,753)=3.87$, $p<0.001$. We did not find a significant difference in Black versus non-Black respondents' comfort with facial recognition technology in police investigations.

	Perceived comfort with the use of facial recognition in police investigations (Scale 1-4)	Perceived safety in the presence of PGL at local businesses (Scale 1-3)	Perceived safety with expanding PGL cameras in neighborhoods (Scale 1-3)
Race			
Black	2.49 (1.03)	2.51 (0.57)	2.56 (0.55)
Non-Black	2.54 (1.07)	2.43 (0.58)	2.44 (0.61)
Gender			
Black Women	2.51 (1.02)	2.53 (0.57)	2.58 (0.55)
Black Men	2.43 (1.07)	2.45 (0.56)	2.50 (0.56)
Age			
Black Women			
< 40	2.73 (1.09)	2.42 (0.58)	2.47 (0.59)
40-59	2.45 (1.02)	2.48 (0.58)	2.56 (0.56)
>=60	2.46 (0.97)	2.65 (0.52)	2.67 (0.51)

Table 2: Mean responses to perceived comfort and safety with policing surveillance technology ($n=1,908$)

Focusing on the Black respondents, we conducted a series of independent t-tests to look for differences in perceptions of surveillance technologies among Black women and Black men. Our t-test suggests that Black women tend to have a higher level of perceived safety in the presence of PGL cameras ($M=2.53$, $SD=0.57$) than Black men ($M=2.45$, $SD=0.56$), $t(1,255)=-2.25$, $p<0.05$. Similarly, Black women indicated a higher level of perceived safety by the prospect of an increased presence of PGL cameras ($M=2.58$, $SD=0.55$) than Black men ($M=2.50$, $SD=0.56$), $t(1,753)=-2.20$, $p<0.05$. We did not find a statistically significant difference in Black women versus Black men respondents' perceived comfort with facial recognition technology in police investigations.

An analysis of variance of Black women's responses showed that the effect of age was significant. The one-way independent ANOVA test revealed Black women under the age of 40 indicated a higher level of perceived comfort with the use of facial recognition in police investigations ($M=2.73$, $SD=1.09$) than their middle-aged ($M=2.44$, $SD=1.02$) and senior ($M=2.47$, $SD=0.97$) counterparts ($F(2, 885)=5.35$, $p<0.01$). Conversely, Black women who are older than 60 years old tend to have a higher level of perceived safety in the presence of PGL cameras at local businesses ($M=2.66$, $SD=0.52$) than their middle-aged ($M=2.46$, $SD=0.59$) and young adult ($M=2.42$, $SD=0.58$) counterparts ($F(2, 954)=13.55$, $p<0.001$). Senior Black women also indicated higher level of perceived safety with the prospect of an increased presence of PGL cameras in their neighborhoods ($M=2.67$, $SD=0.51$) than middle-aged ($M=2.54$, $SD=0.57$) and young adult ($M=2.47$, $SD=0.59$) Black women ($F(2, 930)=7.75$, $p<0.001$).

Through these ANOVA and t-tests, we find significance that Black respondents have a higher level of perceived safety with the presence of PGL cameras in local businesses and the expansion of the program in neighborhoods than their non-Black counterparts. Furthermore, Black women and senior Black women indicated a higher level of safety when responding to these two questions when compared to Black men and younger Black women, respectively. Regarding the comfort level with facial recognition in police investigations, we did not find significant differences along the racial and

gender axes; however, senior Black women did feel more comfortable when compared to Black women from younger generations. In summary, our quantitative analysis suggests that Detroiters in more vulnerable positions—specifically Black residents, women, and seniors—appear to have a higher perceived level of safety with the increased presence of policing surveillance technologies at local businesses and in neighborhoods. However, it is crucial to contextualize and interpret these results through residents' lived experiences and situated viewpoints. Next, we triangulate the quantitative results with our qualitative findings to tease out the nuances and complexities embedded in residents' seeming buy-in of these technologies.

4.2 Residents' Compromised Perceptions

The residents we engaged with in our fieldwork, predominantly senior and mid-aged Black women from Eastside Detroit, correspond to the demographic groups who tend to buy into policing surveillance technologies the most, as shown in the survey results. However, in our fieldwork, we found that these residents' seeming buy-in are complicated compromises, nuanced trade-offs, and situated calculations that they hold in navigating everyday safety. In the following sections, we unpack this pragmatic compromise across three dimensions to tease out the contested nature of residents' perceptions and judgments of policing surveillance technologies.

4.2.1 *“It does not prevent crimes, but it might capture something.”* For the residents we engaged with during our fieldwork, the meaning of safety consisted of a wide range of situated needs. To them, “safety” involves practical aspects, like securing personal belongings and avoiding violence. It also speaks to the basic right to bodily autonomy and the freedom of mobility in public spaces without fear, among other considerations. These legitimate safety concerns are not abstract but deeply rooted in the residents' lived experiences and past traumas. For instance, a public housing resident shared his troubling experiences that brought these concerns to light. He spoke of almost being robbed at an ATM in a liquor store close to his home, experiencing break-ins, and facing gunshots in his house due to a confrontation involving a neighbor. He admitted,

If we were living in [places] where the more fortunate peoples are, you wouldn't be so worried about security because it's not a whole lot of crime happening in the better communities. But being in an inner city of Detroit... so you have to be cautious. You have to be wary. You got to be visual. You got to see, you got to know or hear. So being in this community, you have your warnings. You got your five senses that come along with your security. Five senses.

As we see in this quote, residents have to “be cautious,” “be wary,” and “be visual” to navigate personal and community safety. It describes the lived realities where one has to be perpetually alert to their surroundings and look after oneself. When asked about whether policing surveillance technologies would help with situations like those of the above resident in their neighborhoods or local small businesses, residents often voiced uncertainties. Many actually expressed skepticism about the effectiveness of these technologies in preventing or addressing criminal activities. Some residents described surveillance technologies as providing “a false sense of

safety,” meaning that even with PGL cameras, “these crimes are [still] taking place and they're not necessarily going to do anything.” This critique of surveillance technologies' limited in-situ effectiveness in preventing crime was emphasized by a resident:

I don't care about the [ShotSpotter] thing, the Green Lights, the cameras that people have on their houses or the businesses around here have. There's no safety because when a person pull out a gun, or a person pull out a knife, or whatever means to harm you, or you get ran over by a car, that camera's not going to save you... or stop your life from happening. Somebody taking your life. *It may catch that person down the line eventually*, to have some justice to your crime, or your injury, or your death, or however it may happen. But nowhere is safe no more.

This quote offers a poignant description that surveillance technologies, such as cameras and gunshot audio detectors, do *not* guarantee residents' in-situ safety when they are in violent situations. Despite this, residents, with a critical awareness of the limitations of these technologies, still hold onto the hope that, at the very least, cameras might document incidents for potential justice going forward. For instance, a resident in her early 50s articulated,

If something did happen to me, you would hope that at least there's footage. But in the midst of it, what does it do? I mean, because we live in a time where a lot of these people don't care about cameras... we see things on the news and the ignorant acts that people do. I mean, the cameras are there, and yes, the good thing is *there's the possibility* of actually capturing something adverse happening at that moment.

What this respondent described here illustrates the pragmatic compromise undergirding residents' responses toward surveillance technologies. Despite understanding their limitations in deterring and preventing crime, residents hope these surveillance technologies might serve some purpose in capturing criminal acts for future investigation, should anything happen to them or their loved ones. For the most vulnerable residents grappling with legitimate and pressing safety concerns, this pragmatic stance reflects a desire for post-event justice or accountability, even when the promise of in-situ safety and well-being remains broken down. In this light, residents see surveillance technologies as a far-from-ideal fallback or a last resort where they choose to hinge their hopes when no alternative means of safety support are readily available.

4.2.2 *“It's racially biased, but technologies might become more accurate.”* Instead of perceiving policing surveillance technologies as neutral and effective tools, many residents were aware of and critical of the racial and gender biases embedded in the unethical design of surveillance technologies. Corresponding to our survey results, such awareness was particularly evident among senior Black women residents during our focus groups when they talked about the multiple cases of facial recognition misidentification in Detroit. Their critique is grounded in these recent high-profile incidents, grassroots anti-surveillance political education campaigns, and personal anecdotes that reveal these technologies' constant malfunctions and interlocking harms. These residents often made

sense of surveillance technologies' racial and gender biases through their own living experiences. For instance, one woman living in public housing called out facial recognition technologies' limitations in adapting to their appearances: "We change our hairstyle so much, [these technologies] could not [be reliable] because you will get stopped all the time because your hair might not be this color next week. My hair might not be like this next week." Such critiques further complicate the aforementioned compromised perception residents have toward surveillance technologies. As a resident said,

To a certain degree, I'm glad that the cameras are there, [but] I think we have way too many. I think about the possibility and the fact that someone could actually capture someone, but then at the same time, because technology can be altered in so many ways, I wouldn't want someone innocent to be falsely accused. And so, I don't know where the balance is, if that makes sense.

She further shared her concerns regarding the facial recognition systems, noting, "With the face recognition with people of color, our chances of misidentity are much higher." Navigating this trade-off, as this resident describes, provokes "an array of emotions," indicating the complex interplay between a desire for safety and justice and the fear of exacerbating anti-Black violence, especially as part of the vulnerable communities that have been deeply affected by such technologies. At the same time, some residents further articulated how their concerns over biases embedded in these technologies might shift over time, adding a temporal aspect to such trade-off. For example, a resident in the late 60s shared:

[For] the Green Light system, their facial recognition system is not 100%. It's not even 80%. It's not even 70%, really, actually accurate. So, when you get that kind of odds, I wouldn't trust it other than an actual physical eye or a physical person looking at it... But I think in another 10 years, those things will not be the same kind of problem, just like the advancement of our phones and things of that nature. *Technology continues to advance. It grows just like every other industry.* So, the problems I'm sure that we're having now, I don't suspect that we'll have when my grandson is 20 years old.

This quote presents a nuanced and seemingly paradoxical stance toward surveillance technologies and their racialized consequences. It reflects the tension between residents' current critical refusal and distrust on the one hand and their anticipation of technologies becoming more developed, more accurate, and more inclusive in the future on the other. For this resident, like many others, the failures and breakdowns they have to experience are temporary obstacles and necessary steps to the updates and renewal of future technologies. In other words, the present challenge was considered transient and bearable to achieve the promised future. We found such optimism toward technological progress was especially salient among senior residents who have witnessed the development of technologies throughout their lives. For instance, another resident in her late 60s similarly commented:

I think it has a lot of room for growth. There's always an error in something in the way we think or the way

we process things at first. As we recognize that the systems are not perfect, they are not 100%; developers continue to improve on [accuracy]... But it symbolizes to me that *this is a part of our advancement*, how we're developing, how we're going to take a look at things.

As described by this woman and many others, the general optimism towards technologies must be contextualized within the broader sociotechnical landscape of Detroit, where poor and working-class residents have long experienced prominent digital inequality. Against this backdrop, public and private institutions have long portrayed access to technology as the pathway to a techno-utopian future and a salient need that has long constrained these residents from political and socioeconomic mobility. Importantly, this hope cannot be understood as residents celebrating "improved" surveillance. Instead, it reflects the urgent need for technological accountability and transparency, which has continued to be obfuscated to many affected communities in Detroit and beyond.

Together, we see these two conflicting perspectives co-exist: the critical awareness of the present techno-failures and the hope for a more inclusive and fair digital future. Their contestation demonstrates a pragmatic compromise held by residents, embodying the complex negotiation among hope, critique, and the desire for institutional accountability and change in light of the ongoing digital inequality and its interlocking harms.

4.2.3 *"It's expensive, but the city is finally doing something"*. The city's austerity measures and ongoing divestment from the neighborhoods have continued shifting towards institutionalized safety, narrowly focused on crime control and policing [36]. This is evident in the municipal authorities' substantial financial commitment to maintaining and expanding the policing surveillance infrastructure, which takes up millions of dollars each year and constitutes a significant portion of the city's budget. Accompanying this infrastructural investment in policing surveillance is the ongoing dispossession of neighborhoods and their unattended needs in equitable housing, public transportation, education, and healthcare, among others. Speaking to such dispossession, a resident in her 60s described the blocks in her neighborhood as a "war zone." Witnessing the neighborhood's deterioration since her childhood with a growing number of abandoned houses and vacant lots, she was disheartened, noting that,

So I feel like *the city has forgotten us* when they allowed the banks to collect their money... I mean so many blocks look like a *war zone*. Like we've been in a war for real. And now my children have grown. I can see them going out to the suburbs because they're disappointed for what they see in the city.

Another long-term resident similarly told us,

And the only people moving there [to the neighborhood] are people who don't have nothing. And that's your community. People who don't have anything, poor people, they don't have nothing. They're grateful just to have a place to come in and get out of the cold.

These quotes, "the city has forgotten us" and "they don't have nothing," acutely point out the material consequences resulting from institutional divestment of the communities where the city's

most vulnerable residents live. Such living materialities are not isolated phenomena but deeply rooted in the historical context of Detroit. The city has experienced a long-standing pattern of dispossession in its neighborhoods, where the mobilization of labor and resources has been skewed from the poor and working-class Black and brown communities towards the elite, particularly favoring investments in the greater downtown and midtown areas [33]. This unequal allocation and mobilization of resources is one of the main factors contributing to the racialized and classist segregation in postindustrial Detroit [36].

Against this backdrop, the investment in deploying and expanding policing surveillance technologies in the neighborhoods is often portrayed by city authorities and the police department as positive developments or necessary investments for city revitalization. For example, in discussing the ongoing citywide expansion of PGL cameras in 2016, Detroit's Mayor Duggan stated, "I absolutely believe Project Green Light is making criminals think twice before committing a crime at a gas station... We are going to continue to move this program across the city and create an expectation of safety" [30]. The city's multi-million dollar contracts with private tech companies for such surveillance expansion are portrayed in official discourse as the city attending to the safety needs of communities *outside* the more affluent downtown and midtown. For some residents, even though they have reservations about surveillance technologies, the city's investment in these tools can be perceived as a rare resource allocation in their neighborhoods that they can finally grasp. For instance, one resident admitted that,

So I'm not really sure about how [surveillance cameras] can bring safety. But I'd rather have them than not have them. And I think that's what's going on with everybody. They'd rather have another means of safety than not to have [any].

This quote shows residents' conflicted feelings towards surveillance technologies amidst long-standing dispossession and precarity. On the one hand, residents are critically aware of the limitations of reducing their safety needs by relying on surveillance technologies. On the other hand, despite the uncertainties, residents are presented with limited alternative options but to compromise and settle for broken-down technology—even if it only affords a false sense of security as described earlier—over having nothing at all. Residents' trade-offs are emblematic of their compromised perceptions of surveillance technologies. It speaks to a situation where any form of attention or investment from authorities, no matter how broken, might still be preferable to continued exploitation. Indeed, as another resident who serves as the president of her block club told us, "We really want to be on one of the City of Detroit projects," but what residents desire are the social infrastructures for basic needs and collective thriving:

We really want to be on one of the City of Detroit projects that has the money that's coming in for neighborhoods because we want a dog park. We want a place where the kids can play basketball. We want a community garden for people who like to garden.

Residents' expressed desires for social infrastructures like parks, recreational spaces, and community gardens indicate a yearning

for investments that afford basic community needs and foster interdependence, which are shown to be critical to communal safety compared to surveillance technologies [40, 45], in line with findings from local grassroots efforts [4]. Yet, these desires are often overshadowed by the ongoing challenges of unequal urban development and the larger dynamics of a postindustrial city. Again, as a result, the most vulnerable residents and underserved communities must bear the consequences of these challenges and the uncertainties that follow. They have to navigate a precarious situation, enduring the techno-failures at hand with the hope that such endurance might eventually result in access to more successful and substantial resources in the future.

5 DISCUSSION

In this paper, we have presented results from a mixed-method study. Through a cross-sectional survey with over two thousand Detroit residents, we unpacked their perceptions of policing surveillance technologies. Our quantitative analysis uncovered a high awareness among residents regarding the city authorities' deployment of these technologies. It indicated a seeming buy-in, especially among Black, women, and senior residents who are in more vulnerable positions. By triangulating these survey results with our qualitative insights drawn from long-term community-based fieldwork in Detroit's Eastside, we have shown that such seeming buy-in is a complex and pragmatic compromise these residents hold.

We summarize and conceptualize residents' pragmatic compromise through the notion of "*better than nothing*." In the analysis of our fieldwork, we see this "*better than nothing*" emerged as a contested perception of policing surveillance technologies shared among many residents in the two communities on Detroit's Eastside. To be sure, "*better than nothing*" is not a simple buy-in but a compromise, a trade-off, and a situated calculation that residents hold. As we have shown, central to three different dimensions of "*better than nothing*" is the residents' pragmatic compromise to settle for these technologies despite their critical awareness of limitations in guaranteeing safety in violent situations, inherent racial and gender biases, and the high cost of municipal budgets and resources. Despite acknowledging that surveillance technologies cannot prevent criminal acts, residents hope these systems may at least provide evidence for posthoc justice; despite recognizing the biases inherent in these technologies, residents remain hopeful that the technologies might get better in the future; and although costly, residents hold onto the hope that they might signal the city's attention to their neighborhoods.

In other words, "*better than nothing*" is a pragmatic compromise between recognizing the very limitations of surveillance and clinging to any available recourse or hope, which feeds into maintaining and sustaining the policing surveillance infrastructure as a techno-failure. This sentiment speaks to a nuanced interplay where residents have to weigh the immediate harms of surveillance technologies against their prolonged wait for institutional accountability, technological fairness, and justice in the future.

As such, "*better than nothing*" is particularly insightful to the growing liberatory research and abolitionist practices of critiquing policing surveillance and reimagining public safety infrastructures among the FAcCT community, critical computing, and beyond. In

the remainder of this section, we first theorize “better than nothing” to discuss how it helps to understand the sustaining of policing surveillance infrastructure as a techno-failure and how racialized infrastructural harm and exploitation function in this process. Thereafter, through the lens of “better than nothing,” we offer practical implications and takeaways on counter-surveillance advocacy.

5.1 “Better than Nothing” in Reproducing Policing Surveillance as Techno-failures

“Better than nothing” offers an important lens for understanding the concept of techno-failure and the making and sustaining of surveillance infrastructures as malfunctioning promising machines for safety. Indeed, instead of seeing failure as a state or property of technologies, Appadurai and Alexander invite us to see failures as a product of judgments and power interplay induced by technological and economic institutions [3]. In our case, we have unpacked how “better than nothing” has unfolded through the shifting power relationships among technology, institutions such as the city government and police department, and, importantly, citizens surrounding the construction of safety. In other words, we have shown how policing surveillance infrastructures as a form of techno-failure is judged and reproduced by residents, focusing on the kinds of situated interests that were congealed through a rhetoric of techno-optimism and future thinking. As such, we argue that “better than nothing” is, after all, a complex sociotechnical compromise calculated by residents in light of ongoing anti-Black institutional violence—it’s a trade-off among the basic needs for survival, the crying out for institutional accountability, and the displaced need to navigate safety.

In this light, we have demonstrated that the analysis of techno-failures should move beyond the perspective of institutional actors and see it as a rather linear process of affective mobilization [3]. Foregrounding “better than nothing” as a pragmatic compromise, therefore, opens up a new entry point into the intricate judgments, situated sense-making, and calculations that take place in residents’ everyday lives, revealing the often overlooked but important stories behind residents’ nuanced perceptions and relationships with these surveillance technologies. For example, our findings repeatedly show that most residents do not blindly internalize the official narrative of surveillance technologies as the solution to safety concerns. Instead, they had to weigh the benefits and live with these malfunctioned technologies due to the perceived lack of immediately viable alternatives, coupled with the hope that the present consequences might result in more ethical technologies and increased city investment in the communities moving forward. That is, citizens confronted by policing technologies are not passive actors who are absorbed into a technological promise machine and thereby conditioned to view failures as unavoidable consequences of their own incompetence [3]. Rather, they actively reshape the narrative and judgments around techno-failures as they maneuver through the limited material resources and complex power dynamics surrounding them.

Through the lens of “better than nothing,” residents’ experiences and perceptions of policing surveillance technologies are deeply intertwined with the broader discourse of technological progress

[41]. Critical computing scholars have shown us how this technologically deterministic view of progress, underpinned by capitalist logic, enacts and obscures ongoing extraction, control, and violence in the name of innovation and development [5, 24, 41, 42]. By centering our analysis on Black residents in Detroit and their situated maneuvering with policing surveillance technologies, we have unpacked the material consequences they endure and the labor they uptake in pursuing an unattainable yet idealized better life, corresponding to what Berlant describes as “cruel optimism” [6]. In our case, people’s desires for more inclusive technologies and community investment, together with their pragmatic compromise with present failures, can be co-opted by institutions to justify the renewal and upgrade of policing surveillance technologies, which paradoxically become obstacles to collective flourishing.

In the context of tech ethics, Greene and colleagues have aptly warned us that critiques of techno-failures can be appropriated by corporations and institutions to legitimize expert knowledge and reinforce techno-solutionist tropes [28]. Building on this, we caution against the co-option of “better than nothing” to justify the technological pursuit of “better, fairer, and more accurate” surveillance systems. This process will feed into the aforementioned cruel optimism and further exacerbate the violence toward the most vulnerable and affected communities in at least three major ways. First, institutions might use this co-option to expand the anti-Black police and prison industrial complex without providing any real alternatives. Historically, this occurred when positive survey responses from Black people regarding policing were leveraged to gather support for the 1994 Clinton crime bill, while the complex struggles and underlying reasons were obscured and silenced [34, 53]. Second, existing grassroots efforts and viable alternatives for community safety that do not rely on surveillance technologies remain overshadowed, invisibilized, and delegitimized. Furthermore, in thinking with the abolitionist scholarship and grassroots efforts [4, 5, 20, 31, 45, 56], this fixation on surveillance technologies as the safety solution forecloses the open-ended exploration of alternatives more aligned with community visions and values.

In this analysis, we contend that the “better than nothing” sentiment among residents is not about a public approval of surveillance but more a reflection of their long endurance of anti-Black dispossession and violence, as well as their *waiting* for long-overdue community investment and digital justice. This waiting, at times indefinite waiting, embodies what Fleming Jr. describes as “Black patience”: the “abiding historical demand for Black people to wait: whether in the hold of the slave ship, on the auction block, or for emancipation from slavery” [26, p.587]. In other words, this waiting gives rise to temporal inequalities that are historically structured along racial lines [48]. In this sense, the notion of “better than nothing” prompts future researchers to reckon with not only spatial inequalities induced by surveillance technologies, such as their roles in erecting spatial boundaries for policing and confining racialized others [5, 59], but also the racialized *temporal* inequalities that emerge as people endure current failures while waiting for future institutional accountability that often remains tactically obscured and deferred [10]. Such endurance and waiting are not without consequences; in our case, it is actively marked by continued data extraction and surveillance perpetuation, often without adequate oversight or redress mechanisms. We argue that this enduring harm,

experienced disproportionately by more vulnerable peoples and minoritized communities, is where techno-failure is most acutely enacted and operationalized.

5.2 Implications on Counter-Surveillance Advocacy

5.2.1 “Better Than Nothing” as an Entry Point in Counter-Surveillance Public Education. Residents’ perception that a flawed surveillance system could be better than none underscores deeper societal and technological nuances that can be strategically engaged for meaningful engagements and interventions. As can be seen in our survey results and qualitative findings, residents’ pragmatic compromise by no means suggests that they lack critical awareness of policing surveillance technologies, including racial biases. As we have shown, the “better than nothing” sentiment is rooted in residents’ and communities’ desperate need for safety marred by a lack of viable alternatives or, perhaps, the awareness of the existing alternative options, which precisely aligns with what the ongoing abolitionist counter-surveillance efforts seek to tackle. Counter-surveillance advocates can use “better than nothing” as a new entry point for public education, building a narrative that critiques the status quo and makes visible the existing grassroots efforts and resources in relation to residents’ everyday maneuvering, while creating spaces to elicit what alternative practices and imaginations might look like with ordinary community members.

Many grassroots movements in Detroit and elsewhere have laid important groundwork for the abolition of policing surveillance technologies. Notable among these is the “Green Chairs, Not Green Lights” campaign,³ a community-led initiative in Detroit. It encourages community members to sit on their porches and look after one another, fostering community safety through community interdependence and mutual support. Researchers can also work closely with grassroots organizations and community members to adapt creative and liberatory research methods for imagination, such as participatory speculative design [21, 46] and photovoice [45], for public education and articulating new alliances. Against the “better than nothing” sentiment, such approaches not only make visible the existing options out there but also pave pathways for communities to participate in imagining and building alternatives where collective safety is achieved through more collaborative, community-centered means.

5.2.2 Utilizing “Better Than Nothing” as a Rhetorical Resistance Tool for Infrastructural Accountability. Besides supporting public education and grassroots engagements, “better than nothing” can be a powerful tool to advocate for institutional accountability and policy changes. While “better than nothing” might be misconstrued by institutions as a public approval of surveillance, counter-surveillance advocacy can strategically use it to deconstruct the cycle of reproducing techno-failures. By calling out the public’s pragmatic compromise and the trade-off made due to ongoing dispossession and foreclosures of alternatives, “better than nothing” can serve as a powerful rhetorical tool for resistance. This rhetorical shift is essential in advocacy, as it exposes the underlying dynamics of coercion and the lack of institutional accountability that led to

this compromised acceptance. Deconstructing the seeming buy-in that emerged in the survey results through the lens of “better than nothing” also offers insights into counter-surveillance advocacy efforts. This approach highlights the importance of critically scrutinizing the methodology through which authorities assess and represent public acceptance of surveillance technologies. In doing so, counter-surveillance initiatives can start disrupting the cycle of techno-failure perpetuation, advocating for a more transparent and community-involved approach to technology policy and governance beyond settling for “better than nothing.”

6 CONCLUSION

In this paper, we have addressed our research question, “How do Detroit residents perceive the policing surveillance technologies deployed in the city and neighborhoods?” by presenting quantitative results from a cross-sectional survey with over two thousand Detroiters and qualitative findings from long-term community-based fieldwork conducted in Eastside Detroit. In our analysis, we have traced the prevailing sentiment among residents towards policing surveillance technologies as being “better than nothing.” This notion aptly captures why many residents, especially those in vulnerable positions, appear to settle for the techno-solutions of surveillance, despite their flaws and limitations.

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³See <https://greenchairsnotgreenlights.org/>

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