The Racial Equity Implications of Road Safety Enforcement in Oakland, CA

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Executive Summary

Road safety is rarely associated with racial justice - however, the current political moment has made clear the need for a shift in our approach to racism and its manifestations in the built and social environments. Though the need for this change in paradigm is not new, it has grown increasingly visible as issues of race, class, and gender are now at the forefront of our collective consciousness. The field of urban planning often has historically situated itself as a perpetrator of injustice and harm toward communities of color. As the demands for racial justice are heard throughout streets across the world - it is important to interrogate how the current Transportation planning and policy reify racial injustice.

This research analyzes the City of Oakland's stop data to address disparate impacts across racial groups. By connecting road safety enforcement outcomes and race this report analyzes how the current model, that relies on police to enforce safety is inequitable. Findings suggest that Black people are overpoliced relative to White and other non-white groups. GIS analysis of the distribution of arrests also suggests alternatives such as Automated Speed Enforcement might also have negative impacts on historically marginalized communities.

Introduction

As a part of the built environment, transportation is informed by our social and political structures. Grounding the work of transportation planners in the understanding that our collective, as well as individual lived experiences of space within urban environments have a racialized dimension is key to advancing equitable outcomes (Lipsitz 2007). Proof for the validity of this framework can be found in recent urban planning history. During the era of urban renewal planners and engineers called for the construction of large-scale transportation infrastructure to develop highways over entire neighborhoods (Avila 2014). Many of the freeways developed during the urban renewal period displaced low-income communities whose neighborhoods were considered "blighted" by city officials (De Barbieri 2017) These inequities continue to remain present and have evolved to have less obvious impacts on marginalized communities.

Today the influence of transportation safety on public health is of growing concern. Traffic injuries are a global public health issue with trends leading to a rise by more than 60 percent between the years 2000 and 2020 (Arias 2004). The unequal distribution of transportation injuries manifests in various ways: on a spectrum across countries and those in the global south and north, across affluent and low-income neighborhoods (Laflamme et. al. 2009, Maciag 2014). Other intersections of identity – such as race and ethnicity – also contribute to these disparities in transportation safety (Nantulya and Muli-Muslime 2001). For example, Black and Latino men have higher fatality rates per trip as motor vehicle occupants relative to white men (Braver 2003). By improving conditions and decreasing injury rates within these communities, we are taking a step toward a more equitable built environment. Low-income communities of color in the Bay Area are often facing external social pressures like gentrification and displacement, along with being sites of disproportionate transportation related injuries.

Black Americans are most likely to report negative encounters with police officers, especially in public spaces, and report higher levels of distrust of police and other governmental institutions (Browning et al., 1994; Fagan and Davies, 2000; Hurst et al., 2000). There is also evidence that people of color, particularly Black men, are disproportionately likely to be stopped for traffic violations (Novak 2004, Engel and Calnon 2006, Warren et. al. 2006). More recently, it has been shown that Black males are searched and arrested in traffic stops more frequently than other drivers, a problem that is growing over time (Baumgartner et. al. 2015).

Through an examination of road safety indicators, I will analyze how racism and anti-Blackness permeate traffic safety enforcement programs within Oakland, California. This paper seeks to understand how police stop data can reveal racial disparities in road safety enforcement. In understanding that the field of urban planning has historically situated itself as a perpetrator of harm against communities of color – this research directly engages with this history by examining the present. In order to reckon with these histories of harm, planners must interrogate the ways we have been complicit in the harm and work towards atonement. We

must ask ourselves who are we protecting? At the expense of which communities? And it is the means of protection that we should also interrogate. In a system built on a history of subjugation - how can we create new tools that identify inequities and remedy them through community-informed safety? It is the work of the planners to facilitate that process. I hope that this research can contribute to the growing conversation about how we can create a more just model of road safety accountability.

Beginning with an analysis of Oakland Police Department 2019 stop data, I will identify disparities in policing outcomes across race. I will then compare these findings to the larger Oakland population. Next, I will conduct a spatial analysis to identify potential inequities in geographic distribution of stops. My analysis identifies that Black people are policed at a higher rate than other groups, particularly whites. My findings also show that the majority of stops happen within communities of concern – which carry a compounded burden of being situated around the High Injury Network[1] and being the primary location of the majority of Oakland Police Department (OPD) stops. Finally, I will explore how Automate Speed Enforcement (ASE) might also have potential equity concerns if implemented in Oakland.

Data Analysis

A.) Black Oaklanders are more likely to be stopped by police, per City data.

This examination of racial equity outcomes for road safety enforcement in Oakland begins with an analysis of Oakland Police Department Stop Data for the year of 2019. This dataset holds all recorded stops in the city[2], along with information on mode of travel, reason for the stop, and demographic information[3] about the person who was stopped. When disaggregated by mode, Oakland Police Department's 2019 stop data shows that 78.8% of total stops were people who were traveling by vehicle and 19% were pedestrians (Table 1).

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[1] The High Injury Network is a network of streets throughout the city in which 63% of Oakland's annual severe and fatal crashes occur.

[2] This data set includes those stopped while driving through Oakland, whether they live in the City or not.

[3] Racial categories are designated by the police officer during the time of the stop. It is based off of the officer's perception of the person being stopped.

Table 1: Total Police Stops by Oakland Police Department by Mode, 2019

| Mode	Total Stops	Share of Total Stops
Vehicle	11538	78.80%
Bike	94	0.60%
Pedestrian	2782	19.00%
Other	230	1.60%
Total	14644	100.00%
Reason for Stops	Total Stops	Share of Total Stops
Traffic Violation	9351	63.9%
Probable Cause	4566	31.2%
Community Caretaking	348	2.4%
Probation/Parole	209	1.4%
Consensual Search	154	1.1%
Truant	14	0.1%

Source: Oakland Police Department Annual Stop Data 2019

The distribution of stops across racial categories gives us a first look as who is being policed. Black people were found to be 51% of all stops, Latinx and White people made up 26% and 12% respectively, while Asian and "Other" races made up a total of 11% of the stops.[4] When comparing the share of traffic stops by race to the larger city population, it is apparent that Black people are disproportionately represented in police stops. Black people make up 51% of total stops while only representing only 24% of the Oakland City population. White people, on the other hand, make up 12% of total stops while representing 29% of total population in Oakland. When comparing the share of traffic stops by race to the larger city population, it is apparent that Black people are disproportionately represented in police stops. Other ethnic categories such as Asian, Latinx, and "Other" are policed at a rate that is proportional to their

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[4] Racial designations are decided by cops without asking the person being stopped.

share of the total population. White people are stopped by Oakland Police Department at a rate that is much less than their share of the population.

Figure 1: Share of Total Population and Total Stops by Race 2019
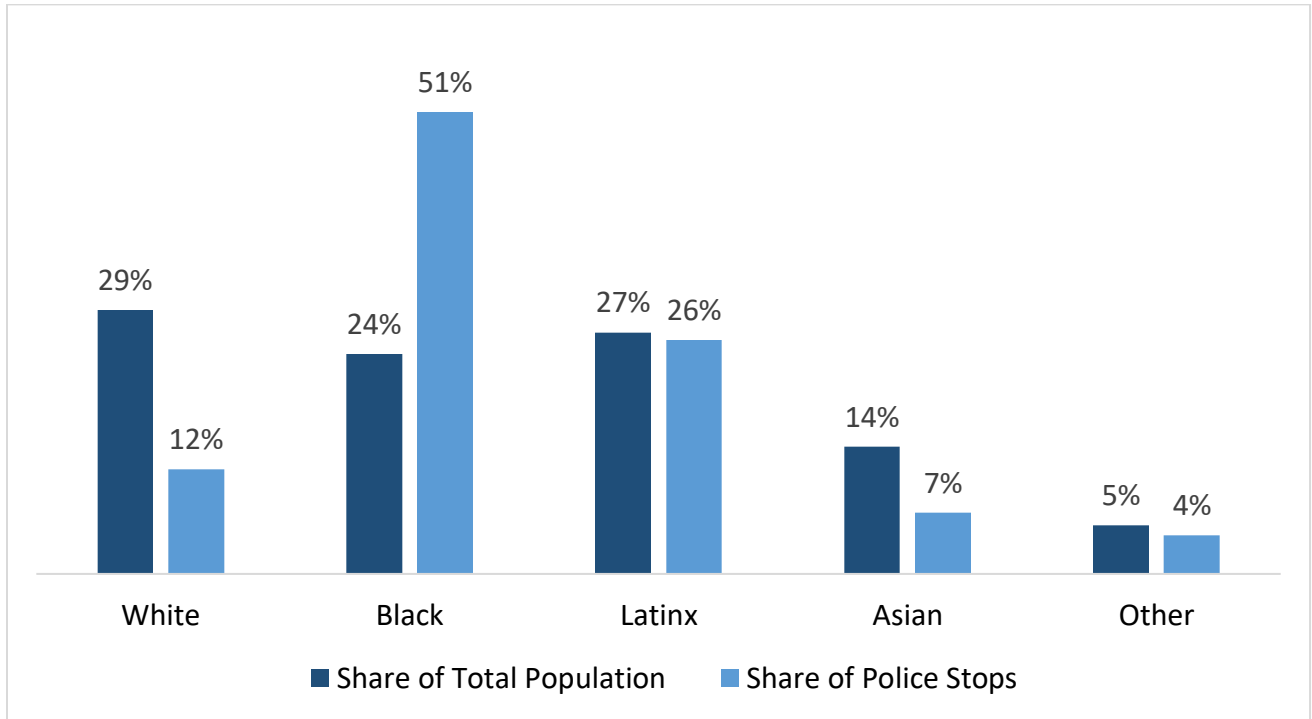
Source: Oakland Police Department Annual Stop Data 2019, American Community Survey 1-year estimate 2019 table S0101

A.) Black Oaklanders that are stopped are more likely to be arrested
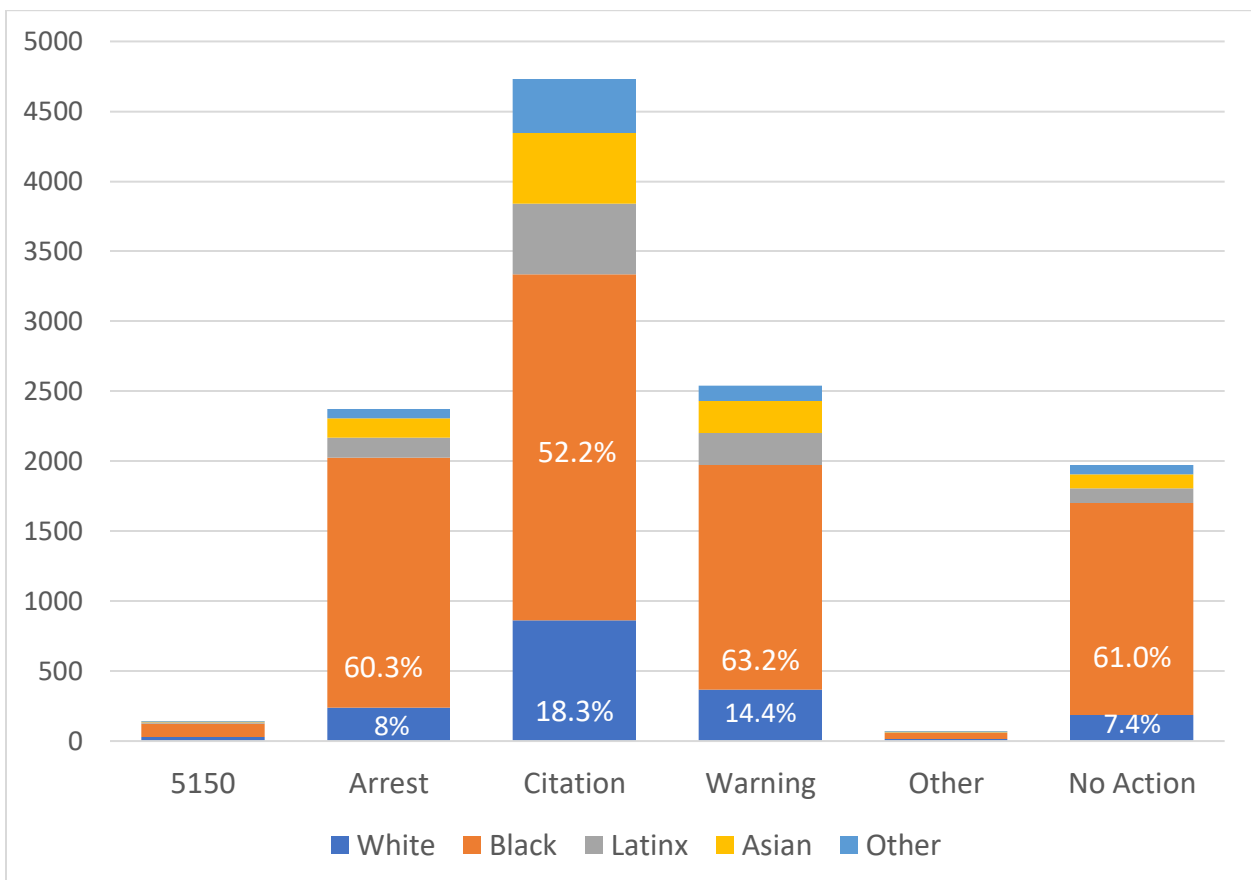
The Oakland Police Department data also contains information on the result of the stop, such as arrest, citation, warning, etc. Of the total 14,644 stops reported in 2019, 20% of them led to arrests. Of those arrests, 60% of them were arrests of Black people (See Table 2). Black people were also found to be 71% more likely to be arrested if stopped by a police officer than their white counterparts.

Table 2: Total Police Stops that led to arrests by race, 2019

Race	Arrests	Share of Total Arrests
White	238	8%
Black	1787	60%
Latinx	735	25%
Asian	141	5%
Other	64	2%
Total	2965	100%

Source: Oakland Police Department Annual Stop Data 2019

**Figure 2:** Total stops by result and race

Source: Oakland Police Department Stop Data 2019
Note: "5150 "designation by the Oakland Police Department is mental health crisis involving a violent or potentially violent person.

The majority of stops by Oakland Police Department happen along the city's High Injury Network. The HIN is a network of streets throughout the city in which 63% of Oakland's annual severe and fatal crashes occur (OakDOT 2018). Given the high count of injuries and collision that happen along these roads, it is not surprising that most arrests happen in the surrounding area. When comparing to the city's Communities of Concern, the arrests have a strong spatial correlation – occurring most often in these more vulnerable communities. The Communities of Concern are a regional designation based on 8 census factors like race, socioeconomics, age, ability, access to a car, language, etc. Communities of concern also have higher amounts of people of color than in other neighborhoods throughout the city. The geography Oakland stops illustrates how these communities in turn have higher rates of traffic injuries, and higher rates of police stops.

**Figure 3:** Reasons for Stops and Ratio by Race
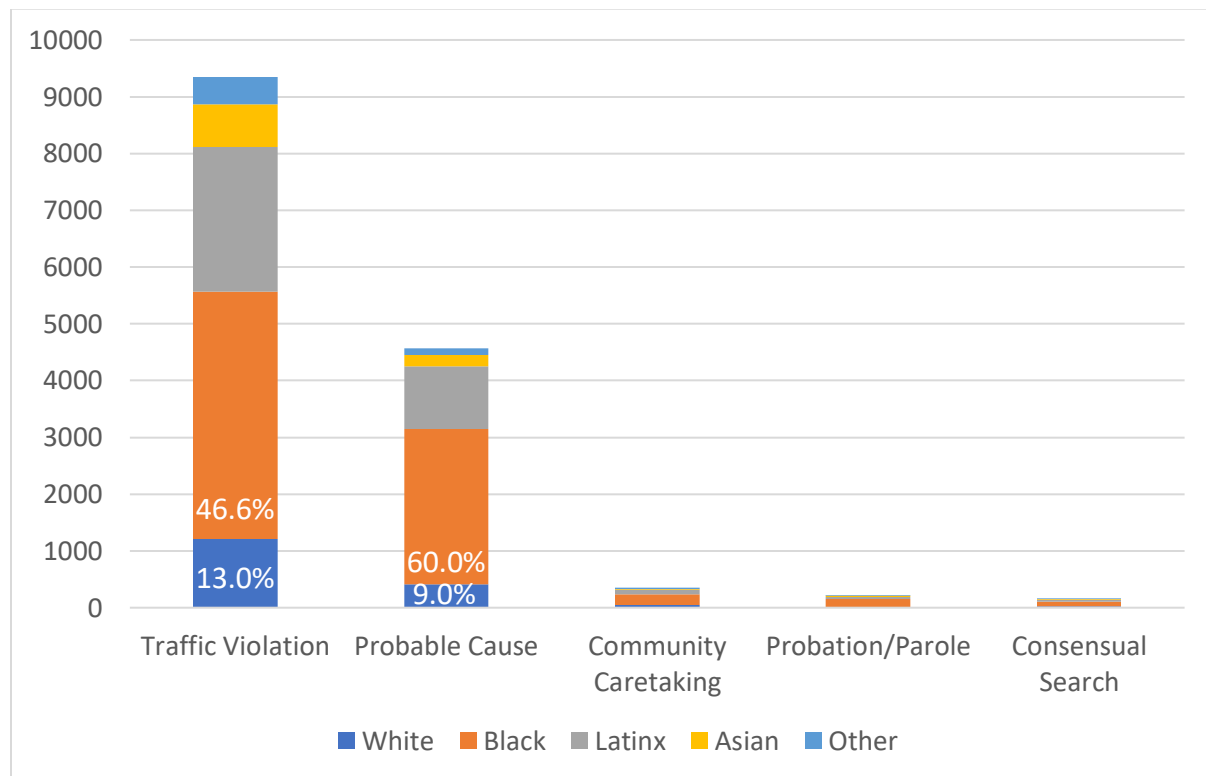
Source: Oakland Police Department Stop Data 2019
Traffic violation stops account for 63.9% of recorded stops during 2019.

It is important to understand that traffic violation stops lead to direct contact between community members and police officers. Knowing that 46.6% of all traffic violation stops were of Black drivers shows that this system of enforcement particularly puts Black people at risk (Figure 3).

Map 1: Oakland Department of Transportation High Injury Network and Police Stops by beat[5]

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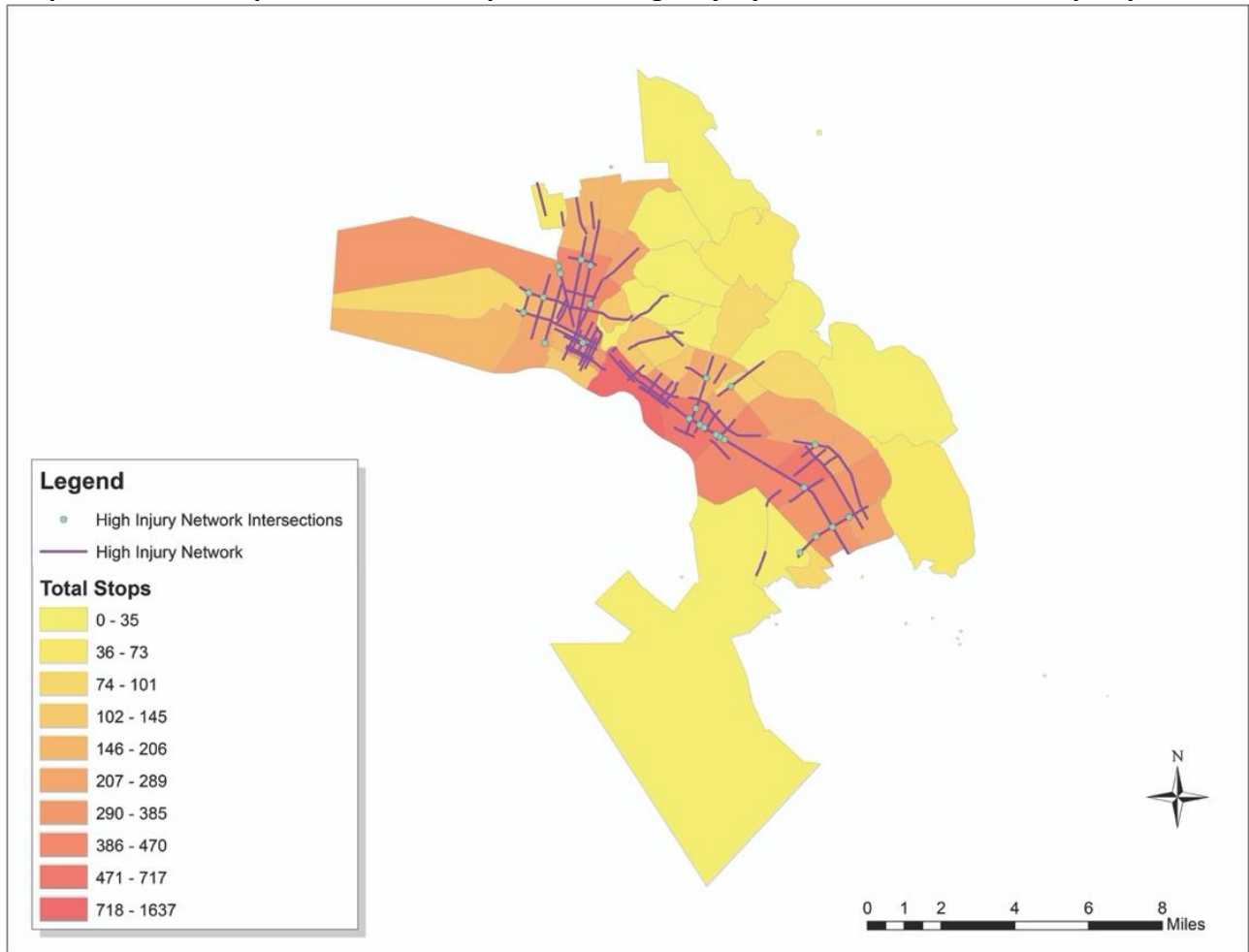
[5] Police beats are boundaries established by the city for officers to patrol and do not follow city boundaries.

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Map 2: Oakland Department of Transportation High Injury Network & Communities of Concern

Exploring ASE as an Equitable Solution

Racial justice and road safety activists share concerns with racial profiling, both agreeing that Automated Speed Enforcement (ASE), presents less bias that traditional traffic enforcement (Conner 2016). The removal of police officers from the enforcement process greatly reduces instances of bias, as ASE is dependent on cameras and radar technology. Cities have the option of operating an automated enforcement program and remove enforcement power from police departments, something that many activists and communities might find favorable. (Conner 2017). Unfortunately, ASE is currently illegal in California.

Automated enforcement programs in Portland, Seattle, Washington D.C., Chicago, Denver, and New York City have led to reductions in traffic fatalities by as much as 70% (City of San Francisco 2015). Automated speed enforcement has the potential to be more effective in changing driver behavior than traditional police-led enforcement, as cameras have a higher capacity to issue citations than officers can. In New York City speed cameras were found to have issued 10 times as many citations as police officers in 2016 (Conner 2017). Increased ticketing, however, might have unwelcomed consequences, as drivers might also feel the burden of increased fines.

Automated Speed Enforcement (ASE) is believed to be a potential solution for increasing road safety while mitigating racial bias (Conner 2016). The National Highway Traffic Safety Administration (NHTSA) believes that "when appropriately used as one component of an overall traffic safety and law enforcement system, automated enforcement programs can be an effective countermeasure for reducing crashes at high-risk locations" (Geraci 2010). The system has noted benefits and challenges that make political support difficult. One challenge being that ASE's do not immediately stop drivers from speeding - that is, if a driver is speeding and is caught by an ASE system, without being intercepted by a physical presence such as an officer, they are likely to continue.

Current practices of automated enforcement suggests that "cameras would only be used on streets with a documented speeding problem resulting in fatalities and injury collisions, and not freeways" (SFMTA 2017). In Oakland, these streets are identified as the High Injury Network. When analyzing stops by OPD, there is a clear spatial correlation that shows the majority of stops occurring near Oakland Department of Transportation's (OakDOT) High Injury Network (Map 1). Further analysis of spatial demographics using OakDOT's Communities of Concern designation shows that the areas where the majority of stops happen are also Communities of Concern[6]. If ASE were to be implemented within the city of Oakland, they would primarily

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[6] Communities of Concern is a designation by OakDOT based on Metropolitan Transportation Commission's "Communities of Concern". The designation is a summation of various indicators such as median household income, percent people of color, educational attainment, rent burden, etc.

target these areas. Because of settlement patterns, lower income people of color would be primarily affected, as they live closer to the potential areas of implementation. This could potentially lead to unequitable outcomes as these communities, which are already overpoliced, could continue to be policed at a disproportionate rate. Because ASE's also have a higher ticketing capacity, these communities would most likely be subject to higher amounts of citations, which would in turn lead to a heavier financial burden than drivers who live in other communities.

The Politics of Road Safety in Oakland

Recently, the City of Oakland has explored potential ideas to re-shape public safety throughout the city, and well beyond transportation. In 2020 the City formed the Re-imagining Public Safety Task Force, Citywide task force created to develop recommendations to increase safety and explore alternative models of accountability. The Task force was created with the expressed goal of achieving a 50% reduction in the OPD General Purpose Fund allocation. The resolution that provided the initial structure, timeline, and goals of the task force was introduced by councilmembers Fortunato Bas and Taylor in July 2020 (City of Oakland, 2020).

While the work of the task force is still underway, they are scheduled to present their final report and recommendations in late April 2021. Currently, one of their recommendations includes the removal of road safety enforcement from Oakland Police Department and placing that responsibility with the Department of Transportation. The City of Berkeley, Oaklands neighbor, had recently voted to make this change, even creating a Department of Transportation to carry out the enforcement (City of Berkeley, 2020). Although interventions like Automated Speed Enforcement are not yet legal in the state of California – there is a clear desire within the Bay Area to explore and implement alternative modes of enforcement.

Given the deeply complex and nuanced history of race, policing, and safety – it is important to acknowledge how current choices are not removed from their historical context, rather they informed by it. A holistic approach to road safety should also include more immediate

interventions that mitigate road safety disparities in Oakland, including infrastructure investments that calm traffic, remove room for user error, and take on a safe systems approach. However, given the history of disinvestment that has occurred in many of Oakland's Communities of Concern, it important to think critically about how infrastructure investments could potentially increase gentrification and displacement pressures.

Current and future planners in Oakland and beyond should consider how transportation planners can work alongside marginalized communities to improve safety and prevent displacement. Some potential models to explore include a similar task force with a scope that specifically deals with transportation safety. The Reimagining Safety Task Force represents a step in the right direction, however, a more specialized committee or task force for transportation and road safety would be an effective next step to envisioning a community-based model for road safety accountability.

Findings

1. Black people made up 51% of total stops in 2019, despite only representing 24% of Oakland's total population.
2. Black people were found to be 71% more likely to be arrested if stopped than their white counterparts.
3. Traffic violations accounted for 63.9% of OPD stops.
4. The majority of stops by OPD occurred in OakDOT designated Communities of Concern.
5. Automated Speed Enforcement (ASE) along the High Injury Network would disproportionately impact marginalized communities who are largely non-white populations.

Recommendations

1. **Develop a more structured model for data collection that allows for accurate analysis and a more nuanced understanding of identity**

   The data used in this analysis could be made more complete with a more structured model for data collection. Currently, the records show little information and could be improved by recording the cross streets that stops happen on, for a more accurate location. There is also not a record of specific traffic violation, which could help transportation planners understand what violations are more frequent and how to better address them. Officers currently record the driver, cyclist, or pedestrians race based on their perception and do not ask. By asking the person being pulled over, there is the potential for more accurate reporting of race. Racial categories should also be expanded to include a more nuanced understanding of race and ethnicity.

2. **Prioritize safety infrastructure interventions within communities of concern**

   By investing in road safety infrastructure along Oakland's High Injury Network, the city can decrease incidents that would result in injury and decrease opportunity for traffic violations. Because the High Injury Network is located within Communities of Concern, special attention should be paid to the impact of investment on gentrification and displacement.

3. **Consider removing road safety enforcement power from the Oakland Police Department**

   Given the disproportionate burden that policing places on Black communities, as shown in this analysis, the City of Oakland should consider alternative models of road safety enforcement. In the Bay Area there is a growing desire to remove traffic policing from police. Oakland's neighboring city, Berkeley, has voted to make this transition, setting a precedent for Oakland to learn from and improve upon. Though politically polarizing, this is something that should be seriously considered.

4. **If moving toward ASE implementation, the City of Oakland should consider potential strategies to subsidize fines for low-income drivers**

   Because ASE equipment is likely to be placed within Communities of Concern, low-income drivers are at higher risk of being ticketed. Various policy levers could potentially ease this burden through subsidized or discounted tickets based on income. Other systems that do not require subsidy also include the implementation of "warning tickets" which could allow for notice of violation without an immediate fine.

5. **Strengthen commitment to equitable road safety enforcement practices by making it a priority for the general plan update**

   The city of Oakland is currently updated the transportation element of the general plan. By creating a policy or goal that commits to stronger, more equitable road safety enforcement, this effort can be sustained long-term and inform future planning efforts throughout the city.

Conclusion

In conducting this research, I found that road safety enforcement has largely inequitable outcomes in Oakland. Black people in particular are over-policed, while communities of concern are burdened by high injury and collision rates. Future exploration of road safety outcomes should consider a model that allows for community-based accountability, while ensuring an overall reduction in traffic violations and collisions. Due to limitations of data, there is little to be known about where the people who were pulled over in Oakland live. A more thorough analysis of where arrest occur in relation to starting point and intended destination. It is worth it to explore *what type of person is most commonly receiving tickets in this area. Is it people from the community, or people passing through from more affluent areas?*

Finally, further analysis should consider the financial burden of traffic violation tickets on lower income communities. By quantifying the percentage of total income that the average ticket costs we can better estimate the burden in relation to those who are more affluent. My hope is

that this research will shed light on the assumption that ASE's are inherently equitable, and push transportation planners and policy makers to explore a more holistic approach to increasing safety for all.

Appendix

Figure I: Total Traffic Violation Stops by Race
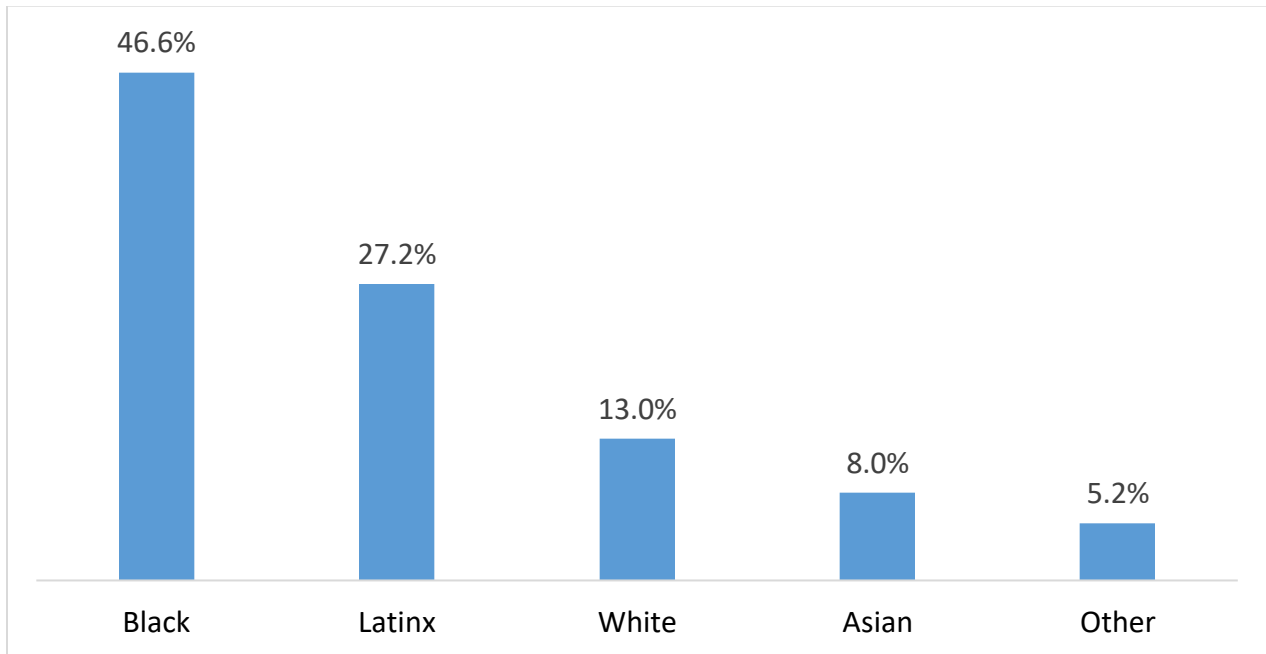
Source: Oakland Police Department Stop Data 2019

Table I: Total Police Stops that led to arrests by race, 2019

Race	Total Arrests	Share of Arrests
White	238	8%
Black	1787	60%
Latinx	735	25%
Asian	141	5%
Other	64	2%

Total	2965	100%

Source: Oakland Police Department Annual Stop Data 2019

TABLE II: Total stops by result and race

Source: Oakland Police Department Stop Data 2019

zRace	"5150"[7]		Arrest		Citation		Warning		Other		No Action		total	
	#	%	#	%	#	%	#	%	#	%	#	%		
White	29	2%	238	14%	865	51%	366	22%	17	1%	186	11%	1701	100%
Black	94	1%	1787	24%	2471	33%	1606	21%	42	1%	1516	20%	7516	100%
Latinx	16	0%	735	19%	1761	46%	666	17%	14	0%	617	16%	3809	100%
Asian	9	1%	141	14%	505	51%	230	23%	3	0%	103	10%	991	100%
Other	3	0%	64	10%	386	62%	108	17%	3	0%	63	10%	627	100%
Total	151	1%	2965	20%	5988	41%	2976	20%	79	1%	2485	17%	14644	100%

TABLE III: Total stops by result and race [APENDIX]

Race	5150		Arrest		Citation		Warning		Other		No Action		total
	#	%	#	%	#	%	#	%	#	%	#	%	
White	29	19%	238	8%	865	14%	366	12%	17	22%	186	7%	1701
Black	94	62%	1787	60%	2471	41%	1606	54%	42	53%	1516	61%	7516
Latinx	16	11%	735	25%	1761	29%	666	22%	14	18%	617	25%	3809
Asian	9	6%	141	5%	505	8%	230	8%	3	4%	103	4%	991
Other	3	2%	64	2%	386	6%	108	4%	3	4%	63	3%	627
Total	151	100%	2965	100%	5988	100%	2976	100%	79	100%	2485	100%	14644

[7] "5150" designation is defined by Oakland Police Department as "mental health crisis involving a violent or potentially violent person"

Acknowledgements

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