Appendix

APPENDIX: SAFE OAKLAND STREETS INFORMATIONAL REPORT

The following sections of the appendix provide additional context to the recommended strategies that are the focus of the Safe Oakland Streets informational report and their development.

A. Understanding the Problem
B. Current Efforts to Increase Traffic Safety and Advance More Equitable Outcomes
C. Equity and Efficacy Assessment
D. Oakland Police Department Traffic Stop Analysis Findings
E. Additional Questions for Future Traffic Stop Data Analysis

Section A. Understanding the Problem

Historical Disparities

Historic policies have resulted in a deeply inequitable society for Black and Brown people in the United States and Oakland. During the 1940s and 1950s, Oakland was one of many U.S. cities that were redlined by the Federal Home Loan Bank Board and the Home Owner's Loan Corporation, resulting in the creation of residential security maps that divided cities into areas deemed appropriate for investment and areas deemed undesirable for investment because of the presence of Black and foreign born residents. In Oakland, large working-class communities of color were denied loans, city investment, and infrastructure upgrades, while residents in majority white neighborhoods saw their property values and wealth rise. Around the same time, the Nimitz Freeway (I-880) was built through the heart of the African American community, disrupting community cohesion and economic viability by cutting it off from Downtown. Urban renewal continued with the construction of the West Oakland BART Station, an above ground commuter rail with elevated tracks, both visually and physically separating neighborhoods. Passed in 1970, the California Environmental Quality Act, which measured transportation impacts of new development based on vehicle delay, was used as a justification to widen roads, add travel lanes and upgrade traffic signals. This policy had the effect of prioritizing the movement of motor vehicles over the movement and safety of people walking, biking and taking transit.

Traffic deaths and severe injuries, as well as traffic stops, reflect these pervasive inequities.

Severe and Fatal Traffic Crashes and Existing Disparities

In 2018, the Oakland Equity Indicators Report found troubling **disparities in pedestrian deaths** in Oakland[1]. The City of Oakland experiences ***approximately two severe or fatal traffic crashes each week***, with crashes disproportionately impacting Black, Indigenous and people of color (BIPOC), high priority communities[2], and seniors. In December 2020, OPD reported a **surge in traffic-related fatalities where 33 people were killed** on Oakland's roadways, compared to the 27 people killed in 2019. The most common causes of crashes are speeding, failure to yield, unsafe turning, red light running, and driving under the influence of drugs and/or alcohol.

The City of Oakland analyzed nearly 2,000 injury crashes from 2012-2016 to understand how they affect Oaklanders and how to effectively focus safety efforts.[3] During that period, there was a 76% increase in severe or fatal injuries and accounted for $900 million in yearly costs of traffic crashes.[4] Just over **one in four Oaklanders killed are involved in a crash where speed is a primary factor**. For anyone hit at just 30 miles per hour, their chance at surviving is just 50%. Most severe and fatal injuries occur at intersections (75%). For pedestrians, one-third of those severe and fatal injuries is caused by a driver **failing to yield**

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[1] Oakland Equity Indicators Report: Topic 6.1: Built Environment, pages 127 and 128, https://cao-94612.s3.amazonaws.com/documents/2018-Equity-Indicators-Full-Report.pdf

[2] https://www.oaklandca.gov/resources/oakdot-geographic-equity-toolbox

[3] https://cao-94612.s3.amazonaws.com/documents/CityofOakland_CrashAnalysis_Infographic_08.29.18.pdf

[4] Costs include quality of life, property damage, lost work time, medical care, and $250,000 (2011-2016) in litigation payout associated with traffic safety.

to a pedestrian. For people on bikes, Oaklanders are killed or severely injured **by left-turning vehicles** at over four times the rate of right-turning vehicles. While only 10% of Oakland's intersections are signalized, nearly **50% of fatalities occur at signalized intersections**.

The majority (60%) of these crashes are highly concentrated on **just 6% of the *800 miles* of Oakland's city-maintained streets**, as identified as Oakland's high injury network. Furthermore, the HIN generally overlaps with Oakland's map of priority neighborhoods as found in Oakland's Geographic Equity Toolbox[5]. The toolbox prioritizes neighborhoods based on concentrations of people with demographic factors determined to have experienced historic and current disparities, including low income residents and communities of color. The neighborhoods with the higher concentrations are designated as the highest priority neighborhoods. Almost 95% of the High Injury Network is located in medium to highest priority neighborhoods, compared to the approximately 40% of the City that make up those same neighborhoods.

As compared to all Oaklanders, Black Oaklanders are two times more likely to be killed or severely injured in traffic crashes, and three times as likely to be killed or severely injured while walking. Furthermore, 30% of streets in majority Asian census tracts fall within the City's High Injury Network.[6] Recent fatality data suggests that people without housing are also disproportionately represented in traffic deaths, a pattern similar to San Francisco.[7] Other cities have found that this population is disproportionately impacted, however, access to data is limited and additional sources or modifying data sources should be explored to understand and address any disparities. In addition, data capturing the disproportionate impact of traffic crashes involving people with disabilities is limited, but studies suggest that disparities may be profound.[8] The SOS effort will continue to work on identifying and addressing disparities impacting the disability community. These data represent real crashes that resulted in the unnecessary deaths of too many Oaklanders like Miesha Singleton, mother of seven, who was killed in a crosswalk in front of Elmhurst United Middle School in January 2020.

Regardless of the causes or reasons for these traffic stops and crashes, the City is accountable for the results of our decisions as well as for the policies, practices and procedures which influence our decisions and investments to improve public safety. Furthermore, the City of Oakland made a commitment to advance racial equity and adopted OMC 2.29.170.1[9]. in order to achieve equitable opportunities for all people and communities. It's our job to change and work towards better outcomes — to eliminate and prevent disparities and reduce this source of health inequity and stress for our Black and Brown communities, low-income populations, and seniors.

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[5] City of Oakland, Department of Transportation, Geographic Equity Toolbox: https://www.oaklandca.gov/resources/oakdot-geographic-equity-toolbox

[6] City of Oakland, Department of Transportation, Citywide Crash Analysis and High Injury Network, 2018.

[7] https://www.visionzerosf.org/wp-content/uploads/2020/03/Vision-Zero-2019-End-of-Year-Traffic-Fatality-Report_final.pdf

[8] Kraemer JD, Benton CS. Disparities in road crash mortality among pedestrians using wheelchairs in the USA: results of a capture–recapture analysis BMJ Open 2015.

[9] https://library.municode.com/ca/oakland/codes/code_of_ordinances?nodeId=TIT2ADPE_CH2.29CIAGDEOF_2.29.170DERAEQ

Section B. Current Efforts to Increase Traffic Safety and Advance More Equitable Outcomes

State Safety Efforts

Jurisdictions throughout California are changing how they measure transportation impacts from new projects as an outcome of Senate Bill 743, signed in 2013 and implemented in 2018, which required a shift from measuring vehicle delay to vehicle miles travelled. This shift challenged the notion that roads should be designed to maximize vehicle throughput and instead forces municipalities to rethink the function and purpose of streets, the different needs of all the users of a road such as bicyclists, pedestrians, transit riders, and people on scooters, and the exponential dangers of excessive speed.

To address the dangers of excessive speed and severe and fatal crash outcomes, Assembly Bill 2363 (Friedman) [Chapter 650, Statutes of 2018] established the Zero Traffic Fatalities Task Force, supported by the California State Transportation Agency (CalSTA). The statutory goal of the Task Force is to develop a structured, coordinated process for early engagement of all parties to develop policies to reduce traffic fatalities to zero. To date, the Task Force has focused on policies related to speed management, including local control of speed limit setting and automated speed enforcement, and published a report of policy recommendations in January 2020.

Oakland Department of Transportation staff have been actively participating in the California City Transportation Initiative (CACTI), a coalition of eight of California's largest cities – Los Angeles, San Jose, San Francisco, Fresno, Sacramento, Oakland, San Diego and Long Beach – dedicated to safe, sustainable, and equitable transportation outcomes. CACTI has multiple working groups that focus on SB 743 implementation, legislation & policy, racial justice, emerging mobility, and Vision Zero. As of late (2020), all working groups have been convening to advance transportation policies that provide local cities with additional flexibility to ensure safety and accessibility for all users and policies that advance more equitable outcomes, including implementing recommendations made in CalSTA's 2019 Report of Findings on AB 2363 and the Zero Traffic Fatalities Task Force. For more details on policies to increase safety, see Section A.

Some cities have adopted Vision Zero policies which have an explicit goal of eliminating all traffic fatalities and reducing severe injuries and addressing inequitable outcomes in transportation safety, while increasing safer, healthy, equitable mobility for all. Vision Zero is a multi-agency, systematic approach to traffic safety that focuses on protecting the most vulnerable populations and increasing human survival in crashes on the transportation system through measures including vehicle speed reductions and targeted improvements to create safe streets, safe people, and safe vehicles. The DOT's Strategic Plan calls for the adoption of a Vision Zero policy and pledge to eliminate traffic injuries and fatalities. While actions and work consistent with Vision Zero policy are underway, the DOT has acknowledged the potential of unintended consequences of the policy to increase racial disparities if implementation includes increased traffic enforcement without a robust focus on equity.

On January 1, 2019, Assembly Bill 953 mandated the collection of stop data for all detentions, searches and arrests, including those made pursuant to dispatched calls for service. The traffic stop data available from Oakland's Police Department, derived from the mandate of AB 953, is now more nuanced and provides a better ability to assess and understand stop data decisions, outcomes, or disparities. The more comprehensive the data is, the better we might be able to identify strategies to improve those decisions, outcomes, and disparities.

Local Safety Efforts

The City of Oakland has an established history of setting policy goals regarding traffic safety. In 2013, the City of Oakland adopted a "Complete Streets Policy" (Resolution No. 84204 C.M.S.), committing to supporting roadways designed and operated to enable safe, attractive, and comfortable access and travel for all users. In 2016, OakDOT developed a strategic plan committed to building better and safer streets, including reviewing speed limits to support safe travel on our roadways and providing safe access to all Oakland schools, with the goal of zero traffic deaths and serious injuries. Additionally, OPD has provided policing enforcement in support of legal speed limits and to promote road safety, especially near Oakland schools.

In September 2020, Council President Rebecca Kaplan requested that the City make an official request that the California Legislature to enact legislation that would give municipalities the flexibility to adopt more effective methods for automated speed enforcement and to add this issue to the State Legislative lobbying agenda. The resolution was passed by the Oakland City Council in October 2020 with unanimous approval.

In July 2020, the Oakland City Council created the *Reimagine Public Safety Taskforce* with a goal to "rapidly reimagine and reconstruct the public safety system in Oakland by developing a recommendation for Council consideration to increase community safety through alternative responses to calls for assistance, and investments in programs that address the root causes of violence and crime (such as health services, housing, jobs, etc.), with a goal of a 50% reduction in the OPD General Purpose Fund (GFP) budget allocation." OPD, DRE and OakDOT staff as well as OakDOT Equity Team members have been supporting this work and look forward to adding findings and potential solutions from the Safe Oakland Streets initiative as a resource.

Existing OakDOT Traffic Safety Initiatives and Tools

Safe street design plays a critical role in encouraging safe traffic behaviors and preventing severe and fatal crashes in the first place. For an overview of the types of tools we use to increase safety, the department has a "Crash Prevention Street Design Toolkit"[10]. The department also created a Geographic Equity Toolbox[11] as a tool for the City to prioritize neighborhoods based on concentrations of people with demographic factors determined to have experienced historic and current disparities. The goal of these tools is to inform our work and guide our investments to advance DOT's Racial Equity Goals and Citywide efforts.

OakDOT prioritizes safety investments on the High Injury Network and areas where severe and fatal crashes are concentrated and in priority equity areas where there are more communities of color, low income residents and other priority populations are concentrated across virtually all our street redesign efforts, including:

1. Capital Improvement Program (CIP): The City's CIP outlines our major capital investments. From a transportation perspective, projects within the CIP are our most transformative projects that can help turn a high injury corridor into a thriving, vibrant place. In the most recent CIP, OakDOT

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[10] https://cao-94612.s3.amazonaws.com/documents/CMF-toolkit-PUBLIC.pdf

[11] https://www.oaklandca.gov/resources/oakdot-geographic-equity-toolbox

ensured that all transportation improvements were ranked based on several factors that the community identified as important. Two of the highest-ranking factors included equity (whether a project serves a priority equity area) and safety (whether a project addresses a high injury corridor). OakDOT is working on dozens of projects across the High Injury Network.[12]

2. Implementation of the Bicycle and Pedestrian Plans: The Bicycle[13] and Pedestrian[14] Program works to implement the City's Bicycle[15] and Pedestrian[16] Plans, using data driven decisions and quality street design to enhance safety.

3. Prioritizing the High Injury Network and High Priority Neighborhoods in the Paving Plan: The Paving Plan[17] touches the largest number of High Injury Network miles across the City of Oakland. The paving plan prioritizes strategies to reduce racial inequities and streets on the high injury network, creating a cost-effective strategy to implement striping improvements that can effectively reduce crashes.

4. Safe Routes to Schools: The City of Oakland partners with the Alameda County Transportation Commission (ACTC) to deliver safety improvements around schools. ACTC plans safety improvements around schools[18], and OakDOT designs and delivers those improvements. In addition, OakDOT implements a school crosswalk striping program[19].

5. 311 Service Requests for Traffic Safety: OakDOT receives over 800 traffic safety requests from community members through our 311 system[20] each year. Because OakDOT receives more requests than we have resources to complete detailed studies, design improvements and implement changes, requests are evaluated and prioritized based on crash history, equity, and proximity to schools. The service request program implements efficient, effective solutions-typically using traffic signs, pavement markings, and common traffic calming devices like speed bumps —to support safer traffic speeds and lower traffic volumes. These improvements are focused on specific intersections or street segments. Traffic safety concerns that are for an entire corridor or neighborhood, that require new signals or concrete work or more extensive street improvements, or that require more extensive funding are larger capital projects are addressed through the other OakDOT process described above.

6. Rapid Response Projects: OakDOT works to proactively prevent crashes and works quickly to deploy with crash prevention engineering improvements based on collision analysis of severe or fatal crashes in the immediate days following a crash. Examples of rapid response projects

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[12] https://www.oaklandca.gov/resources/active-major-improvements-project

[13] https://www.oaklandca.gov/topics/bicycle-programs-and-projects

[14] https://www.oaklandca.gov/resources/pedestrian-plan-update

[15] https://www.oaklandca.gov/resources/bicycle-plan

[16] https://www.oaklandca.gov/resources/pedestrian-plan-update

[17] https://www.oaklandca.gov/resources/2019-paving-plan

[18] https://alamedacountysr2s.org/our-program/school-safety-assessments/#oakland

[19] https://www.oaklandca.gov/news/2019/drive-like-your-kids-go-to-school-here-oakland-upgrades-200-school-crosswalks

[20] https://www.oaklandca.gov/services/oak311

include Foothill & 22nd Avenue (Garfield Elementary)[21], Foothill & 26th Avenue, Harrison & 23rd Street[22], 98th and Cherry, and 12th St and 2nd Avenue.

Existing OPD Traffic Enforcement

In recent years, OPD's Traffic Enforcement Unit (TEU) has maintained two motor squads within the Traffic Operations Section (TOS). These squads typically consist of eight sworn officers including one sergeant (approximately 16 sworn staff) supervised by the TOS Lieutenant. However, OPD recently eliminated both squads to increase patrol staffing in the Bureau of Field Operations in light of changing post-COVID-19 priorities.

The TEU is tasked with the enforcement of local and state traffic laws in order to reduce traffic collisions and resulting injuries, as well as to facilitate the safe movement of pedestrians, cyclists, and motorists on Oakland streets. The TEU concentrates its enforcement efforts in the areas with the highest collision rates (high injury network or HIN) and near schools where pedestrian traffic is more concentrated.

Speeding, one of the leading causes of collisions, is enforced by OPD through different strategies. Firstly, patrolling streets in or near the HIN and local schools provides a reminder to all to respect speed laws and the many residents and visitors who are vulnerable to fast moving vehicles. Police on motorcycles can move quickly from point to point and stop vehicles violating speed or other traffic laws. TEU also uses LIDAR devices on certain streets to measure and enforce speed laws. LIDAR devices emit infrared laser light that reflects off a vehicle to return to the device, using speed and distance to measure vehicle speed. However, State law requires that LIDAR only be used on streets where LIDAR calibrations have occurred, and these calibrations or studies only are in effect for 7-10 years, with extensions. LIDAR can be used on any street, even without a survey, if the vehicle is traveling in excess of 65 mph. Also, they can be used in senior citizen zones and school zones without a survey. However, LIDAR is not generally used or available to OPD patrol officers and, given the number of calls for service and priorities, time and operational ability to focus on traffic safety is difficult to operationally replicate for patrol officer squads compared to traffic enforcement officer squads. The TEU, in consultation with DOT and City Council, also deploys a limited number of speed display trailers. These trailers use radar to measure speed and display the speed in order to educate and remind motorists to obey speed limit laws.

In addition, OPD has received grants through the California Office of Traffic Safety (OTS) to help enforce traffic safety on Oakland streets. These grants help fund sobriety checkpoints and distracted driving campaigns. OPD in collaboration with DOT, "focuses traffic patrols in areas with pedestrian-involved injuries and/or fatal collisions, as well as a variety of factors including safety, equity, and walkability throughout the City of Oakland. This collaboration has identified 34 corridors and 37 intersections. The areas describe the most dangerous streets and intersection for pedestrians.[23]" These grant funds allow OPD's TEU to conduct operations that could not occur using only staff funding from OPD's regular fiscal budget. The report explains that grant-funded operations are based on direction from OPD Area

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[21] https://www.oaklandca.gov/news/2019/oakdot-responds-to-tragic-traffic-death-at-garfield-elementary-school-with-immediate-safety-improvements

[22] https://www.oaklandca.gov/projects/harrison-23rd-st-crash-response

[23] Oakland Police Department, "FY 2019-20 OPD Traffic Safety Grant Supplemental," September 13, 2019; presented to the Public Safety Committee, September 24, 2019

Commanders; Police Commander direction is based on feedback from local residents and schools. The requests usually stem from the frequency of unsafe vehicle speeding. OPD also uses traffic patrols to support efforts to mitigate gun violence in areas with spikes in gun shootings; however, these strategies are evaluated to mitigate unrelated enforcement activity or policing that potentially harms community trust.

OPD Risk Management and Stop Data Analyses: "Upstream Influences" and "Footprint Outcomes"
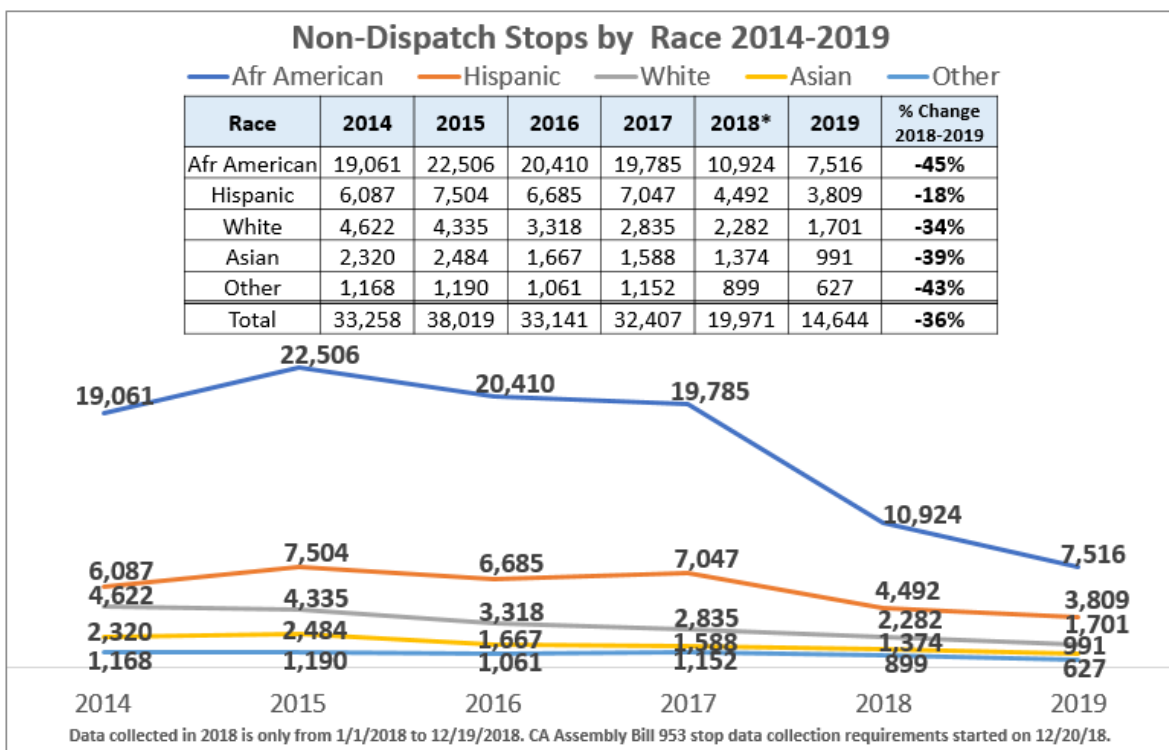
In the past, OPD did not require officers to document justification for traffic violation stops in ways which could be reliably reviewed, approved or assessed. Supervisors were not required to review and approve the content of such reports and stop data was neither collected nor entered into a searchable database. Internal and external reviews determined that enforcement activity amounted to generally uncoordinated efforts and unevaluated outcomes. Commanders were unable to assess and understand stop data decisions, outcomes, or disparities. It was unknown how stop decisions may have been caused or influenced by implicit bias, explicit bias, public safety strategies, or crime. OPD now collects, analyzes, evaluates and uses more stop data than is required by state mandates (AB 953) which trailed OPD initiatives by 10 years.

OPD now has a record of ten or more years of stop data to assess the enforcement-related decisions made by OPD officers. Monthly risk management meetings demonstrate accountability for the results of command, supervisor and officer decisions. These Risk Management Meetings help examine the causes and effects of policing outcomes at all levels within the organization and demand that OPD looks not only at the lawfulness of their actions, but the effectiveness of their actions and how actions may be impacting community members at racially disparate rates. Where disparity is probable or known (e.g., due to disparities in suspect descriptions or location demographics), risk management requires evaluation and mitigation of the extent to which the surrounding community is affected - both by crime as well as by responses to crime and public safety need. Where a disparity is evident, decision-making and outcomes are assessed by supervisors and command to determine the causes and reasons.

Risk management meetings and their resulting discussions and deliverables have caused meaningful cultural shifts toward "precision-based policing" and "intelligence-led stops".

1. "Precision-based" stops result from the identification of a specific neighborhood problem and/or problem location – usually in partnership with the community – and are accompanied by direction for officer enforcement or problem-solving activities. Neighborhood priorities are addressed more efficiently through community policing practices, and resulting stops are fewer and more precisely focused.
2. "Intelligence-led" stops require officers possess knowledge, which can be linked to an articulable source, that leads to the initiation of a stop. The source of information may be very specific, such as a named or described suspect, or general information about a recent crime trend tied to a specific location and involved individuals. An officer's knowledge and intent at the time the stop is initiated is important in determining whether the stop is intelligence led or an entirely non-dispatch enforcement stop. By using information and intelligence, we can more effectively contact the relatively few people who are causing the most harm in our neighborhoods and limit the opportunity for individual discretion or bias by operating upon objectively developed and documented information. The overall reduction of stop activity results in a reduced policing "footprint" within the community. The intelligence-led field is captured in addition to the primary legal reason for every stop.

Results[24] of decisions made as a result of risk management meetings, discussions and deliverables have led to a reduction of vehicle stops for equipment and registration violations near or within high crime areas. Reductions in overall stop activity, for all reasons, have caused the proportion of intelligence-led stops to increase. The overall percentage of intelligence-led stops, for all reasons, increased from 27% in 2017 to 36% in 2019. The overall reduction in footprint helps to reduce the overall number of minorities being stopped, for all reasons, by police and can help reduce disparity in police contact. While stops for all racial categories were reduced over similar time, the efforts since 2016 were designed to address the greatest chasm of racially disparate stop data for all reasons, which primarily impacted persons described as Black. From 2016-2019, there was a 63% reduction in the total number of African Americans stops, for all reasons, from 20,410 to 7,516 stops. A 43% reduction in the total number of Hispanic stops, for all reasons, was also realized, from 6,685 to 3,809 stops. From 2016 to 2019, the overall percentage of African Americans stopped, for all reasons, decreased by 11% from 62% to 51%.

Non-Dispatch Stops by Race 2014-2019

—Afr American —Hispanic —White —Asian —Other

Race	2014	2015	2016	2017	2018*	2019	% Change 2018-2019
Afr American	19,061	22,506	20,410	19,785	10,924	7,516	**-45%**
Hispanic	6,087	7,504	6,685	7,047	4,492	3,809	**-18%**
White	4,622	4,335	3,318	2,835	2,282	1,701	**-34%**
Asian	2,320	2,484	1,667	1,588	1,374	991	**-39%**
Other	1,168	1,190	1,061	1,152	899	627	**-43%**
Total	33,258	38,019	33,141	32,407	19,971	14,644	**-36%**

Data collected in 2018 is only from 1/1/2018 to 12/19/2018. CA Assembly Bill 953 stop data collection requirements started on 12/20/18.

[24] https://cao-94612.s3.amazonaws.com/documents/2019-Stop-Data-Annual-Report-6Oct20-Final-Signed-1.pdf

Section C. Equity And Efficacy Assessment Summary [(Full Document)](#)

To understand the extent of potential strategies to prevent and eliminate severe and fatal crashes, and to identify the most effective and equitable ways to advance traffic safety, staff conducted an equity and efficacy assessment that investigated nearly 70 common and innovative strategies employed to address traffic safety across five categories: engineering, enforcement, policy, planning and evaluation, and engagement, education and programs. The purpose of the assessment is to screen for strategies that would be the best use of City resources for the best possible outcomes and identify, prevent, or mitigate any equity issues from happening in the first place.

A strategy's **efficacy** was assessed by grounding the analysis in literature review, local data collection, best practices research, and/or professional transportation and safety expert opinion. Efficacy was rated as either high, medium, limited or unknown, depending on research outcomes; ability to reduce the risk of crashes, fatalities, and injuries; ability to reduce speed; and ability to reduce the number of crashes.[25]

	HIGH (meets one or more of below)	**MEDIUM** (meets one or more of below)	**LIMITED/UNKNOWN** (meets one or more of below)
Research Outcomes	HIGH efficacy based on several evaluations with consistent results	MODERATE efficacy based on several evaluations with consistent results	LIMITED evidence; outcomes inconsistent and inconclusive between studies
Crash/ Fatality/ Injury Risk Reduction OR Speed Reduction	>40% or >10mph	40% - 20% or 5MPH - 10mph	NO DATA and/or <20% or <10MPH
Crash Modification Factor (CMF), Clearing-House Quality Rating	High Quality (4-5 Stars)	Medium Quality (3-4 Stars)	NO DATA, limited and/or unknown Quality (0 to 3 Stars)

A strategy's ability to **advance equity** was initially screened for by following the guiding questions in the Department of Race & Equity's Racial Equity implementation Guide[26], such as: 1) what is the racial equity outcome for this effort; 2) what is the best way to inform, outreach and engage community

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[25] A [crash modification factor (CMF)](#) is a multiplicative factor used to compute the expected number of crashes after implementing a given countermeasure at a specific site.

[26] https://www.baaqmd.gov/~/media/files/ab617-community-health/west-oakland/110619-mtg-files/nov-6-2019-equity-worksheet-pdf.pdf?la=en

members most impacted by racial disparities; 3) what are the systemic issues driving disparities; 4) based on information gathered about disparities, burdens and barriers, what action could be taken to advance equity; 5) what steps are needed to equitably implement action(s) identified; and 6) how will success/equity be measured and who will be better off and how will we know. Further assessment of a strategy's ability to advance equity requires additional analysis and stakeholder engagement, including, but not limited to, actively consulting community experts and facilitating focused working groups to understand local impacts and other implications. For the purpose of this initial equity screening and based on the research, a strategy was either found to have positive outcomes in advancing equity ("benefit"), was found to show opportunities for advancing equity or a chance of hindering equity ("it depends"), or was found to have disparities in the outcomes from traditional implementation ("concern"). Regardless of the current scoring all can have a more positive impact when there is strong planning, engagement, education, and evaluation; when implemented with equity as an investment priority; and when the approach to advance equity as an outcome is intentionally set.

The table below summarizes how the strategies were assessed, within the five main categories of work: Engineering, Enforcement, Policy, Planning & Evaluation, and Engagement, Education & Programs.

	Engineering	Enforcement	Policy	Planning & Evaluation	Engagement, Education & Programs
General Efficacy Score	High / Medium	Limited / Unknown to High (Mixed) Automated enforcement implementation can a high efficacy	Limited / Unknow to High (Mixed) Speed limit reduction policies have high efficacy	Low / Unknown Independent effects difficult to measure but critical complementary strategy	Limited / Unknown Independent effects difficult to measure but can be complementary strategy
General Equity Score ***** = Benefit** **** = It Depends** *** = Concern**	** Can be positive when implemented with equity as an investment priority & with strong engagement for capital projects.	* There are racial disparities in traffic stops in Oakland. Automated enforcement can help reduce racial disparities, but a deliberate approach is needed to address potential inequitable impacts including fines/fees.	** Policies can be crafted to enhance equity but requires an intentional approach.	*** Equity-focused planning and evaluation are critical to elevating under-represented voices and improving representation in data.	** Programs can be crafted to enhance equity, but requires an intentional approach, and some programs can result in "victim blaming" and increased inequities.

Note: The scores in the table above are qualitative summaries; in-depth findings are available in the Equity & Efficacy Impact Assessment document.

The table below summarizes the findings of the equity and efficacy assessment, within the five main categories of work: Engineering, Enforcement, Policy, Planning & Evaluation, and Engagement, Education & Programs.

Category	Assessment Outcome	
Engineering	Efficacy: Medium and High	Treatments in this category are most effective at reducing severe and fatal crashes; equity impacts can be minimal for many effective treatments; equity impacts are greater for more transformative projects and can be mitigated with equitable planning. Nearly all engineering treatments are longer-lasting and take relatively fewer resources to maintain than ongoing enforcement or some programmatic interventions.
	Equity: **	Can enhance equity if implemented in and responsive to high priority communities. Basic improvements such as improved pedestrian crossings have positive equity impacts when delivered in and around populations experiencing inequities. Large capital investments can be associated with displacement and those impacts can be mitigated by collaborating with high priority community members to plan improvements.
Enforcement	Efficacy: Mixed	Most evaluations of enforcement strategies are of low or unknown efficacy. While the presence of a police officer undoubtedly brings attention and self-correction to driving behavior, presence and enforcement must be sustained regularly in order to be effective. Automated enforcement is high efficacy. Automated enforcement of speeding is not authorized in California; larger cities across the state have been working to gain the legislative authority to use this technology. Red light automated enforcement is allowable in California, but Oakland decided to remove the program several years ago. Officer-led high visibility enforcement and strategic enforcement of dangerous moving violations were found to have relatively low efficacy. General (ad hoc) enforcement has an unknown effect at reducing severe and fatal crashes.
	Equity: *	Enforcement has the largest potential for equity impacts. For automated enforcement, implicit or explicit biases are reduced, however, the potential issuance of greater numbers of citations, financial impacts, and the location of cameras can result in equity impacts. There are potential mitigations, such as means-based fees, issuing citations as non-moving violations, implementing warnings, and carefully considering location of cameras; however, many of these actions require state policy changes. For officer-initiated enforcement, Black, Indigenous and people of color are most likely to be stopped, with Black drivers facing the greatest disparities, and White drivers least likely to be stopped.

Mitigations for officer-initiated enforcement include strategies of precision policing (identifying traffic safety issues at the neighborhood or beat level in partnership with community members or leaders); intelligence-led policing (valuing non-traffic safety related stops where officers are less likely to be influenced by potential of personal implicit or explicit bias in decision making); and devaluing equipment and registration stops which are not associated with traffic safety or danger. Additionally, deployment strategies that are implemented throughout all Oakland city streets by way of precision or neighborhood problem-solving at the Beat level have generally produced lower rates of disparity compared to stops found in high crime and/or HIN neighborhoods. |

Policy	Efficacy: Mixed	Approaches to policy vary. Speed related policy interventions are more effective given the relationship between speed and injury severity, however, there are currently limited opportunities to reduce speeds at the local level. Transportation demand management (TDM) policies that lead to the reduction of vehicle trips by encouraging alternative, more sustainable modes for travel through the availability of infrastructure, subsidies, education and other programming, rank medium efficacy. Other policies should be explored as we learn more about crash factors and characteristics in Oakland.
	Equity: **	Equity can be advanced or negatively impacted depending on how the policy is implemented. Policy development and implementation requires an intentional approach to equity and can be enhanced through active public consultation and other forms of stakeholder engagement.
Planning & Evaluation	Efficacy: Limited/Unknown	Most efforts have unknown efficacy, and some planning and evaluation efforts have high efficacy. This category captures the important work that ties all efforts together to make them more effective than the sum of their parts, including regular coordination across internal departments and non-City agencies such as public health, healthcare, and transit, and communities most at risk for severe and fatal crashes. This category also includes maintaining accurate data and developing/amending plans to address the needs identified by data.
	Equity: ***	The equity impacts associated with this category depend on how the work is implemented – particularly with respect to stakeholder engagement. When this category is implemented comprehensively, equity should be enhanced, as data that directs investments will be more accurate, and community members will be more involved in planning successful improvements. Conversely, absent stakeholder engagement and consideration of equity, impacts could be neutral to negative.
Engagement, Education & Programs	Efficacy: Limited/ Unknown	Most education efforts have an unknown efficacy because many studies do not measure education programs' effects on crash reduction. Some education interventions can show modest effectiveness when targeting specific groups, such adolescents. However, such programs have limited benefit and are most beneficial when paired with other interventions, such as safety-forward street re-design. Youth education is highest at medium efficacy, and mass media campaigns are low efficacy and have inconsistent results. Overall, for education to have the most benefit it takes significant time and resources at the individual level. Education efforts are more effective if part of a more comprehensive and holistic strategy to advance traffic safety.
	Equity: **	It depends. Programs can be crafted to enhance equity and help support and advance systemic change; education efforts can also result in "victim blaming," when certain groups are being framed as the responsible party but have minimal ability to influence outcomes.

The five categories of strategies – engineering, policy, enforcement, planning & evaluation, and engagement, education & programs – have different efficacies and can have different impact on advancing equity, however, they can complimentary each other to achieve traffic safety. These strategies can work together to be both anticipate human error and accommodate human injury

tolerances, as articulated through the Safe Systems approach.[27] A Safe System recognizes that humans are human and that we will continue to make errors when travelling. It also recognizes that the laws of physics dictate that greater harm will occur at higher speeds and that, typically, the greater the mass of a vehicle, the more harm that it will inflict on others. Involving both traditional and new strategies, a Safe System approach focuses on proactively designing a system that manages and/or reduces adverse traffic impacts on vulnerable roadway users that *protects* people that live in the highest priority neighborhoods, seniors, and our youth.

This impact assessment will be part of a living document and will be responsive to changes in traffic safety outcomes, new research and case studies, and emerging technology, strategies, and policy. Next steps include community engagement with residents and advocates to further research that is community-based and informed.

Policy Strategies in More Detail

<u>Backgrounder on Automated Speed Enforcement</u>

The faster a vehicle goes, the chances of survival in a car collision – especially for vulnerable road users such as pedestrians, bicyclists, seniors and children – decreases tremendously. Traffic crashes kill nearly 3,600 people and severely injures 13,000 people each year in California. The City of Oakland experiences approximately two severe or fatal traffic crashes each week, with crashes disproportionately impacting Black, Indigenous and people of color (BIPOC), high priority communities (measured by income, race, access to resources, etc.), and seniors. These crashes are also highly concentrated – with 60% of severe and fatal crashes occurring on just 6% of Oakland city streets, identified as Oakland's high injury network. Furthermore, Oakland's Crash Analysis identifies five dangerous driver behaviors that account for 70% of all crashes that result in someone killed or severely injured: 1) failure to yield, 2) unsafe speed, 3) unsafe turning, 4) impaired driving, and 5) disobeying traffic signals and signs. Compared to the traffic stops made by the Oakland Police Department in 2019, only 41% of traffic stops addressed the five more dangerous driving behaviors.

At current, there is a disparity in enforcement of dangerous driving behaviors and severe and fatal crashes that are caused by those dangerous behaviors. CalSTA's Report of Findings on AB 2363 finds that international and U.S. studies have shown that Automated Speed Enforcement (ASE) is an effective countermeasure to speeding that can deliver meaningful safety impacts, has the ability to continuously enforce speed limits, can operate where in-person traffic stops would be dangerous and on higher speed roadways where traffic calming devices may not be appropriate, and may free up law enforcement resources to be used elsewhere and be a *force multiplier*.[28]

How Does Automated Speed Enforcement Work?

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[27] https://www.ite.org/technical-resources/topics/safe-systems/

[28] California State Transportation Agency, AB 2363, Zero Fatalities Task Force, Report of Findings, January 2020, https://calsta.ca.gov/-/media/calsta-media/documents/calsta-report-of-findings-ab-2363-zero-traffic-fatalities-task-force-a11y.pdf

Automated speed enforcement systems, also know as **speed safety cameras**, work by capturing data about a speed violation, including images and license plate information, which is then reviewed and processed at a later time to determine if a violation occurred. The image below depicts a high-level overview of the speed safety camera process. Currently, automated speed enforcement is used extensively internationally and in 142 communities in the U.S. Numerous studies and several federal entities, including the National Transportation Safety Board, have concluded that automated speed enforcement is an effective countermeasure to reduce speeding-related crashes, fatalities, and injuries.
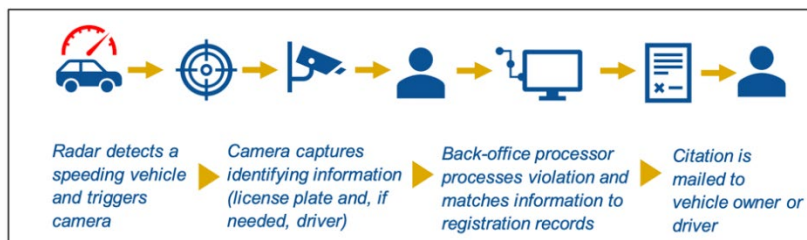
Concerns Raised, Concerns Addressed

While the use of speed safety cameras has been controversial to some, more jurisdictions are overcoming concerns and working with their communities to improve safety. Opponents have cited concerns revolving around revenue generation, privacy and equity, and inaccurate camera readings – even though 16 states currently have effective speed camera programs in place.[29]

The National Transportation Safety Board recommends that all states remove barriers to implementing automated speed enforcement programs based on their finding that ASE is **an effective but underused countermeasure**.[30]

In fact, speed safety cameras reduce the percentage of speeding vehicles by 14-65% percent, and serious injury and fatal crashes by 11-44% percent.[31] For example, results from NYC's ASE camera program found that, in the zones where cameras were installed, total crashes declined by 15%, total injuries by 17%, fatalities by 55%, and excessive speeding violations by 60%.[32]

In addition, speed safety camera programs are **more effective** at reducing speeding than **manual enforcement**, because cameras are consistent and predictable for drivers.[8] Once a camera is operated at a specific location, daily violations decline over time as drivers become aware of the cameras and drive

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[29] NCSL, Automated Enforcement Overview - https://www.ncsl.org/research/transportation/automated-enforcement-overview.aspx#:~:text=Communities%20in%2016%20states%E2%80%94Alabama,speed%20camera%20programs%20in%20place

[30] NTSB, Reducing Speeding-Related Crashes Involving Passenger Vehicles - https://www.ntsb.gov/safety/safety-studies/Documents/SS1701.pdf

[31] NACTO, City Limits – Setting Safe Speed Limits On Urban Streets - https://nacto.org/wp-content/uploads/2020/07/NACTO_CityLimits_Spreads.pdf

[32] NYC DOT, Automated Speed Enforcement Report - http://www.nyc.gov/html/dot/downloads/pdf/speed-camera-report-june2018.pdf

more responsibly. This also means that revenue from speeding violations decreases over time – as more drivers become aware of speed camera locations to avoid repeat violations. For example, data from NYC's speed camera program shows that, on average, daily violations at typical camera locations **declined over time** as drivers started to be mindful of the cameras and drive more responsibly.[8] NYC DOT also found that between 2014-2016, **81% of drivers did not receive more than one violation**, further evidence that the cameras created an overall behavioral change.[8]

Additional Considerations on Automated Speed Enforcement in Oakland

- Automated speed enforcement **should supplement, not replace**, traditional enforcement operations.
- Develop strategies to eliminate any incentive that could turn an automated speed enforcement program into a revenue generation technique and/or reallocating net gain revenue to efforts to advance road safety and reduce injury inequities in support of local plans, projects, and programming.
- Adopt **an equity-focused, data-driven approach** to document and analyze traffic injuries to authorize implementing an ASE program.
- Adopt **guidelines** for developing an ASE program in coordination with the County and region that address the following **principles and be fully and transparently vetted within the impacted communities to ensure equitable outcomes**:

  - Locations
  - Citation Type and Amount
  - Warning Phase
  - Adjudication
  - Use of Revenue
  - Operation

  - Public Notice
  - Speed
  - Privacy and Use of Data
  - Equity
  - Camera Calibration
  - Oversight

Backgrounder on Local Speed Limit Setting

The faster a vehicle goes, the chances of survival in a car collision – especially for vulnerable road users such as pedestrians, bicyclists, seniors and children – decreases tremendously. Traffic crashes kill nearly 3,600 people and severely injures 13,000 people each year in California. The City of Oakland experiences *approximately two severe or fatal traffic crashes each week*, with crashes disproportionately impacting Black, Indigenous and people of color (BIPOC), high priority communities (measured by income, race, access to resources, etc.), and seniors. These crashes are also highly concentrated – with 60% of severe and fatal crashes occurring on just 6% of Oakland city streets, identified as Oakland's high injury network.

California law doesn't allow cities the autonomy needed to change street speed limits; and cities are mandated to conduct a traffic and engineering survey to determine a street speed limit via the 85th percentile method. This method is counterintuitive to safely setting speeds – in fact, it is known to increase speed limits over time. **Therefore, California law must be amended to allow cities greater flexibility to set their own speeds, while still operating under the existing 85th percentile method embedded in California's statutes.**

Speed Kills

Speeding increases the likelihood of being involved in a crash and the severity of injuries sustained in a crash, including the most vulnerable such as cyclists and pedestrians. According to data from the Fatality Analysis Reporting System (FARS), drivers who exceed the posted speed limit are involved in **nearly one-third of all fatal crashes**[33] Due to inconsistencies in police crash reporting, it is likely that **the proportion of speeding-related traffic fatalities is much higher**[34].

Reduced Speed Limits Lowers Speeds, Saves Lives

According to recent studies conducted and published by Seattle's Department of Transportation (SDOT) and Portland's Bureau of Transportation (PBOT), both agencies found that small reductions in speed through inexpensive implementation of speed limit signs, resulted in significant street safety gains. This was possible because Oregon and Washington state have implemented laws which allow cities greater flexibility in setting speeds on their streets.

PBOT released a report that collected data before and after residential speed limits were **reduced** from 25 mph to 20 mph, with an objective to determine if there was a change in observed vehicle speeds following the change. The report analyzed 214,220 data points collected at 58 locations.

Overall, the analysis suggests that the **reduction** of **posted speed limits** to 20 mph resulted **in lower observed vehicle speeds** and **fewer vehicles traveling at higher speeds,** such as vehicles travelling over 30 mph on residential roads. Most notably, **the reduction in the percentage of vehicles travelling faster than 30 mph and 35 mph are larger in magnitude than the other changes**[35].

Similarly, in a case study conducted by SDOT, where they focused on a controlled study of streets in severely North Seattle neighborhoods, they found that installing more speed limit signs reduced vehicle speeds **and** reduced crashes and injuries.

In all these locations, SDOT increased the speed limit sign frequency to 4 signs per mile – over four times as many speed limit signs as there were before the study. Some of the locations did not previously have speed limit signs at all, and some locations were reduced from 30 MPH to 25 MPH.

In order to remove other variables from the experiment, they intentionally **did not advertise** the changes with a communications campaign, retime traffic signals, increase enforcement, or make any other engineering adjustments to the street design.

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[33] *Strongtowns, Speed kills, so why do we keep designing for it? https://www.strongtowns.org/journal/2018/1/25/speed-kills-so-why-do-we-keep-designing-for-it*

[34] *Strongtowns, Speed kills, so why do we keep designing for it? https://www.strongtowns.org/journal/2018/1/25/speed-kills-so-why-do-we-keep-designing-for-it*

[35] *Seattle Department of Transportation SPEED LIMIT CASE STUDIES* https://www.seattle.gov/Documents/Departments/SDOT/VisionZero/SpeedLimit_CaseStudies_Report.pdf

In conclusion, SDOT found **an overall 22% reduction in crashes** and a **54% reduction** in the most dangerous speeders[36]. For example, SDOT installed new 25 mph speed limit signs at ¼ spacing on a 1.3 mile stretch of road averaging 13,000 vehicles daily. This same stretch of road previously was **signed with a speed limit of 30 mph** at **1 mile spacing**. After installing 25 mph speed limits signs at ¼ spacing resulted in a **35% decrease** in **all crashes** and **21% decrease** in **injury crashes** along with **50th percentile speeds and 85th percentile speeds** decreasing by **7%[37]**.

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[36] *SDOT Blog, Seattle receives national recognition for preventing crashes with lower speed limits,*

https://sdotblog.seattle.gov/2020/07/22/lower-25mph-speed-limit/

[37] *Effect of Residential Street Speed Limit Reduction from 25 to 20 mi/hr on Driving Speeds in Portland, Oregon*
https://www.portland.gov/sites/default/files/2020/pbot-20-mph-speed-study-finalv5.pdf

Section D. Oakland Police Department Traffic Stop Analysis, 2019

Given the direction from City Council to address the several severe and fatal crashes and the traffic stops being made, and concerns from key stakeholders regarding the vulnerability of enforcement efforts to racial bias and potential harm to Black, Indigenous and people of color, OakDOT staff collaborated with the Oakland Police Department to assess current and past racial disparities with a focus on stops made for traffic violations. This produced an analysis of traffic stops to better understand current local traffic enforcement practice by stop type, race and geography to inform potential strategies. This analysis is based on a subset of the data reported in the 2019 Oakland Police Department (OPD) Annual Stop Data Report[38] and focuses on non-dispatch traffic stops made for traffic violation reasons.

About the Data

A traffic stop is based on an observed violation of a vehicle or pedestrian law or ordinance and results in an outcome of no action, citation, warning, arrest, or psychiatric detainment. Within the context of traffic violations, there are four major types of traffic stops made:

Traffic Stop Type	Definition	Example
Dispatch Stop	A stop made as a result of a dispatched call for service.	Officers are dispatched to a call of sideshow activity and vehicles driving recklessly. Officers observe a vehicle spinning donuts in an intersection in violation of 23103 Vehicle Code, that identifies a person who is recklessly driving, without regard of the safety of people or property.
Non-Dispatch Stop	A stop as the result of an officer observing a CA Vehicle Code violation.	Officers observe a vehicle drive through a red light without stopping, in violation of 21453(a) Vehicle Code, which requires a driver to stop at a marked limit line when facing a red signal.
Intelligence-led (Intel-led)	A subset of non-dispatch traffic stops which require officers to possess knowledge from an articulable source that leads to the initiation of a stop. The source of information may be very specific, such as a named or described suspect, or general information about a recent crime trend tied to a specific	Officers observe a vehicle that matches the description and partial license plate of one involved in a series of recent robberies.

Officers observe the left front headlight is out. They conduct a traffic enforcement stop for 24400(a) |

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location and involved individuals. An officer's knowledge and intent at the time the stop is initiated is important in determining whether the stop is intelligence-led. The intelligence-led field is captured in addition to the primary legal reason for every stop.	Vehicle Code, that requires a motor vehicle shall be equipped with at least two headlamps.

Note: These stop types are not mutually exclusive and can overlap.

OPD publishes annual stop data in a report that focuses on stop data for all stop reasons, non-dispatch stops, and the distribution of stops made by race. Their annual report fulfills OPD's yearly requirement to release the prior year's stop-data collection and exceeds the requirements of California Assembly Bill 953. OPD continues to be the only department in the State of California who collects Intelligence-Led Stop data, which requires officers to clearly explain if the stop being made is associated with any current criminal activity. The goal of these reports is to evaluate their efforts to practice fair and impartial policing.

This Safe Oakland Streets-specific analysis uses the same data sources to focus on *non-dispatch stops data for traffic violation reasons* and overlays it with information on:

1. Alignment with crash causes and traffic stop numbers
2. Spatial alignment with crashes and traffic stops made
3. Race of people involved in traffic stops

OPD has shared traffic violation stop data with OakDOT for the years 2017, 2018, and 2019, including:

- Traffic stops made, type of stop, reason for the stop, traffic violation code associated with a stop, type of officer initiating the stop (patrol, traffic, or other), and location of the stop.
- The 2019 data set has all traffic enforcement stops including dispatch/non-dispatch and intelligence-led /non-intelligence-led stops. Unlike the 2017 and 2018 data, it also details the race, gender, and age of people stopped as perceived by the officer.
- 2017 and 2018 data included race data only at the aggregate level, meaning how many stops total per racial group. The addition of race data by stop in the 2019 data set allows for further analysis on spatial trends and disparities relating to race and all other stop variables.

While the 2017 and 2018 data were used for general year over year comparisons, this analysis focuses on traffic stop data for 2019 given the additional data available for analysis.

Limitations of the Data and Findings

This traffic stop analysis is a high-level analysis describing patterns in the data and *does not assess causes* of racial disparities in traffic stops. Potential reasons[39] for racial disparities in traffic stops include differences in neighborhood crime rates, socio-demographic make-up of specific neighborhoods, disparate mobility conditions in different in neighborhoods, and differences in driving behaviors associated with race; these and other potential factors are not explored with this analysis. A limitation of the race data is that it is assessed based on the observation of a police officer and the practice to determine race likely varies across individuals. An inherent challenge of stop analysis and assessing

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[39] http://www2.oaklandnet.com/oakca1/groups/police/documents/webcontent/oak059292.pdf (see "Methods")

racial disparities is that we don't have a true denominator of everyone driving on the road in Oakland in 2019 and violating a traffic law. The race of drivers involved in crashes is the best available proxy for drivers on the road that we have access to, which is included in this analysis for comparison - though drivers involved in crashes may not be representative of all drivers on the road violating traffic laws if there are differences in driving patterns associated with race that contribute to crash risk. The outcomes of the data findings from this analysis are complex in their origin and other varying factors. This analysis is only made at the high-level and the findings are made at the citywide level. A more complex analysis of the traffic stops refined at the HIN and police beat geographic area levels may provide a better understanding of existing disparities and was outside of the scope of this report timeframe.

Summary of Findings

In 2018, OakDOT published a crash analysis[40] that identified the five most dangerous driver behaviors that account for nearly 70% of all crashes that result in someone killed or severely injured. In order of magnitude, these driver behaviors included 1) failure to yield, 2) unsafe speed, 3) unsafe turning, 4) impaired driving, and 5) disobeying traffic signals and signs. Just six percent of Oakland's Streets accounted for over 60% of the severe and fatal traffic crashes. This 6% of city thoroughfares were labeled High Injury Network (HIN) segments due to the disproportionate amount of severe and fatal crashes. Almost 95% of the High Injury Network is located in medium to highest priority equity neighborhoods, compared to the approximately 40% of the City resident population that make up those same neighborhoods.

Using OPD data, 41% of OPD traffic violation stops addressed the violations related to the five most dangerous driving behaviors and traffic stops generally took place in the same areas as severe and fatal crashes – in and around the high injury network. However, of non-dispatch traffic stops, a smaller percent (43%) are made on the HIN, as compared to the 63% of the most severe and fatal crashes that were found to occur on the HIN. Across all neighborhoods, traffic stops conducted on Black People, Oakland residents or otherwise, are consistently higher than the proportion of the residential population comprised of Black People in Oakland, between 2017 and 2019.

From review of OPD Racial Impact Reports, shared data, and additional collaboration with OPD staff, analysis demonstrated that OPD traffic enforcement stops have dramatically changed over the last several years. To more fully and effectively implement policing which can be seen, felt, and understood to be fair and legitimate by all community members, OPD has utilized approaches developed through internal review, audit, risk management, and ongoing partnership with Stanford University's Social Psychological Answers to Real-world Questions think-tank (SPARQ). The OPD has reported progress by pursuing SPARQ's recommendations in *Strategies for Change – Research Initiatives and Recommendations to Improve Police-Community Relations in Oakland, Calif.*[41] Resulting strategy and

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[40] Sources: SWITRS, 2012-2016; Alameda County Sheriff's Office Coroner's report, 2015-2016; American Community Survey (ACS), 2012-2016. Excludes crashes on freeway mainlines and freeway ramps outside of local intersections. Characteristics of individuals involved in crashes are based on police observations recorded in crash reports.

[41] Eberhardt, J. L. (2016). Strategies for change: Research initiatives and recommendations to improve police-community relations in Oakland, Calif. Stanford University, SPARQ: Social Psychological Answers to Real-world Questions.

direction deemphasized the practice of generally uncoordinated and nonspecific traffic enforcement stops in and around neighborhoods suffering from disproportionate amounts of crime and instead placed value in the strategy of conducting fewer but more meaningful and objectively appropriate stops linked to intelligence-led[42] policing practices.

Large decreases in stops made by officers were realized, as shown in Table 1, below. Since 2017, the total numbers of traffic stops decreased 62% (9,232 traffic stops in 2019 from 24,429 total traffic stops in 2017). Changes in stop activity most notably resulted in the largest decreases of stops for persons described as Black or African American and persons described as Hispanic.

While huge decreases in overall enforcement activity were realized, the overall racially disparate outcomes were influenced by lesser degrees. The percent of African American non-dispatch traffic violation stops of those total stops decreased by 13% (from 59% to 46% of all non-dispatch stops for traffic violations) and coincided with increased proportions for all other races by 1% to 4%.

Table 1. All Non-Dispatch Stops for Traffic Violations 2017-2019

Race	2017		2018		2019		# Change 2017 to 2019	% Change in # of stops from 2017 to 2019
	#	%	#	%	#	%		
African American	14,388	59%	7,235	50%	4,285	46%	**-10,103**	**-70%**
Hispanic	5,608	23%	3,438	24%	2,515	27%	**-3,093**	**-55%**
White	2,124	9%	1,778	12%	1,208	13%	**-916**	**-43%**
Asian	1,311	5%	1,172	8%	740	8%	**-571**	**-44%**
Other	998	4%	745	5%	484	5%	**-514**	**-52%**
Total	**24,429**	**100%**	**14,368**	**100%**	**9,232**	**100%**	**-15,197**	**-62%**

Note: while traffic and patrol make up the vast majority of traffic stops, they don't make 100% of them. The sum of traffic and patrol stops will not equal the total number of stops.

Black and Hispanic people comprised 73% of all Non-Dispatch Traffic Stops in 2019. The share of Black people experiencing traffic stops (46%) is higher than the share of both Black drivers involved in crashes

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[42] Oakland Police Department, 2019 Stop Data Annual Report. Intelligence-led policing require officers to possess knowledge, can be linked to an articulable source that leads to the initiation of a stop. The source of the information may be very specific, such as a named or described suspect, or general information about a recent crime trend tied to a specific location and involved individuals.

(33%) and of Oakland's Black population (23%). All other racial groups are stopped at proportions close to or below their share of drivers involved in crashes and of Oakland's population.

Internal OPD review, analysis, and risk management practices produced findings that resulting traffic enforcement racial disparities were more pronounced by patrol officer activity when compared to traffic enforcement officer activity. While the overall number of stops has decreased greatly since 2017 for all races regardless of whether a patrol or traffic officer was making the stop, those that are described as Black or African American still comprise 53% of patrol officer traffic stops and 39% of traffic officer stops. as shown in Table 2 and 3, below.

Table 2. Traffic Violation Stops 2017-2019 by Patrol Assignments

	2017		2018		2019	
Race	#	%	#	%	#	%
African American	10,980	66%	4,270	62%	2,463	53%
Hispanic	3,420	21%	1,401	20%	1,173	25%
White	1,023	6%	621	9%	466	10%
Asian	759	5%	374	5%	323	7%
Other	456	3%	224	3%	179	4%
Total	16,638	100%	6,890	100%	4,604	100%

Table 3. Traffic Violation Stops 2017-2019 by Traffic Assignments

	2017		2018		2019	
Race	#	%	#	%	#	%
African American	2,293	37%	2,689	38%	1,757	39%
Hispanic	1,778	29%	1,973	28%	1,300	29%
White	1,067	17%	1,137	16%	733	16%

Asian	538	9%	793	11%	408	9%
Other	518	8%	513	7%	302	7%
Total	6,194	100%	7,105	100%	4,500	100%

Traffic Officer stops are more likely to address the most dangerous driving behaviors overall and tend to show less racial disparity compared to Patrol Officer stops. Traffic stop patterns by Patrol Officers vary greatly from Traffic Officers, given the greater range of patrol officer duties and greater likelihood of randomly observing traffic violations at any given point during their patrol shifts. Traffic Officer stops are more likely to be operationally goal oriented (i.e., focused on specific violations in specific locations during set periods of time). OPD has evaluated the results of altering patrol officer enforcement through direction that attempts to mirror the enforcement of traffic officers. Strategies that have produced less racially disparate stop results included direction for patrol officers to focus on specific locations for specific traffic safety concerns. Care was taken to develop traffic safety enforcement expectations that moved officers away from high crime or high injury network locations in doing so.

OPD expects traffic stops, in general, to continually decrease across 2020 and 2021.The recent rise in serious and violent crimes in conjunction with the budget shortfall have resulted in all officers previously assigned as traffic enforcement officers to be reassigned to patrol functions as of January 23, 2021. Patrol officers and other field-based officers will increase focus on addressing calls for service and serious and violent crime in the most meaningful, effective, and efficient ways possible. Focused efforts to address traffic violations will necessarily diminish given the combination of these changes and factors. However, it is inevitable that patrol officers and other field-based units will encounter traffic safety violations on a routine basis and will continue to be asked to address neighborhood traffic safety priorities and community traffic safety concerns. All OPD officers are expected to take enforcement action, when able, when observing traffic violations that place drivers, occupants, pedestrians and bicyclists at risk. To this end, the OPD expressed openness and willingness to embrace alternatives to OPD traffic enforcement that may be more efficient and cost effective in line with their obligation to provide public safety services.

The following table summarizes more of the findings responding to specific questions.

Area of Interest	Analysis Question	Findings
A. Alignment with Crash Causes and Traffic Stops	1. What behaviors are being targeted in traffic stops relative to the most	OakDOT's Crash Analysis[43] identifies five dangerous driver behaviors that account for 70% of all crashes that result in someone killed or severely injured (KSI):

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[43] Sources: SWITRS, 2012-2016; Alameda County Sheriff's Office Coroner's report, 2015-2016; American Community Survey (ACS), 2012-2016. Excludes crashes on freeway mainlines and freeway ramps outside of local intersections. Characteristics of individuals involved in crashes are based on police observations recorded in crash reports.

		dangerous behaviors in severe and fatal crashes?	o Failure to yield (18%) o Unsafe speed (17%) o Unsafe turning (14%) o Impaired driving (13%) o Disobeying traffic signals and signs (8%) These behavior categories were then associated with corresponding traffic violation codes. Of all geocoded 2019 traffic violations, 41% addressed these five causes of KSIs.
		2. Are traffic stops aligned with most common behaviors contributing to severe and fatal crashes?	About 40% of traffic stops are made for causes that contribute to 70% of KSI crashes, so there is room for improvement. Of all KSI categories, failure to yield to vehicles or pedestrians has the most associated stops (21%) and DUI and possession the least (.05%), with unsafe speed (7%), disobeying traffic signals and signs (7%), and unsafe turning (5%) following.
		3. For non-dispatch stops, what are the differences between intelligence-led and non-intelligence-led stops?	Non-intelligence-led stops comprise 83% of all 2019 stops and are far more likely than intelligence-led stops to address the five most dangerous driving behaviors. A little over 40% of non-intelligence-led stops are for the five most dangerous driving behaviors, compared to 31% for intelligence-based stops.
B.	Spatial Alignment with Crashes and Traffic Stops Made	1. Where are traffic stops occurring & are the locations aligned with where crashes are happening?	Generally, traffic stops take place in the same areas as severe and fatal crashes – in and around the high injury network (HIN). Just six percent of Oakland's Streets account for over 60% of the severe and fatal traffic crashes on the HIN. Almost 95% of High Injury Network is in medium to high priority neighborhoods.
		2. Do traffic stops occur in Oakland's Priority Neighborhoods?	OakDOT's Geographic Equity Tool identifies Priority Communities to equitably allocate projects and program resources. • Traffic stops more likely to be in High Priority Communities; this is consistent with HIN locations.

			• Across geographies, traffic stops conducted on Black People are consistently higher than the proportion of the residential population comprised of Black People.
	3.	Are traffic stops being made where the most severe crashes occur?	Of non-dispatch traffic stops, a smaller percent (43%) are made on the HIN, as compared to the 63% of the most severe and fatal crashes that were found to occur on the HIN. • For KSI categories unsafe speed, failure to yield, and DUI and possession, the majority of stops do not occur on the HIN. • For KSI categories unsafe turning and disobeying traffic signals and signs, the majority of stops do occur on the HIN.
C. **Race of People Involved in Traffic Stops**	1.	Who is being stopped and what are the racial equity impacts?	Black and Latinx people comprised 73% of all non-dispatch traffic stops in 2019. Black people account for over 40% of all non-intelligence led stop types (moving, non-moving, equipment) and over half of all equipment violation stops. For comparison, White people account for only 14% of all non-intelligence led stop types, and 9% of all equipment violation stops.
	2.	Who, by race, is being arrested and receiving citations as a result of traffic stops?	Comparing stops by racial group, non-dispatch stops result in arrests more for Latinx (8%) and Black (6%) people compared to White (3%) and Asian (1%) people, per total stops for each group. It is important to note that these findings are high level and cause of arrest by race was not assessed. Compared to the citywide population breakdown of races, Latinx and Black people are overrepresented in the number of arrests made as a result of non-dispatch stops. Whites (71%) and races classified as "Other" (77%) have the highest proportions of stops resulting in citations. Black (39%) people followed by Asian (33%) people have the

		highest proportion of stops resulting in warnings or no action.
	3. By race, how does the share of drivers being stopped compare to both the share of drivers involved in crashes and the share of the Oakland's population.	The share of Black people experiencing traffic stops is higher than the share of both Black drivers involved in crashes and of Oakland's Black population. The proportion of non-intelligence stops that are conducted on Black People (44%) is notably higher than that of crashes involving Black drivers (33%) and twice the proportion of Oakland's Population that is Black (23%). All other racial groups are stopped at proportions close to or below their share of drivers involved in crashes and of Oakland's population.

	4. How do patrol and traffic officers' traffic stops compare when looking at their racial distribution?	While the total number of traffic stops decreased from 24,429 in 2017 to 9,232 in 2019, which is attributable to significant decreases in stops made by Patrol officers, the pattern of racial disparity remains notably consistent.
		
		• Traffic stops made by Traffic Officers are almost entirely non-intelligence-led non-dispatch stops. Traffic Officer stops are data driven and based on community complaints.
		    ○ About a quarter of all Traffic Officer stops are for the most dangerous driving behaviors.
		    ○ Traffic Officer stops are more likely to address the most dangerous driving behaviors overall
		• Patrol Officers initiate most intelligence-based stops, which have a higher racial disparity, and so Patrol Officer stops overall have higher racial disparity. Traffic stops by Patrol Officers vary greatly from Traffic Officers, given their wide range of day to day duties and greater likelihood of observing traffic violations at any given

		point during their patrols and not just in certain focus areas.
		- About half of all Patrol Officer stops are for dangerous driving behaviors. - However, intelligence-based stops are less likely to address the most dangerous driving behaviors overall

Section E. Additional Questions to Explore

This effort will be an ongoing process and the City Partners will continue to raise and explore questions as they arise. Given the urgent nature of traffic safety, this report is being published now with the following questions still to be addressed:

- Examine racial differences in the number of vehicle *occupants* engaged by an officer among vehicles with multiple occupants.
- Investigate the difference between violation codes for the initiating offense vs. the violations for the result of the offense(s).
- Analyze searches (discretionary and not) with attention to difference between the different types of traffic stops (moving violations, non-moving violations, and equipment violations).
- Per stops within each racial group, Black people stopped in non-dispatch stops have the lowest proportion of stops resulting in Citations, and the highest proportions of stops resulting in Warnings or No Action. Examine the root causes and impacts of having high proportions of stops that result in warning and no action as a potential traffic safety opportunity, and if stop outcomes for each racial group change over time.
- Analyze traffic stops by geographic area such as police beats and/or High Injury Network corridors to better understand existing disparities and better identify benchmarks for improvements.
- Examine the impacts and outcomes for pedestrians and bicyclists by geography and stop violation.