Oakland 2045

Environmental Justice and Racial Equity Baseline

March 2022

OAKLAND 2045
GENERAL PLAN

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INTRODUCTION

1. Introduction

The City of Oakland is updating its General Plan, a visionary blueprint for the city's future over the next 20 years. The current General Plan is nearly 25 years old, and the city and the broader context have changed dramatically since then.

A central guiding principle of this update is to advance the City's mission to "intentionally integrate, on a Citywide basis, the principle of 'fair and just' in all the City does in order to achieve equitable opportunities for all people and communities."[1] This means working to eliminate the root causes of inequity, including through understanding barriers to achieving greater equity and strengths of communities, and working with these communities in developing solutions for long-term and systemic changes. That process begins by undertaking a full acknowledgment of the systemic racial inequities that have shaped the City of Oakland.

The General Plan Update project is undertaken in two phases in order to meet deadlines mandated by State law. Phase 1 focuses on updates to the Housing and Safety elements, which are due by the beginning of 2023, as well as preparation of a Racial Equity Impact Assessment, Zoning Code and Map update, and a new Environmental Justice Element. Subsequently, Phase 2 will update the remaining elements, including Land Use and Transportation; Open Space, Conservation and Recreation; and Noise, which are slated to be completed by 2025. More information on the General Plan can be found at the City's website (https://www.oaklandca.gov/topics/general-plan-update).

1.1 Purpose of this Document

This Environmental Justice and Racial Equity Baseline identifies and delineates disparities by race and by geography which may be present in the social, economic, and environmental factors that can be influenced directly or indirectly by the General Plan. The findings of this document will serve to establish a baseline of existing conditions pertaining to environmental justice and racial equity to inform conversations between City staff and members of the public, particularly those in communities most impacted by racial inequities that make them vulnerable to the consequences of climate change and other environmental effects. In other words, this document does not serve as a conclusion or resolution to the conversation around race and equity, but endeavors to create a fuller picture of the racial and socioeconomic inequities in the city today.

This report builds on the City's ongoing efforts to achieve racial equity in Oakland. It is based on the frameworks established by the City's 2018 Oakland Equity Indicators Report, the 2020 Racial Equity Impact Assessment and Implementation Guide for the Oakland's 2030 Equitable Climate Action Plan (ECAP), and other previous studies that have laid the foundation to ensure that the City integrates equity and social justice into its policies, practices, and actions.

This report is being prepared in parallel with several other documents, including:

- Map Atlas, which addresses a wide range of topics related to the City's physical development and conservation;
- Economic Development: Trends and Prospects Report; and
- Industrial Land Use Policy Working Paper

This report will also help to serve as the baseline for the Environmental Justice Element of the General Plan; new requirements under State law require environmental justice to be addressed as a topic in general plans, either through a standalone element or integrated with other elements. The City has opted to pursue both a standalone Environmental Justice Element as well as to integrate an environmental justice framework into policies across other elements of the General Plan. Because environmental justice is a cross-cutting topic, this framework will enable the City to coordinate interdepartmental efforts to effectively address environmental justice and racial equity. Several themes discussed in this report will therefore refer to and build on findings from the documents listed above, specifically applying a racial equity lens to the analysis.

Why is a Baseline Important?

The City of Oakland uses the Results-Based Accountability framework, "a disciplined way of thinking and taking action" that is used across the U.S. as well as several countries worldwide to create measurable change to improve the lives of children, youth, families, and adults.[2] Results-Based Accountability is based on a data-driven decision-making process to help communities and organizations move beyond talking about problems to taking actions. By starting from desired results or goals and working backwards, step by step toward means, the Results-Based Accountability framework sets a clear path to achieve those outcomes. Indicators, or measurements of the extent to which a result is achieved, keep track of the City's progress over time.

The Results-Based Accountability framework is an important aspect of the City's Race and Equity Change Process, which requires establishing baseline disparity data, targets/benchmarks, and processes to track and report outcomes. This baseline report will synthesize recent efforts (described below) to paint a comprehensive picture of where the City currently stands along its trajectory toward environmental justice and racial equity. Understanding where successes, challenges, and opportunities lie will ensure that policies in the updated General Plan reflect steps toward achieving these outcomes.

1 Oakland Municipal Code Section 2.29.170.1

2 Clear Impact, The Results-Based Accountability Guide, 2016.

1.2 Racial Equity Goals for the City of Oakland

What is Equity?

In Oakland, equity means all people have full and equal access to opportunities that enable them to attain their full potential. It means that identity—such as race, ethnicity, gender, age, disability, sexual orientation or expression—has no detrimental effect on the distribution of resources, opportunities, and outcomes for Oakland's residents. Equity differs from equality, which focuses on giving everyone the same thing, regardless of outcomes.

In 2016, the City established the Department of Race and Equity to advance racial equity, with a mission "to create a city where diversity has been maintained, racial disparities have been eliminated, and racial equity has been achieved."[3] The Department of Race and Equity is particularly concerned with making a difference in the determinants of equity that lead to creation of a fair and just society – including community economic development, community and public safety, the law and justice system, early childhood development, education, equity in City practices, food systems, health and human services, healthy built and natural environments, housing, job training and jobs, neighborhoods, and parks and natural resources. The Department of Race and Equity's goals are:

1. Eliminate systemic causes of racial disparities in City government;
2. Promote inclusion and full participation for all residents of the City; and
3. Reduce race-based disparities in Oakland's communities.

These goals are based on race and equity working assumptions, adapted from Annie E. Casey Race Matters Toolkit,[4] described below:

- Race matters; almost every indicator of well-being shows troubling disparities by race.
- Disparities are created and maintained through institutionalized policies and practices that contain barriers to opportunity.
- It's possible, and only possible, to close equity gaps by using strategies determined through an intentional focus on racial disparities and their root causes.
- If opportunities in all key areas of well-being are equitable, then equitable results will follow.
- Given the right message, analysis, and tools, people will work toward racial equity.

The City recognizes that determinants of equity are the drivers of achieving a fair and just society. Access to the determinants of equity is necessary to have equity for all people regardless of race, class, gender, or language spoken. Inequities are created when barriers exist that prevent individuals and communities from accessing these conditions and reaching their full potential. As defined in the Oakland Municipal Code, the determinants of equity are:

- **Community economic development** that supports local ownership of assets, including homes and businesses, and assures fair access for all to business development and business retention opportunities;
- **Community and public safety** that includes services such as fire, police, emergency medical services and code enforcement that are responsive to all residents so that everyone feels safe to live, work and play in any neighborhood in Oakland;
- **A law and justice system** that provides equitable access and fair treatment for all;
- **Early childhood development** that supports nurturing relationships, high-quality affordable childcare and early learning opportunities that promote optimal early childhood development and school readiness for all children;
- **Education** that is high quality and culturally appropriate and allows each student to reach his or her full learning and career potential;
- **Equity in City practices** that eliminates all forms of discrimination in City activities in order to provide fair treatment for all employees, contractors, clients, community partners, residents and others who interact with the City;
- **Food systems** that support local food production and provide access to affordable, healthy, and culturally appropriate foods for all people;
- **Health and human services** that are high quality, affordable and culturally appropriate and support the optimal well-being of all people;

3 City of Oakland, "Learn More About the Department of Race and Equity," January 20, 2021, https://www.oaklandca.gov/resources/race-matters, accessed February 2022.

4 The Annie E. Casey Foundation, Race Matters Toolkit: User's Guide, December 12, 2006, https://assets.aecf.org/m/resourcedoc/aecf-racemattersusersguide-2006.pdf.

- **Healthy built and natural environments** for all people that include mixes of land use that support: jobs, housing, amenities and services; trees and forest canopy; and clean air, water, soil and sediment;
- **Housing** for all people that is safe, affordable, high quality and healthy;
- **Job training and jobs** that provide all residents with the knowledge and skills to compete in a diverse workforce and with the ability to make sufficient income for the purchase of basic necessities to support them and their families;
- **Neighborhoods** that support all communities and individuals through strong social networks, trust among neighbors and the ability to work together to achieve common goals that improve the quality of life for everyone in the neighborhood;
- **Parks and natural resources** that provide access for all people to safe, clean and quality outdoor spaces and contain facilities and activities that appeal to the interests of all communities; and
- **Transportation** that provides everyone with safe, efficient, affordable, convenient and reliable mobility options including public transit, walking, carpooling and biking.[5]

In order to achieve its equity goals, the City continues to make conscious efforts to work with the community to rectify past and present harms and strive toward a future with equitable outcomes.

5 City of Oakland. Oakland Municipal Code Ord. No. 13442, § 2, 6-27-2017. https://library.municode.com/ca/oakland/codes/code_of_ordinances?nodeId=TIT2ADPE_CH2.29CIAGDEOF_2.29.170DERAEQ

1.3 Current Regulatory Setting for Equity and Environmental Justice

OAKLAND MUNICIPAL CODE

Oakland Municipal Code Section 2.29.170 specifies that "the City of Oakland will intentionally integrate, on a Citywide basis, the principle of 'fair and just' in all the City does in order to achieve equitable opportunities for all people and communities." Section 2.29.170 defines inequitable outcomes as "differences in well-being that disadvantage one individual or group in favor of another" and acknowledges that the "differences are systematic, patterned, unfair and can be changed. Inequities are not random; they are caused by past and current decisions, systems of power and privilege, policies and the implementation of those policies." The Department of Race and Equity's Racial Equity Implementation Guide provides a roadmap for City departments to follow in developing racially equitable policies.

What is Environmental Justice?

> "Environmental justice embraces the principle that all people and communities have a right to equal protection and equal enforcement of environmental laws and regulations. America is segregated and so is pollution. Race and class still matter and map closely with pollution, unequal protection, and vulnerability."
>
> – *Dr. Robert Bullard, "Father of Environmental Justice"*

State law (California Government Code § 65040.12(e)) defines environmental justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, action, implementation and enforcement of environmental laws, regulations, and policies."

In practice, environmental justice is often better understood through the lived experience of environmental injustices, including disproportionate exposure to air pollution, toxics and hazardous facilities and substances, contaminated water, and other environmental hazards that have an impact on human health by low-income communities and communities of color. Inequitable exposure, in turn, leads to inequitable health outcomes such as greater incidences of pediatric asthma, stroke, and cancer. These effects are not only compounded but were created by a history of systemic racism and social injustices that continue to have lasting effects on vulnerable populations.

Environmental justice seeks to rectify these issues by improving the environmental health of those most harmed by pollution burdens and intentionally investing in these communities to create opportunities that will allow its residents to live long, healthy lives.

SENATE BILL 1000 (2016)

General plans, like the one that is currently being updated, establish objectives and policies to carry out a citywide vision and provide direction for future development. Senate Bill (SB) 1000,[6] the Planning for Healthy Communities Act, requires general plans to "identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities" by means that include, but are not limited to:

- Reducing pollution exposure, including the improvement of air quality;
- Promoting equitable access to public facilities,[7] healthy food, safe and sanitary homes, and physical activity;
- Reducing barriers to inclusive engagement and participation in the public decision-making process; and
- Prioritizing improvements and programs that address the needs of disadvantaged communities.

This means that if there are "disadvantaged communities" within a jurisdiction, SB 1000 requires that jurisdiction to adopt environmental justice goals, policies, and objectives as either a standalone Environmental Justice Element or as a set of objectives and policies integrated into other elements. In recognition of the interrelationships of environmental justice topics and the interaction between various elements of the General Plan, the City of Oakland has opted to pursue a combination of both options by interweaving environmental justice into the policies, goals, and actions of all elements. The Environmental Justice Element itself will serve as the keystone of the City's environmental justice goals and is a way to distinctly emphasize the importance of environmental justice in the General Plan.

6 SB 1000 is an act to amend Section 65302 of the California Government Code.

7 As defined in subdivision (d) of California Government Code Section 66000, "public facilities" includes public improvements, public services, and community amenities.

Figure 1-1 illustrates the general steps in the environmental justice planning process. One of the first steps under SB 1000 is to identify low-income communities that are disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation. While State law refers to these as "disadvantaged communities," the City of Oakland has opted to use the term "environmental justice communities," in line with recommendations from the California Environmental Justice Alliance.[8] This is based on the recognition that, in addition to identifying the problems and areas that are unfairly impacted (i.e., "disadvantaged") by cumulative burdens, gaining equitable access to environmental benefits, investments, and other resources for low-income communities and communities of color is also an important aspect of environmental justice. The general plan should correspondingly reflect the local- or neighborhood-level priorities and values of environmental justice communities, and include supporting goals, policies, and implementation measures to achieve the community's vision.

8 California Environmental Justice Alliance/PlaceWorks, SB 1000 Implementation Toolkit: Planning for Healthy Communities, October 2017, available for download at http://www.caleja.org/sb1000-toolkit.

Figure 1-1: Environmental Justice Planning Process

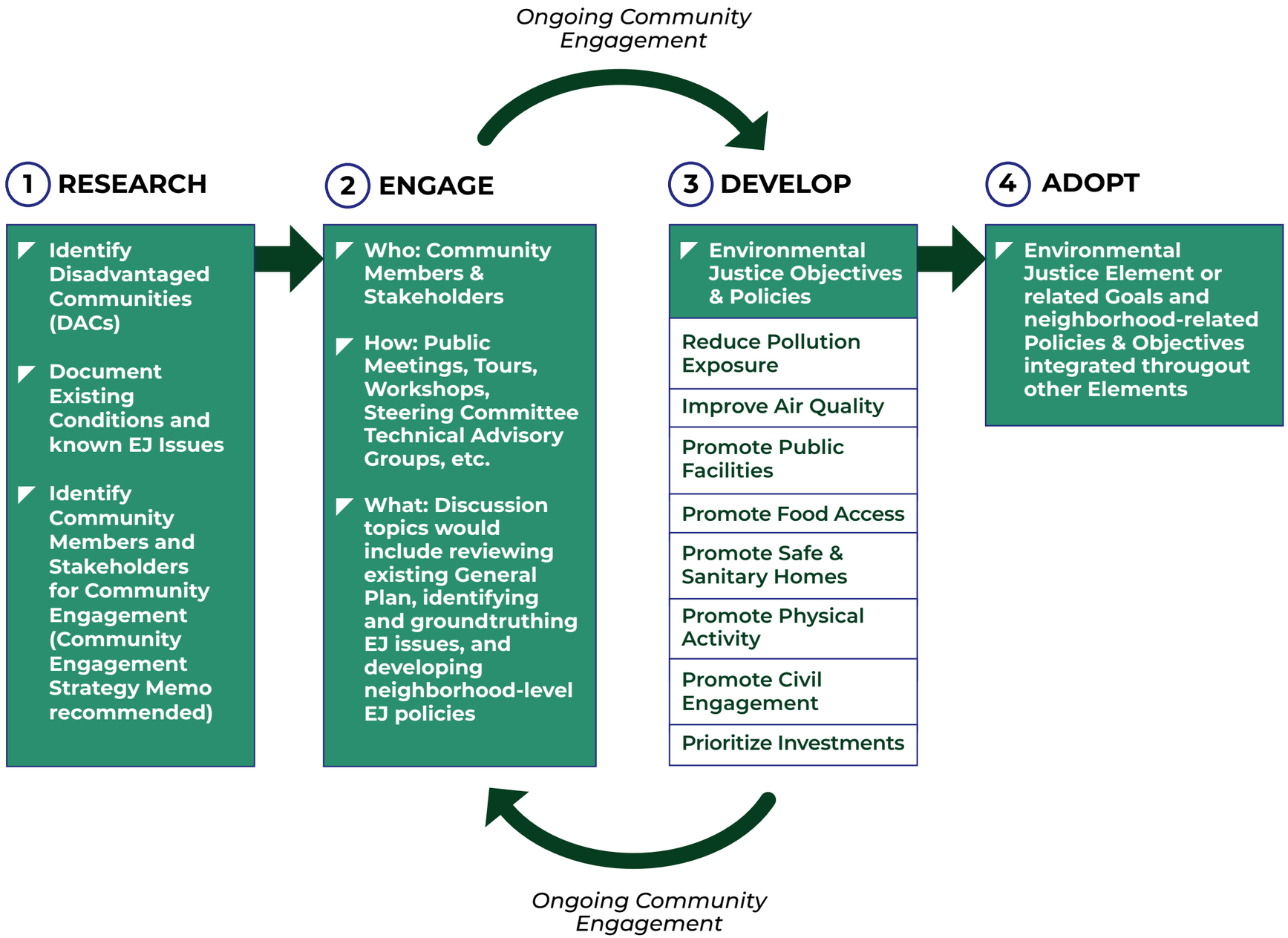


Image source: California Environmental Justice Alliance and PlaceWorks, SB 1000 Implementation Toolkit, 2017

The Beginnings of Environmental Justice

Although modern environmental rights stem back to the 18th century, environmental activism as we know it today gained traction in the late 19th century. As popular and scientific understanding of ecology developed, environmental organizations formed to protect the natural environment; however, many of these organizations were focused primarily on wilderness and wildlife. One of the first reports to systematically identify race as the most salient indicator of where toxic facilities are found across the U.S. was the Toxic Wastes and Race study, conducted in 1987 by the United Church of Christ, and replicated with the same results in 2007.

In 1991, over 1,000 delegates gathered in Washington, D.C. for the First National People of Color Environmental Leadership Summit that sought to change the trajectory of the U.S. environmental movement by embracing the idea that all people are entitled to healthy environments in the places they live and work. The summit resulted in the drafting and adoption of the 17 Principles of Environmental Justice and the Principles of Working Together, two documents that have set up a multi-decade conversation about leadership, fundraising, and environmental justice as a lens and practice.[1] A few of the Principles of Environmental Justice include:

- Environmental Justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.
- Environmental Justice calls for universal protection from nuclear testing and extraction, production, and disposal of toxic/ hazardous wastes and poisons that threaten the fundamental right to clean air, land, water, and food.
- Environmental Justice affirms the fundamental right to political, economic, cultural, and environmental self-determination of all peoples.
- Environmental Justice demands the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement, and evaluation.

Source: Environmental Justice Network, 1996 (http://www.ejnet.org/ej/principles.html)

1 Laurie Ann Mazur, "30th anniversary of 1st National People of Color Environmental Leadership Summit – looking back, looking forward," The Kresge Foundation, November 17, 2021, https://kresge.org/news-views/roundtable-30th-anniversary-of-1st-national-people-of-color-environmental-leadership-summit-looking-back-looking-forward/, accessed March 15, 2022.

SB 1000 defines low-income communities as areas where median household incomes are at or below 80 percent of the statewide median income, or where median household incomes are at or below the low-income threshold designated by the California Department of Housing and Community Development (HCD). These two definitions of low-income communities are very different thresholds. Based on the thresholds, in 2019,[9] HCD would consider a four-person household in Alameda County making $98,550 or less to be low-income. By contrast, in2019,80 percent of the statewide median income was $60,188. Low-income areas based on these definitions are mapped in **Figure 1-2.**

SENATE BILL 535 (2012)

The State cap-and-trade program is one of California's strategies to reduce greenhouse gas emissions (GHGs) and an important funding mechanism developed in response to Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. Since its inception, the cap-and-trade program has generated over $16 billion for programs and projects that facilitate the reduction of GHGs. This money helps fund public transit, safe drinking water, clean energy, and affordable housing projects.

In 2012, SB 535 mandated that a minimum of 25 percent of funds generated from the cap-and-trade program be spent on projects that benefit formally designated environmental justice communities, and 10 percent must be allocated to projects located within these communities.

9 Although HCD annually releases updated State Income Limits, the 2019 limits are used for this report to match with the most current census data (for median household incomes) available: American Community Surveys 5-Year estimates, 2015-2019 (representing data for 2019).

SB 535 gave the responsibility of formally designating environmental justice communities to the California Environmental Protection Agency (CalEPA). In response, CalEPA developed the California Communities Environmental Health Screening Tool, better known as CalEnviroScreen, a map-based screening methodology used to identify areas affected by the cumulative impacts of multiple pollutants and people who are vulnerable to pollution's effects. CalEnviroScreen (version 4.0) was most recently updated in October 2021, and now includes 21 indicators – 13 pollution burden indicators that measure risk of exposure to different types of pollution and toxic chemicals as well as eight population characteristic indicators that measure the number of people in a community who may be more severely affected by pollution based on their age, health, and other socioeconomic factors that may make healthy living difficult. The population indicators are weighted to account for the way in which they compound environmental impacts.

Each indicator is based on data from a federal, state, regional, or local public agency that provides a measure of pollution burden or population characteristics, which are scored at a census tract-level. The higher the score, the more impacted a community is. Census tracts scoring higher than 75 (i.e., in the top 25th percentile statewide) along with other areas with high amounts of pollution but low populations are formally designated as environmental communities, and designation of these communities is used to focus CalEPA's resources and administer environmental justice grants under SB 535 for communities disproportionately affected by pollution.

Screening for Environmental Justice Communities in a Local Context

Unlike SB 535, which relies only on CalEPA's designation as "disadvantaged communities," SB 1000 defines environmental justice communities as "an area identified by [CalEPA] or an area that is a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation."

This means that SB 1000 provides two options for identifying environmental justice communities with regard to the general plan. To best account for local context, the State Office of Planning and Research (OPR) allows jurisdictions the flexibility to adapt a "screening" methodology that uses locally specific indicators in addition to the statewide indicators from CalEnviroScreen to identify environmental justice communities. More information on Oakland's proposed methodology is found in Chapter 6.

Environmental justice communities that will be the focus of the City's Environmental Justice Element have not been formally defined by the City of Oakland at this time. As noted above, this document seeks to establish a baseline for policy development during the upcoming General Plan update process. In doing so, this document will highlight *potential* environmental justice communities where concentrations of Black, Indigenous, and People of Color (BIPOC); low-income; and/or other sensitive or vulnerable populations (sometimes referred to as "frontline" communities, or groups that suffer 'first and worst' from environmental justice burdens) overlap with places that are most impacted by pollution and other environmental injustices.

CALENVIROSCREEN SCORES IN OAKLAND

The combination of pollution (environmental) and population (health/socioeconomic) factors used in CalEnviroScreen means that communities with similar pollution levels can have starkly different scores based on the people who live there. For example, Jack London Square and Chinatown census tracts are next to each other, so they have almost the same pollution burden. Despite this, Chinatown's overall score is 91, while Jack London's is 55. This is becausecommunities living in Chinatown experience a higher rate of socioeconomic burdens, such as the lack of health care, which exacerbates the impacts of pollution, leading to greater impacts including high rates of emergency room visits due to asthma attacks.

As mapped in **Figure 1-3**, census tracts that received a score of 75 or higher include all tracts adjacent to Interstate (I)-880, with two exceptions. Communities in Fruitvale, near the airport, and in West Oakland also received top CalEnviroScreen scores, along with blocks of Downtown Oakland close to I-980 and Chinatown. Meanwhile, census tracts in northeastern Oakland tended to receive lower scores, including those east of I-580 and along Highway 13 or in the Oakland Hills.

Out of 113 census tracts in Oakland, 31 tracts have a CalEnviroScreen 4.0 score of 75 or greater. Compared with the previous version of CalEnviroScreen (from 2018), 76 tracts received higher (more impacted) scores, 35 received lower (less impacted) scores. The two tracts consisting of the Port of Oakland remain unscored due to low populations, though they have high amounts of pollution. Both measures show similar results overall, though CalEnviroScreen 4.0 scores along parts of the I-880 corridor and West Oakland are comparatively higher. Between CalEnviroScreen 3.0 (2018) and 4.0 (2021), four census tracts that used to be in the top 25th percentile are no longer in the top 25th percentile: Bunche/MLK Jr., Bunche/Oak Center, Eastlake Clinton 1, and North Stonehurst. See **Figure A-1** in the Appendix for a map of census tracts by names.

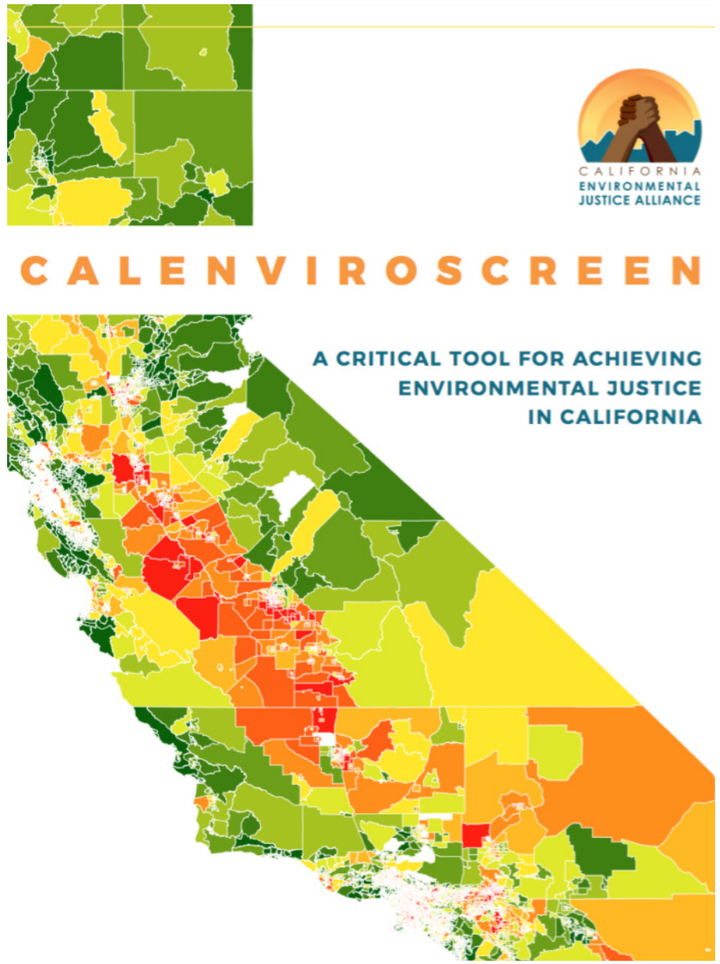


Table 1-1: Top 25 CalEnviroScreen 4.0 Scores in Oakland, 2021

Census Tract Name	SCORE (PERCENTILE RANK)			DEMOGRAPHIC (2019)	
	Overall	Pollution Burden	Population Characteristics	Total Population	Percent White
Lockwood/Coliseum	97.8	93.5	94.9	2,420	12%
Oakland Airport	97.2	92.2	94.2	4,687	2%
Havenscourt/Coliseum	96.2	83.3	97.7	7,149	5%
Brookfield Village	94.0	78.9	96.3	2,490	2%
Jingletown/Kennedy Tract	93.8	90.2	87.3	4,733	15%
Prescott/Mandela Peralta	93.1	88.8	87.0	2,477	30%
Woodland/Tassafaronga	91.4	63.8	98.8	4,128	4%
Chinatown	91.2	74.5	94.3	2,905	7%
DeFremery/Oak Center	90.9	79.0	90.9	2,705	15%
Fitchburg/Hegenberger	90.3	68.4	95.8	3,546	5%
Acorn	88.7	75.7	89.2	1,781	11%
Elmhurst Park	88.3	63.1	96.0	4,780	5%
Oakland Estuary	88.1	82.5	82.7	3,796	18%
McClymonds	86.5	78.0	83.7	2,289	29%
Fruitvale	86.1	64.8	92.4	6,985	10%
Sobrante Park	83.5	68.2	85.7	3,672	3%
Chinatown/Laney	83.1	75.2	79.9	4,178	26%
Reservoir Hill/Meadow Brook	82.7	53.3	94.8	4,995	5%
Seminary	82.5	49.6	96.4	4,299	4%
Fremont District	82.4	64.6	86.5	4,531	2%
Prescott	82.2	77.1	76.9	1,801	33%
Hoover/Foster	82.1	83.4	71.6	4,732	26%
Clawson/Dogtown	81.4	78.8	74.4	2,839	37%
Longfellow	80.4	81.8	70.3	6,133	33%
Pill Hill	80.3	74.0	76.1	3,921	38%

Source: CalEnviroScreen 4.0, CalEPA 2021.

Figure 1-2: Low-Income Areas, 2019

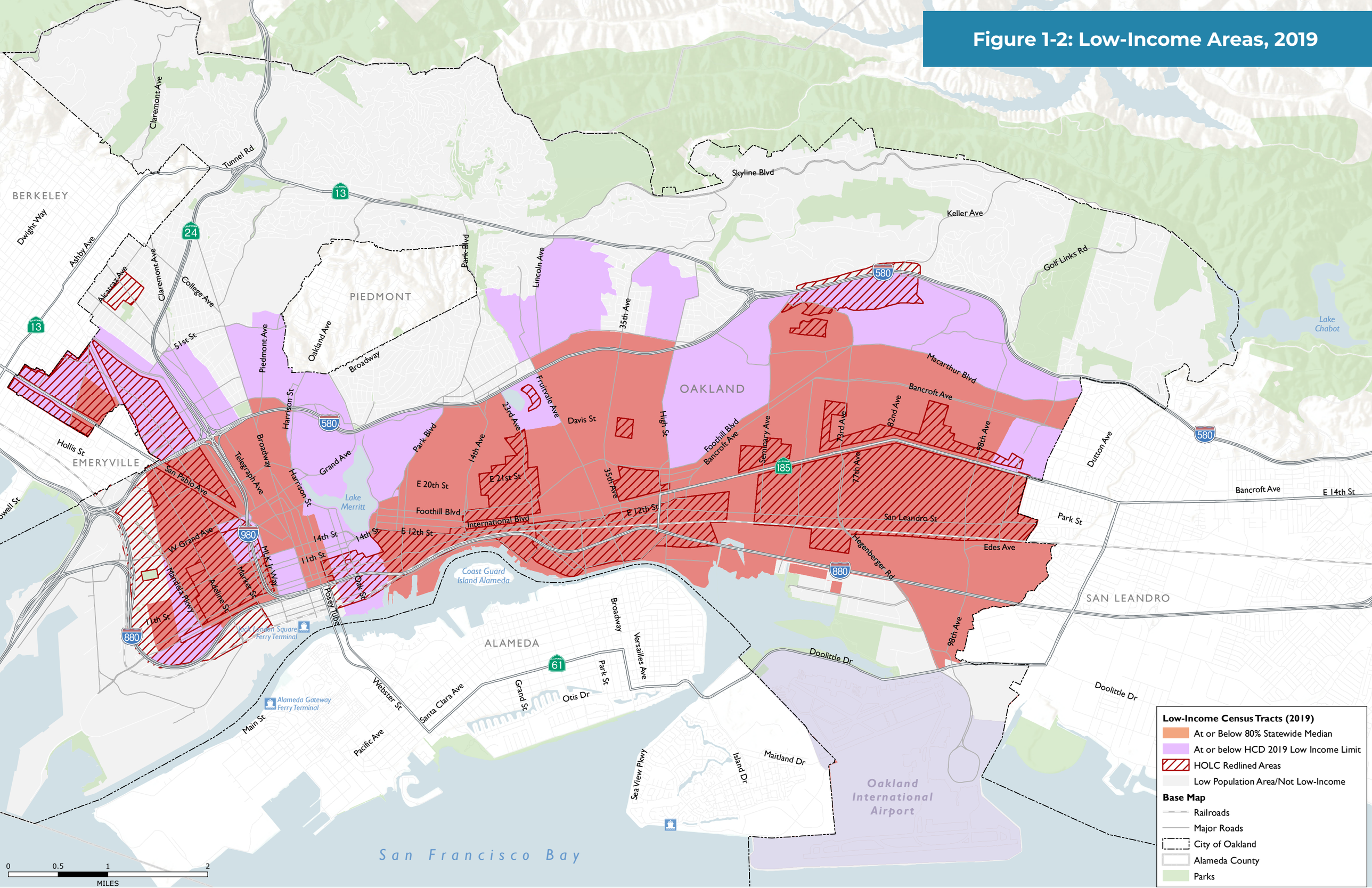
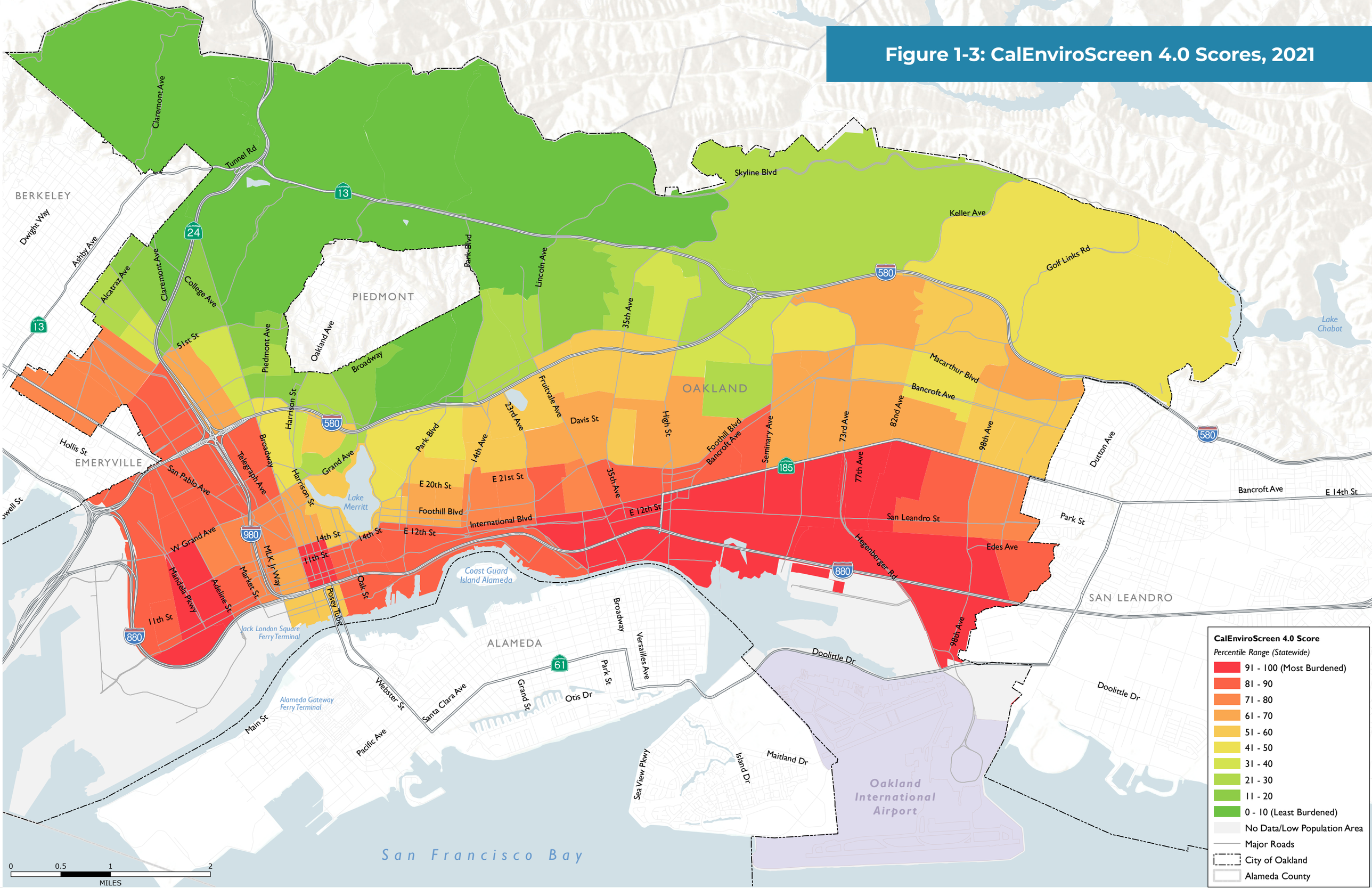


Figure 1-3: CalEnviroScreen 4.0 Scores, 2021



1.4 Previous and Ongoing Efforts

The City has produced a number of reports and studies that have laid the foundation for this report. These are summarized below.

RESILIENT OAKLAND PLAYBOOK (2016)

Resilient Oakland is part of the 100 Resilient Cities project funded by the Rockefeller Foundation in 2016. The Resilient Oakland playbook is a holistic set of strategies and actions to tackle systemic, interdependent challenges. This includes equitable access to quality education and jobs, housing security, community safety and vibrant infrastructure, which will better prepare the city for shocks like earthquakes and climate change impacts. The strategy outlines 15 major resilience challenges and identifies 10 main goals accomplished through nearly 40 resilient actions. The three key themes for advancing resilience in Oakland are: (1) build a more trustworthy and responsive government, (2) stay rooted and thrive in our town, and (3) build a more vibrant and connected Oakland. Resilient Oakland identifies a path for the City to integrate processes, policies, and programs that achieve greater impact and thereby make local and regional institutions more resilient and responsive to future needs.

OAKLAND PRELIMINARY SEA LEVEL RISE ROAD MAP (2017)

The Preliminary Sea Level Rise Road Map was developed as part of Resilient Oakland, a two-phase process involving an initial resilience baseline assessment and a strategic planning effort to identify solutions to some of Oakland's most critical resilience challenges. Given that Oakland has 19 miles of Bay shoreline lined with regionally significant infrastructure, diverse neighborhoods, and open space, sea level rise was selected as an impact that warranted further investigation under the "Recovering Quickly from Adversity" discovery area. The road map builds on findings from regional and local sea level rise studies to identify adaptation actions to best address the conditions, needs, and issues in Oakland.

OAKLAND WALKS PEDESTRIAN PLAN (2017)

In 2017, the City adopted an update to the Pedestrian Plan addendum to the General Plan Land Use and Transportation Element (LUTE), called "Oakland Walks!" The Pedestrian Plan is an aspirational document that reflects Oakland's pedestrian conditions, needs, and priorities, and sets goals and recommendations to improve the City's pedestrian environment. The plan identified the "High Injury Network," a set of 34 high-injury corridors and 37 high-injury intersections, which make up two percent of Oakland's streets but comprise 36 percent of pedestrian collisions; and outlined a five-year work plan of specific improvements, policies, and programs. The plan found that neighborhoods with historic patterns of disinvestment, including West and East Oakland, overlapped with high numbers of pedestrian collisions, and subsequently prioritizes design and enforcement interventions to improve pedestrian safety, convenience, and connectivity based on equity, as well as universal access for different types of pedestrians (including those who use wheelchairs or other mobility assistance devices).

OAKLAND EQUITY INDICATORS (2018)

In 2017, Oakland was chosen to be one of the first five cities (the first cohort of 100 Resilient Cities) to develop local Equity Indicators tools. In partnership with the City University of New York's Institute for State and Local Governance, and with funding from the Rockefeller Foundation, the City created a product that is used across City departments to advance equity with strategies t that implement an intentional focus on racial and ethnic disparities and their root causes. The purpose of Oakland's Equity Indicators Report is to establish a baseline quantitative framework of 72 indicators across six central themes that can be used by City staff and community members alike to better understand the impacts of race, measure inequities, and track changes in the disparities for different groups over time. This framework is intended to then guide and inform policies that address these disparities.

The Department of Race and Equity is currently updating the Oakland Equity Indicators Report, which is anticipated to be completed at the end of 2022.

OAKLAND CULTURAL PLAN (2018)

Launched in April 2017 and adopted in July 2018, the Oakland Cultural Plan process included extensive research and robust community engagement to create a cultural development plan and a Cultural Asset Map that strive to fulfill a three-part vision: "Equity is the driving force. Culture is the frame. Belonging is the goal." The plan also redefined the City Cultural Affairs Commission's role and identified actions to strengthen the cultural ecosystem and cultural equity.

OAKLAND RACE AND EQUITY BASELINE INDICATORS REPORT (2019)

The Department of Race and Equity commissioned the Race and Equity Baseline Report to measure existing (2018) conditions that serve as a benchmark against which equity goals will be established for improvement in the lives of residents who are most impacted by racial inequity. Specifically, the report was created to inform development of a community benefits agreement (CBA) for the Howard Terminal Ballpark proposal by establishing and analyzing the baseline conditions for a racial equity framework to be factored into the Howard Terminal CBA process and thereby design a CBA to improve conditions in the lives of those most impacted by racial disparities. The baseline report examines relevant existing conditions for Oakland residents by looking at: median annual income; unemployment rate; housing burden levels; household computer ownership and internet subscription; educational attainment; means of transportation to work; and health outcomes.

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT STRATEGIC ACTION PLAN 2021-2023 (2021)

The City of Oakland's Department of Housing and Community Development's (HCD) Strategic Action Plan 2021-2023 serves as a guide for Oakland's short- to medium-term housing work. The plan focuses an equity lens on housing in Oakland in four key ways. First, the plan calls for HCD to disaggregate data on housing outcomes by race. Second, the plan calls for HCD to provide multilingual and accessible information on its work to the public. Third, the plans calls for HCD to focus anti-displacement and housing production programs on serving the most vulnerable and impacted communities. Finally, the plans calls for HCD to provide opportunities for Black, Indigenous, and People of Color (BIPOC) developers, service providers, and contractors with opportunities to access HCD resources. The Strategic Action Plan also details a series of specific actions and policies HCD will pursue. These actions and policies implement a broader strategy to Produce, Preserve, and Protect affordable homes.

DRAFT DOWNTOWN OAKLAND SPECIFIC PLAN (2019) AND DISPARITY ANALYSIS (2018)

The Downtown Oakland Specific Plan, currently published as a Preliminary Draft Plan as of January 2022, will update the policies that guide downtown development by considering Oakland's current and projected economy, community needs, and by protecting what makes downtown "authentically Oakland." The Preliminary Draft Plan describes ideas and recommendations that connect the community's downtown goals to potential strategic actions, including potential supportive programs, policies, and physical improvements, to embrace opportunity, address racial disparities, and take downtown from its current condition to the community's desired future for downtown. The vision and goals are centered on an Equity Framework that identifies existing downtown disparities and key policies with equity impacts to best assess how the plan can effectively address disparity gaps.

Appendix B of the draft plan is the Downtown Oakland Disparity Analysis, published in April 2018. The report helped inform the specific plan process by documenting the history of inequity in Oakland and racial disparities across housing, jobs, and economic opportunity; built environment, health, and sustainability; streets, connectivity, and mobility; and arts and culture. Each of these topic areas culminated in a desired future outcome and led to development of equity indicators that establish baseline conditions and help imbed equity in the specific plan's recommended policies, programs, and projects.

LET'S BIKE OAKLAND (2019)

In July 2019, the City adopted Let's Bike Oakland, a comprehensive update to the City's bicycle plan addendum to the General Plan LUTE that outlines major improvements to Oakland's bicycle network and introduces new cycling programming. The plan utilized an equity framework to identify
Oakland's most vulnerable groups and was developed in partnership with five community-based organizations (CBOs). Major components of the plan included identifying roadways where separation features are needed to create low-stress cycling conditions; embedding Oakland culture into bikeway designs and connecting the bicycle network to local retail, recreation, and transportation connections; and building continuous cross-town corridors that help as many Oaklanders as possible bike safely. The plan also set forward programming recommendations to increase bicycle ridership in Oakland. Let's Bike Oakland codifies equitable investment prioritization in Oakland's active transportation planning, as well as a commitment to minimize impacts related to paving and construction on vulnerable communities.

INDUSTRIAL LANDS STUDY (2020)

The Industrial Lands Study, prepared by the City's Economic and Workforce Development Department, provides baseline information and analysis on Oakland's industrial land and business assets. The study is intended to inform policy options and strategies to help retain, support, and grow a mix of industrial business activities in Oakland. The study will inform planning code

amendments and the General Plan update to address two key planning issues: increasing market pressures to convert industrial land into residential and commercial uses; and the urgent need to reduce emissions exposure to communities in proximity of industrial lands, truck routes, and rail lines, which contribute to disparities in health outcomes for residents of these communities.

CITY OF OAKLAND 2030 EQUITABLE CLIMATE ACTION PLAN (2020)

In July 2020, the City adopted the 2030 Equitable Climate Action Plan (ECAP), which establishes actions that the City and its partners will take by 2030 to equitably reduce Oakland's climate emissions and adapt to a changing climate. In addition to responding to State goals for greenhouse gas emissions reductions, the 2030 ECAP is rooted in equity and a deep community engagement process. The ECAP includes the Racial Equity Impact Assessment and Implementation Guide (REIA), which provides a comprehensive set of recommendations and best practices to help City staff maximize equity throughout the 10-year implementation period of the 2030 ECAP. The REIA aids staff in developing equitable procedures, programs, and policies by focusing on identifying, engaging, and prioritizing frontline communities that have been harmed by environmental injustice.

CITY OF OAKLAND GENERAL PLAN UPDATE: PRINCIPLES, ISSUES, AND POTENTIAL FRAMEWORK (2020)

In the fall of 2020, staff from the City of Oakland Planning and Building Department held professionally facilitated sessions with 41 community organizations and representatives from across City departments to identify important topics to address in the General Plan update that culminated in a report of recommendations.

Some of the community priorities identified included:

- **Improving Public Health.** Connect environmental justice with tangible health issues; including addressing the current concentration of residential areas along freeways, industrial uses, and the seaport.
- **Industrial Lands Assessment and Mitigation.** Based on an assessment of industrial land and goods movement, identify the pollution impacts of industrial activities and develop policies to reduce impacts, such as buffers, overlay zones, and performance standards.
- **Equitable Granting of Exceptions, Variances, and Conditional Use Permits (CUPs).** Evaluate the granting of exceptions, variances, and CUPs to identify which areas have more incompatible uses due to discretionary authority that has deemed "less desirable" uses OK for some neighborhoods and not others.
- **Community Wealth Building.** Reduce economic inequities by targeting growth to build wealth in communities harmed by disinvestment, segregation, and generational denial of opportunity.
- **Food Access.** Fill "gaps" in healthy food access in areas of East and West Oakland.
- **Equitable Services.** Bring street/sidewalk and parks maintenance, tree canopies, trash collection, and other services in disadvantaged neighborhoods up to par with others and acknowledge that areas of higher need require additional services to maintain equitable levels of habitability.

It is noted that the Environmental Justice and Housing Elements will be prepared simultaneously, and discussion of housing issues such as displacement and gentrification, homelessness, housing quality, and housing affordability may overlap between these two elements. In this manner, environmental justice will be interwoven into various elements in the General Plan, building on the interrelationships among all planning policies and environmental justice concerns. Further, the Environmental Justice Element will serve as the main reference for other General Plan elements that will be updated in later years to guide approaches to support the City's environmental justice goals.

SAFE OAKLAND STREETS INITIATIVE (2021)

In March 2021, the Safe Oakland Streets (SOS) interdepartmental team, comprised of the Oakland Department of Transportation (OakDOT), Oakland Police Department (OPD), Department of Race and Equity, and the City Administrator's Office, submitted an Informational Report on the SOS Initiative to City Council. The SOS Initiative's goals are to: Prevent severe and fatal crashes and related disparities impacting Black, Indigenous, and people of color (BIPOC) communities, seniors, and low-income populations; Eliminate severe and fatal injury inequities including racial disparities impacting BIPOC communities that exist today in Oakland; and Inform safety strategies that prevent injury and injury inequities, and do not have adverse equity impacts on BIPOC communities, seniors, and low-income populations. To achieve these goals, the initiative recommends comprehensive traffic safety strategies—including infrastructure changes, enforcement strategies, policy changes, and programs in place or under consideration in Oakland—that effectively reduce injuries, advance equity, and address speeding. This included identification of High Priority Communities as used by OakDOT and analysis of the High Injury Network within these areas in comparison to the rest of the city.

RACIAL EQUITY IMPACT ANALYSIS: ELIMINATING LEAD PAINT HAZARDS IN OAKLAND AND ALAMEDA COUNTY (2021)

The Lead Paint Hazards Racial Equity Impact Analysis (REIA) was conducted in 2021 to guide the City of Oakland in partnering with Alameda County to develop and implement an equitable lead hazard abatement program in response to the July 2019 lawsuit and settlement agreement between Sherwin-Williams Co., ConAgra Grocery Products Co. and NL Industries Inc.—lead paint manufacturers who knowingly sold a harmful product in accordance with "industry standards"—and the counties of Santa Clara, Alameda, Los Angeles, Monterey, San Mateo, Solano, and Ventura; the City and County of San Francisco; and the cities of Oakland and San Diego. The Lead Paint Hazards REIA isolated indicators to identify racial demographics and geographic locations of communities most vulnerable to lead paint hazards, including low-income and Black, Indigenous, and Latinx communities living in older, dilapidated housing who are disproportionately affected. In particular, predominantly Latinx census tracts in East Oakland

had the greatest risk of lead exposure. The Lead Paint Hazards REIA recommends nine policies and 25 actions that prioritize at-risk communities, remedy barriers to resources, ensure lead hazards are expeditiously removed from homes in vulnerable communities, and bolster local economic resilience.

OAKLAND CAPITAL IMPROVEMENT PROGRAM, FISCAL YEAR 2021-2023

The City's Capital Improvement Program (CIP) guides the City's decisions regarding construction, repair, and replacement of the City's assets including libraries, public safety facilities, sewers, recreation centers, and parks, in addition to transportation and street improvements. The adopted 2021-2023 CIP is the current budget cycle that includes $282.6 million in investments linking long-range strategic plans and goals with current resources and needs. The current CIP reflects a new prioritization methodology that is centered on equity and was adopted by City Council on September 20, 2018. Beginning in 2017, a multi-departmental CIP Working Group (CIPWG) engaged with community members to formulate a "scorecard" of nine prioritization factors: Equity, Health and Safety, Economy, Environment, Improvement, Existing Conditions, Shovel Ready, Collaboration, and Required Work. CIP projects are prioritized according to these nine factors, which follow an equity-emphasized weighted scoring scheme to recommend allocation of funds. Additionally, the prioritization process allowed members of the public to directly propose 285 CIP projects during a 30-day submission period; these proposals were scored and considered in addition to the 287 requests submitted by City staff. A comparison of public requests in the Fiscal Year (FY) 2019-2021 and FY 2021-2023 CIPs shows that these efforts have helped address a severe gap in responses from deep East Oakland as well as distribute capital project requests—and thereby City investments—more evenly amongst Oakland neighborhoods.

A case study on the CIP project prioritization methodology by the Research and Consulting Center of the Government Finance Officers Association notes that this is "an admitted first attempt," and that these efforts and the results of the CIP will be monitored for effectiveness. Staff have also noted some potential areas of improvement for future iterations of this project, including more robust public engagement that is meaningful, inclusive, and has provided adequate civic education resources and tools to improve public familiarity and understanding of technical and bureaucratic language.[10]

EAST OAKLAND MOBILITY ACTION PLAN (2022)

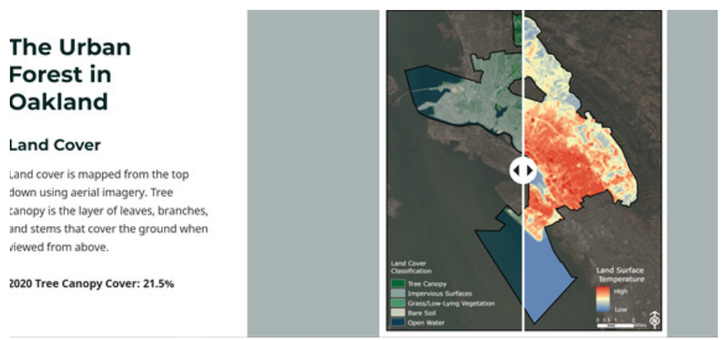
Finalized in January 2022, the East Oakland Mobility Action Plan is a community-led planning document that provides policy foundation for achieving a transportation system that recognizes and balances the needs of all road users, focusing on addressing historic inequities, environmental constraints, safety, and health concerns in East Oakland. The plan is intended to guide the City, OakDOT, and other partner agencies in allocating resources for future mobility improvements in East Oakland, and provides recommendations for the transportation planning process so as not to replicate a history of planning injustice and harm. Key components of the plan include a set of community-identified mobility principles; an existing conditions assessment; and a five-year action plan of policies, projects, and funding sources for achieving community mobility goals.

FIVE YEAR PAVEMENT PRIORITIZATION PLAN (UNDERWAY)

City staff have recommended a Five-Year Pavement Prioritization Plan (5YP) that has been approved by the City Administrator for consideration by City Council. The 2022 5YP provides a framework to prioritize funds in the Citywide Street Resurfacing portion of the 2021-2023 CIP adopted in June 2021. As with other capital projects of the CIP 2021-2023, the 2022 5YP uses the prioritization weighting system to equally account for street conditions and underserved populations for local street investment. Specifically, the Local Streets Program identifies underserved populations in Oakland's nine "planning areas" (different parts of Oakland that are smaller than Council Districts but larger than individual neighborhoods, used in the 2017 Pedestrian Plan, 2019 Bicycle Plan, and 2019 Three-Year Paving Plan) to prioritize improvements in planning areas that have greater concentrations of underserved populations and streets in poor condition in effort to advance equity.

OAKLAND URBAN FOREST MASTER PLAN (UNDERWAY)

In 2019, the City commissioned Davey Resource Group to study Oakland's existing urban forest resources. The Tree Canopy and Land Cover Assessment (2020) determined Oakland's existing tree canopy coverage, which is 21.5 percent. Recommendations based on findings from this assessment include targeted zoning strategies to increase tree canopy cover. In 2021, the Urban Forest Resource Analysis was conducted to inventory almost 69,000 community trees in parks, along City streets with sidewalks, and at City facilities. The report analyzes the benefits of Oakland's community trees and identifies key recommendations to maximize potential benefits of the City's trees over time. Both of these documents will inform development of the City's upcoming Urban Forest Master Plan, which has just begun its planning process in December 2021. The master plan will be an equity-focused guide on how the urban forest will be planned, managed, and protected for the next generation of Oaklanders over the next 50 years. The planning process will also include a forthcoming Socioeconomic and Public Health Analysis.



10 Elliot Karl, Racial Equity Prioritization in Capital Budgeting: A Case Study from the City of Oakland, CA, Research and Consulting Center (RCC), Government Finance Officers Association, 2019, https://acrobat.adobe.com/link/track?uri=urn:aaid:scds:US:62099638-db72-4e23-8139-e0ab4db2269d.

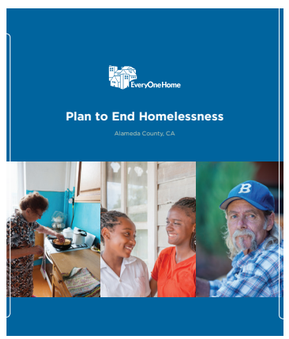
RELATED COMMUNITY EFFORTS

The following projects are some of many related community efforts that have set the foundation for this racial and equity baseline report and will continue to supplement the upcoming General Plan update.

Healthy Development Guidelines (2014)

The Healthy Development Guidelines were developed by a coalition of residents, community organizers, and other leaders, led by East Oakland Building Healthy Communities, with the intent of establishing a shared vision of a healthy, equitable community. The guidelines promote policies, goals, and development guidelines that strengthen environmental justice, sustainability, health, and racial equity in Oakland. In particular, the guidelines are intended to empower residents to address planning, policy, and public health issues in Oakland, so that no neighborhood or demographic group is unduly burdened by development that exacerbates health disparities, economic inequality, or access to open space. The guidelines were recognized by a City Council resolution which commended the coalition for their collaborative and engaging partnership with the community.

EveryOne Home (2018)



EveryOne Home is Alameda County's strategic plan to end homelessness. Updated in 2018, EveryOne Home establishes short-term interventions to help unhoused individuals—such as shelter, safe parking, outreach, and hygiene stations—as well as long-term policy solutions and strategies that address the root causes of homelessness, including provision of affordable housing, community safety, and services. The plan is informed by data from countywide Point-In-Time (PIT) homeless counts, homeless housing and services inventories, and the Homeless Management Information System (HMIS). The plan established a set of five-year targets for reducing the number of people becoming homeless and increasing the number of people moving out of homelessness into permanent homes. The plan establishes goals and policy recommendations for County partners; these include preventing people from becoming homeless, protecting the dignity of people experiencing homelessness, and expanding housing options. Due to the COVID-19 pandemic, the most recent PIT data for Alameda County is from 2019. However, this survey showed a significant increase in the number of individuals experiencing homelessness from 2017.

Housing Oakland's Unhoused (2018)

In response to Oakland's escalating homelessness, the Dellums Institute for Social Justice/Just Cities, The Village, and the East Oakland Collective formed the Housing and Dignity Project to advance community solutions. The project is summarized in a report entitled Housing Oakland's Unhoused: Community-Based Solutions to House All of Oakland's Unhoused Now, published in October 2018. The report covers the project's process, main findings, and community-based immediate and long-term solutions. Community listening sessions identified priorities for the unhoused population in relation to housing, supportive service needs, and methods of service provision and outreach to maintain household financial and personal wellbeing, support stability, and prevent further risk of displacement. Major findings that should inform considerations for development of a housing plan and policies that serve the unhoused community include: appropriate allocation of resources and programming that align with the size of the chronically homeless and working class, newly homeless populations; services that support the real needs of the unhoused community beyond mental health supportive services; and innovative housing strategies for the unhoused that implement solutions to stigma and lack of funding resources.

Just Cities Fair Chance Housing Ordinance Policy Brief to the City of Oakland (2019)

On December 19, 2019, Just Cities submitted a "policy justice brief for Oakland political leaders" regarding a Fair Chance Housing Ordinance that removes structural barriers for people with criminal histories in applications for rental housing. The brief emphasizes the importance and need for Fair Chance Housing and summarizes a proposal for Fair Chance Housing policy designed with Oakland formerly incarcerated people and family members, City officials, and community forums with Oakland residents and community organizations.

On February 4, 2020, City Council passed the Ronald V. Dellums and Simbarashe Sherry Fair Chance Access to Housing Ordinance ("Fair Chance Housing Ordinance," Oakland Municipal Code Chapter 8.25 Article 1). This ordinance limits "the use of criminal history in tenant selection policies in order to give previously incarcerated persons and other persons with a criminal history a fair opportunity to compete for rental housing and to be able to reside with family members and others, thus putting them in a better position to reintegrate into the community and to obtain gainful employment."[11] The Fair Chance Housing Ordinance is also intended to reduce the incidence of homelessness for persons with a criminal history.

11 Oakland, California, Municipal Code Ord. No. 13581 § 1, February 4, 2020, https://oakland.legistar.com/View.ashx?M=F&ID=8075323&GUID=12193A02-0601-424D-A0FE-8391697DDEB5, accessed March 15, 2022.

West Oakland Community Action Plan (2019)

The West Oakland Community Action Plan (WOCAP) is a joint project of the Bay Area Air Quality Management District (BAAQMD) and West Oakland Environmental Indicators Project (WOEIP) that targets air quality improvement in the West Oakland community pursuant to Assembly Bill (AB) 617, which directs air regulators (e.g., BAAQMD) to identify communities with a high cumulative pollution exposure burden and to work with such communities to develop solutions. The WOCAP lays out a series of measures to be implemented by State, regional, and local agencies (e.g., California Air Resources Board, BAAQMD, Port of Oakland, and City of Oakland) over the plan's five-year period to address fine particulate matter ($PM_{2.5}$) diesel particulate matter, and cancer risk from all toxic air contaminants. The plan establishes equity-based goals and targets, including: (1) By 2025, all West Oakland neighborhoods will have the same air quality as today's (2019) average West Oakland neighborhood; and (2) By 2030, all West Oakland neighborhoods will have the same air quality of today's cleanest West Oakland neighborhood.

Bay Area Air Pollution Health Impact Assessment (2021)

West Oakland Environmental Indicators Project is a resident-led, community-based environmental justice organization dedicated to achieving healthy homes, healthy jobs, and healthy neighborhoods for all who live, work, learn, and play in West Oakland. WOEIP has collaborated with public agencies as well as other non-profit and academic partners including Environmental Defense Fund (EDF). Since 2015, WOEIP and EDF have collected air pollution data at a hyper-local, block-by-block, street level, resulting in maps that showed large differences in air pollution levels between neighborhoods in Oakland. In 2020, EDF led analysis of the health impacts of air pollution exposure in the Bay Area, published in the Bay Area Air Pollution Health Impact Assessment (HIA) in 2021.[12] The HIA shows that air pollution has major impacts on mortality and childhood asthma, with large disparities at a neighborhood level.

12 Environmental Defense Fund, "Air pollution's unequal impacts in the Bay Area" (Bay Area Air Pollution Health Impact Assessment), March 31, 2021, https://www.edf.org/airqualitymaps/oakland/health-disparities, accessed February 17, 2022.

East Oakland Neighborhood Initiative (2021)

The East Oakland Neighborhood Initiative (EONI) is a collaborative partnership between the City of Oakland and CBOs leveraging the Transformative Climate Communities grant administered by California's Strategic Growth Council. The EONI plan is a community-driven plan for a just transition to a regenerative economy for East Oakland, led by frontline communities, to strengthen the health, wealth, and resilience of East Oakland neighborhoods in the face of displacement and climate impacts. The plan is focused on five goals: reduce greenhouse gases, prevent displacement, improve public health, build economic empowerment, and plan "by and with" the community.

AB 617 Process in East Oakland (Underway)

Following completion of the AB 617 process in West Oakland (see WOCAP discussed above), BAAQMD recommended East Oakland in November 2021 to be designated as an AB 617 priority community. This designation was driven by community leadership in East Oakland. CARB approved the designation on February 10, 2022, meaning that East Oakland will be one of three communities in the Bay Area air district to develop a Community Emissions Reduction Program to improve air quality at the neighborhood scale.

OWNING OUR AIR

The West Oakland Community Action Plan – **Volume 1: The Plan**

October 2019

A joint project of the Bay Area Air Quality Management District and West Oakland Environmental Indicators Project

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

West Oakland Environmental Indicators Project
know which way the wind blows

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02

OAKLAND: A CITY OVER TIME

2. Oakland: A City Over Time

This chapter is an overview of the historical development of Oakland and the factors that have led to the current context of racial disparities in health outcomes. This baseline report describes connections between patterns of inequity and the structural racism and systemic injustices that have perpetuated these outcomes. These patterns are part of a complex web of factors that contribute to the difference in health outcomes in Oakland and speaks to the "unique and compounded health risks" discussed in Chapter 1: Introduction.

2.1 Environmental Racism as a Historical Process

Past land use planning and zoning decisions have played a large role in shaping the environmental justice problems we see today. The General Plan Update provides an opportunity for Oaklanders to create a vision for the city they want Oakland to be in 2045. Setting a course from the present to the future calls for an understanding of our current conditions, which in turn requires an understanding of historical trends in population change, land use, housing, economic opportunity, transportation, and other factors that make Oakland the city it is today.

Looking at the history of Oakland through a critical racial equity lens is a way to understand how structural factors—who came to the city and where they lived; the jobs and economic base of the city; the ways that housing, transportation, and public spaces evolved; and how neighborhoods changed—have been shaped by local, county, State and federal government policies and practices that created unfair conditions for Black, Indigenous, and People of Color (BIPOC) communities. Until very recently, these structural factors did not consider how racism underlies American culture and policy driving the racial disparities found in every indicator of wellbeing in America. In the 21st century, race remains a defining feature in society across all indicators for success including employment, education, housing, public infrastructure and health.[1] Despite policies aimed to eliminate racial bias and discrimination, economic and racial segregation continue to increase in the United States. According to data from the National Bureau of Economic Research, over the past 40 years, economic inequality in the United States has returned to levels last seen in the 1920s.[2] Although explicit racial discrimination or legally recognized segregation is not practiced or condoned in our City today, we live with the consequences of that history. Today's persistent environmental injustices result from not only recent action or inaction but from historical decisions that determined the city's land use patterns, industrial base, and transportation network. The racial inequities in levels of air pollution, ground contamination, noise, and other environmental problems reflect ineffective or differential enforcement of environmental protection laws, as well as siting residential areas in close proximity to noxious industrial uses and routing truck traffic through low-income, Port-adjacent communities and along the I-880 but not I-580 corridor. By recognizing the impacts of this history in Oakland, the City can better focus efforts on starting to address the negative impacts of past decisions.

Oakland was founded in 1852 on unceded land of the Chochenyo-speaking Ohlone indigenous group, who were stewards of the land for thousands of years. After arrival of Spanish missionaries in the 1760s, Ohlone peoples were forced into labor camps at missions and baptized into the Catholic faith. By the late 1840s,

Photo credit: dignidadrebelde

many other Ohlone had been forced into remote reservations or killed, leaving less than 1,000 Ohlone remaining by the 1850s. During and after this time, Oakland expanded and urbanized at the further expense of the Ohlone people, their sacred sites, tribal cultural preservation, and tribal political status.[3]

Disparities in social, physical, and economic environments and conditions continued in eras of industrial growth, which brought about significant change to the urban environment and formalized increased residential segregation. Oakland was historically a destination for working people and immigrants, for whom there were abundant industrial jobs and relatively affordable neighborhoods, which often became cultural and ethnic enclaves when their residents of color were barred from living in other parts of the city by segregationist policies, enforced with violence. In the 1930s, Oakland adopted the federally sanctioned practice of refusing to insure mortgages in and near neighborhoods predominantly made up of communities of color. These areas were rated as "D", or "Hazardous," and color-coded as red on lending maps. Residents of these "redlined" neighborhoods, including West Oakland and East Oakland (see Figure 1-1), were denied access to credit, resulting in a cycle of disinvestment and poverty. To prevent their own neighborhoods from being redlined, private developers, realtors, and homeowners were encouraged to write racially restrictive covenants into their deeds that further inhibited residents of color from moving into these areas.

1 National Academies of Sciences, Engineering, and Medicine, "The State of Health Disparities in the United States," in Communities in action: Pathways to health equity (Washington, DC: The National Academies Press, 2017), doi: 10.17226/24624, https://www.ncbi.nlm.nih.gov/books/NBK425848/pdf/Bookshelf_NBK425848.pdf.

2 Emmanuel Saez and Gabriel Zucman, "Wealth Inequality in the United States Since 1913: Evidence from Capitalized Income Tax Data," National Bureau of Economic Research, October 2014, https://www.nber.org/system/files/working_papers/w20625/w20625.pdf.

3 Mitchell Schwarzer, *Hella Town: Oakland's History of Development and Disruption*, (Oakland: University of California Press, 2021).

Industrial growth during the World War II era further established Oakland as a hub for economic opportunity and jobs, which attracted an influx of Black and African American populations from the South (one of the waves of "Black migration") who settled primarily in neighborhoods such as Brookfield and Sobrante Park. Following the war, federal policies like the GI Bill sponsored returning white veterans to settle into suburbs by providing low interest mortgages and loans, enabling what is known as "white flight." These same financial incentives were denied to veterans of color, and the continued practice of redlining and racially restrictive covenants further delineated economic disparity.[4]

Historic communities such as West Oakland and Chinatown that were settled in the 19th century were drastically undermined in the 1950s and 1960s by the demolition and construction associated with freeways, Bay Area Rapid Transit (BART) railways, and urban renewal, when neighborhoods were divided, families lost their homes, businesses closed, and neighbors left – all of which undermined a community's ability to thrive. While greater areas of East and North Oakland became open to Black, Hispanic/Latinx, and Asian families beginning in the 1950s, many of these same areas were experiencing disinvestment and deterioration of housing and public spaces, along with a massive loss of employment in nearby industrial sectors. This disinvestment led to innumerable abandoned and underutilized business properties along the city's main corridors, originally built for streetcar and then automobile traffic in a pre-freeway age, that suffered greatly as purchasing power fell and consumers, particularly wealthier white residents, went elsewhere to live and shop.

Oakland went through roughly four decades, from the 1950s into the 1990s, during which lack of investment was the dominant economic story. Through waves of plant and store closings and redevelopment sites standing vacant for decades after demolition, the city searched for private investment wherever it could be found, while most of the major projects that were built, whether downtown high-rises or in transportation infrastructure, were led by the public sector. Disinvestment in flatlands housing took the form of high levels of abandonment of single-family homes in the 1970s, the deterioration of public housing developments, and persistent redlining, the denial of loans or insurance in communities of color. This period of public and private disinvestment significantly disrupted communities' physical and social infrastructure—including crumbling streets, under-resourced schools, lack of jobs, limited healthcare infrastructure, increases in crime, and other factors—and limited the effectiveness of responses to serious health problems such as those generated by the War on Drugs and the crack cocaine epidemic that targeted increased arrests of Black Oaklanders,[5,6] and HIV-AIDS.

Since the late 1990s, though, Oakland has become an attractive location for real estate investment, spurred in part by then-Mayor-of-Oakland Jerry Brown's 10K Initiative that proposed scattered market-rate housing across downtown. In the years leading up to the 2008 housing crash and Great Recession, banks engaged in a process called "reverse redlining" where predatory lending practices and subprime loans were targeted in the same neighborhoods that were once marked as off-limits for borrowers in the 1950s. These targeted practices resulted in enormous waves of foreclosures in East and West Oakland. Data from the Urban Strategies Council shows that 93 percent of foreclosed properties then acquired by investors were located in these neighborhoods. This influx of capital for development has happened in a way that has reinvigorated downtown and uptown and led to waves of residential and commercial gentrification, especially in North and West Oakland. The direct and indirect displacement of residents in these areas, driven by the heated and inequitable housing market, threatens not only households but the cultural identity and viability of these communities.

Figures 2-1 and **2-2** map the geographic change in racial and economic makeup of the city throughout time. It is noted that the definitions of race/ethnicity and measures of income have also changed to reflect social changes; these maps are limited to available data by census tract. Figure 2-1 shows how patterns of racial segregation have evolved, with increasing diversity along I-580, but have also maintained a majority-white concentration in the Oakland Hills and majority-non-white concentrations in the flatlands. This map also demonstrates how the makeup of communities of color have changed; majority Black neighborhoods in West and East Oakland (in blue) have turned over to Hispanic/Latinx majorities (in orange) between 2000 and 2019, which is especially true in East Oakland. Figure 2-2 shows how median household income also follows a similar spatial pattern. The areas in light green represent neighborhoods with the highest income, which generally overlap with areas that have white majorities. In the same manner, areas with the lowest income shown in dark blue are generally clustered in West Oakland, San Antonio, and East Oakland. These patterns of inequity are further demonstrated by the disparity in current (2019) poverty level by race shown in **Chart 2-1** and mapped in **Figure 2-3**. **Figure 2-4** maps the change in population density by census tract to show the context of how the population of Oakland has geographically grown or shifted over the past 80 years.

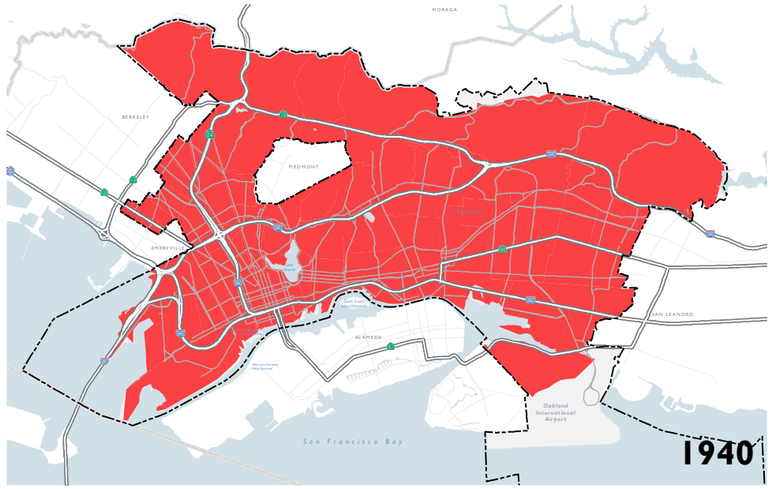
4 Just Cities, East Oakland Displacement Status and Impacts from the BRT Project Summary: A Racial Equity Planning and Policy Justice Report for OakDOT's East Oakland Mobility Action Plan, June 2021, https://drive.google.com/file/d/1sGCZt1uGPaFLroOm8BkGczV_vXOGsFTk/view, accessed March 16, 2022.

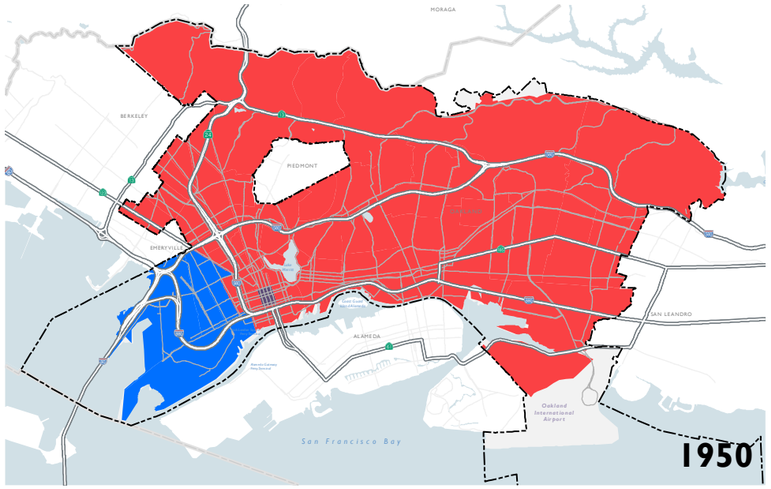
5 King, Ryan. "Disparity by Geography: The War on Drugs in America's Cities." The Sentencing Project, 1 May 2008, https://www.sentencingproject.org/wp-content/uploads/2016/01/Disparity-by-Geography-The-War-on-Drugs-in-Americas-Cities.pdf

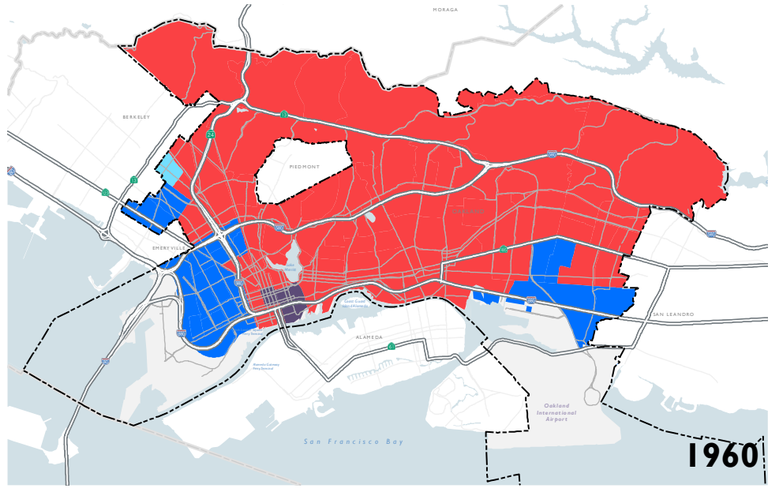
6 Fryer, Roland G. Jr., et al. "Measuring Crack cocaine and its Impact." Economic inquiry, Apr. 2006, scholar.harvard.edu/files/fryer/files/fhlm_crack_cocain_0.pdf

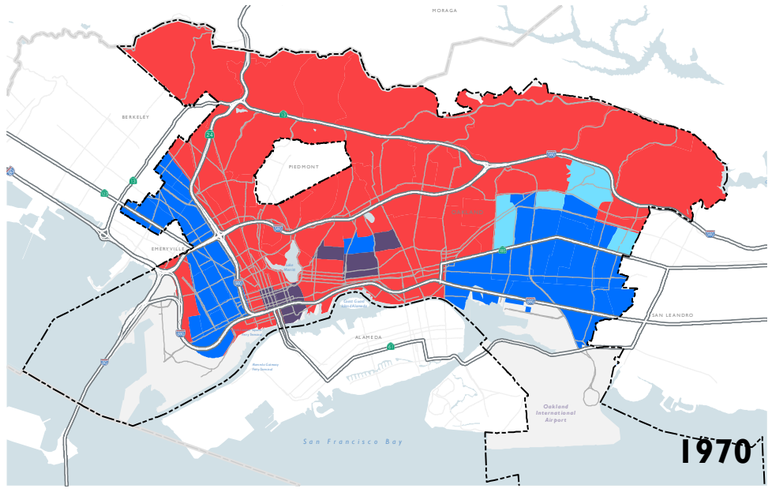
Notes: Historic Census Tracts from Decennial Census. All other features (e.g., streets, city limits) are as existing (2021). Asian/Pacific Islander and Hispanic/Latinx populations were not distinguished from "other" races until 1980, and Asian and Pacific Islander were not seperated until 2000, Tracts mapped by racial plurality (majority or greatest proportion). Port of Oakland/OAK airport areas masked out from 1960 onwards as low population areas.

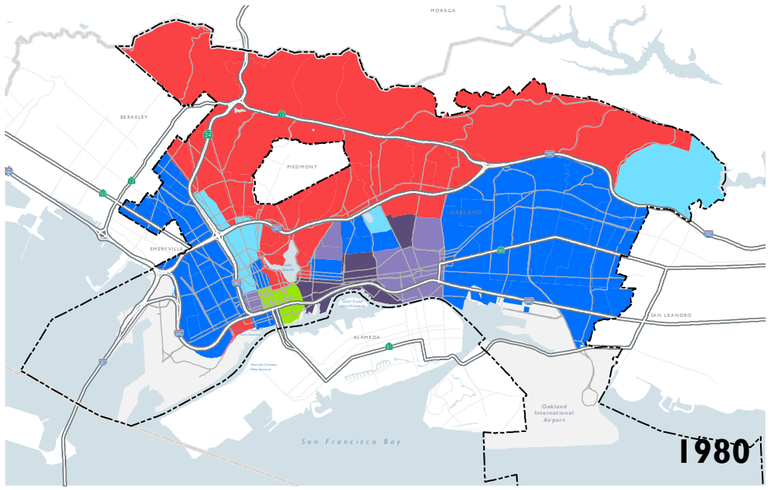
Figure 2-1: Race, 1940-2019

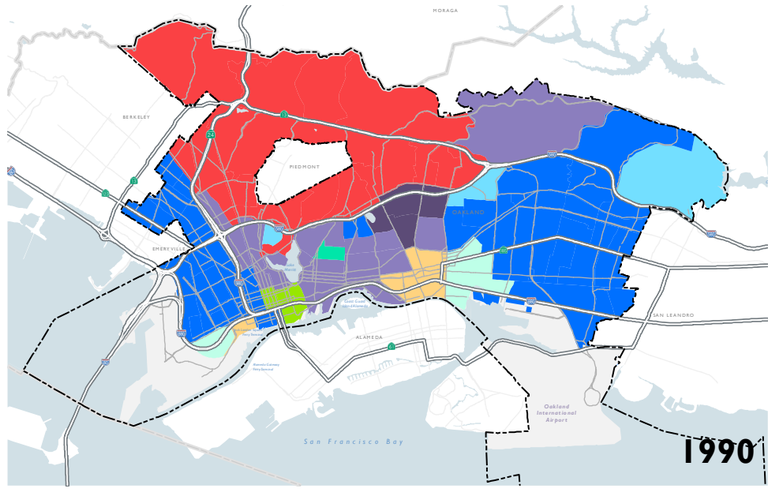


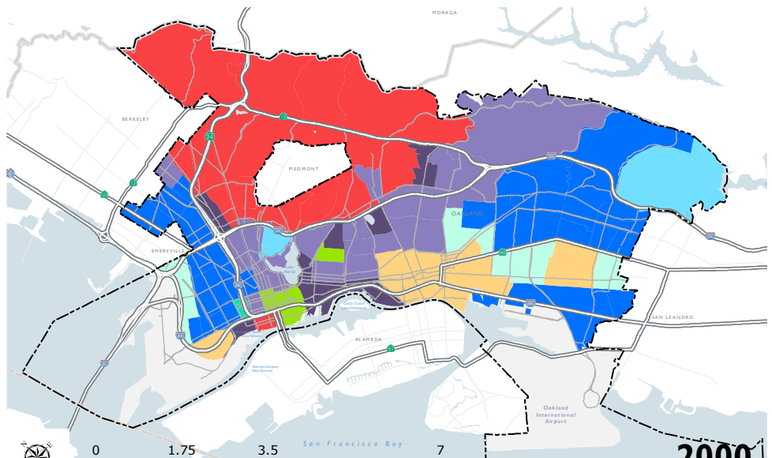


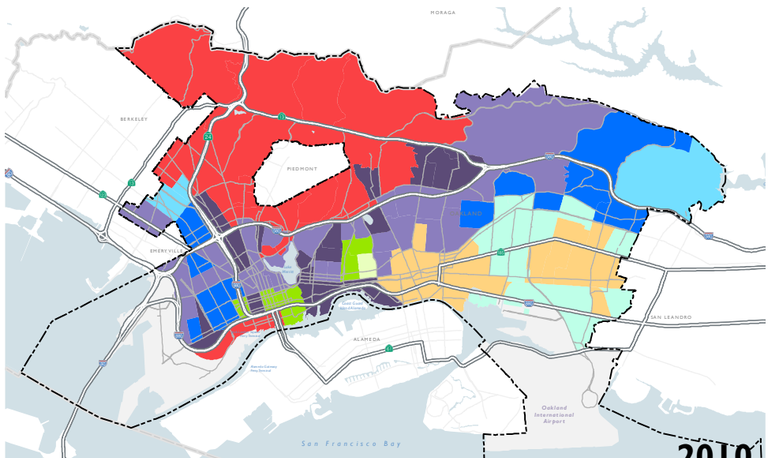


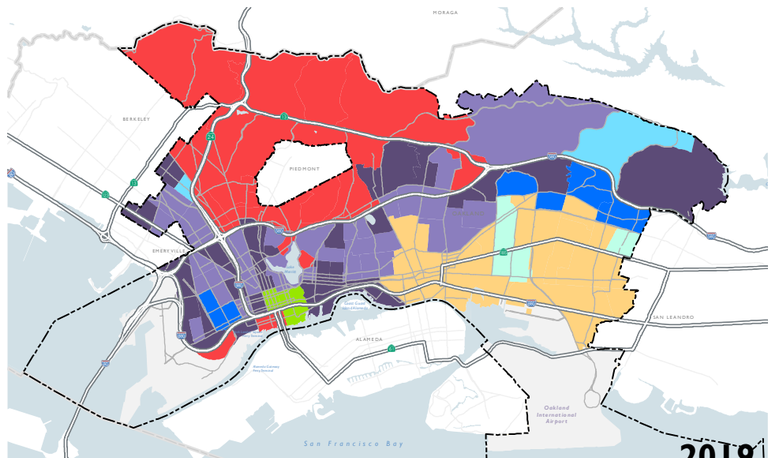












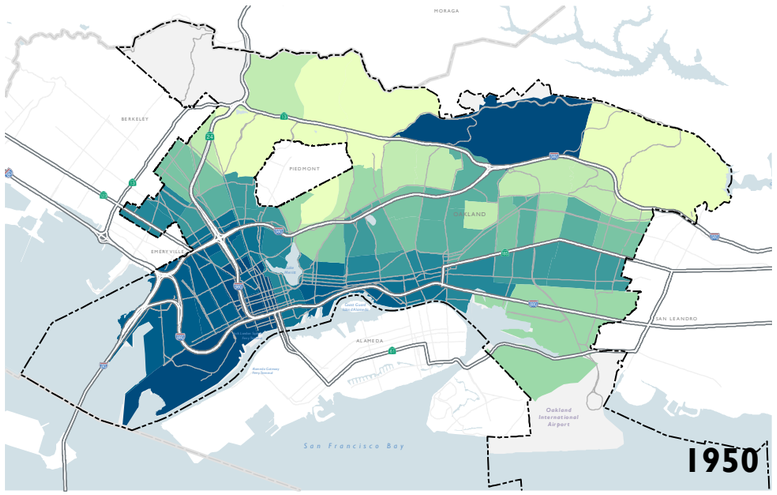
Racial Plurality

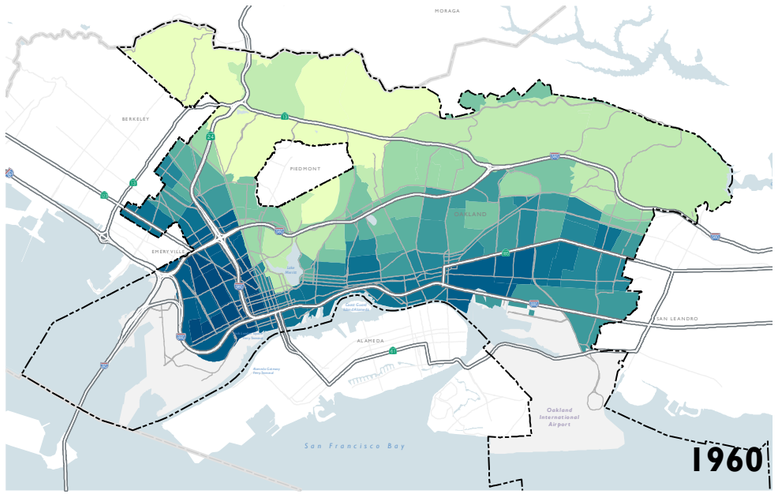
- Majority White
- Majority Hispanic/ Latinx
- Majority Black
- Black & White
- Black & Hispanic/ Latinx
- Asian/Pacific Islander & Black
- Majority Asian*
- Asian & Hispanic/ Latinx
- 3 Group Mixed
- Mixed (Diverse)
- No Data/Low Pop.Area

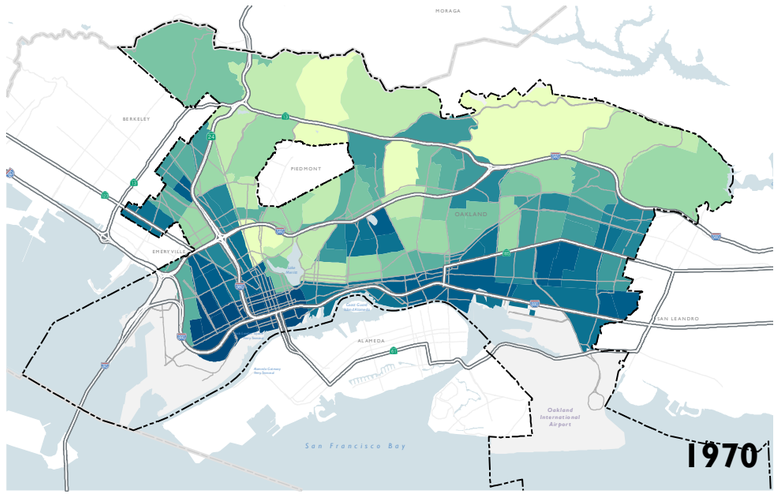
**Includes Pacific Islander 1980-90.*

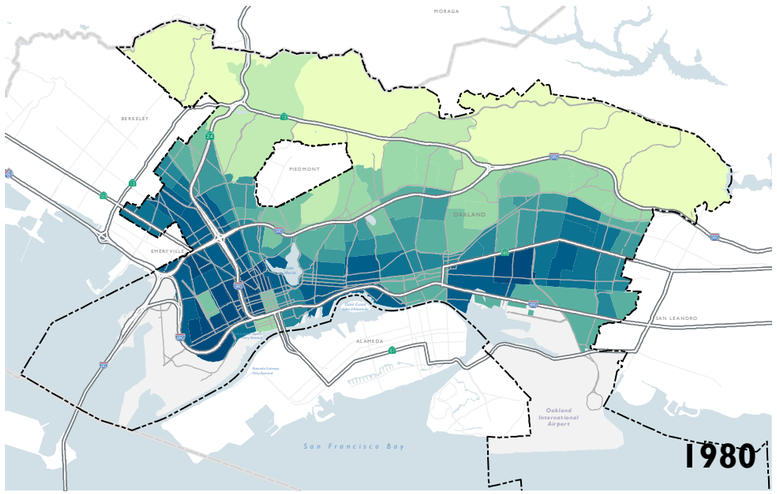
Figure 2-2: Income, 1950-2019

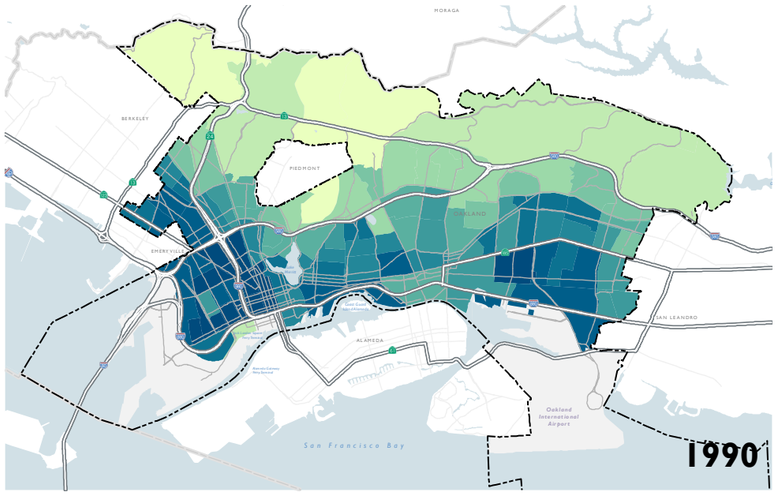
Notes: Historic Census Tracts from Decennial Census. All other features (e.g., streets, city limits) are as existing (2021). Port of Oakland/OAK airport areas masked out from 1960 onwards as low population areas.

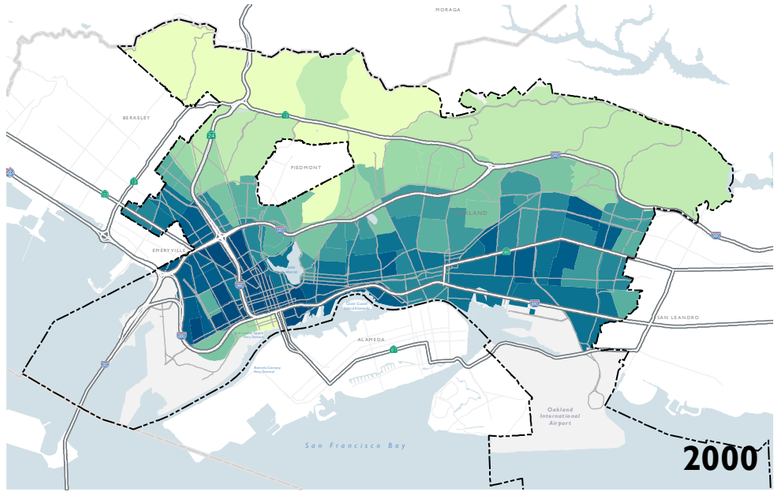


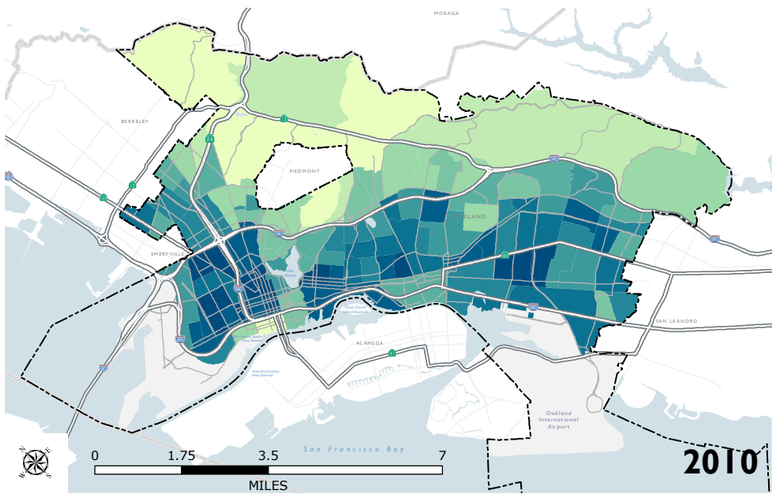


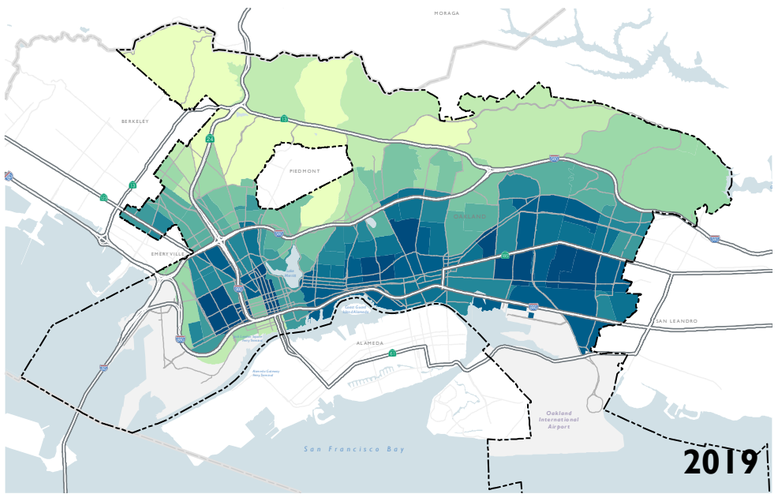












Distribution of Median Household Income*

Percentile Range

- Top 10% (Highest Income)
- 80-90%
- 70-80%
- 60-70%
- 50-60%
- 40-50%
- 30-40%
- 20-30%
- 10-20%
- 0-10% (Lowest Income)
- No Data/Low Population Area

**1960 and 1970 reflect average household (families and unrelated individuals) incomes rather than median due to data limitations.*

Figure 2-3: Prevalence of Poverty, 2019

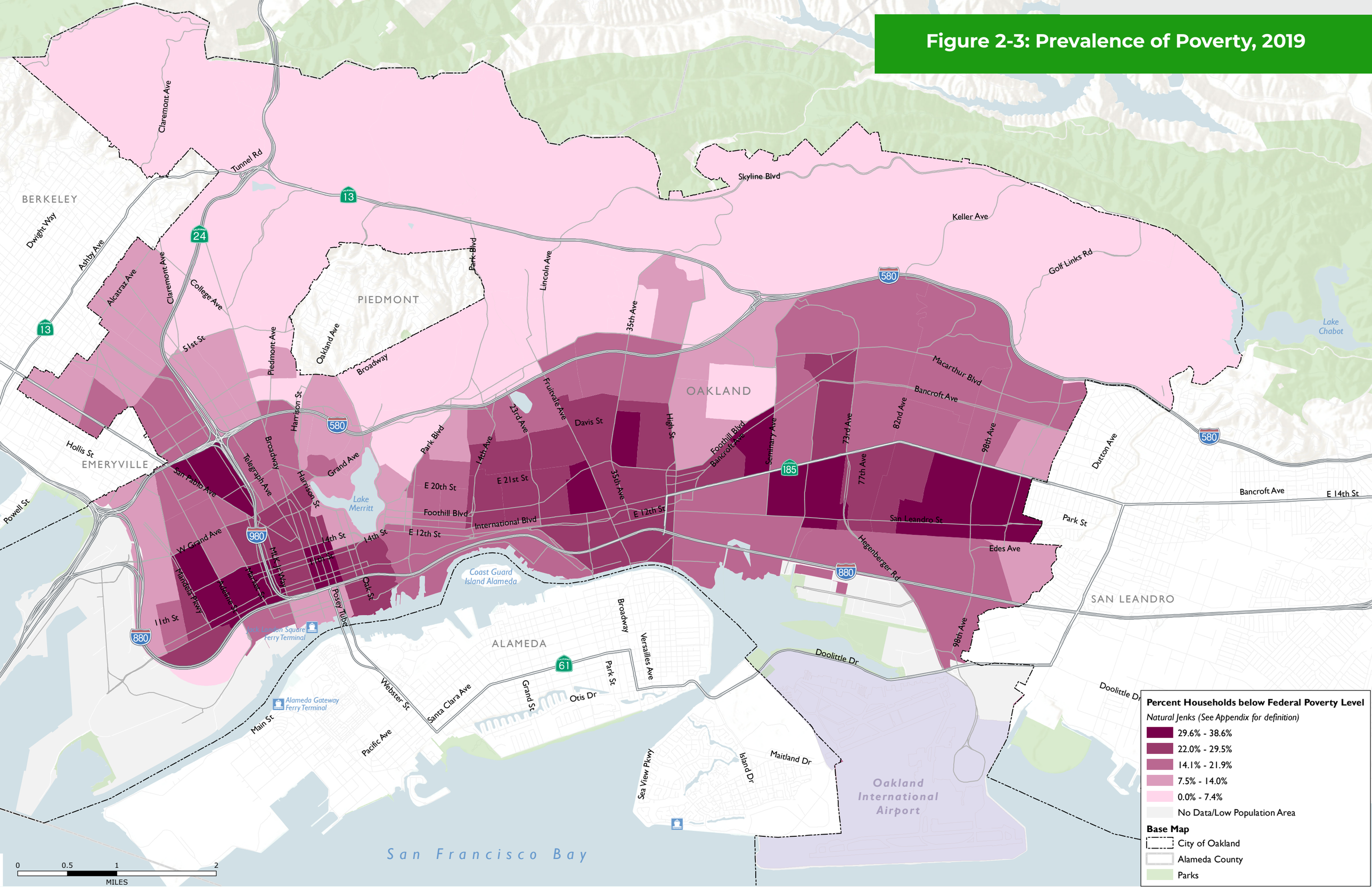
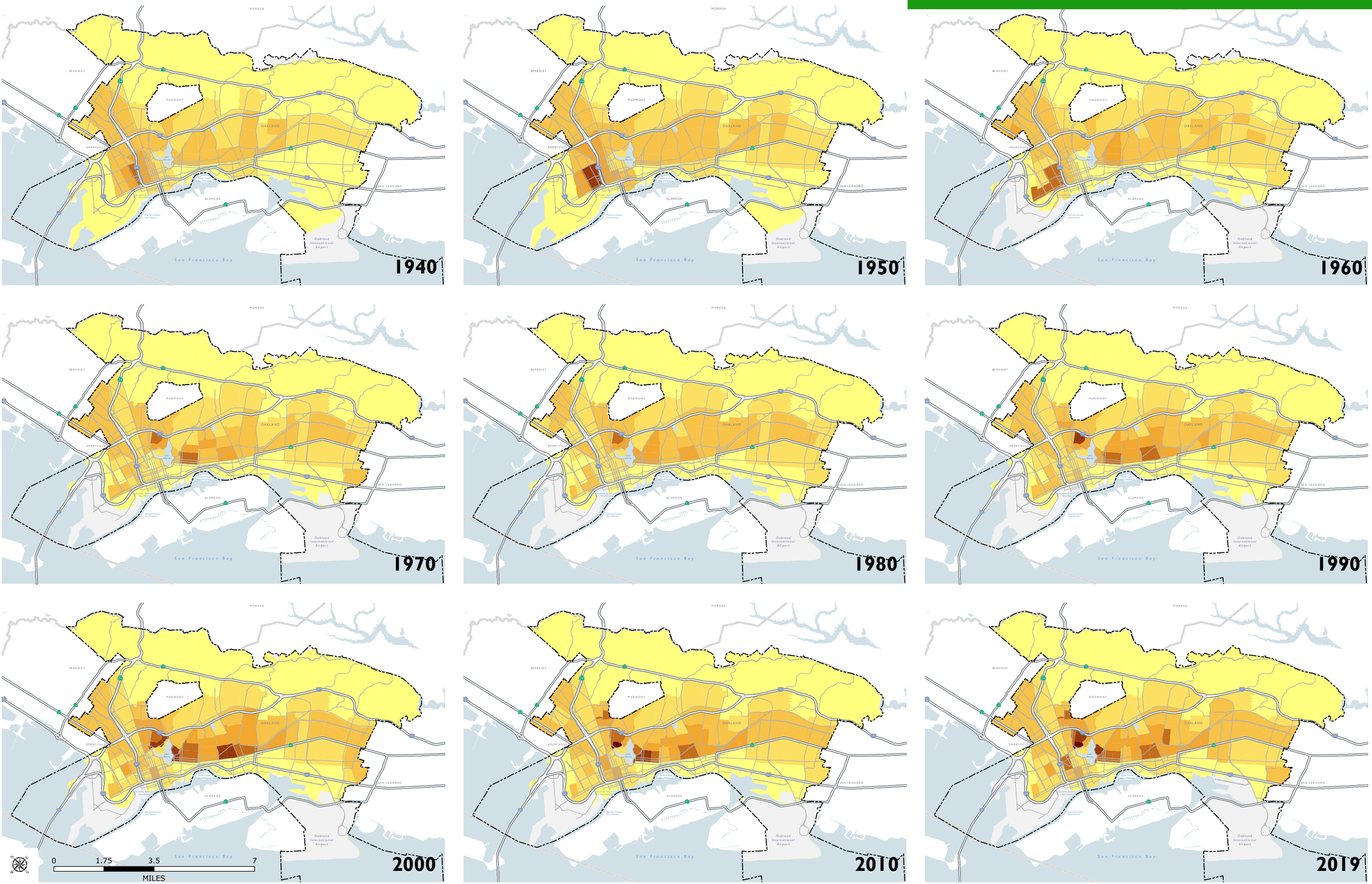


Figure 2-4: Population Density, 1940-2019

Notes: Historic Census Tracts from Decennial Census. All other features (e.g., streets, city limits) are as existing (2021). Port of Oakland/OAK airport areas masked out from 1960 onwards as low population areas.



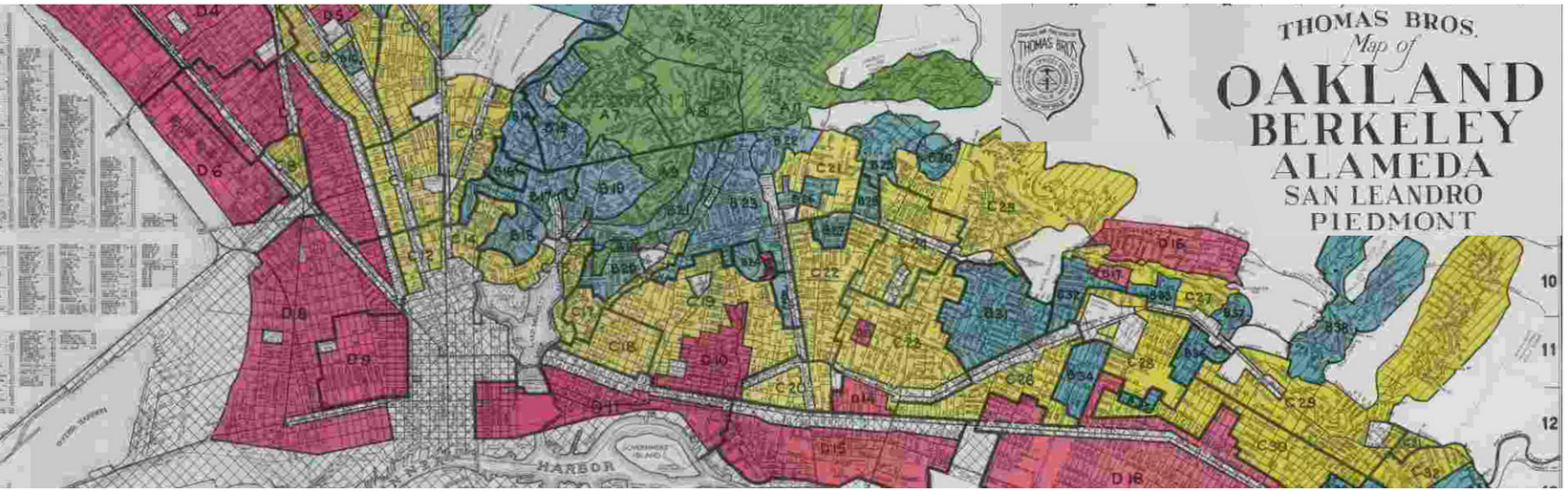
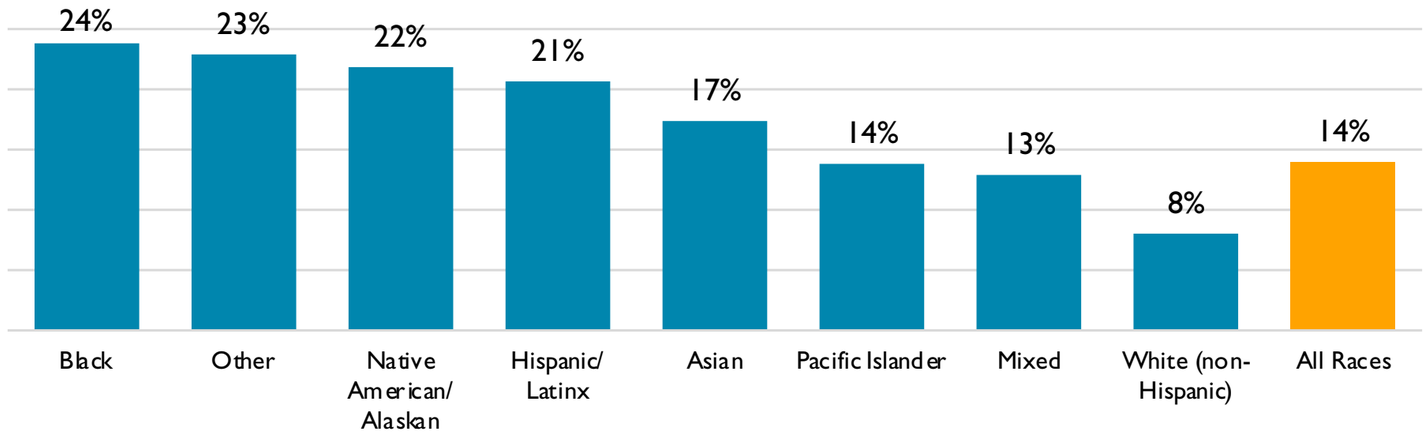


Chart 2-1: Percent Population Below Poverty Level by Race, 2019



Note: Racial groups other than white are not exclusive of Hispanic/Latinx and may have some overlap.
Source: ACS 5-Year Estimates, 2015-2019

2.2 The Impact of History

"There is increasing recognition that the environments in which people live, work, learn, and play have a tremendous impact on their health. Re-shaping people's economic, physical, social, and service environments can help ensure opportunities for health and support healthy behaviors. [Because] health and public health agencies rarely have the mandate, authority, or organizational capacity to make these changes [...] responsibility for the social determinants of health falls to [...] housing, transportation, education, air quality, parks, criminal justice, energy, and employment agencies."

- Adewale Troutman and Georges C. Benjamin, American Public Health Association, Health in All Policies: A Guide for State and Local Governments, 2013

HEALTH INEQUITIES

Health inequities are differences in health outcomes "that are a result of systemic, avoidable, and unjust social and economic policies and practices that create barriers to opportunities."[7] As described above, a history of structural racism has contributed to persistent inequities that are exacerbated by an increasing gap in social and economic inequalities. Impacts of institutional and environmental racism on health are also well-documented in scientific literature.[8] Many of these health inequities stem from disproportionate health burdens that are directly and indirectly tied to social, physical, and economic conditions in

7 Rudolph, L., Caplan, J., Ben-Moshe, K., & Dillon, L. (2013). Health in All Policies: A Guide for State and Local Governments. Washington, DC and Oakland, CA: American Public Health Association and Public Health Institute.

8 Environmental Racism Collection: Exposure and Health Inequities in Black Americans. Environmental Health Perspectives: National Institutes of Health. Accessed at https://ehp.niehs.nih.gov/curated-collections/environmental-racism.

neighborhoods. For example, low-income neighborhoods with a greater percentage of communities of color are the most likely to lack access to supermarkets and healthful food, have fewer parks, and are more likely to be located near sources of air pollution.[9] Because many of these factors have traditionally fallen outside the responsibility of public health agencies, it is necessary for various sectors and policy areas to coordinate conscious efforts to protect community health and achieve health equity.

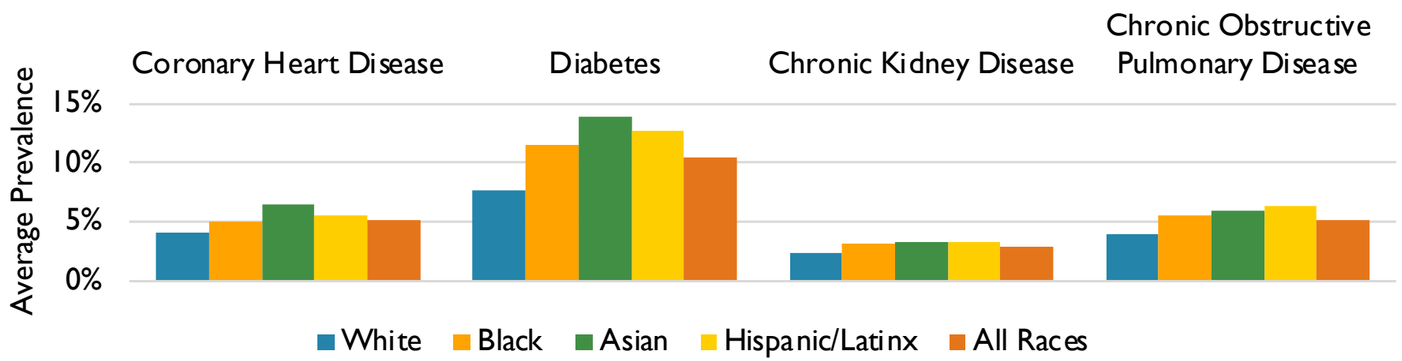
The variance in richness or lack of opportunities and resources by neighborhood dictate what SB 1000 refers to as the "unique or compounded health risks" that affect an environmental justice community. Based on data from the Alameda County Public Health Department (ACPHD), the average life expectancy at birth in Oakland is 80.7 years, which is lower than the Alameda County average of 82.9 years. As shown in **Chart 2-3**, Asians have the highest life expectancy (86.7 years), followed by white (82.5) and Hispanic/Latinx (82.4). Black populations notably have the lowest life expectancy of 73.5 years, which is also well below both the city and county average. Additionally, there is a nearly 20-year disparity between the census tract with the highest and lowest life expectancy at birth. As shown in **Figure 2-5**, tracts in East Oakland generally have lower life expectancies, and the tracts with the lowest life expectancies are Fitchburg/Hegenberger and Brookfield Village both at less than 72 years – more than 10 percent less than the citywide average.

According to data from the Center for Disease Control (CDC), there is also a disparity in the prevalence of asthma, stroke, and obesity among adults (ages 18 and over) in Oakland. **Figures 2-6**, **2-7**, and **2-8** show that areas with the greatest prevalence include DeFremery/Oak Center and Acorn in West Oakland as well as Havenscourt/Coliseum, Bancroft/Havenscourt, and Seminary in East Oakland, whereas tracts in the Oakland Hills consistently have lower incidences of these health outcomes. Additional local data and impacts on health can be found in chapters that follow.

9 Ibid.

More explicitly, the charts below demonstrate how health outcomes in Oakland differ by race. **Chart 2-2** shows how white populations have a much lower average rate of coronary heart disease, diabetes, chronic kidney disease, and chronic obstructive pulmonary disease than Black, Asian, and Hispanic/Latinx populations. In fact, the average incidence of these health outcomes is lower than the all-tract ("all races") average for the white population, while Black, Asian, and Hispanic/Latinx populations experience higher rates than the city average. These findings are also supported by data from the ACPHD, which show that there are racial disparities in health outcomes for cancer-related deaths, rate of low-birth-weight infants, and life expectancy at birth (as also discussed above), summarized in **Chart 2-3**.

Chart 2-2: Difference in Health Outcomes by Race, 2020



Based on average crude prevalence of health outcomes within tracts assigned by racial plurality. See Appendix Methodologies for more detail on methodology.
Sources: Center for Disease Control and Prevention, 2020; Dyett & Bhatia, 2022.

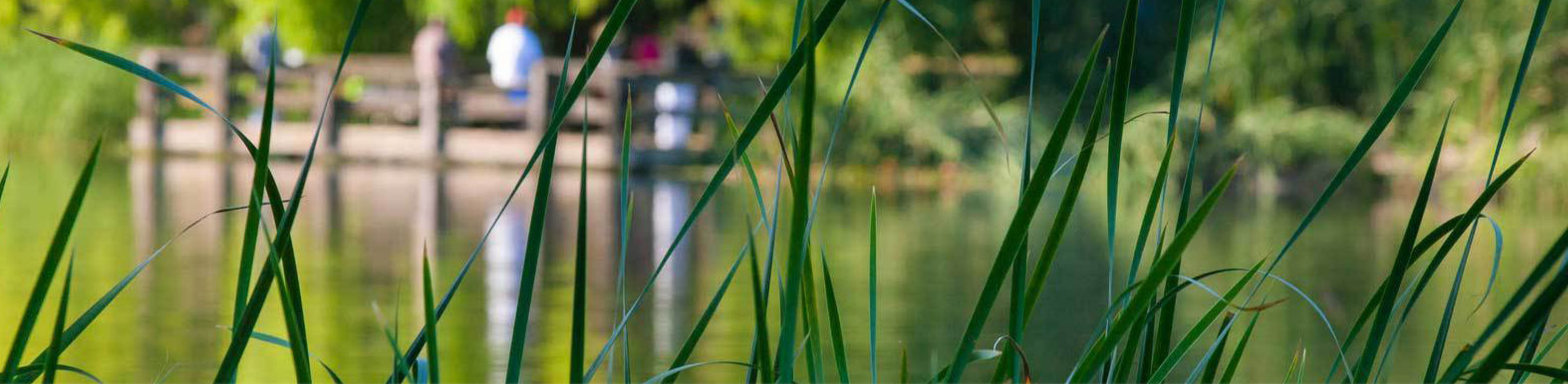
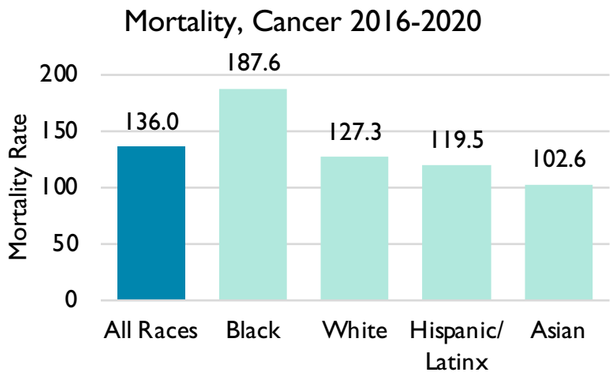
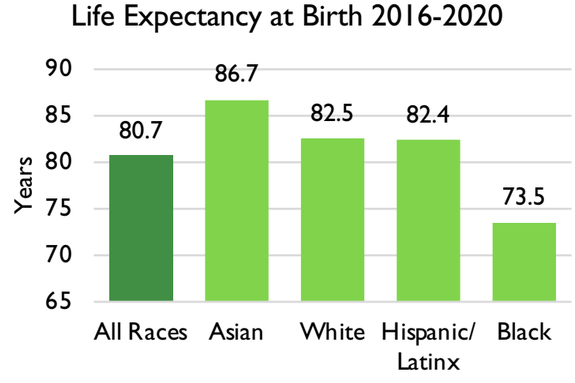
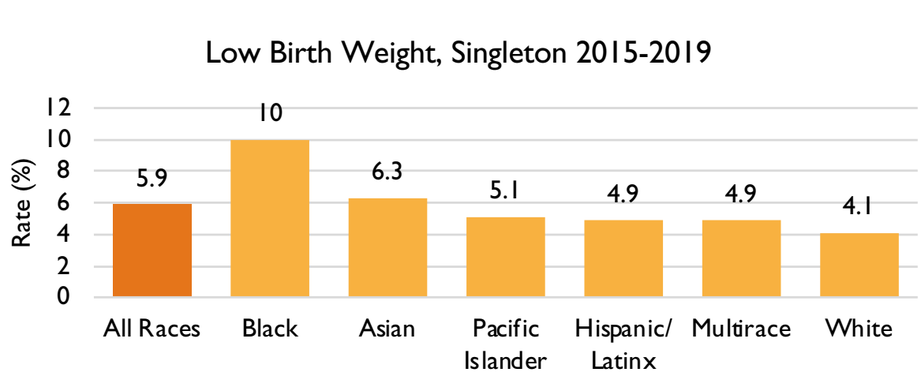


Chart 2-3: Difference in Health Outcomes by Race







Note: Pacific Islander, Native American/Alaskan, and Multirace populations are included in "All Race" but are not disaggregated due to the small size (less than 10 people) of these groups.
Sources: Alameda County Public Health department, 2021; Dyett & Bhatia, 2022

Figure 2-5: Life Expectancy at Birth, 2016-2020

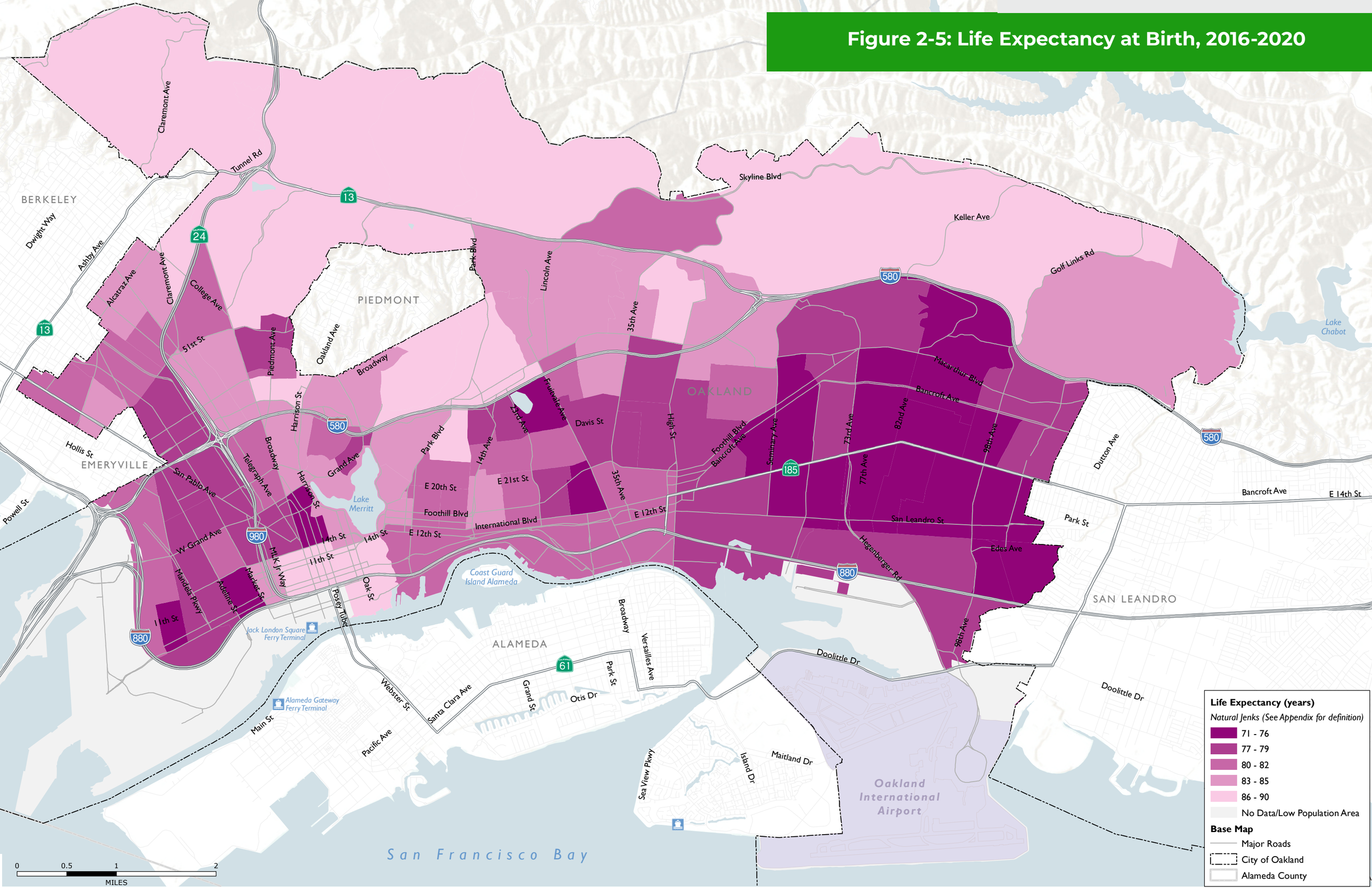
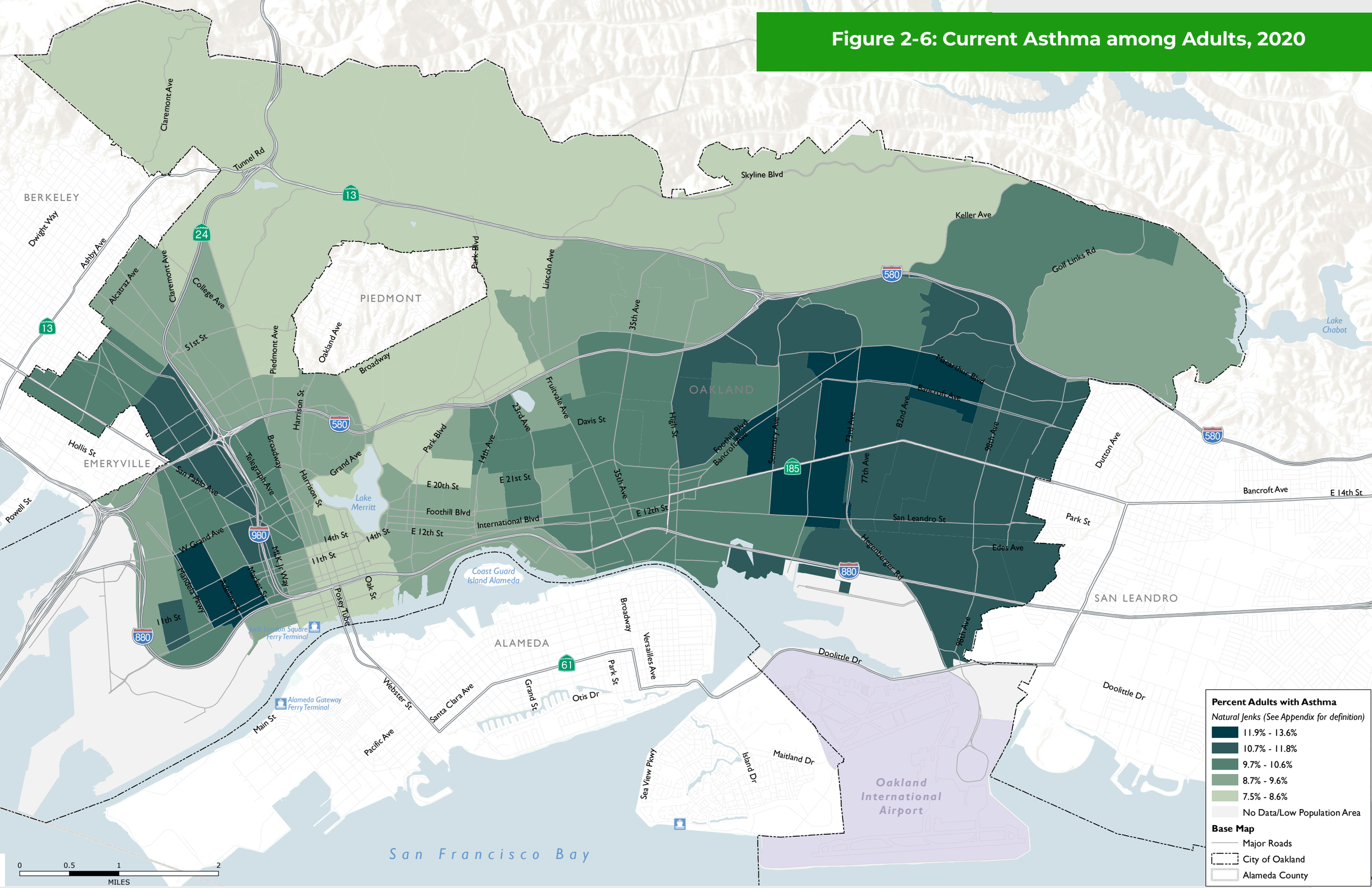


Figure 2-6: Current Asthma among Adults, 2020



Percent Adults with Asthma

Natural Jenks (See Appendix for definition)

- 11.9% - 13.6%
- 10.7% - 11.8%
- 9.7% - 10.6%
- 8.7% - 9.6%
- 7.5% - 8.6%
- No Data/Low Population Area

Base Map

- Major Roads
- City of Oakland
- Alameda County

Figure 2-7: Adults who have had a Stroke, 2020

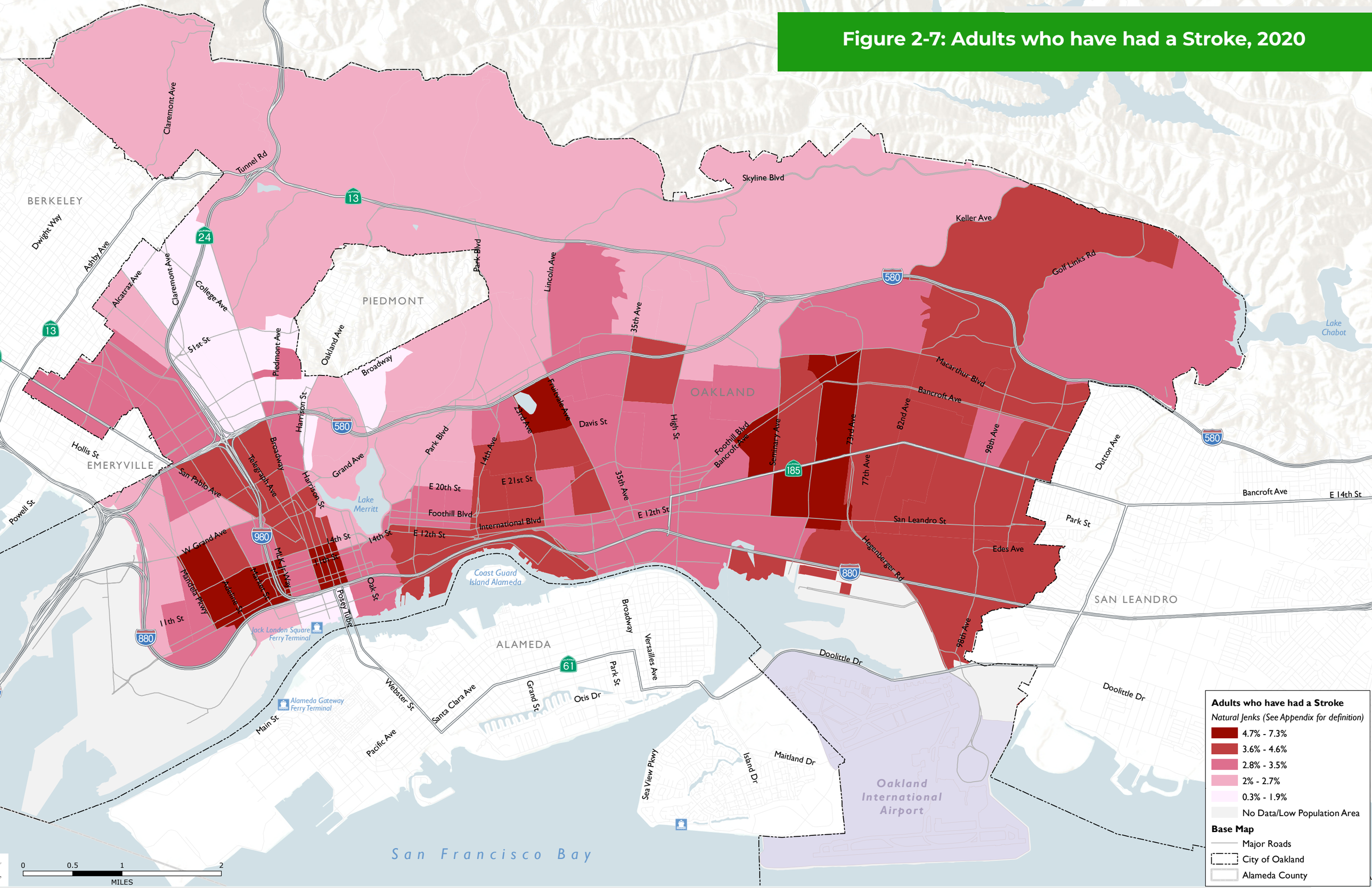
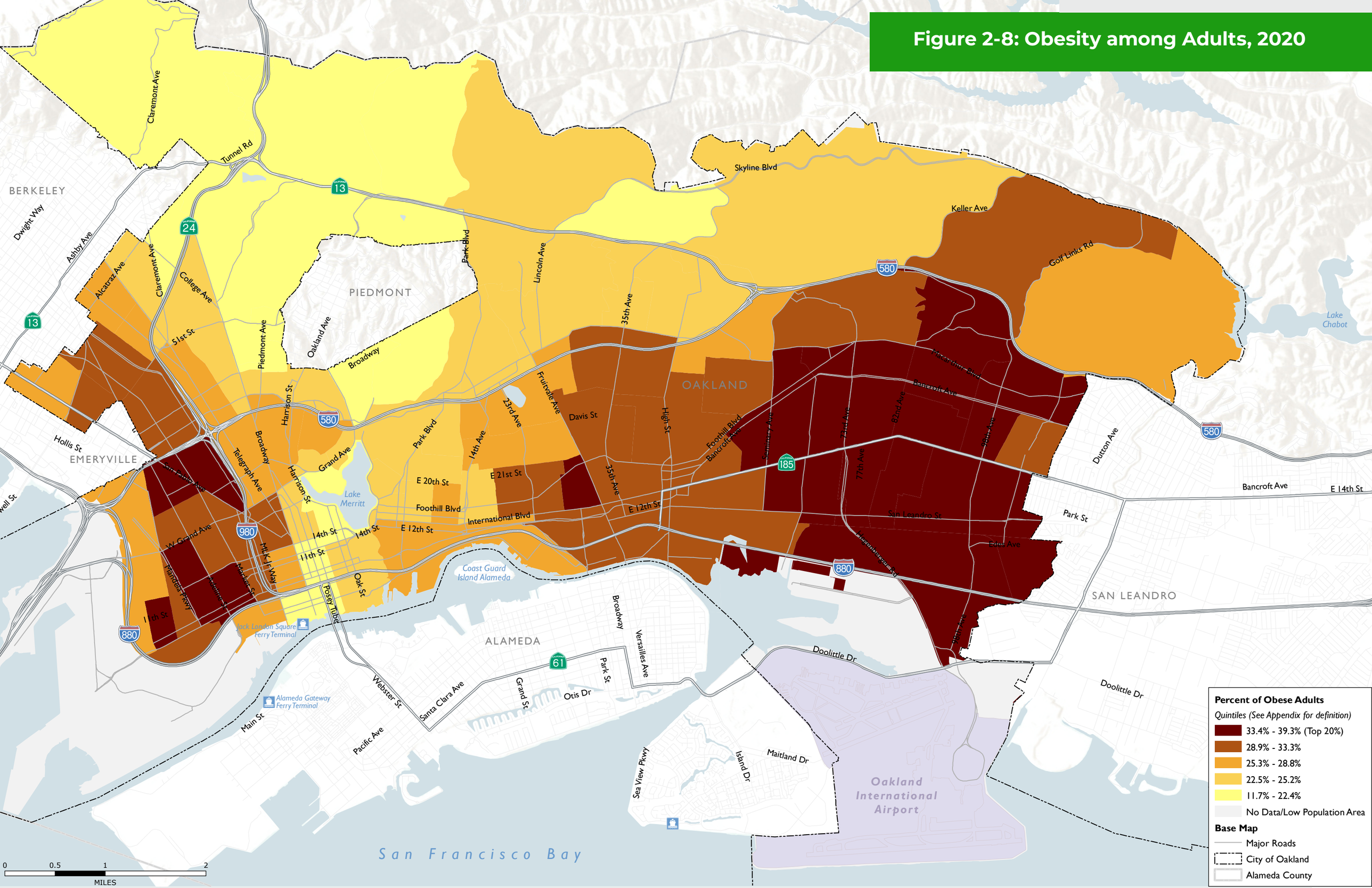


Figure 2-8: Obesity among Adults, 2020



Percent of Obese Adults

Quintiles (See Appendix for definition)

- 33.4% - 39.3% (Top 20%)
- 28.9% - 33.3%
- 25.3% - 28.8%
- 22.5% - 25.2%
- 11.7% - 22.4%
- No Data/Low Population Area

Base Map

- Major Roads
- City of Oakland
- Alameda County

OAKLAND EQUITY INDICATORS

As introduced in Chapter 1: Introduction, the purpose of Oakland's Equity Indicators Report is to establish a baseline quantitative framework of 72 indicators across six central themes that can be used by City staff and community members alike to better understand the impacts of race, measure inequities, and track changes in the disparities for different groups over time. Based on this report, Oakland has an overall score of 33.5 out of 100.0, where 100.0 represents complete equity.[10] **Table 2-1** lists the six highest scoring (i.e., greatest equity) indicators, which are the only indicators that received a score greater than 70. In contrast, there are twice as many indicators that received the lowest possible score of a one, which corresponds to the most extreme levels of inequity between groups (also shown in **Table 2-1**).

For the complete list of themes, topics, indicators, and their scores from the 2018 Oakland Equity Indicators Report, see the Appendix.

10 City of Oakland. Oakland Equity Indicators: Measuring Change Toward Greater Equity in Oakland. 2018. https://cao-94612.s3.amazonaws.com/documents/2018-Equity-Indicators-Full-Report.pdf. Accessed January 2022.

Table 2-1: Oakland Equity Indicators Report 2018 Highest and Lowest Scores

THEME	TOPIC	INDICATOR	SCORE
HIGHEST SCORES			
Neighborhood and Civic Life	Civic Engagement	Equal Access Accommodations	100
		Adopt a Drain	80
Housing	Displacement	Homeownership with Mortgage	78
Public Health	Mortality	Life Expectancy	77
Economy	Employment	Labor Force	72
	Job Quality	Participation in Workforce Development Programs	72
LOWEST SCORES			
Education	Suspensions	Suspensions	1
	Representation of Student Population	Representation of Student Population	1
Public Health	Childhood Asthma Emergency Department Visits	Childhood Asthma Emergency Department Visits	1
	Substance Abuse Emergency Department Visits	Substance Abuse Emergency Department Visits	1
Housing	Homelessness[1]	Homelessness[1]	1
Public Safety	Adult Felony Arrests[2]	Adult Felony Arrests[2]	1
	Jail Incarceration[2]	Jail Incarceration[2]	1
	Prison Incarceration[2]	Prison Incarceration[2]	1
	Use of Force[2]	Use of Force[2]	1
	Homicide	Homicide	1
	Juvenile Felony Arrests[2]	Juvenile Felony Arrests[2]	1
Neighborhood and Civic Life	Pedestrian Safety[1]	Pedestrian Safety[1]	1

1. Discussed in Chapter 4: Neighborhood and Built Environment.
2. Discussed in Chapter 5: Social and Community Environment.

Source: Oakland Equity Indicators Report, 2018

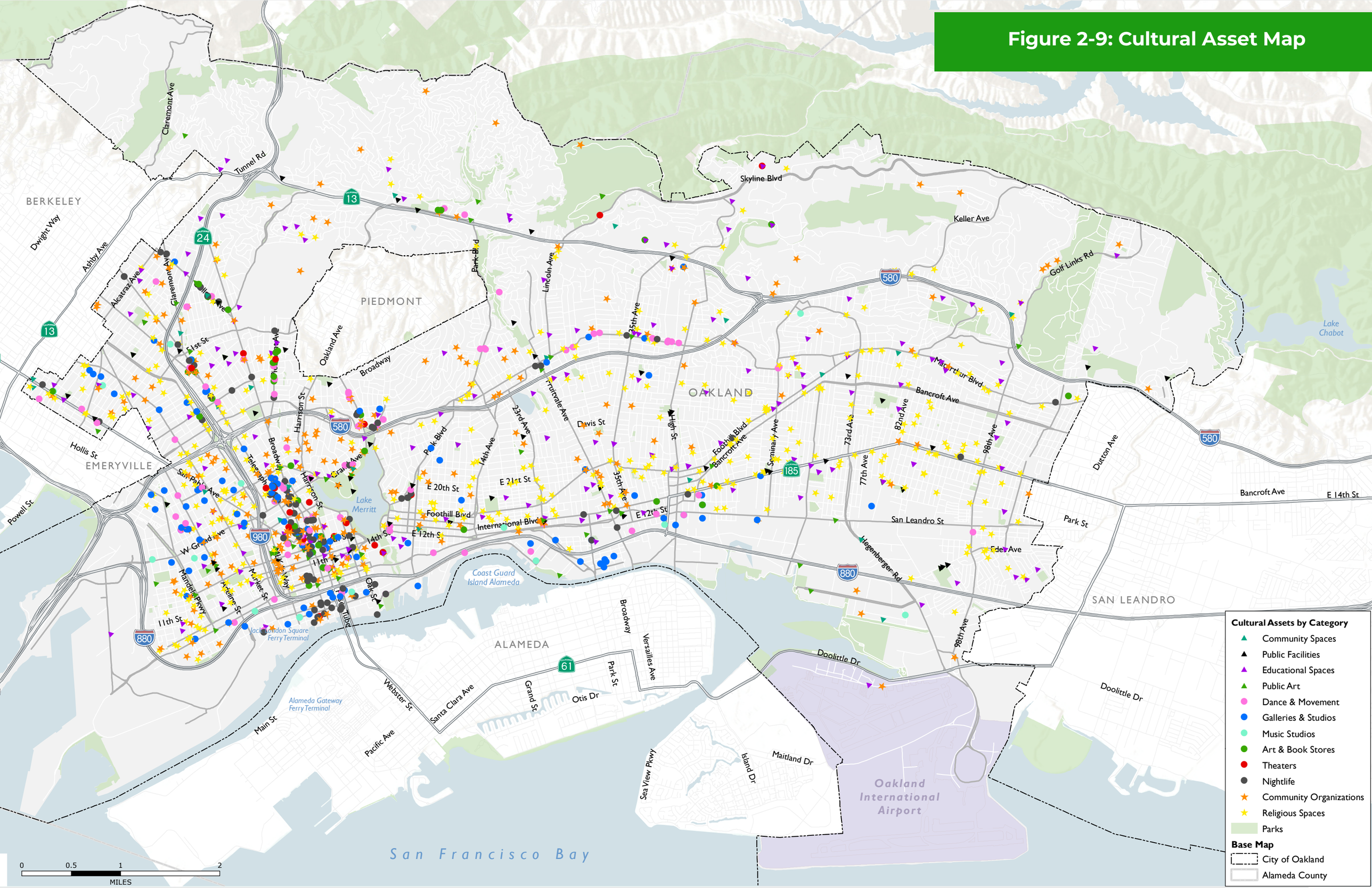
2.3 Building Resilience

Despite the immeasurable harms of institutional and environmental racism and disinvestment, Oakland's culturally historic neighborhoods remain critically important centers of community life. Oakland communities continually innovate and come together to maintain and grow their social and economic fabric. Whether this involves reconstructing a once-thriving entertainment and commercial street in West Oakland, building out a transit village to meet the needs of Fruitvale's Hispanic/Latinx population, designing venues and networks for Black economic and cultural self-determination in East Oakland, or creating venues for diverse artistic and cultural expression and supports for well-being in San Antonio, grass-roots leaders and organizations are revitalizing Oakland's neighborhoods with its residents and their history at the center of their vision.

One of the main guiding principles of Oakland's General Plan Update involves working with communities in developing solutions for long-term and systemic changes, and the City is shifting focus to center racial equity and community leadership in planning efforts. For example, as described in Chapter 1: Introduction, the City asked community members to identify places that they consider cultural assets for the Oakland Cultural Plan, which resulted in the Cultural Asset Map shown in Figure 2-9. Chapter 1 also highlights additional community-led efforts that have centered racial equity and championed environmental justice such as the Healthy Development Guidelines, WOCAP, EONI, and ECAP.

Look out for call-out boxes throughout document that provide examples of City and/or community-led efforts that are related to the issue discussed.

Figure 2-9: Cultural Asset Map



Cultural Assets by Category

- Community Spaces
- Public Facilities
- Educational Spaces
- Public Art
- Dance & Movement
- Galleries & Studios
- Music Studios
- Art & Book Stores
- Theaters
- Nightlife
- Community Organizations
- Religious Spaces
- Parks

Base Map

- City of Oakland
- Alameda County

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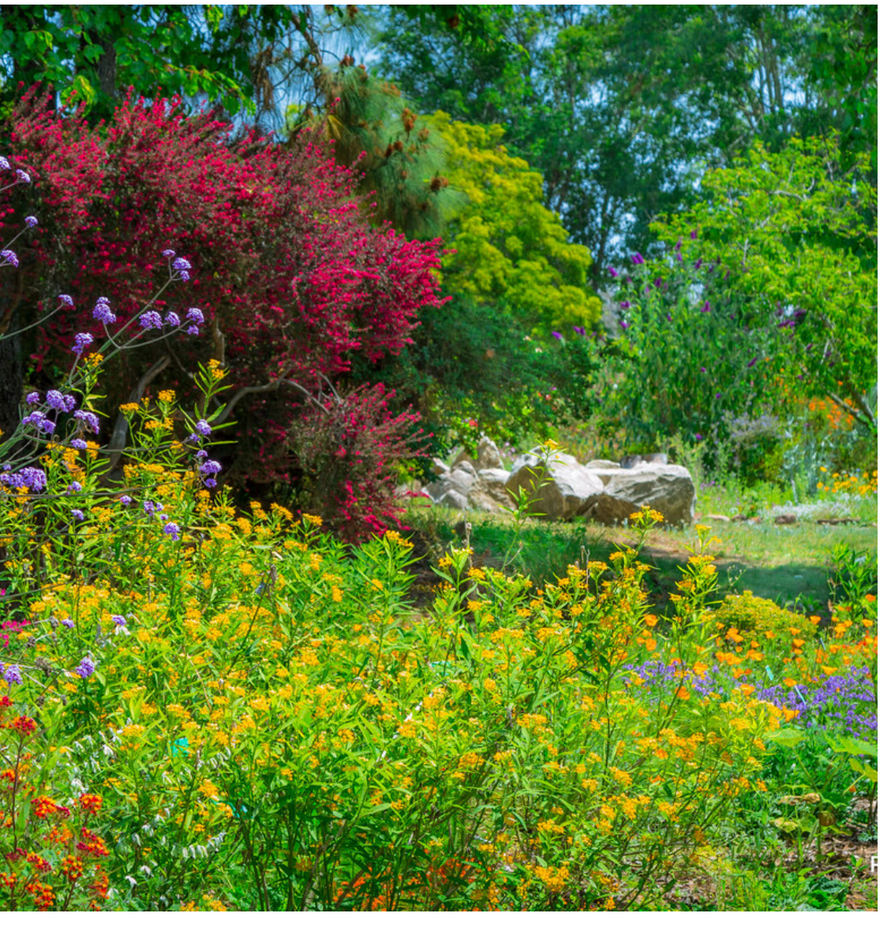
03

ENVIRONMENTAL HEALTH

3. Environmental Health

This section covers existing environmental factors such as pollution and other natural and human-made environmental hazards that affect Oakland residents. It identifies baseline conditions related to the SB 1000 (2016) topics of pollution exposure, air quality, and unique or compounded health risks. In addition to environmental justice, these topics correspond most closely with the Land Use and Transportation, Open Space, Conservation, and Recreation (OSCAR) and Safety elements of the General Plan.



3.1 Sensitive Land Uses

Sensitive land uses are those where individuals most vulnerable to pollution's effects, such as young children, older adults, and those in poor health, are most likely to spend time. These uses include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities. In the short- and long-term, an individual's exposure to pollution in their community can lead to chronic conditions or negative health outcomes including asthma or increased risk of cancer. Communities of color are at higher risk for exposure to pollution and hazards in neighborhood environments at an early age. Exposure to these conditions, particularly during sensitive developmental stages, contributes to health disparities later in life.[1] As discussed in Chapter 2, a history of racially discriminatory policies and practices have created inequitable development patterns that expose BIPOC communities and low-income communities to greater concentrations of pollution and other health risks.

Land use compatibility is one of the most important contributors to environmental burdens on an environmental justice community. Mixing sensitive land uses with known or foreseeable pollution or natural hazards can create or compound health risks. According to WOEIP's 2002 report, "Neighborhood Knowledge for Change", ten percent of sensitive sites in Oakland, like schools, hospitals, and homeless shelters were located within one-eighth of a mile of industrial facilities at high risk for chemical accidents. **Figure 3-1** maps the location of existing sensitive land uses in Oakland, with residential areas shown in yellow. Other than residentially zoned areas, over 30 percent of sensitive uses shown in **Figure 3-1** are within one-eighth of a mile of industrial facilities with a high or very high hazard ranking.

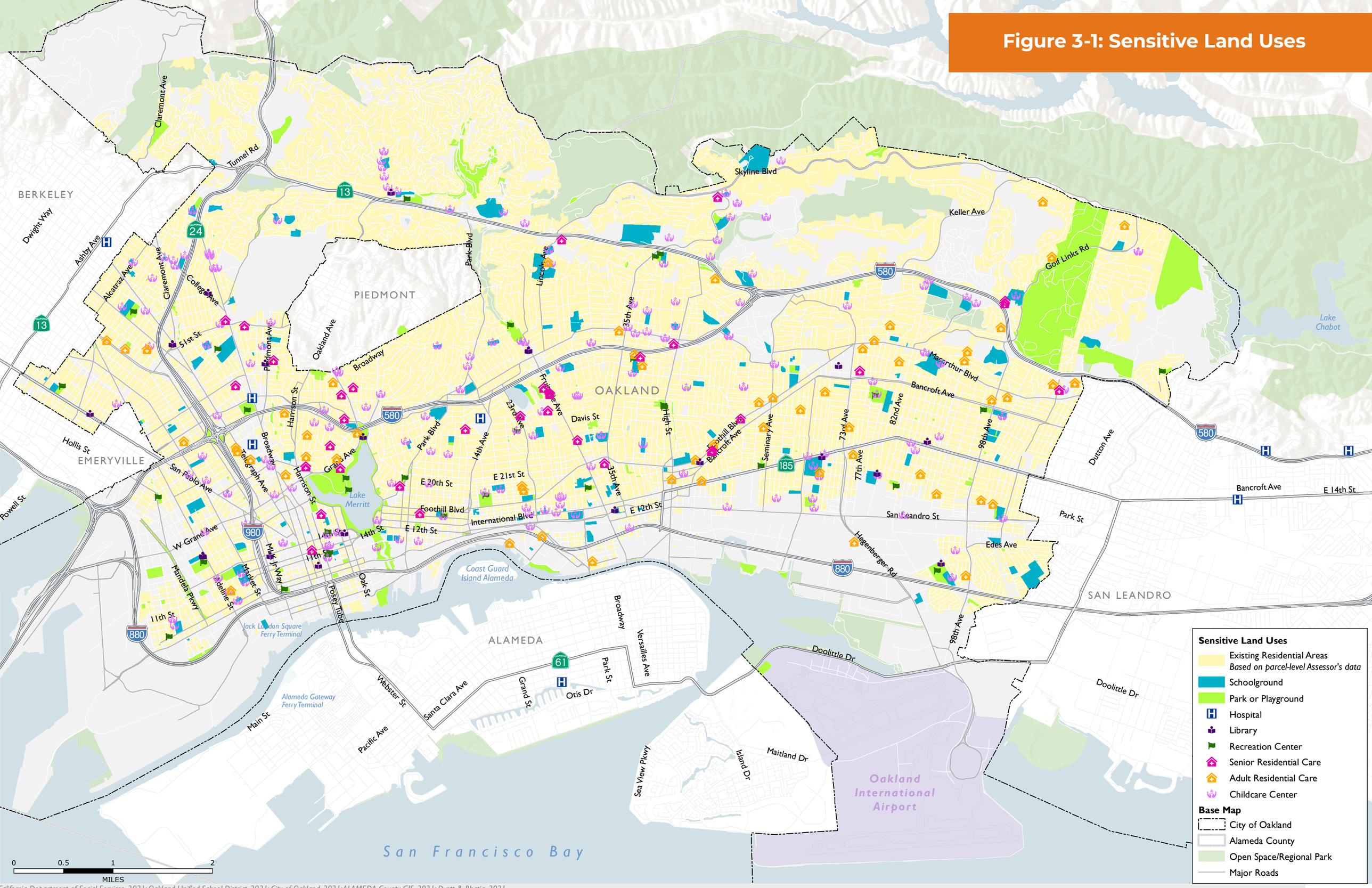
Sensitive land uses or community assets?

Both! In order to protect Oakland residents, the City identifies the places that they live and gather as locations where extra caution should be taken to ensure that pollution exposure and other environmental risks are as minimal as possible.

As such, many of the locations mapped in **Figure 3-1** overlap with the Cultural Asset Map depicted in **Figure 2-9** and public and community facilities discussed in Chapter 4: Neighborhood and Built Environment

1 Chenghao Wang, et. al, "Rethinking the urban physical environment for century-long lives: from age-friendly to longevity-ready cities," *Nature Aging* 1 (2021): 1088-1095, https://doi.org/10.1038/s43587-021-00140-5, accessed March 8, 2022.

Figure 3-1: Sensitive Land Uses



California Department of Social Services, 2021; Oakland Unified School District, 2021; City of Oakland, 2021; ALAMEDA County GIS, 2021; Dyett & Bhatia, 2021

3.2 Geologic Hazards

Like much of California, the San Francisco Bay Area region is seismically active. The devastation of the 1989 Loma Prieta earthquake prompted the State to enact the Seismic Hazards Zone Program, which identifies areas in California that are prone to liquefaction (when wet, loose soils below groundwater level temporarily "liquefy" during strong earthquake ground shaking), earthquake-induced landslides, and amplified ground shaking, in order to minimize loss of life and property.

Oakland sits between the Hayward and San Andreas fault zones, both of which are active faults designated as Alquist-Priolo Earthquake Fault Zones. Based on estimates by the Working Group on California Earthquake Probabilities, there is a 72 percent chance of experiencing an earthquake of magnitude 6.7 or higher within the next 30 years[2] – with the Hayward and San Andreas faults being the most likely to cause such an event.[3] **Figure 3-2** shows the location of the Hayward Fault Zone that runs through the Oakland Hills in the northern portion of the city and maps areas that are susceptible to landslides as a result of seismic activity. Landslide susceptibility reaches as far as Lake Merritt and central Oakland, north of State Route (SR)-185, though on a lesser scale. Liquefaction, on the other hand, most affects neighborhoods closer to the San Francisco Bay because of the characteristics of the soils and sands that make up the ground in these areas. **Figure 3-3** shows how very high liquefaction susceptibility extends all along the waterfront, and moderate susceptibility affects nearly all of the southern half of the city.

Based on the location of these hazards, higher-income and white residents who make up the majority of the population in tracts along the city's northern edge are more likely to be at risk of landslides and ground shaking, while lower-income areas and communities of color are more likely to be affected by liquefaction (see **Figures 2-3** and **2-4**). Due to the large-scale nature of seismic events, however, the entirety of Oakland is generally at risk of geologic hazards. For more information about geology and seismicity, see Chapter 6: Environmental Hazards of the Map Atlas.

2 California Geological Survey (CGS), 2002b.Earthquake magnitudes are often measured by their Moment Magnitude (Mw) which is related to the physical characteristics of a fault including the rigidity of the rock, the size of fault rupture, and movement or displacement across a fault.

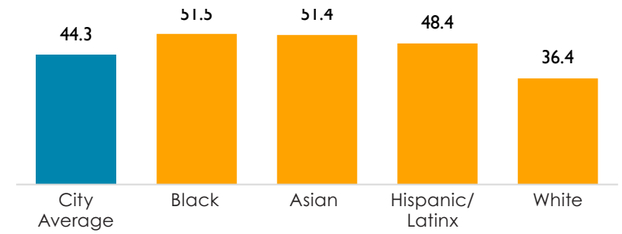
3 Working Group on California Earthquake Probabilities (WGCEP), 2015a. Long-Term Time-Dependent Probabilities for the Third Uniform California Earthquake Rupture Forecast (UCERF3). Bulletin of the Seismological Society of America, Vol. 105, No. 2A. pp. 511-543. April 2015. doi: 10.1785/0120140093

3.3 Pollution and Hazardous Materials Reduction

POLLUTION BURDEN

The City of Oakland has an overall CalEnviroScreen 4.0 Pollution Burden percentile score of 44.3, meaning that it is less impacted by environmental effects and exposures than almost 56.7 percent of tracts in California. However, this relatively low citywide value hides the disproportionate pollution burden experienced by some Oakland census tracts. Although seven out of 113 census tracts in the city have a score of less than 10, four tracts are among the top 10th percentile in the entire state for pollution burden. **Chart 3-1** below shows that there are higher concentrations of BIPOC communities living in tracts that have higher pollution burden scores, meaning that they are more at risk than white populations.

Chart 3-1: CalEnviroScreen 4.0 Pollution Burden Scores by Race, 2021



Source: CalEnviroScreen 4.0, CalEPA, 2021

AIR QUALITY

Outdoor air pollution comes from many sources, such as vehicle exhaust, construction and industrial activities, smoke from wildfires, and pollen from local trees and plants. Transportation and industrial uses, including the Port of Oakland, release exhaust and chemicals that contribute to increased rates of asthma, congestive heart failure, and stroke, in addition to increased economic burden from hospitalizations and healthcare for populations that are regularly exposed to these sources of pollution. Further, the density of chemical and fuel release sites in high-poverty

neighborhoods is four times higher than in more affluent neighborhoods.[4] In parallel, data from the ACPHD shows that residents of West Oakland and Downtown Oakland communities have higher rates of asthma emergency room visits as well as stroke and congestive heart failure, while residents of the Oakland Hills neighborhoods are expected to live up to seven years longer than those from the flatland in West Oakland and downtown.[5] These outcomes are not a coincidence; legacy land use decisions based on racially discriminatory practices (discussed in Chapter 2) have resulted in and perpetuated environmental injustices such that Oaklanders with the least ability to pay for and recover from environmental health threats are also the most impacted.

Figure 3-4 shows how certain areas of the city are more likely to have greater exposure to outdoor air pollution due to the concentration of stationary (point sources), area-wide, and mobile sources of air pollutants. Fine particulate matter that is 2.5 microns or smaller in diameter ($PM_{2.5}$) is concentrated primarily along the I-980 and I-880 freeways in the southern half of the city (**Figure 3-5**). Likewise, diesel particulate matter, primarily emitted by industrial sources such as container ships and ocean-going vessels, cargo-handling equipment, railyards, trucks, and industrial operations of Port tenants, is concentrated in the industrial areas of West Oakland and along western portions of I-880, as seen in **Figure 3-6**. Nitrogen oxides (NOx), a precursor to ground-level ozone (a criteria air pollutant tracked by CARB), are also generally concentrated in the industrial parts of West Oakland and the Oakland International Airport.

The ECAP REIA recommends key performance indicators related to air quality to track progress on environmental equity, such as concentration and/or load reductions of $PM_{2.5}$, diesel PM, NO_2, and indoor air contaminants by census tracts, race, and income. These recommended indicators have not been measured at this time due to limitations in resources and lack of methodology to perform these types of analyses on an ongoing basis; however, the City asserts that the data would be important to ensure accountable progress toward equitable improvements in public health.

4 City of Oakland, Oakland 2030 Equitable Climate Action Plan, July 2020, https://cao-94612.s3.amazonaws.com/documents/Oakland-ECAP-07-24.pdf.

5 Environmental Defense Fund, "How pollution impacts health in West Oakland," 2019, https://www.edf.org/airqualitymaps/oakland/pollution-and-health-concerns-west-oakland, accessed February 15, 2022.

Table 3-1: Widening Gap in Air Pollutant Exposure in Oakland

INDICATOR/YEAR(S) OF MEASUREMENT	LOWEST SCORING TRACT	HIGHEST SCORING TRACT	DIFFERENCE (RATIO OF LOWEST TO HIGHEST)[1]	CHANGE	SOURCE
OZONE CONCENTRATION (PARTS PER MILLION)[2]					
2012-2014	0.03	0.03	1.0		CalEnviroScreen 3.0
2017-2019	0.029	0.033	0.9	-0.1	CalEnviroScreen 4.0
$PM_{2.5}$ CONCENTRATION (MICROGRAMS PER CUBIC METER)[2]					
2012-2014	8.7	8.7	1.0		CalEnviroScreen 3.0
2015-2017	8.1	10.2	0.8	-0.2	CalEnviroScreen 4.0
DIESEL PM CONCENTRATION (TONS PER YEAR)					
2012	0.012	0.084	0.1		CalEnviroScreen 3.0
2016	0.036	1.484	0.0	-0.1	CalEnviroScreen 4.0
CHILDREN'S LEAD RISK (PERCENTAGE OF HOUSEHOLDS)[3]					
2013-2017	10.1	96.3	0.1	n/a	CalEnviroScreen 4.0
NO_2 CONCENTRATION (PARTS PER BILLION)[4]					
2017	9.1	27.9	0.3		HIA
2018	3.3	60.5	0.1	n/a	HIA

Notes:
1. A ratio of 1.0 would indicate equality; 0.0 indicates severe disparity.
2. Ozone and $PM_{2.5}$ are generally considered regional pollutants, so data does not vary much at local scale.
3. There is no comparison for Children's Lead Risk because the Lead Risk indicator is new to CalEnviroScreen 4.0 and is not included in CalEnviroScreen 3.0.
4. The HIA study uses census block groups for 2017. Values shown for 2018 are maximum and minimum raw values rather than census block group averages. Change is not calculated because these values are not directly comparable.

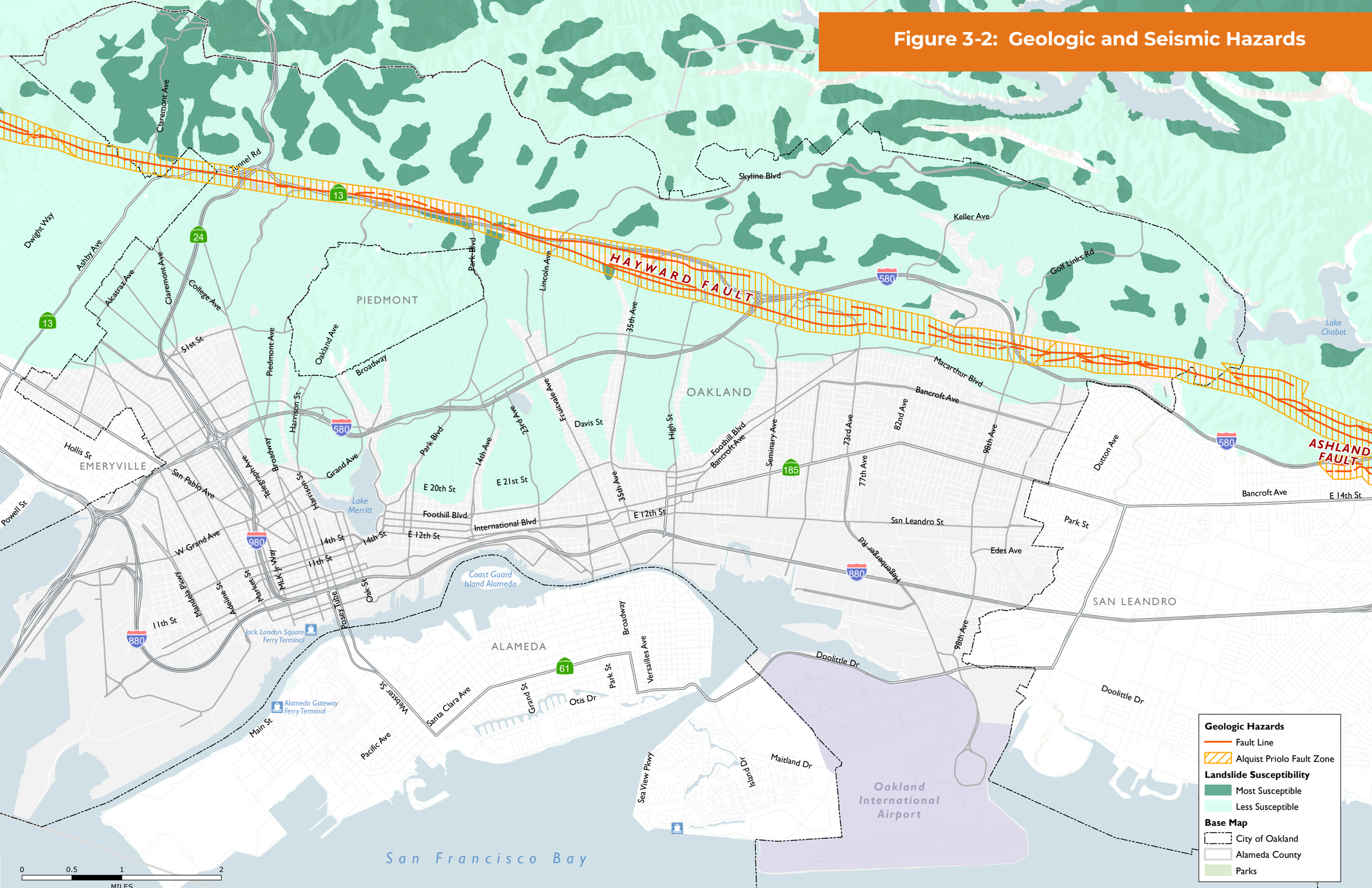
Sources: CalEPA, 2018-2021; WOEIP/EDF, 2021; Dyett & Bhatia, 2022

Types of Air Pollutants

Following the Clean Air Act, the United States Environmental Protection Agency (EPA) tracks six common air pollutants, called "criteria air pollutants" that are found all over the U.S. and have been shown to harm human and environmental health as well as cause property damage. These include ground-level ozone, particulate matter, carbon monoxide (CO), lead, sulfur dioxide (SO_2), and nitrogen dioxide (NO_2). EPA calls these pollutants "criteria" air pollutants because it sets National Ambient Air Quality Standards (NAAQS) for them based on the latest scientific information regarding their effects on human health or welfare. In addition to the NAAQS, criteria air pollutants in California must be meet State standards established by the California Air Resources Board (CARB). Both the national and State standards help protect the public from harmful pollutants.

Certain air pollutants are known to increase the risk of cancer and/or other serious health effects. These are classified as "toxic air contaminants" (TACs, known federally as "hazardous air pollutants"), some of which do not have a safe level of exposure (i.e., any amount of exposure is considered substantially harmful). Some examples of TACs are diesel particulate matter and asbestos.

Figure 3-2: Geologic and Seismic Hazards



Geologic Hazards
- Fault Line
- Alquist Priolo Fault Zone

Landslide Susceptibility
- Most Susceptible
- Less Susceptible

Base Map
- City of Oakland
- Alameda County
- Parks

Figure 3-3: Liquefaction Susceptibility

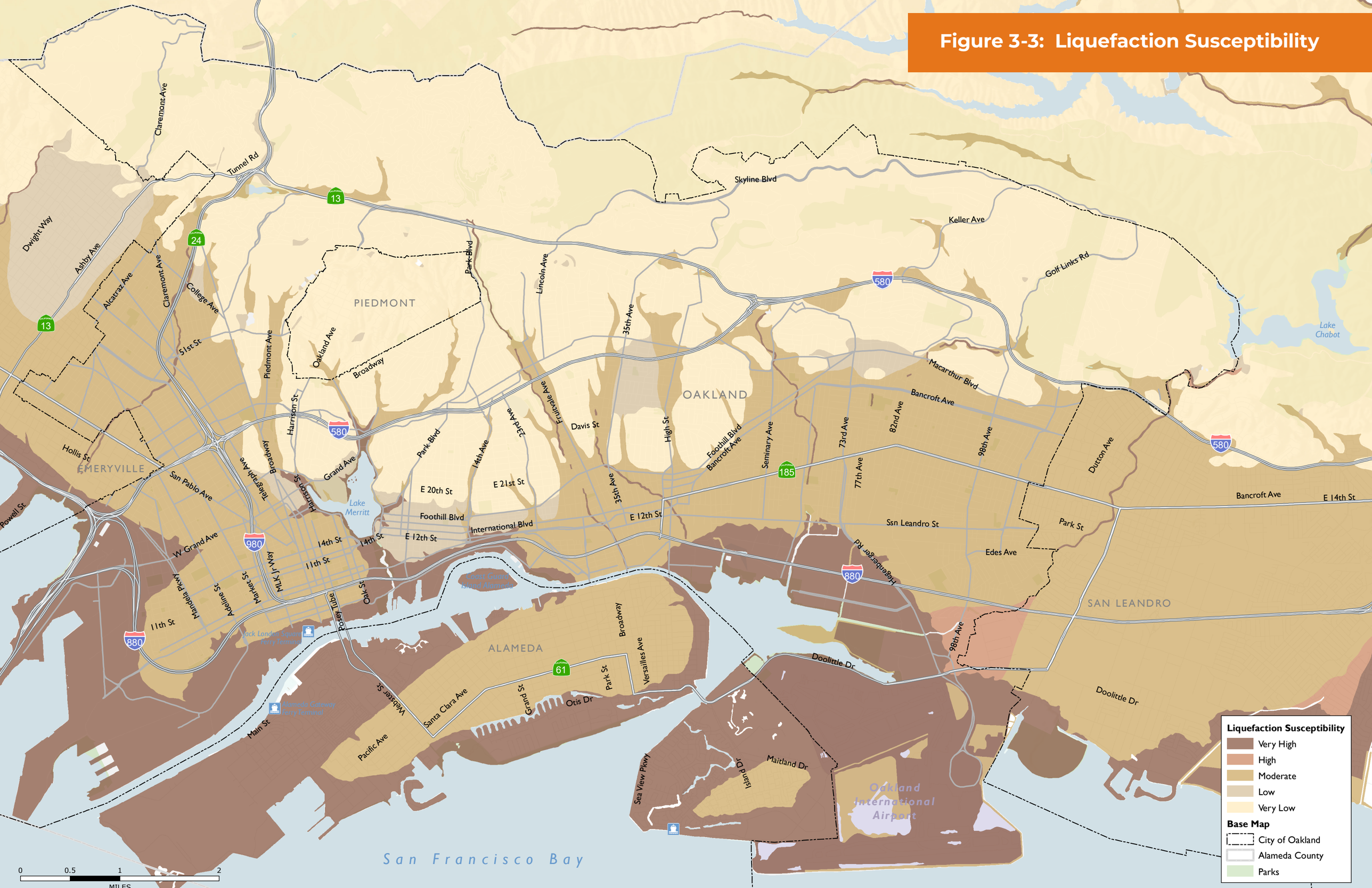


Figure 3-4: Area, Mobile, and Stationary Sources of Air Pollution, 2021

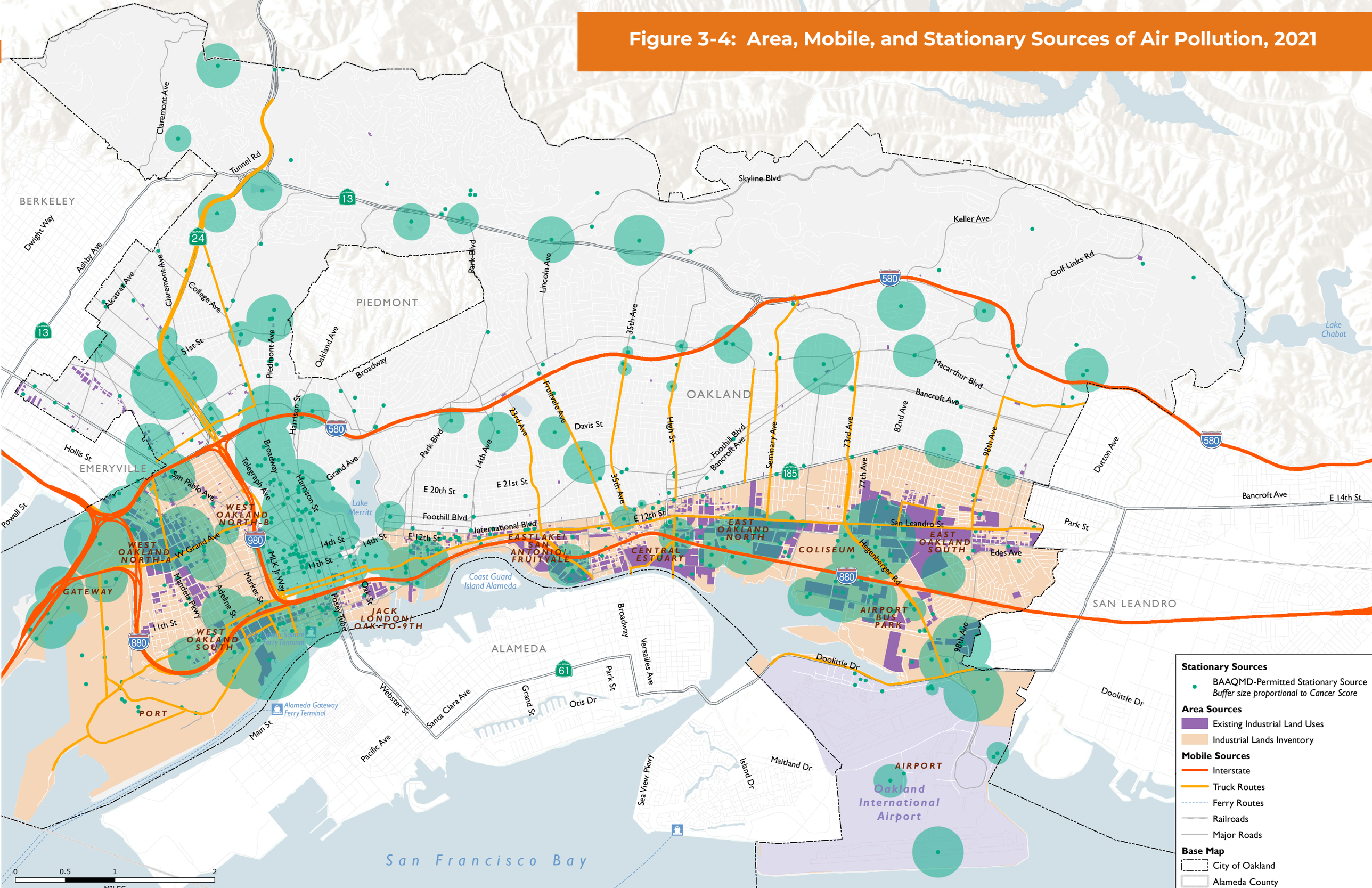


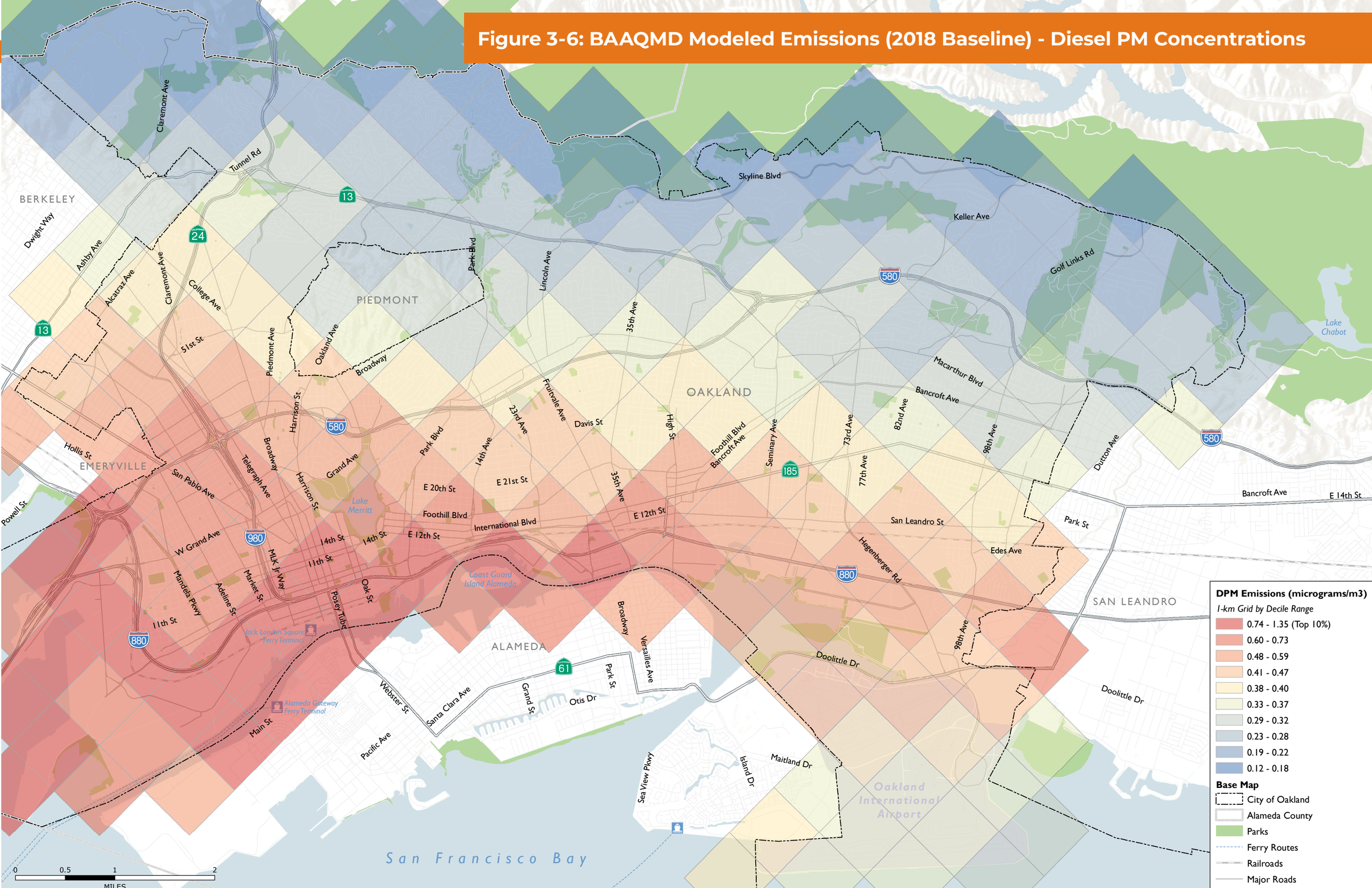
Figure 3-5: BAAQMD Modeled Emissions Inventory (2018 Baseline) - $PM_{2.5}$ Concentrations

BERKELEY
PIEDMONT
OAKLAND
EMERYVILLE
ALAMEDA
SAN LEANDRO
Claremont Ave
Tunnel Rd
Skyline Blvd
Keller Ave
Golf Links Rd
Dwight Way
Ashby Ave
Alcatraz Ave
College Ave
51st St
Park Blvd
Lincoln Ave
35th Ave
Broadway
Oakland Ave
Piedmont Ave
Macarthur Blvd
Bancroft Ave
Fruitvale Ave
Davis St
High St
Foothill Blvd
Seminary Ave
73rd Ave
82nd Ave
98th Ave
Dutton Ave
Lake Chabot
Hollis St
San Pablo Ave
Telegraph Ave
Harrison St
Grand Ave
Lake Merritt
E 20th St
E 21st St
14th Ave
23rd Ave
Foothill Blvd
International Blvd
E 12th St
77th Ave
San Leandro St
Park St
Edes Ave
Hegenberger Rd
Powell St
W Grand Ave
MLK Jr Way
14th St
11th St
Mandela Pkwy
Adeline St
Market St
Oak St
Posey Tube
Coast Guard Island Alameda
Jack London Square Ferry Terminal
Alameda Gateway Ferry Terminal
Webster St
Santa Clara Ave
Grand St
Otis Dr
Park St
Versailles Ave
Doolittle Dr
Main St
Pacific Ave
Sea View Pkwy
Island Dr
Maitland Dr
Oakland International Airport
San Francisco Bay
Bancroft Ave
E 14th St
0 0.5 1 2 MILES

PM2.5 Emissions (micrograms/m3)
1-km Grid by Decile Range
- 11.1 - 13.6 (Top 10%)
- 10.6 - 11.0
- 10.2 - 10.5
- 9.8 - 10.1
- 9.4 - 9.7
- 8.9 - 9.3
- 8.6 - 8.8
- 8.0 - 8.5
- 7.5 - 7.9
- 6.2 - 7.4

Base Map
- City of Oakland
- Alameda County
- Parks
- Ferry Routes
- Railroads
- Major Roads

Figure 3-6: BAAQMD Modeled Emissions (2018 Baseline) - Diesel PM Concentrations



DPM Emissions (micrograms/m3)

1-km Grid by Decile Range

- 0.74 - 1.35 (Top 10%)
- 0.60 - 0.73
- 0.48 - 0.59
- 0.41 - 0.47
- 0.38 - 0.40
- 0.33 - 0.37
- 0.29 - 0.32
- 0.23 - 0.28
- 0.19 - 0.22
- 0.12 - 0.18

Base Map

- City of Oakland
- Alameda County
- Parks
- Ferry Routes
- Railroads
- Major Roads

Table 3-1 uses data from available data sources such as CalEnviroScreen to show how disparities in exposure to air pollution are widening in Oakland. This is demonstrated by comparing the highest and lowest scoring tracts in the city as a ratio where a ratio of 1.0 indicates equality, and a ratio of 0.0 would indicate severe disparity.

EDF recently conducted a Health Impact Assessment (HIA) study of Oakland in partnership with WOEIP (discussed in Chapter 1: Introduction), which further refined the localized risks of NO_2 concentrations on the health of Oakland residents. **Figure 3-7** shows how these concentrations are highest in the Downtown Oakland area, where the mortality attributable to NO_2 is also greatest in the city (**Figure 3-8**). These geographies also overlap with areas that the Bay Area Air Quality Management District (BAAQMD) regional model identifies as high cancer risk, with risks of 600-800 in one million along large swaths of West Oakland's industrial area and along adjacent stretches of I-980 and I-880, as shown in **Figure 3-9**. In comparison, a cumulative context of 100 cases of cancer in one million is considered a significant environmental impact under the California Environmental Quality Act (CEQA).

For more information and detail about existing outdoor air quality in Oakland, including charts of criteria air pollutants and toxic air contaminants, see Chapter 6: Environmental Hazards of the Map Atlas.

Although outdoor air pollution is most commonly the focus of conversations about air quality, the indoor environment also has a significant impact on our health, especially considering that Americans spend an average of 90 percent of their times indoors.[6] Places like homes, work, and schools can expose people to air pollutants such as nitrogen oxide, particulate matter, moisture, and mold. Older buildings that are not well-maintained can lack proper ventilation or have deteriorated building infrastructure that exacerbates exposure to these indoor pollutants.

In addition, housing that was built before 1978 when the residential use of lead-based paints was banned is likely to contain some lead-based paint. When the paint peels and cracks, lead paint chips and dust can spread throughout indoor environments and be ingested or breathed in, increasing risk of lead poisoning particularly in young children. Residents living in older neighborhoods who cannot afford to renovate or repair their homes are especially at risk of exposure – up to 96 percent of households in the Bancroft/Havenscourt (east or west) tracts based on data from CalEnviroScreen.

Several major appliances including water heaters, space heaters, clothes dryers, and stoves are fueled by natural (mostly commonly methane) gas, which is also a source of indoor air pollutants and a major contributor to poor health outcomes. In fact, when gas stoves are on, indoor air pollutants can spike to levels that would be considered illegal by EPA standards if those same levels occurred outside. In light of this fact, the City has set a target of no more gas in Oakland buildings by 2040. However, replacing gas with electric energy may not be feasible for all residents. That is, lower-income areas, areas with older housing stock, and areas with high rates of renters are more likely to have higher proportions of poorly maintained or poorly ventilated homes, absent or nonfunctioning range hoods, and higher competition in demand for repair/upgrade funds, making electrification both that much more urgent and that much more cost-prohibitive and therefore a major environmental health as well as equity issue.

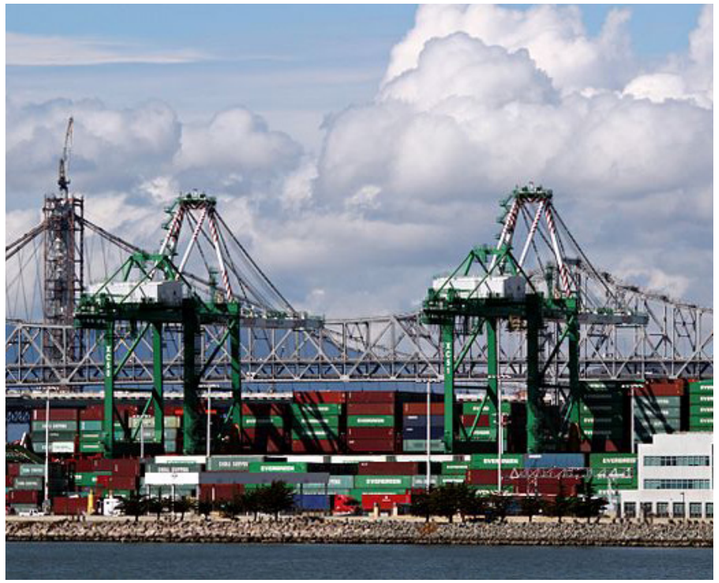


Photo credit: NBC, Nina Reggio

Building Resilience: West Oakland Community Action Plan

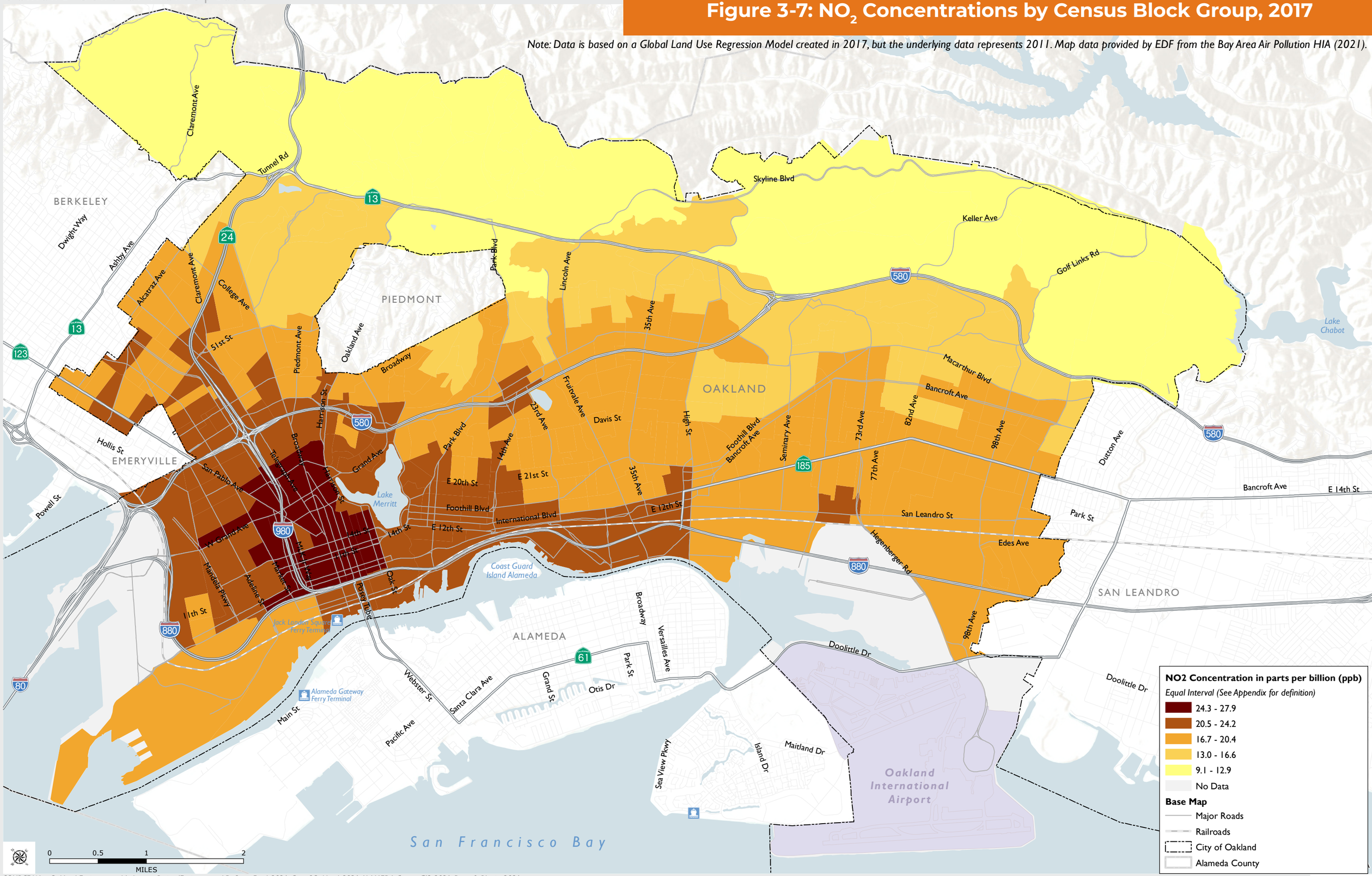
Multiple community efforts have conducted research and participated in planning processes to identify priorities and develop strategies to protect BIPOC and low-income communities that are disproportionately affected by air pollution. In parallel to block-level air pollution study conducted for the HIA, WOEIP partnered with BAAQMD on the West Oakland Community Action Plan (WOCAP or "Owning Our Air"), adopted by the air district and CARB in 2019, to set ambitious goals to protect the community's health. The WOCAP sets targets to reduce disparities in air quality and ultimately achieve improvements that match today's cleanest air quality for all neighborhoods in West Oakland by 2030.

The 2020 Annual Report highlights progress on implementation, including 29 replacements for low-emission equipment, four Minimum Efficiency Reporting Value (MERV) 16 filters installed at schools, and incorporation of relevant strategies in the West Oakland Truck Management Plan, among other early implementation wins.

6 United States Environmental Protection Agency, "Report to Congress on indoor air quality: Volume 2," Washington, DC (1989): EPA/400/1-89/001C, as cited in https://www.epa.gov/report-environment/indoor-air-quality.

Figure 3-7: NO_2 Concentrations by Census Block Group, 2017

Note: Data is based on a Global Land Use Regression Model created in 2017, but the underlying data represents 2011. Map data provided by EDF from the Bay Area Air Pollution HIA (2021).



NO2 Concentration in parts per billion (ppb)

Equal Interval (See Appendix for definition)

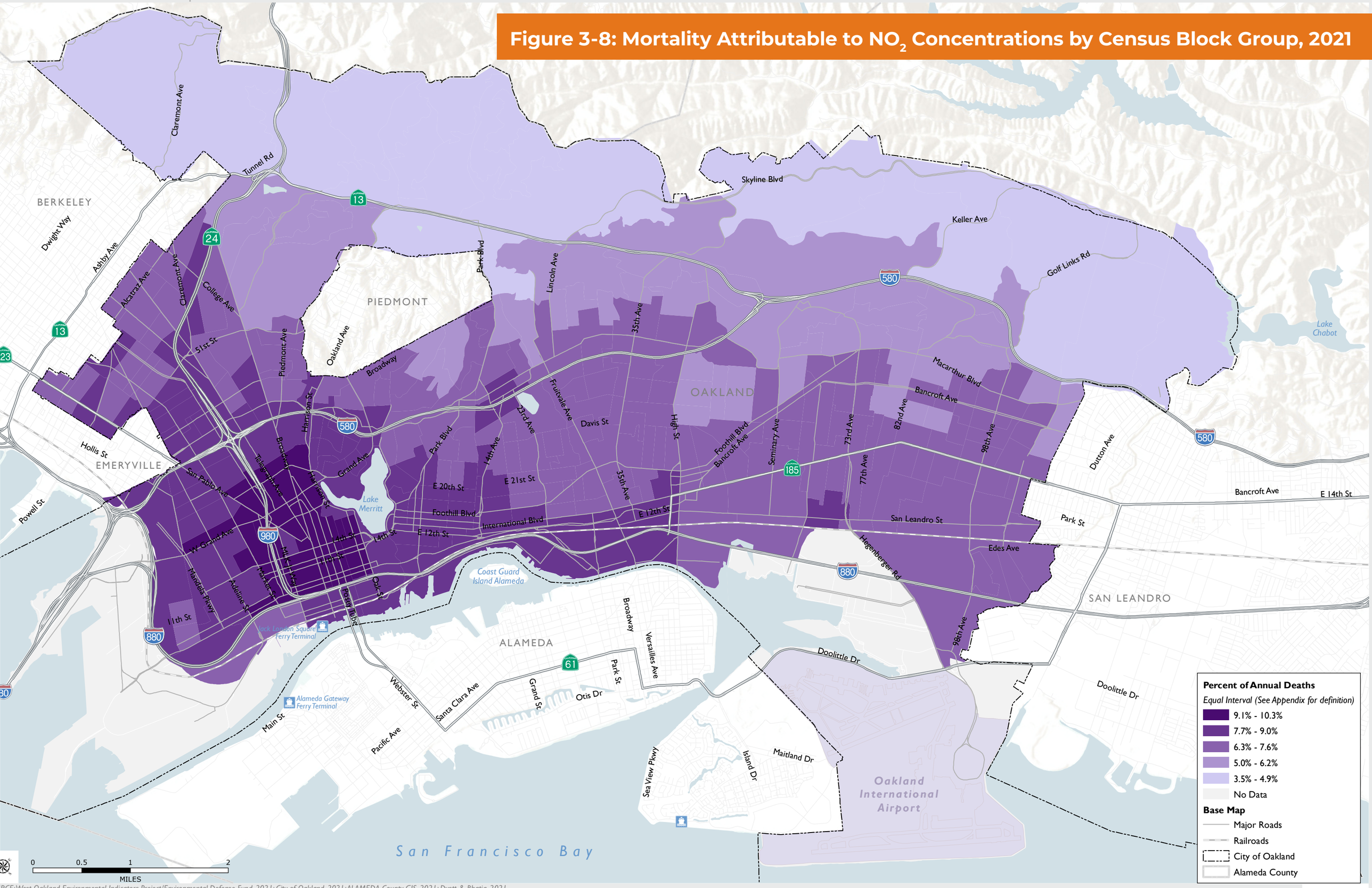
- 24.3 - 27.9
- 20.5 - 24.2
- 16.7 - 20.4
- 13.0 - 16.6
- 9.1 - 12.9
- No Data

Base Map

- Major Roads
- Railroads
- City of Oakland
- Alameda County

SOURCE: West Oakland Environmental Indicators Project/Environmental Defense Fund, 2021; City of Oakland, 2021; ALAMEDA County GIS, 2021; Dyett & Bhatia, 2021

Figure 3-8: Mortality Attributable to NO_2 Concentrations by Census Block Group, 2021



PGE; West Oakland Environmental Indicators Project/Environmental Defense Fund, 2021; City of Oakland, 2021; ALAMEDA County GIS, 2021; Dyett & Bhatia, 2021

Figure 3-9: BAAQMD Modeled Emissions (2018 Baseline) - Cancer Risk

Cancer risk is calculated as the annual average excess cancer incidences due to air toxics, per one million people, based on the regional modeled emissions inventory.

BERKELEY
EMERYVILLE
PIEDMONT
OAKLAND
ALAMEDA
SAN LEANDRO
Oakland International Airport
San Francisco Bay
Lake Chabot
Lake Merritt
Coast Guard Island Alameda
Jack London Square Ferry Terminal
Alameda Gateway Ferry Terminal
Claremont Ave
Tunnel Rd
Skyline Blvd
Keller Ave
Golf Links Rd
Dwight Way
Ashby Ave
Alcatraz Ave
College Ave
51st St
Piedmont Ave
Park Blvd
Oakland Ave
Broadway
Lincoln Ave
35th Ave
Macarthur Blvd
Bancroft Ave
Fruitvale Ave
Davis St
23rd Ave
14th Ave
Harrison St
Grand Ave
Hollis St
San Pablo Ave
Telegraph Ave
W Grand Ave
MLK Jr Way
Mandela Pkwy
Adeline St
Market St
11th St
14th St
E 12th St
Foothill Blvd
International Blvd
E 20th St
E 21st St
High St
Foothill Blvd
Bancroft Ave
Seminary Ave
73rd Ave
77th Ave
82nd Ave
98th Ave
Dutton Ave
E 14th St
Park St
Edes Ave
San Leandro St
Hegenberger Rd
Doolittle Dr
Oak St
Posey Tube
Webster St
Broadway
Versailles Ave
Park St
Santa Clara Ave
Grand St
Otis Dr
Pacific Ave
Main St
Sea View Pkwy
Island Dr
Maitland Dr
Powell St
13
24
580
980
880
185
61

Cancer Risk (per 1 million)
1-km Grid by Decile Range
- 627 - 1,117 (Top 10%)
- 533 - 626
- 448 - 532
- 403 - 447
- 370 - 402
- 327 - 369
- 275 - 326
- 228 - 274
- 195 - 227
- 133 - 194

Base Map
- City of Oakland
- Alameda County
- Parks
- Ferry Routes
- Railroads
- Major Roads

0 0.5 1 2
MILES

WATER QUALITY

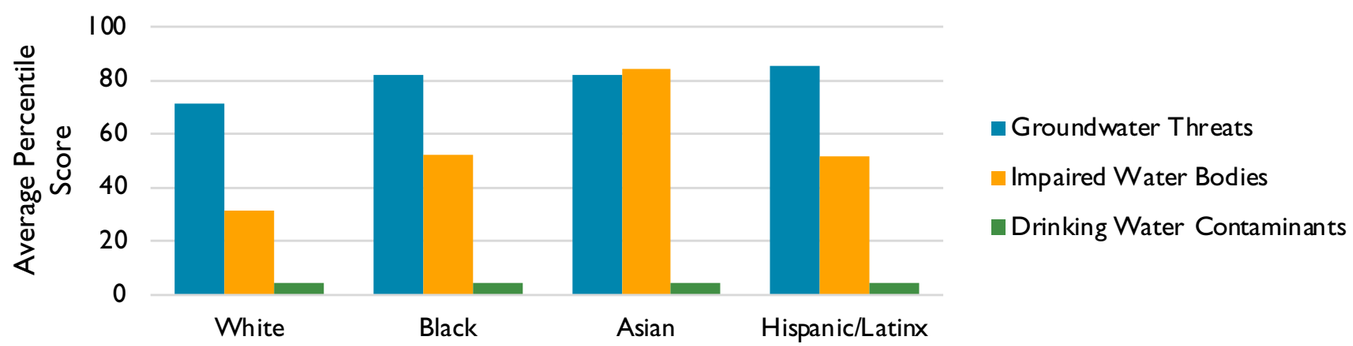
The quality of the water that people drink, use, and play in has a direct effect on their health, and when the sources of these water are compromised, the contamination can make people sick. The quality of water infrastructure—or the services through which residents obtain their water—also plays a pivotal role in public health. However, all too often, infrastructure investments align with the geography of wealth, resulting in underinvestment and disinvestment in low-income communities and communities of color. As a result, people of color are more likely to live in areas with higher rates of contaminated water, stormwater and wastewater overflows, and increased risks of flooding.[7]

Based on CalEnviroScreen 4.0, Oakland residents generally have access to high quality drinking water; nearly all tracts in Oakland are in the 4th percentile statewide, with only one exception (Caballo Hills, which has a score of 18).[8] However, groundwater threats like leaking underground storage tanks (discussed further below), gasoline stations, and man-made ponds containing water produced from oil and gas activities and exposure to impaired water bodies are some of the top-scoring issues that affect many parts of the city. More than half of Oakland's tracts score in the 80th percentile or higher for groundwater threats.

As mapped in **Figure 3-9**, these tracts are generally located closer to the waterfront, whereas tracts with lower scores (i.e., where tracts are less exposed to groundwater threats) are generally located in the Oakland hills area. The San Francisco Bay and Lake Merritt are both impaired water bodies identified by the State Water Control Resources Board's (SWRCB's) 303(d) List. As seen in **Figure 3-10**, tracts near these features score much higher—within the 80th percentile range and above—than tracts located farther away.

Chart 3-2 shows how these CalEnviroScreen water quality indicators vary by race and ethnicity. As mentioned above, contaminants are rarely found in drinking water in Oakland, for all races. Groundwater threats are also somewhat similar by race and are generally a citywide issue. However, exposure to impaired water bodies is notably different when compared by race. Tracts where Asian populations make up the plurality (majority/ highest concentration) have a higher average score for impaired water bodies, especially in comparison to tracts with white pluralities. Black and Hispanic/Latinx populations also live in tracts with higher scores, on average, at about the 50th percentile statewide.

Chart 3-2: CalEnviroScreen 4.0 Water Quality Issues by Race, 2021



Source: CalEnviroScreen 4.0, CalEPA, 2021

7 Pacific Institute, A Twenty-First Century U.S. Water Policy, Chapter 3: Water and Environmental Justice (2012), http://pacinst.org/wp-content/uploads/2013/02/water_and_environmental_justice_ch3.pdf. (via Clean Water For All, *Water, Health, and Equity: The Infrastructure Crisis Facing Low-Income Communities & Communities of Color – and How to Solve It*, October 23, 2018, http://protectcleanwater.org/wp-content/uploads/2018/10/FINAL-CWC_Report_Full_report_lowres-003-3.pdf. Accessed February 14, 2022.)

8 CalEnviroScreen's Drinking Water Contaminants indicator is not a measure of compliance with the drinking water standards or whether the water is safe to drink but rather is an index representing a combination of contaminant data that accounts for both the concentration of different contaminants and whether multiple contaminants are present. Because data was translated from a public drinking water systems (the geographic service area) to census tracts, the tract's score may not reflect the water than individual residents are drinking. For more information, see the CalEnviroScreen methodology: https://oehha.ca.gov/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf.

Figure 3-10: Groundwater Threats, 2021

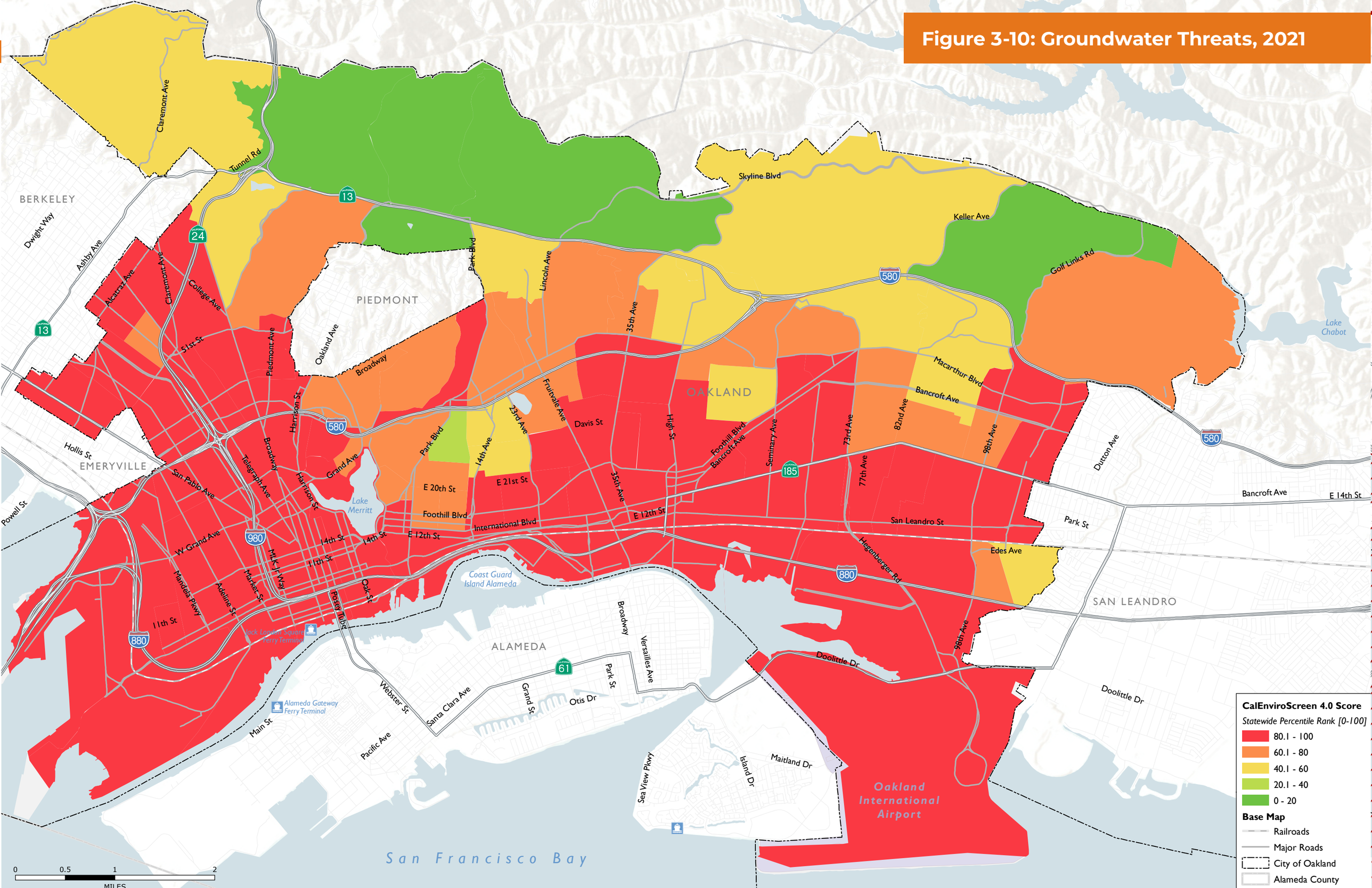
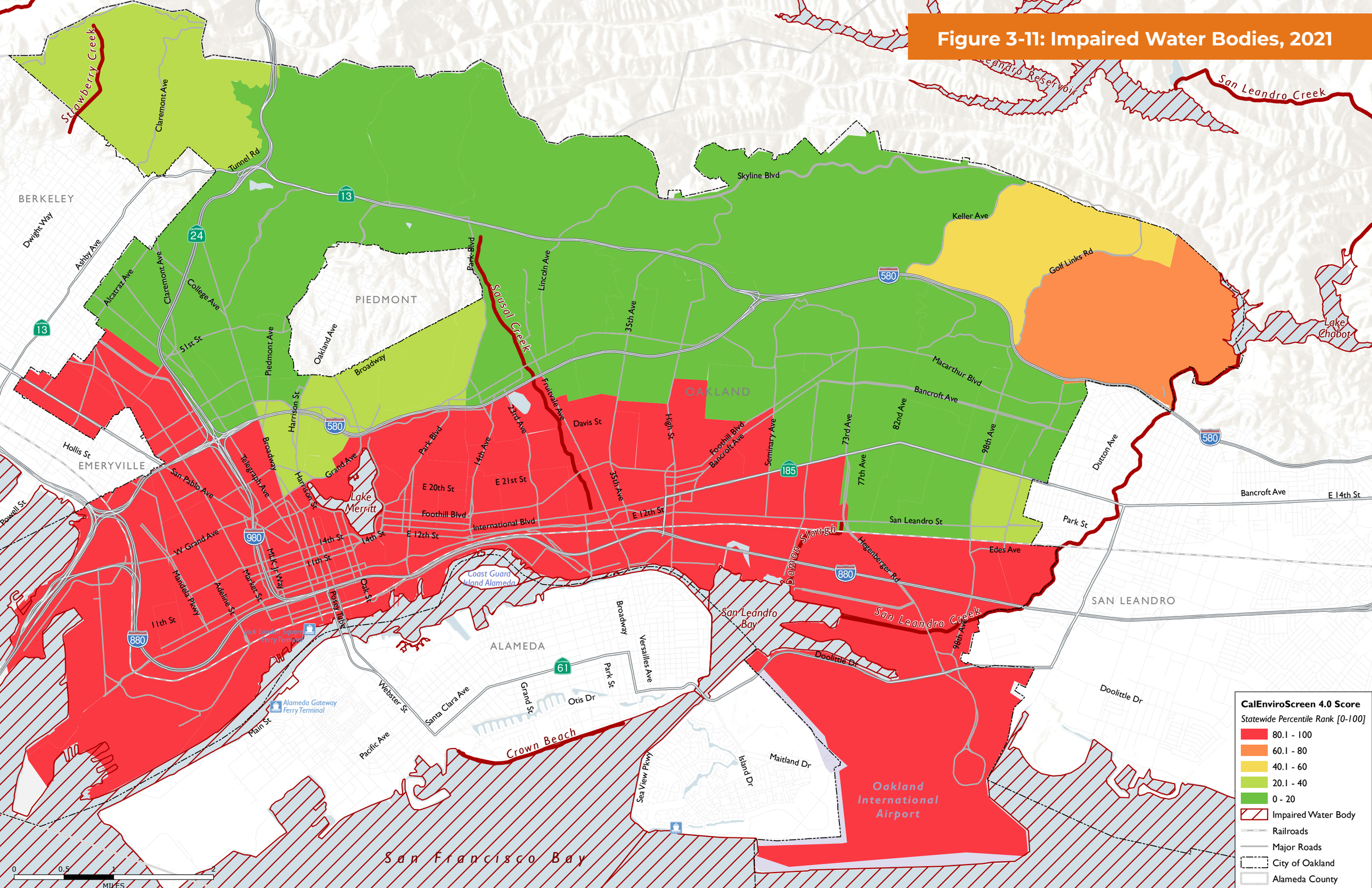


Figure 3-11: Impaired Water Bodies, 2021



HAZARDOUS MATERIALS AND TOXICS

The Port of Oakland and the associated transportation and logistics infrastructure in the city, including interstate freeway corridors and rail, make Oakland a critical engine of goods movement throughout the Bay Area region and beyond. As such, industry is a central part of the city's history and economic vitality. However, industrial and commercial operations can sometimes result in spills or leaks of hazardous materials or petroleum products that result in soil and groundwater contamination. Facilities that are authorized to handle hazardous waste are tracked by the Department of Toxic Substances Control (DTSC)'s EnviroStor database and includes sites such as Federal Superfund (National Priority List) and State Superfund sites, military facilities, voluntary cleanup sites, and school sites being evaluated for possible contamination. SWRCB maintains the GeoTracker database to regulate leaking underground storage tanks (LUSTs), Department of Defense facilities, spills-leaks-investigations-cleanups, and landfills.

Based on these sources, there are 1,686 documented hazardous materials sites located throughout the city, a vast majority of which are concentrated in areas with industrial land uses in the southern half of the city and particularly in West Oakland (**Figure 3-12**). About 57 percent of sites have been "closed" to indicate that they have completed remediation and/or have demonstrated that existing site uses combined with the levels of identified contamination do not present a significant risk to human health or the environment. However, numerous hazardous materials sites have resulted in soil and/or groundwater contamination that still pose a threat to the public and environment if contaminants are released during new development. These include 397 sites that are actively being remediated and 76 facilities that are currently certified and operational.

Abandoned trash also contributes to an unhealthy and unsafe living environment and has a negative impact on neighborhood quality. Abandoned trash can contribute to land, water, and air pollution in a neighborhood and may contain harmful substances. Piles of abandoned trash can also be fire hazards. Figure 3-13 shows the rate of service requests received by the Oakland Call Center (OAK 311) for illegal dumping per 1,000 people in each census tract. In general, tracts along the freeways, particularly I-880 and I-580, have higher rates of illegal dumping and geographically correspond with the West Oakland and East Oakland neighborhoods (with some exceptions). Tracts in the Oakland hills to the northwest have very few reports of illegal dumping in comparison.

3.4 Climate Change

Oakland is part of the San Francisco Bay, which has a mild Mediterranean climate with generally warm, dry summers and cool, wet winters. As a large water body, the bay itself helps stabilize temperatures within a moderate range; historically, the average minimum temperature in a year in Oakland is about 49 degrees Fahrenheit (°F), and the average maximum temperature is about 66°F.[9] In comparison, a more inland locale such as Sacramento experiences a greater range of temperatures, with the same average minimum of 49°F but a higher average maximum of 74°F.[10] Oakland also gets a fair amount of precipitation, historically averaging around 22 inches a year.

9 Cal-Adapt, "Local Climate Change Snapshot," Geospatial Innovation Facility, University of California, Berkeley, 2021,https://cal-adapt.org/tools/local-climate-change-snapshot. Accessed 10 February 2022.

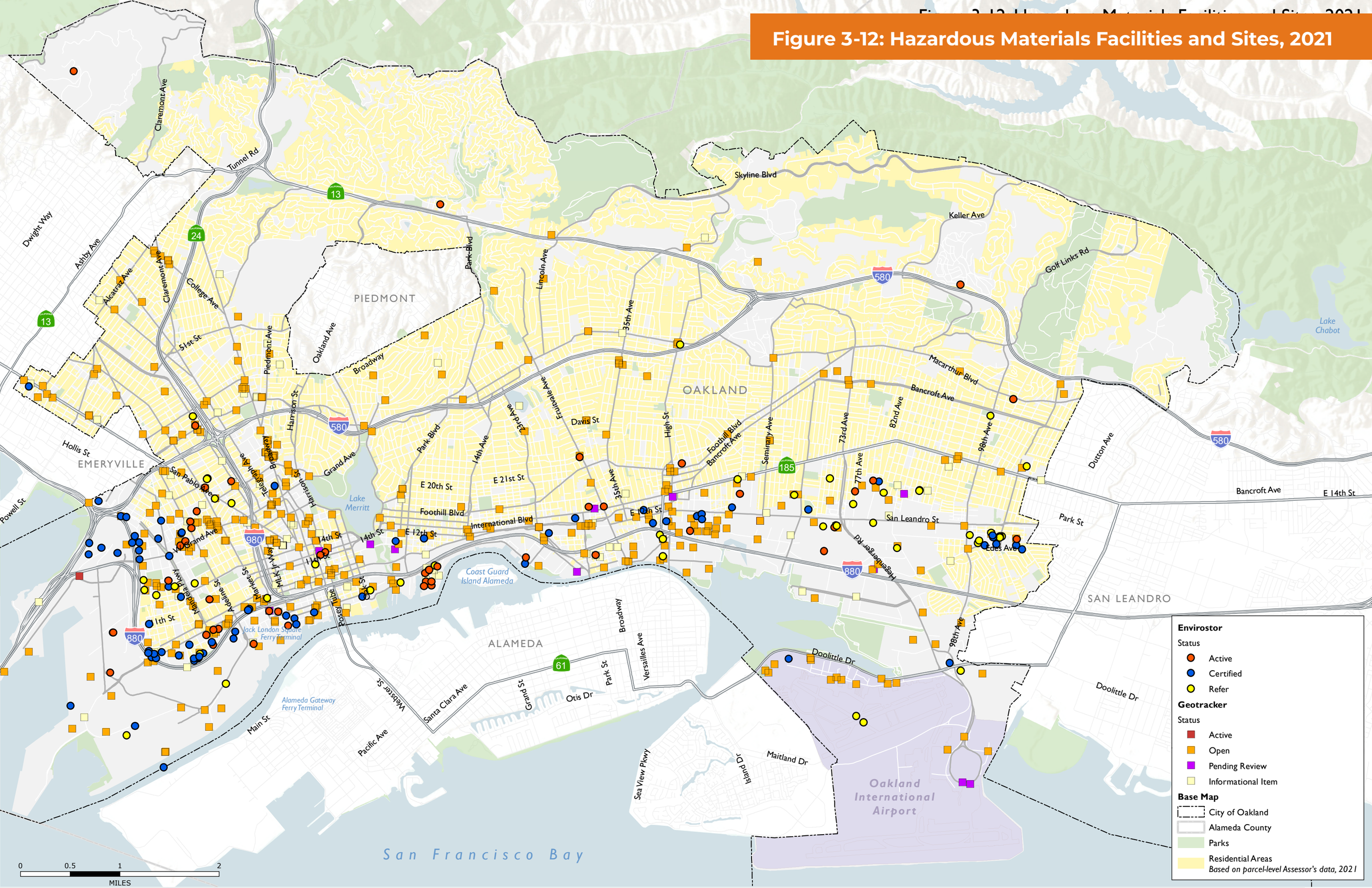
10 *Ibid.*

Building Resilience: Oaktown PROUD

Oaktown PROUD is a campaign by and for Oaklanders, to reduce illegal dumping and improve our neighborhoods. The campaign name contains an urgent call to action for all Oaklanders to "Prevent & Report Our Unlawful Dumping." The Oaktown PROUD campaign provides one-stop access to participating in the City of Oakland's Three E's strategy to reduce illegal dumping – a strategy that organizes City and community efforts into three focus areas: Education, Eradication and Enforcement. As a part of the Oaktown PROUD outreach campaign to reduce littering and dumping, the City of Oakland is working with OUSD high school students, teachers and administrators to manage the Oaktown PROUD Student Ambassador Program. This program was sparked by ideas from Oakland students and currently operates at two sites: Oakland and Skyline High Schools. The focus of their work is to take the knowledge that they have gained over a summer program and to use that information to educate people about the problem of litter and dumping in Oakland, and also provide resources and guidance on what they can do to help.

Source: Oaktown PROUD website

Figure 3-12: Hazardous Materials Facilities and Sites, 2021



Envirostor

Status

- Active
- Certified
- Refer

Geotracker

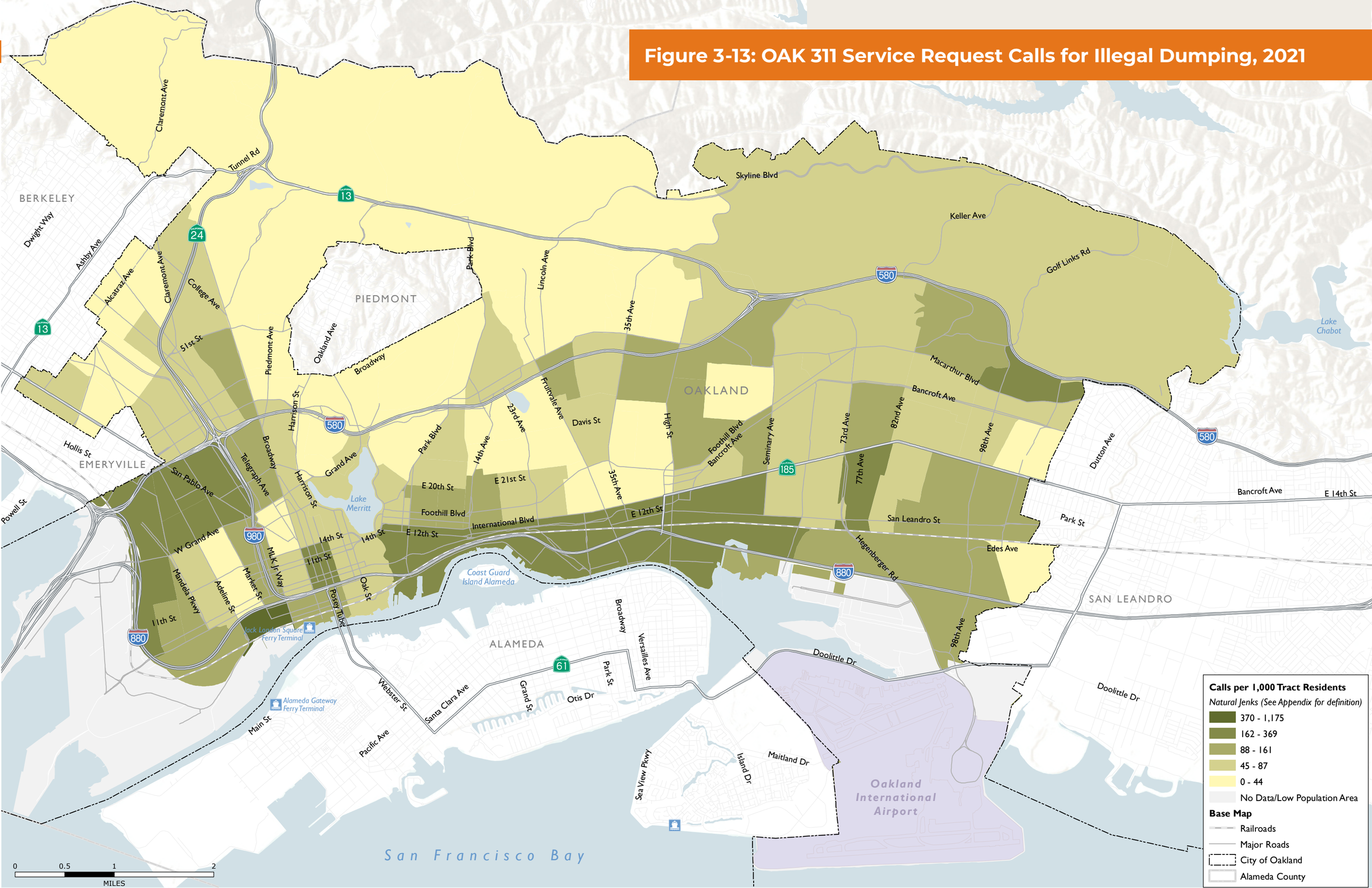
Status

- Active
- Open
- Pending Review
- Informational Item

Base Map

- City of Oakland
- Alameda County
- Parks
- Residential Areas
  Based on parcel-level Assessor's data, 2021

Figure 3-13: OAK 311 Service Request Calls for Illegal Dumping, 2021



> ***"It is unequivocal that human influence has warmed the atmosphere, ocean, and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere, and biosphere have occurred."***
>
> - The Intergovernmental Panel on Climate Change
> *"The Current State of the Climate," Climate Change 2021: The Physical Science Basis – Summary for Policymakers*

The impacts of climate change are an increasingly pressing reality felt all over the world. California, in particular, is one of the most "climate-challenged" regions of North America; its historical climate is highly variable, and climate change is making extreme conditions more frequent and severe.[11] In the San Francisco Bay Area, annual maximum temperatures have increased by 1.7°F from 1950-2005, sea levels have risen over eight inches in the last 100 years, and several studies suggest that the coastal fog critical to the Bay Area climate is less frequent than before. Such changes will also affect the natural ecosystems that characterize the Bay Area, such as becoming less suitable for the iconic redwood forests that once dominated the region.[12] Despite global efforts to reduce greenhouse gas emissions, changes in temperature, precipitation, and sea level rise are projected to increase significantly in the coming decades and will produce substantial impacts on Bay Area social systems and the built environment as well as natural and managed resource systems. Oakland is among a growing number of Bay Area local governments, agencies, nonprofits, and private sector stakeholders that are taking actions that advance climate adaptation and resilience.

Although Oakland is now committed to advancing more sustainable forms of development, this goal is being applied in a context where most of the city was built out in eras of automobile-dominated land use, inexpensive energy, and different attitudes about the natural landscape. The Loma Prieta earthquake and Oakland Hills Fire, both more than 30 years in the past, catalyzed some significant changes, such as the rerouting of I-880 away from residential West Oakland and the proliferation of more fire-resistant landscaping and construction, as well as restrictions on building more residential density in the hills. Urban design strategies and priorities have shifted toward sustainability (and what the Ohlone practiced for centuries before colonization), with people and the natural environment at the forefront. This renewed focus reflects changing attitudes, social values, and a greater urban environmental awareness, as have commitments to making streets safer for pedestrians and cyclists, increasing public access to the waterfront, and expanding urban forest resources. However, retrofitting the city's streets and addressing not-in-my-backyard (NIMBY) or anti-development views remain a challenge, and strategies for prioritizing equity in sustainability are only recently taking hold.

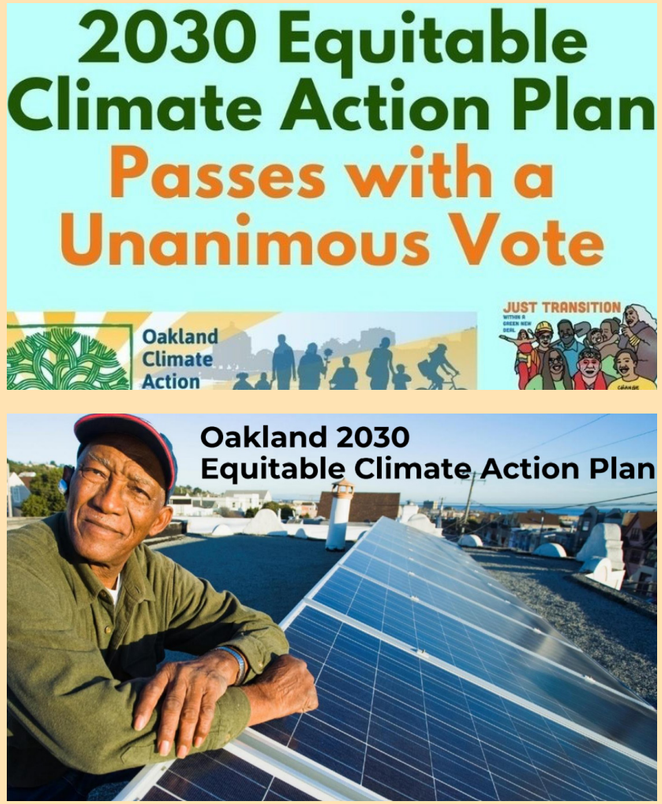
The California Department of Public Health (CDPH) Climate Change and Health Equity Section has produced a suite of indicators that assess exposures, social vulnerability, and adaptive capacity to help inform local health departments and partners about vulnerable people and places in their jurisdictions. These measures identify people and places that are more susceptible to adverse health impacts associated with climate change, specifically extreme heat, wildfire, sea level rise, drought, and poor air quality. The range of these topics align with the requirements for incorporating climate adaptation and resiliency strategies into general plan safety elements, as required by SB 379.

According to these indicators[13], Alameda County faces climate change exposures that pose considerable health risks to the population, especially to a number of vulnerable groups. Top issues, for which the county faces more severe challenges than the statewide average, include sea level rise, violent crimes, proliferation of

11 Louise Bedsworth, et. al., "California's Fourth Climate Change Assessment Statewide Summary Report," California Governor's Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities Commission, 2018, https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf. Accessed February 10, 2022.

12 David Ackerly, et. al., "California's Fourth Climate Change Assessment San Francisco Bay Area Summary Report," University of California, Berkeley, 2018, https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-005_SanFranciscoBayArea_ADA.pdf. Accessed February 10, 2022.

13 The most recent revision to CDPH's Climate Change and Health Vulnerability Indicators was in April 2020, but the underlying data for these indicators is generally more outdated than the sources used in this report (prepared in 2022). For example, CDPH's tree canopy coverage was derived from satellite imagery from 2011 and population data is based on ACS census data up to 2015. This baseline report uses tree canopy coverage based on 2016 and census data current to 2019.



Building Resilience: Oakland's 2030 Equitable Climate Action Plan

The ECAP illustrates Oakland's approach to equity in building climate resiliency. It identifies ambitious actions to combat climate change while also ensuring that frontline communities – those that have been harmed by environmental injustice and who are likely to be hurt first and worst by the impacts of climate change – will benefit first and foremost from climate action. The accompanying Racial Equity Impact Assessment and Implementation Guide supports equitable implementation of the ECAP by providing in-depth guidance for City staff in each 2030 ECAP implementing department in order to maximize equitable outcomes, including robust frontline community participation.

impervious surfaces (i.e., lack of tree canopy), and concentration of $PM_{2.5}$. Vulnerable populations include households without air conditioning, linguistically isolated households, households without a vehicle and/or isolated from major roads, homeless individuals and families, people with life-threatening illnesses, older adult populations (ages 65 and older), and young children (under 5 years old).

The following sections take a deeper look into the climate change issues that affect Oakland residents, and how there may be disparate impacts among different segments of the city's population.

GREENHOUSE GAS EMISSIONS

Greenhouse gases (GHGs) are gases that trap heat in the atmosphere. Although a certain level of GHGs helps keep the planet warm enough to sustain life and is a natural part of the Earth's carbon cycle, too much can "thicken the Earth's blanket" and have serious effects on climate, including those discussed in the following sections. Since the industrial revolution, human activities—namely the burning of fossil fuels—have increasingly altered the natural carbon cycle, contributing to increasing global surface temperatures and climate change.

Climate change and GHGs are generally expressed in terms of carbon dioxide (CO_2), which is the most common GHG, but the science is increasingly clear and alarming that other potent GHGs, often referred to as "climate forcers," are playing an even more critical role in accelerating climate change. Among these are black carbon and methane, both of which are heavily implicated in the built environment and our economy.

The continual emission of GHGs and resulting effects on the climate crisis are an issue of climate equity. Frontline communities, those who have been and will continue to be hit first and worst by the impacts of environmental injustice and the climate crisis, are often the least able to adapt, resist, or recover from climate impacts.[14] For example, increasingly extreme climate conditions will have cost implications, such as energy costs needed to heat or cool a home. These additional costs will be felt more acutely by populations that are already impacted by severe housing, transportation, and/or healthcare cost burdens. Furthermore, neighborhood characteristics affected by historical disinvestment and other racial inequities (discussed in Chapter 2: Background and Chapter 4: Neighborhood and Built Environment) create even more of a burden. For example, neighborhoods with less trees and green spaces or inadequate funding to maintain these resources would lack the benefits experienced by a neighborhood with ample shade and cooling from a healthy urban forest (discussed further below). Additionally, people who do not own a car and rely on public transportation may be exposed to extreme climate conditions, especially where public transportation infrastructure is not designed for these conditions.

Burning of methane gas, commonly referred to as "natural gas," for common household appliances such as stoves and heaters is also a source of GHGs. As discussed under the air quality section above, extensive research shows that burning gas in homes has a direct effect on health such as increased incidence of lifetime asthma. The City's target to transition off gas and use all electric in all buildings by 2040 presents an opportunity to fix many of the broken mechanical systems in older or ill-maintained housing (see discussion on housing in Chapter 4: Neighborhood and Built Environment) and improve the health outcomes of affected residents. Elimination of gas, which is a multiplier hazard due to its combustibility, is also especially important given the propensity for earthquakes in Oakland (discussed in the Geologic Hazards section above).

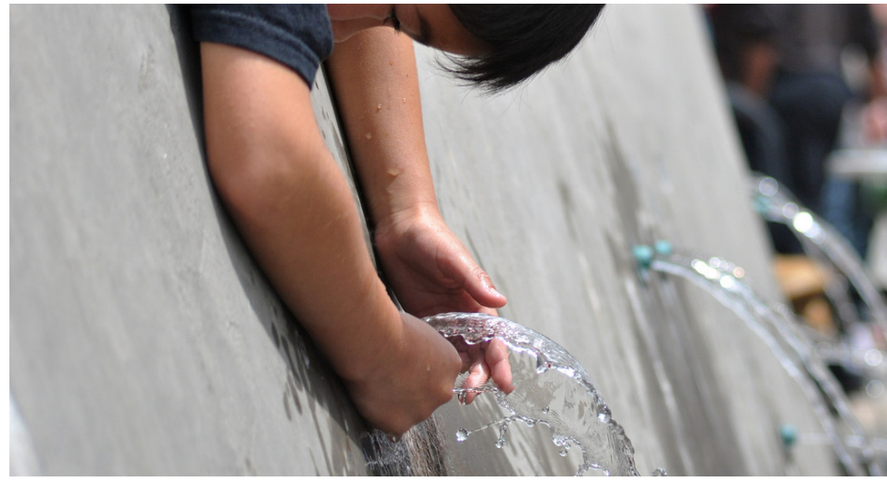
14 City of Oakland, Oakland 2030 Equitable Climate Action Plan, 2020.

EXTREME HEAT

As climate change increases global temperatures and exacerbates climate severity, it also affects public health, including respiratory issues due to smoke from wildfires, and heat-related illness. Between 1999 and 2009, there were 19 heat-related events that resulted in about 11,000 hospitalizations statewide.[15] While regional topography, oceanic currents, fog exposure, and onshore winds combine to act like a natural air conditioner for the Bay Area, studies suggest that summertime fog off California has declined substantially,[16] making warming near the coast as much of a concern as in inland areas. The proliferation of paved surfaces in built environments can lead to urban heat islands, especially in places where urban forestry and water bodies are not commonly found. This can further increase summertime cooling costs.

For Oakland residents, this means that both the city's hills and flatlands will feel the heat, and the built environment will be a key driver for maintaining the comfort and health of Oaklanders. **Figure 3-14** maps the land surface temperatures of a late summer day in Oakland. This map shows that there are local hotspots in the city that increases heat exposure; the areas in red and orange—including parts of Fruitvale/South Kennedy, the Coliseum Industrial Complex, Frick/Bancroft Business area,

15 Bedsworth, 2018.
16 Ackerly, 2018.



Building Resilience: Affordable Housing and Sustainable Communities Grant Awards

The California Strategic Growth Council's Affordable Housing and Sustainable Communities (AHSC) Program provides grants and loans for programs and capital development projects, including affordable housing development and transportation improvements that encourage walking, bicycling, and transit use. By providing viable alternatives to automobile transportation, these projects help reduce GHG emissions and transportation and energy cost burdens, among other benefits for environmental justice communities.

Round 6 of the AHSC Program recently awarded 37 projects in January 2022. Two of these are in Oakland, including Longfellow Corner and Transit Improvements and Lake Merritt BART Senior Affordable Housing, which together will provide 172 new affordable (income-restricted) housing units for the city.

Other projects that were awarded were past rounds of the AHSC program include Coliseum Area-International Boulevard Transit-Oriented Development (TOD) Partnership, the integrated connectivity project at 3268 San Pablo, Fruitvale Transit Village, and Mandela Station TOD. These projects have brought 528 affordable housing units in addition to various transportation and safety improvements to Oakland.

Source: California Strategic Growth Council, 2022

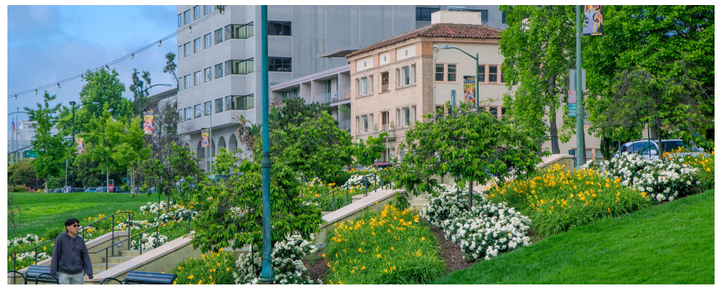
Castlemont, Oak Knolls-Golf Links/Chabot Park, Webster, and the Oakland International Airport area—are hotter than their surroundings.

It is noted that although **Figure 3-14** maps land surface temperature, which has a direct relationship with air temperature, how hot a person feels depends on many factors including their health, biology, and personal preferences. Nevertheless, extended exposure to hot environments can pose a risk of heat-borne illness, especially to at-risk populations such as outdoor workers, older adults, and sensitive individuals.

Urban heat island effects can be moderated by the cooling effects of trees and irrigation in urban landscapes, which have been estimated to reduce daytime summer temperatures across urbanized portions of the Bay Area by an average of 1.8°F.[17]

In Oakland, public urban forest resources vary throughout the city, as mapped in **Figures 3-15** and **3-16**, which show the distribution of the City's tree inventory and the overall citywide tree canopy by census tract. **Chart 3-3** illustrates how the community tree inventory is disproportionately distributed; white residents make up only about a third of the city's population but live in census tracts that contain more than half of the City's tree inventory. In comparison, the Asian population represents 17 percent of the total population and 13 percent of tract pluralities, yet only nine percent of trees are in these tracts. Likewise, **Chart 3-4** shows how the percentage of tree canopy coverage is higher in majority-white census tracts, while majority- Asian and majority-Hispanic/Latinx tracts are only half the citywide average.

17 Ibid.



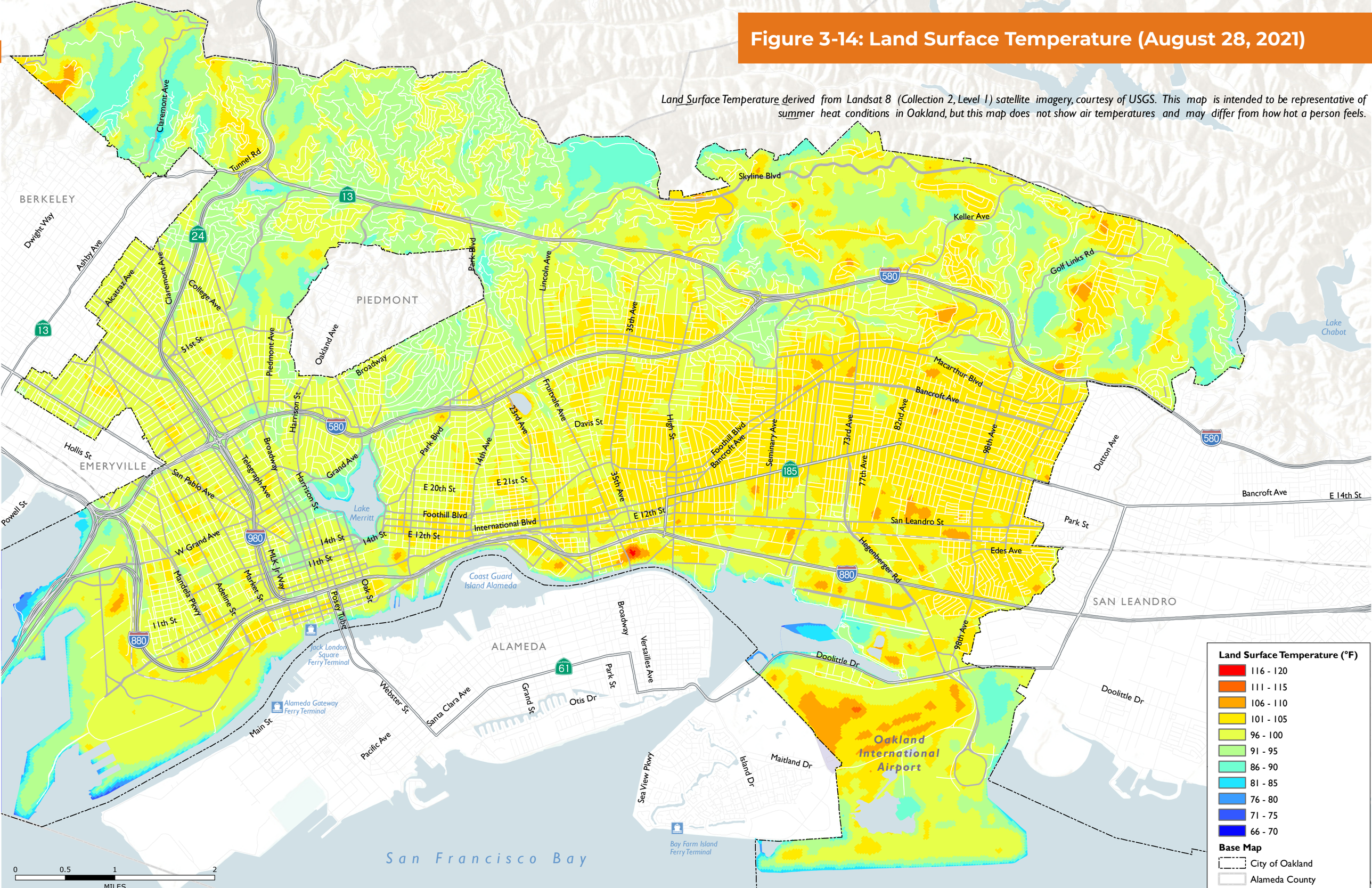
What is an Urban Heat Island?

Intuitively, it is not difficult to imagine the heat difference between a lush, shaded, misty forest and the "concrete jungle" of a traditional downtown urban setting. Because the buildings, roads, and other infrastructure of urban areas absorb and re-emit the sun's heat at a much higher rate than natural landscapes such as forests and water bodies, cities become "islands" or pockets of higher temperatures relative to less developed and greener outlying areas. This is referred to as the "urban heat island effect," which research has found to be about 1-7°F hotter during the day and 2-5°F hotter at night.[1]

1 United States Environmental Protection Agency, "Learn About Heat Islands," Last Updated September 15, 2021, https://www.epa.gov/heatislands/learn-about-heat-islands, accessed February 15, 2022.

Figure 3-14: Land Surface Temperature (August 28, 2021)

Land Surface Temperature derived from Landsat 8 (Collection 2, Level 1) satellite imagery, courtesy of USGS. This map is intended to be representative of summer heat conditions in Oakland, but this map does not show air temperatures and may differ from how hot a person feels.



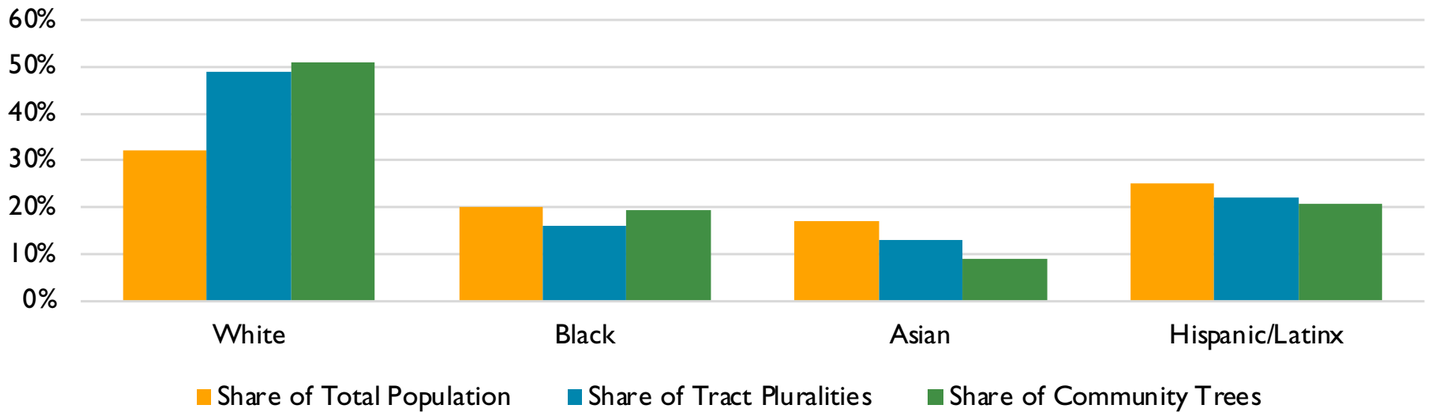
Land Surface Temperature (°F)

- 116 - 120
- 111 - 115
- 106 - 110
- 101 - 105
- 96 - 100
- 91 - 95
- 86 - 90
- 81 - 85
- 76 - 80
- 71 - 75
- 66 - 70

Base Map

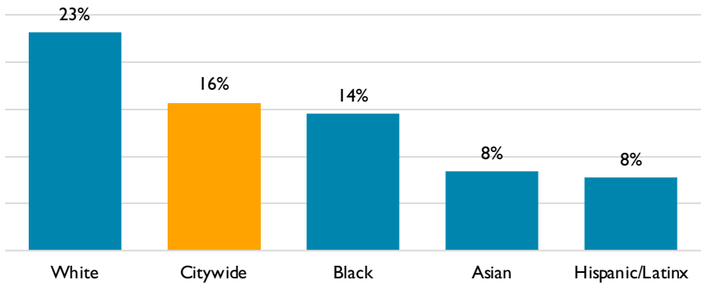
- City of Oakland
- Alameda County

Chart 3-3: Distribution of Community Trees by Census Tract Racial Majority, 2021

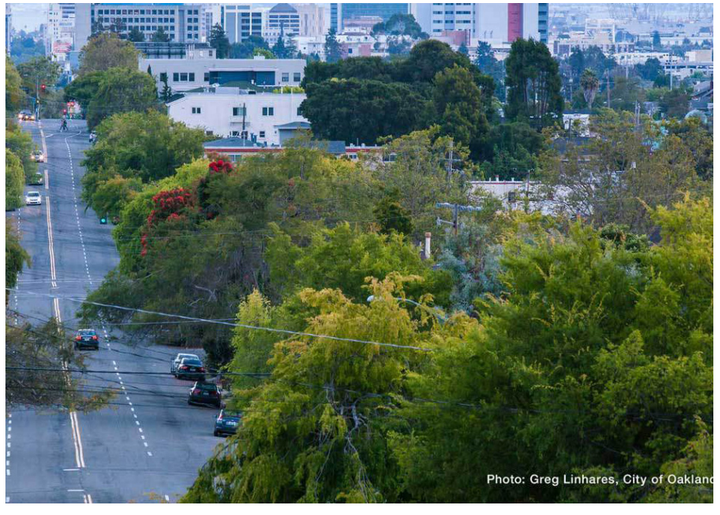


Sources: Davey Resource Group, Inc., 2021; ACS 2015-2019; Dyett & Bhatia, 2022.

Chart 3-4: Tree Canopy Coverage by Census Tract Racial Majority, 2020



Sources: City of Oakland, 2021; ACS 2015-2019; Dyett & Bhatia, 2022.



SEA LEVEL RISE

Oakland is bordered to the west by more than 20 miles of San Francisco Bay coastline. While the bay is an important biological, cultural, recreational, and economic resource, it also poses an environmental risk to residents and properties located near the waterfront. Sea level rise, the rise in global sea level accompanying other effects of global climate change, has already increased San Francisco Bay water levels by nearly eight inches in the last century.[18] As sea level rise increases further, it will increase the flooding hazard from the bay, especially during storm events.

Projections for global sea level rise vary between one foot in the next few decades up to seven feet anticipated by 2100.[19] The City's 2021-2026 Local Hazard Mitigation Plan (LHMP) uses the San Francisco Bay Conservation and Development Commission's Adapting to Rising Tides (ART) program to assess sea level rise. The ART program has defined potential near- and long-term scenarios: 48 inches of sea level rise by 2050 and 108 inches by 2100. As shown in **Figure 3-16**, potential for new or prolonged flooding as the sea level rises will increasingly reach beyond the city's shoreline; areas once considered to be outside of the floodplain will begin to experience periodic coastal and/or urban flooding, especially places like the Port of Oakland and the Oakland International Airport, which are chronically subsiding (i.e., sinking because they are built on bay fill) and are at higher risk of liquefaction during seismic events.[20]

DROUGHT AND WILDFIRES

Global climate change has contributed to greater frequency and severity of extreme climate and weather, with increased chance of compound extreme events such as concurrent heat waves and droughts as well as fire weather.[21] While Oakland enjoys a rela-

18 National Oceanic and Atmospheric Administration (NOAA), Center for Operational Oceanographic Products and Services (CO-OPS), NOAA Sea-Level Trends 1987-2018, 2018, tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?stnid=9414290.

19 California Ocean Protection Council, Sea-Level Rise Guidance, 2018.

20 City of Oakland, 2021-2026 Hazard Mitigation Plan, July 2021, https://cao-94612.s3.amazonaws.com/documents/2021-07-01_OaklandHMP_AdoptedFinal-1.pdf.

21 Intergovernmental Panel on Climate Change (IPCC), Climate Change 2021: The Physical Science Basis (Contribution of Working Group I to the Sixth

Figure 3-15: Community Tree Inventory, 2021

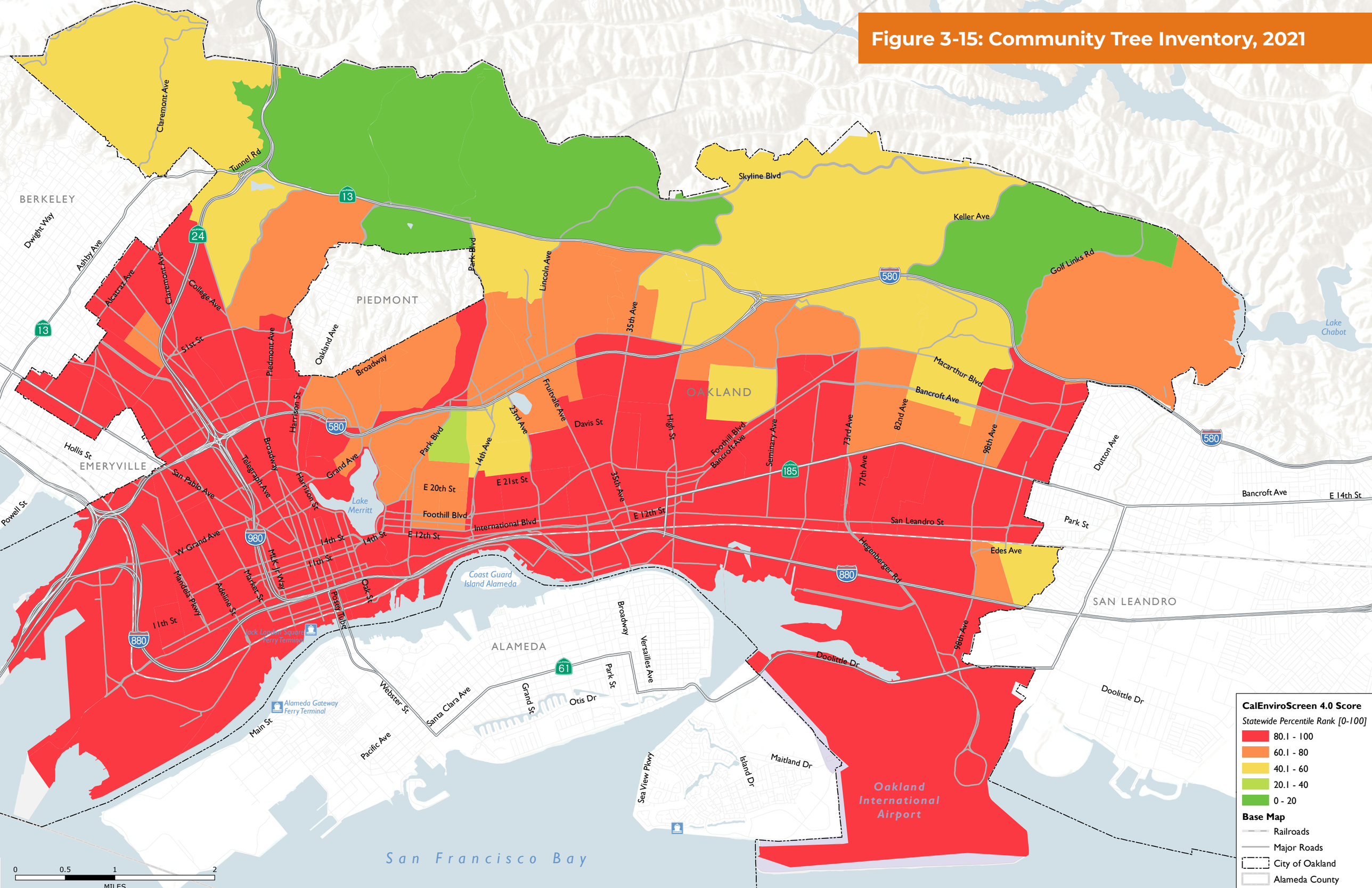
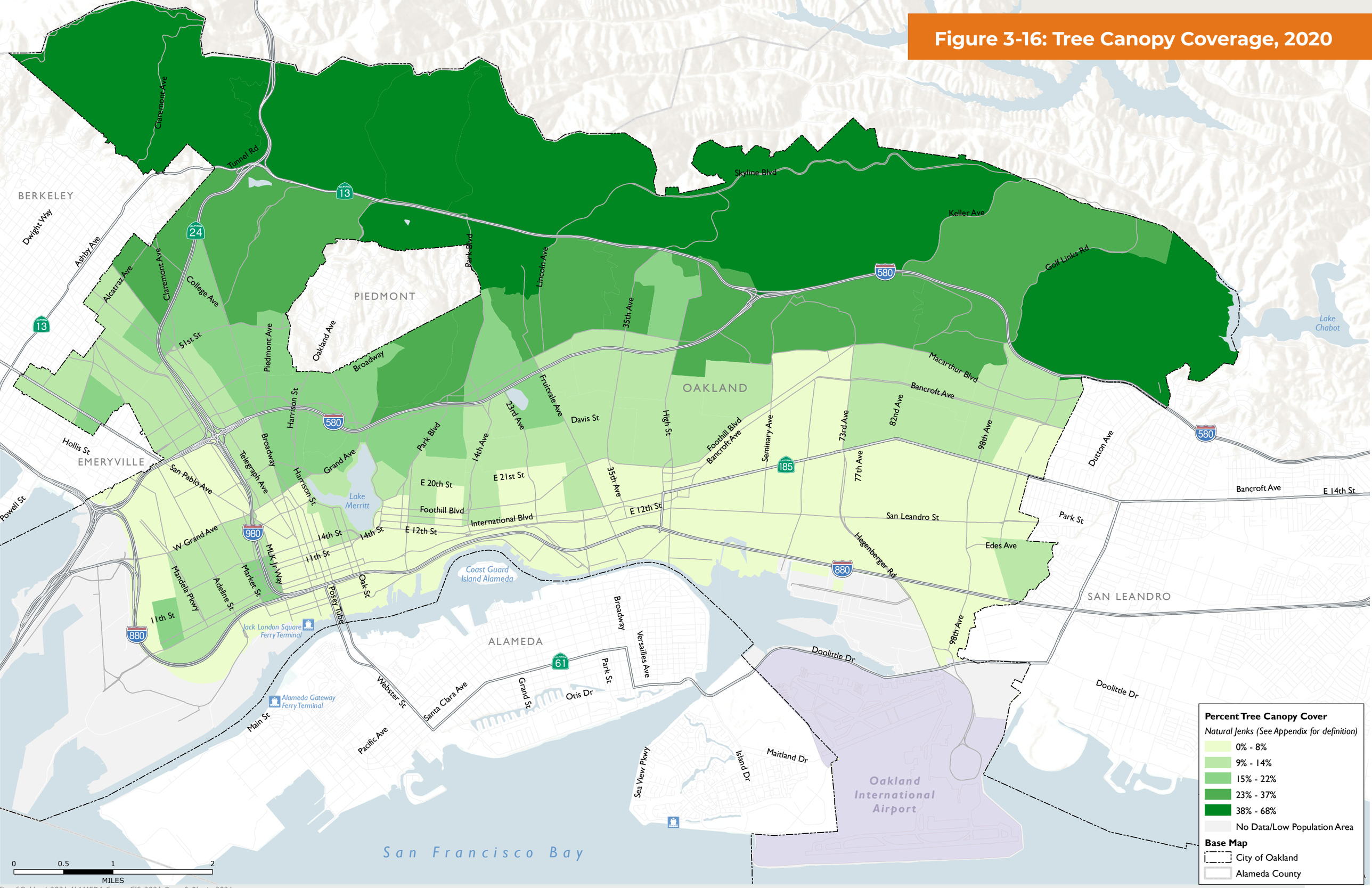


Figure 3-16: Tree Canopy Coverage, 2020



Percent Tree Canopy Cover

Natural Jenks (See Appendix for definition)

- 0% - 8%
- 9% - 14%
- 15% - 22%
- 23% - 37%
- 38% - 68%
- No Data/Low Population Area

Base Map

- City of Oakland
- Alameda County

tively temperate climate due to its bayfront location, changes in climate conditions will inevitably affect the city and will be felt most acutely by frontline communities.

Many parts of California, including the Oakland Hills, are characterized as a fire-dependent ecosystem where wildfires are natural occurrences, particularly in the late summer and early fall. Larger fires, like the Berkeley-Oakland Hills fire in 1991, are also anticipated to occur in this type of ecosystem every 10-20 years. Long and severe droughts can substantially exacerbate wildfire risk such as by increasing the amount of dry, easily flammable vegetation.

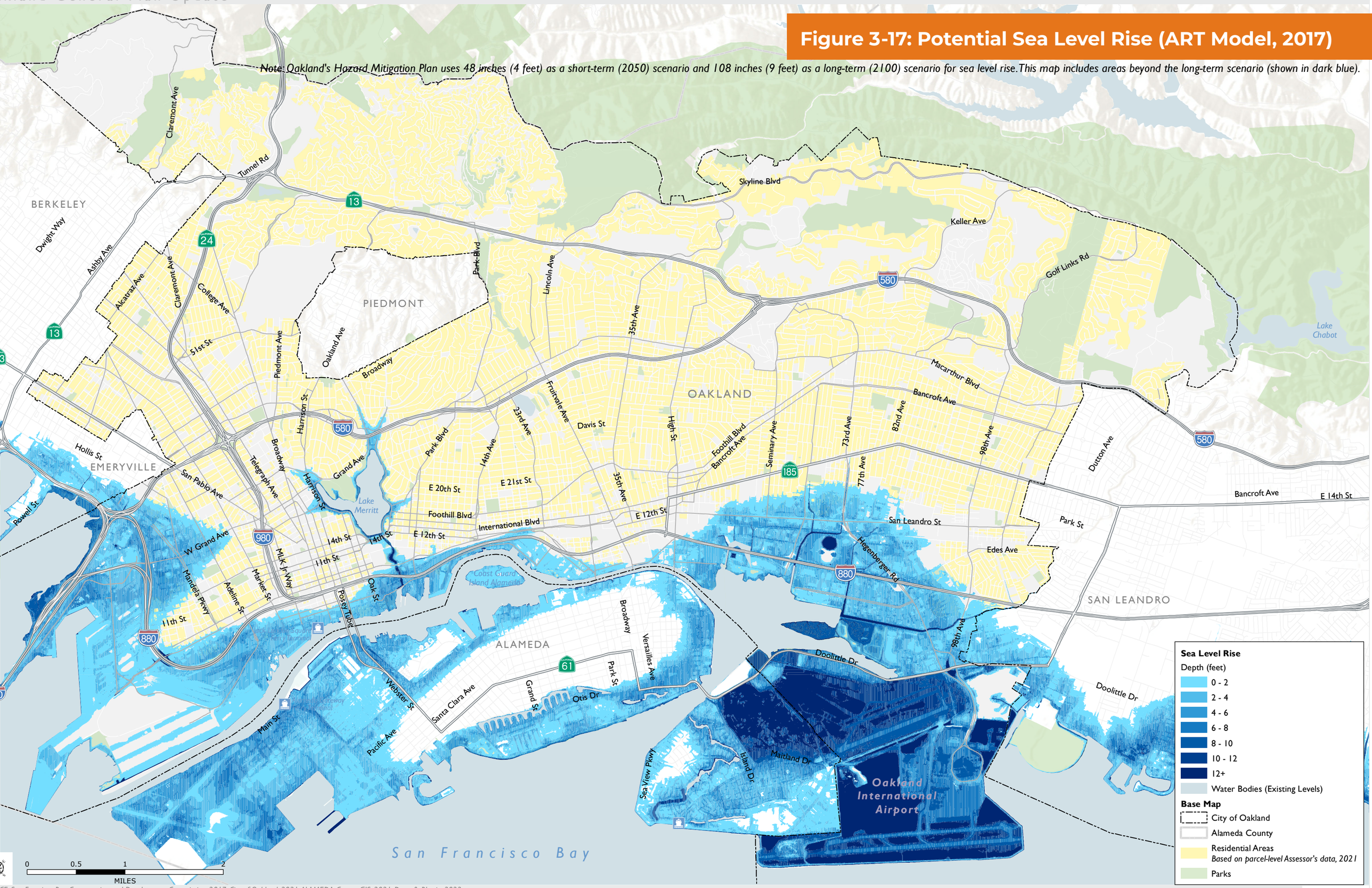
The California Department of Forestry and Fire (CAL FIRE) maps areas, called Fire Hazard Severity Zones (FHSZs), throughout the state where factors such as fuel, terrain, and weather increase the likelihood of wildfire events. Virtually the entire Oakland Hills are designated as a Very High FHSZ. In the Bay Area, fires in the Wildland Urban Interface (WUI) pose the greatest risk to public safety, property, infrastructure, air quality, water quality, and natural environments. As seen in Figure 3-17, areas designated as WUI are predominantly in the northern portions of the city and surrounding jurisdictions. CAL FIRE is currently updating these maps to reflect climate change and wind activity patterns, with the updated maps expected to be released in summer 2022, with likely expanded areas designated at higher tiers of wildfire threat.

Like landslides, wildfire threats are most likely to impact populations in the Oakland Hills, where census tracts are predominantly higher-income and have greater concentrations of white residents. However, it is noted that some of the tracts at the northeastern edge of the city have substantial concentrations of Black and Hispanic/Latinx populations, and these tracts have slightly lower incomes than those located in the northwestern portion of the city.

Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, 2021,

Figure 3-17: Potential Sea Level Rise (ART Model, 2017)

Note: Oakland's Hazard Mitigation Plan uses 48 inches (4 feet) as a short-term (2050) scenario and 108 inches (9 feet) as a long-term (2100) scenario for sea level rise. This map includes areas beyond the long-term scenario (shown in dark blue).



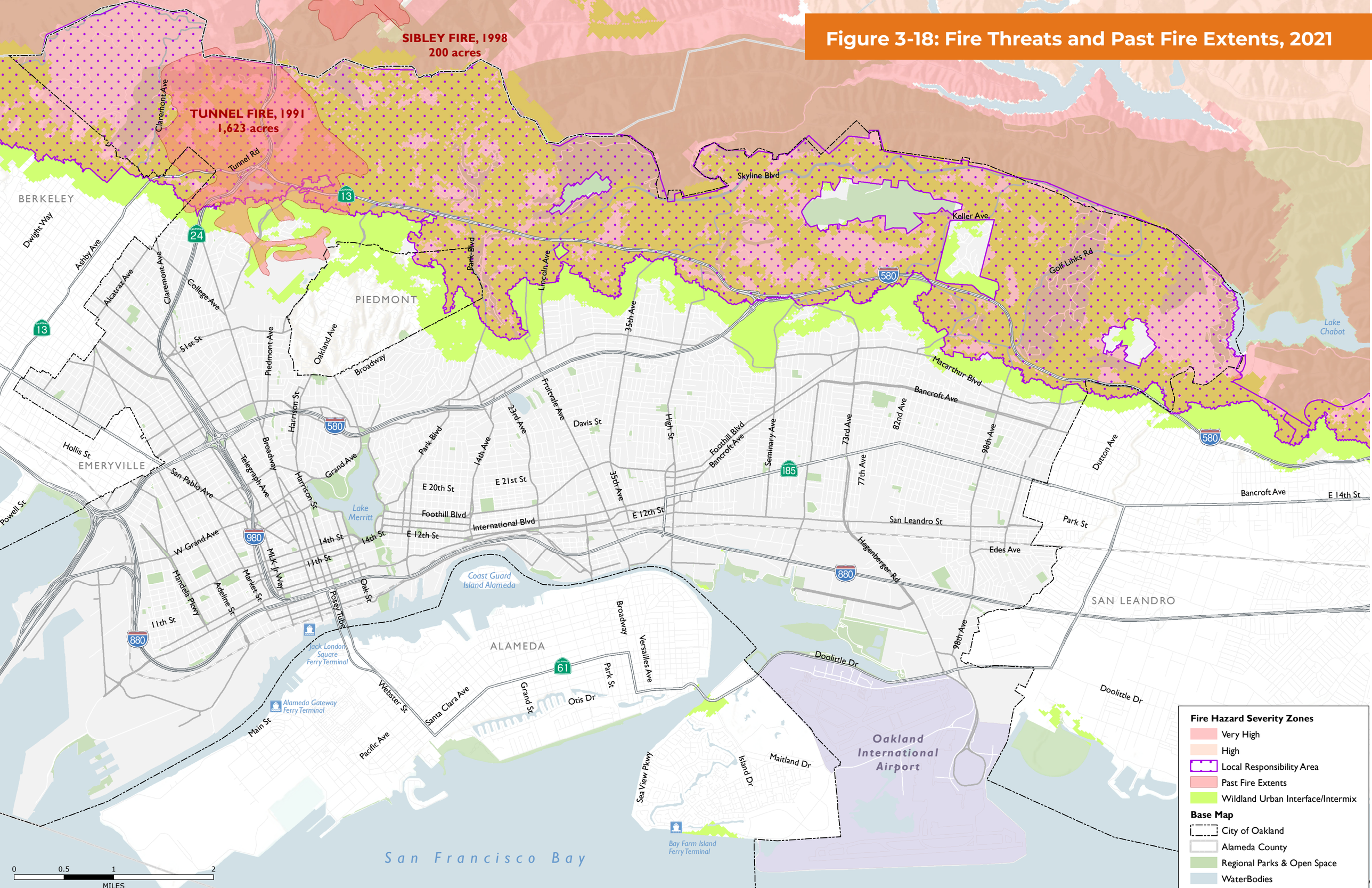
In addition to wildfires in the city's immediate vicinity, smoke from wildfires occurring throughout the greater region pose a significant health risk to all Oakland residents. Unhoused populations, outdoor workers, residents who live in poorly insulated or ventilated homes, and people who are already burdened by elevated local (indoor/outdoor) pollution are increasingly at risk due to the consequences of climate change that have exacerbated the now-annual "smoke season." To address this issue, the City is working on developing Respite Centers, which will provide resources and shelter from extreme heat and smoke.

Building Resilience: City of Oakland Local Hazard Mitigation Plan (LHMP)

On June 15, 2021, the City adopted the 2021-2026 Local Hazard Mitigation Plan (LHMP), which serves as a guide to increasing resilience in the face of natural disasters such as earthquakes, floods, extreme heat, and wildfires. The plan identifies potential hazards that Oakland is most vulnerable to; assesses risks to the city's residents, buildings, and critical facilities; and outlines a mitigation strategy to reduce risk of exposure and allow a swift, organized recovery in the event of a disaster.

As discussed in this section, there are various environmental factors that are unique to Oakland. In particular, there are challenging decisions that must be made to address conflicting issues such as wildfire and earthquake dangers that occur in the hills and simultaneous concerns of pollution and sea level rise in the flatlands. The LHMP is an important document that addresses these issues and sets a path toward a more resilient future. The plan was also developed with equity in mind, including identification and analysis of existing vulnerable communities and consideration of equity factors and priorities established in the early stages of the LHMP's development. The LHMP was also designed to work in tandem with the 2030 ECAP as well as the General Plan Safety Element that is currently being updated.

Figure 3-18: Fire Threats and Past Fire Extents, 2021



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04

Neighborhood and Built Environment

4. Neighborhood and Built Environment

A livable neighborhood with high quality infrastructure, facilities, and services that meet the needs of all residents is an important component of community health. This chapter covers the built aspects of the physical environment including the SB 1000 (2016) topics: safe and sanitary housing, public facilities, healthy food access, and physical activity. These topics most closely align with the Housing; Land Use and Transportation; and Open Space, Conservation, and Recreation elements of the General Plan.

4.1 Housing

The City of Oakland is currently in the process of updating its Housing Element for the 2023-2031 housing cycle. As part of the Housing Element, the City is conducting a thorough evaluation of the previous (2015-2023) Housing Element; an analysis of housing needs, constraints, resources, and opportunities; and an assessment of fair housing. Forthcoming documents related to the Housing Element will include more information and detail about Oakland's housing inventory and the City's plan for protecting and supporting existing neighborhoods while accommodating new residents. This section discusses access to and provision of safe and sanitary housing, specifically through the scope of environmental justice and racial equity.

A safe and clean home supports both mental and physical health as a source of shelter and peace of mind. However, a history of inequitable investments and discriminatory practices, compounded with the rising cost of living in the Bay Area, disproportionately threatens the ability of low-income and BIPOC communities to afford to stay in their communities.

HOUSING QUALITY AND HABITABILITY

According to the California Department of Finance, in 2021 there were 178,207 housing units and 167,680 households in Oakland. Most of these households are renters (59 percent), while 41 percent are homeowners.[1] This means that homeownership in Oakland is significantly less than the county as a whole, where the majority (54 percent) of units are owner-occupied and 46 percent are renter-occupied. Homeownership is a prime indicator of economic security and mobility for two reasons: 1) owning a home can be a financial asset that can be used to pay for education or other productive investments; and 2) homeownership remains one of the most widely available and effective ways to increase wealth over generations. However, sustainable mortgage financing as well as the amount of home appreciation are both affected by discriminatory lending practices and racial segregation, leading to persistent disparities in homeownership across race.[2] In Oakland, white populations have the highest rate of homeownership (12 percent above the city average), followed closely by Asian populations, while Hispanic/Latinx, Black, and Native American/Alaskan populations are well below the city average,[3] as seen in **Chart 4-1**. Furthermore, homeownership rates have declined in the Bay Area as well as all throughout California since 2000, reflecting the increasingly pressing concern about housing affordability. When housing costs are high, residents may be forced to make tradeoffs that affect housing quality and habitability. For instance, Oakland residents have voiced concerns about housing habitability and inability to afford homeownership during recent General Plan Update community outreach conducted by Just Cities in February-March 2022. [4]

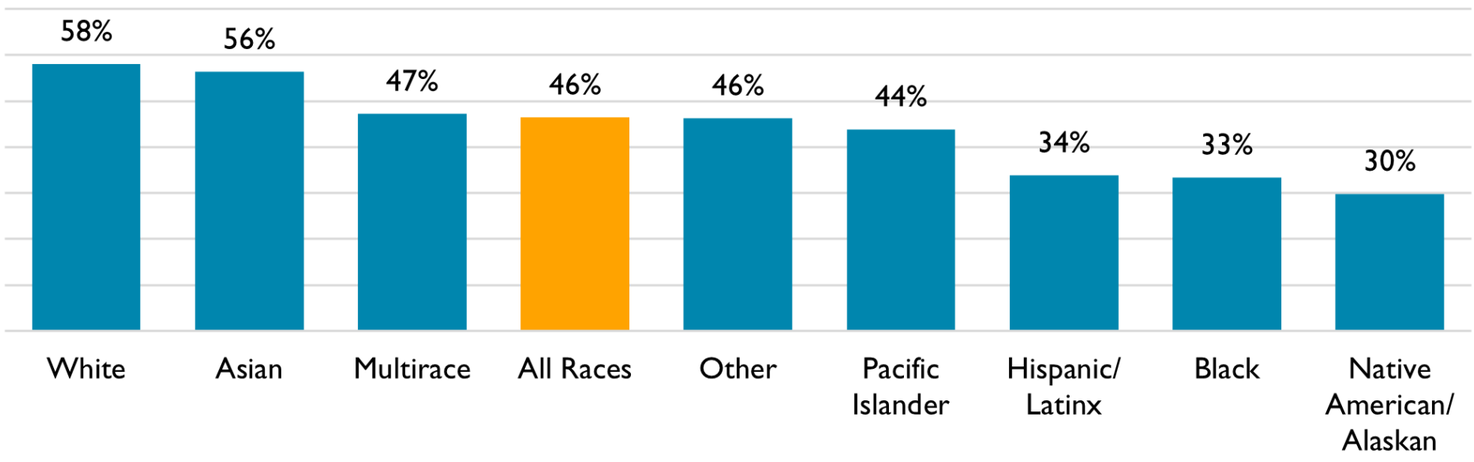
1 United States Census Bureau, 2019: American Community Survey 5-Year Estimates Subject Tables – Households and Families (S1101), December 10, 2020, https://data.census.gov/cedsci/table?q=oakland,%20ca%20housing&g=1600000US0653000&tid=ACSST5Y2019.S1101, Accessed February 16, 2022.

2 Bay Area Equity Atlas, "Homeownership (Percent owner-occupied households by race/ethnicity: Oakland City, CA; Year: 2019)," https://bayareaequityatlas.org/indicators/homeownership#/?breakdown=2&geo=07000000000653000, Accessed February 16, 2022.

3 Ibid.

4 City of Oakland, General Plan Pop-Up Event at Akoma Market for MLK Day – Post-Event Summary, "Community Events and Public Hearings," January 16, 2022, https://cao-94612.s3.amazonaws.com/documents/Pop-up-Event-Summary-7-1_16_22.pdf.

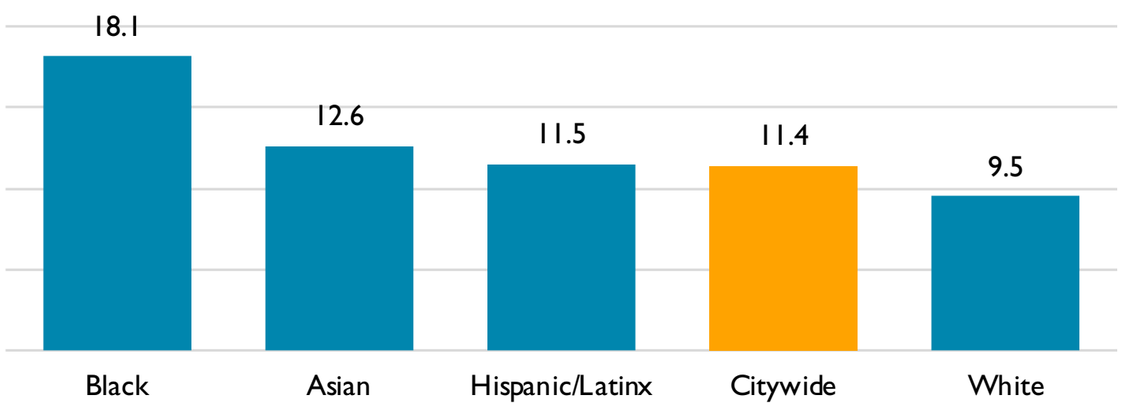
Chart 4-1: Homeownership by Race, 2019



Note: Oakland intersects four Public Use Microdata Sample (PUMS) areas, but the data also includes areas outside of city limits including parts of Emeryville, Alameda, and Piedmont.
Source: ACS 5-Year Estimates PUMS, 2019; Dyett & Bhatia, 2022

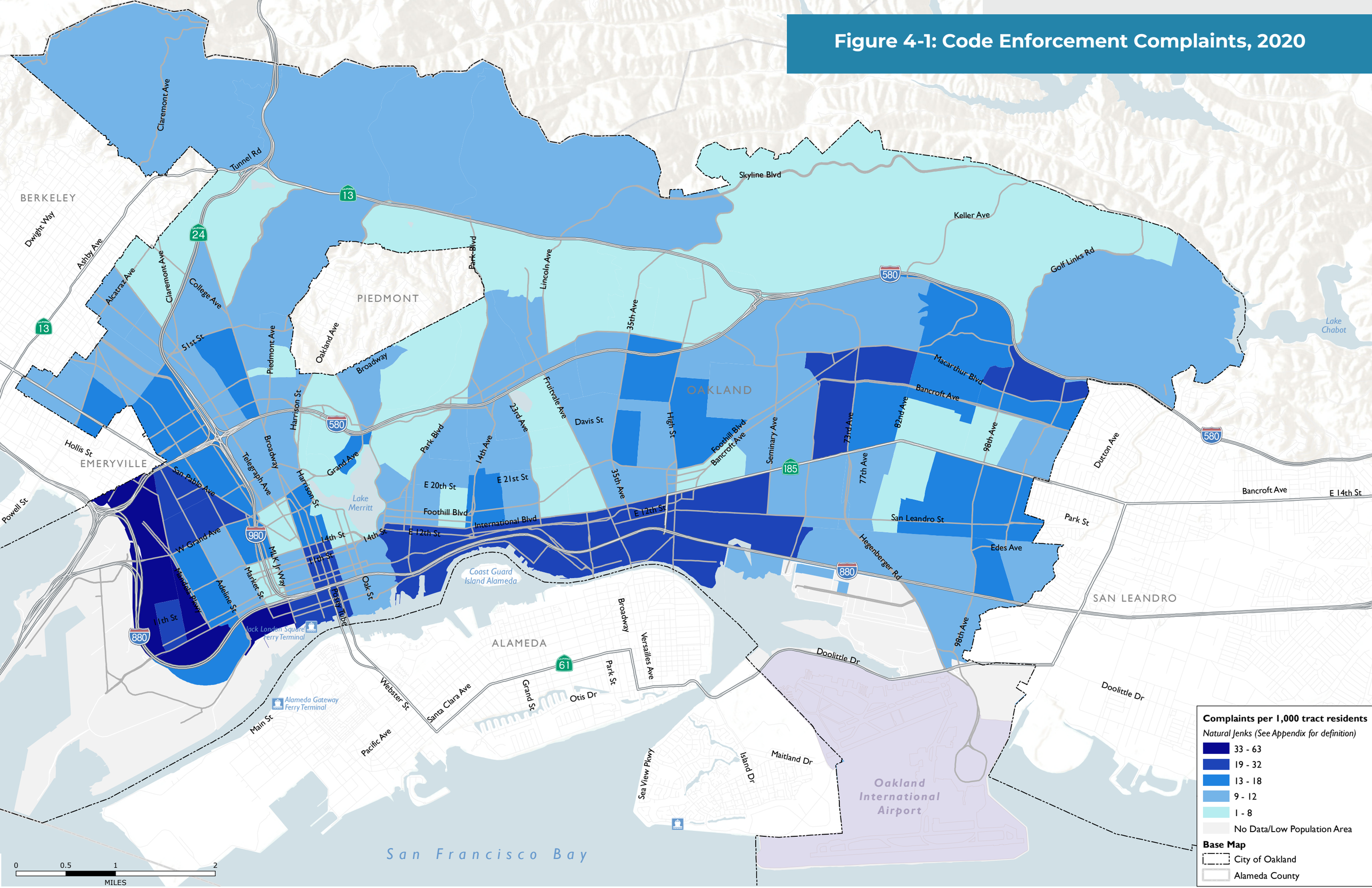
The 2018 Oakland Equity Indicators Report also found that housing quality (comprised of the housing habitability complaints, complete kitchen facilities, and overcrowding indicators) is not equitable, with an average score of 33 out of 100. **Chart 4-2** shows how the number of code enforcement complaints (for blight, zoning, and housing habitability) per 1,000 residents differ by census tract racial majorities. Specifically, majority-white tracts have the lowest rate of code enforcement complaints per 1,000 residents, and tracts that are majority people of color are all higher than the overall citywide rate. It is important to note that complaints do not necessarily represent distribution of housing quality issues; some residents may not file complaints for fear of illegal landlord retaliation, deportation or fear of being displaced. **Figure 4-1** maps the distribution of all three types of code enforcement complaints for 2020 (the most recent year with complete data) throughout Oakland.

Chart 4-2: Code Enforcement Complaints by Census Tract Racial Majority, 2020



Includes code enforcement complaints received by the Planning & Building Department regarding blight (activity/facility), housing habitability, or zoning of rental housing during 2020.
Sources: City of Oakland, 2021; ACS 2015-2019; Dyett & Bhatia, 2022.

Figure 4-1: Code Enforcement Complaints, 2020



In addition to code enforcement complaints, the age of housing can be an indicator of substandard housing conditions, particularly for stock built over 30 years ago. More than 80 percent of Oakland's housing stock was constructed prior to 1980 and is now over 40 years old. Without proper maintenance or rehabilitation, older buildings can fall into disrepair, subjecting residents to conditions such as inadequate sanitation, structural hazards, hazardous mechanical systems, and other issues that the State has determined to be below the minimum standards of living (as defined by Government Code Section 17920.3).[5] Based on the City's 2020-2021 Consolidated Annual Performance and Evaluation Report, the Oakland Housing Authority (OHA) administered programs that supported the rehabilitation of 339 existing affordable units. However, the City's ability to meet the need for rehabilitation assistance is limited, and it can be difficult to accurately identify substandard units in need of rehabilitation, especially given not all households living in substandard conditions may actively seek assistance.

The United States Department of Housing and Urban Development (HUD) tracks selected physical and financial characteristics as an indication of substandard housing. The physical conditions include incomplete kitchen facilities, incomplete plumbing facilities, and overcrowding (more than one occupant per room). As seen in **Figure 4-2** below, most households in Oakland are not affected by any of these conditions, but a handful of tracts contain households that do meet at least one of these conditions – up to 8.5 percent of households in the Piedmont Avenue 2 and Uptown/Downtown census tracts (see Appendix for a map and list of census tract names). **Chart 4-3** shows how residents in majority-Hispanic/Latinx tracts are most impacted by overcrowding[6], and residents in majority-white tracts are most impacted by incomplete kitchen facilities. Majority-Asian census tracts are least affected by these physical substandard housing conditions.[7] However, a study by Just Cities produced on behalf of the Oakland Asian Cultural Center in January 2022 found that Asian American communities such as in Saint Elizabeth, San Antonio, and East Peralta are, in fact, impacted by overcrowding.

Lead poisoning caused by lead paint is also a dire threat to public health, well-being, and health outcomes in Oakland and Alameda County that disproportionately affects low-income and Black, Indigenous, and Hispanic/Latinx communities due to the prevalence of older, dilapidated housing, which exposes children in poverty to lead paint hazards at the greatest rates.[8] The City's Lead Paint REIA identified the top five census tracts that are at risk of lead poisoning as Bancroft/Havenscourt West, Fremont, Brookfield Village, Seminary, and Havenscourt/Coliseum.[9]

5 City of Oakland Department of Housing and Community Development, Draft 2020/2021 Consolidated Annual Performance and Evaluation Report, November 24, 2021, https://www.oaklandca.gov/services/2020-21-consolidated-annual-performance-and-evaluation-report-caper, accessed February 16, 2022.

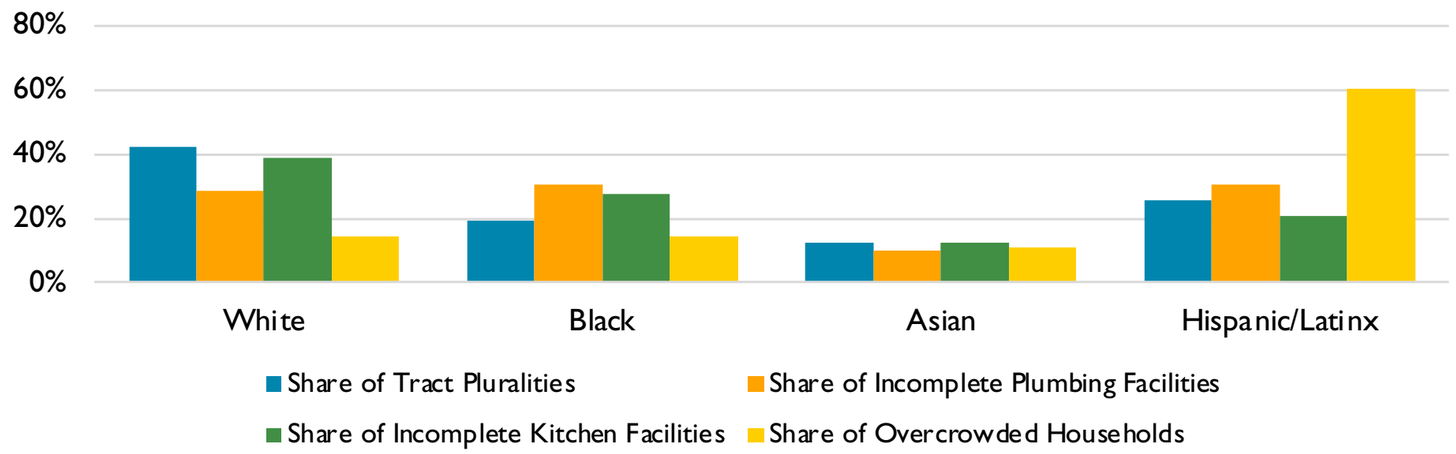
6 Overcrowding can be an indicator of lack of affordable housing, such as when families are not able to afford an adequately sized home. More analysis and information about overcrowding in Oakland is included in the Housing Needs Assessment of the Housing Element.

7 Just Cities, Asian Americans in Oakland, January 2022, https://cao-94612.s3.amazonaws.com/documents/OACC-English-Zine-w-cropped-cover.pdf.

8 Environmental / Justice Solutions, Racial Equity Impact Analysis: Eliminating Lead Paint Hazards in Oakland & Alameda County, September 2021, https://cao-94612.s3.amazonaws.com/documents/Lead-Paint-REIA_9-23-21_FINAL.pdf, accessed February 2022.

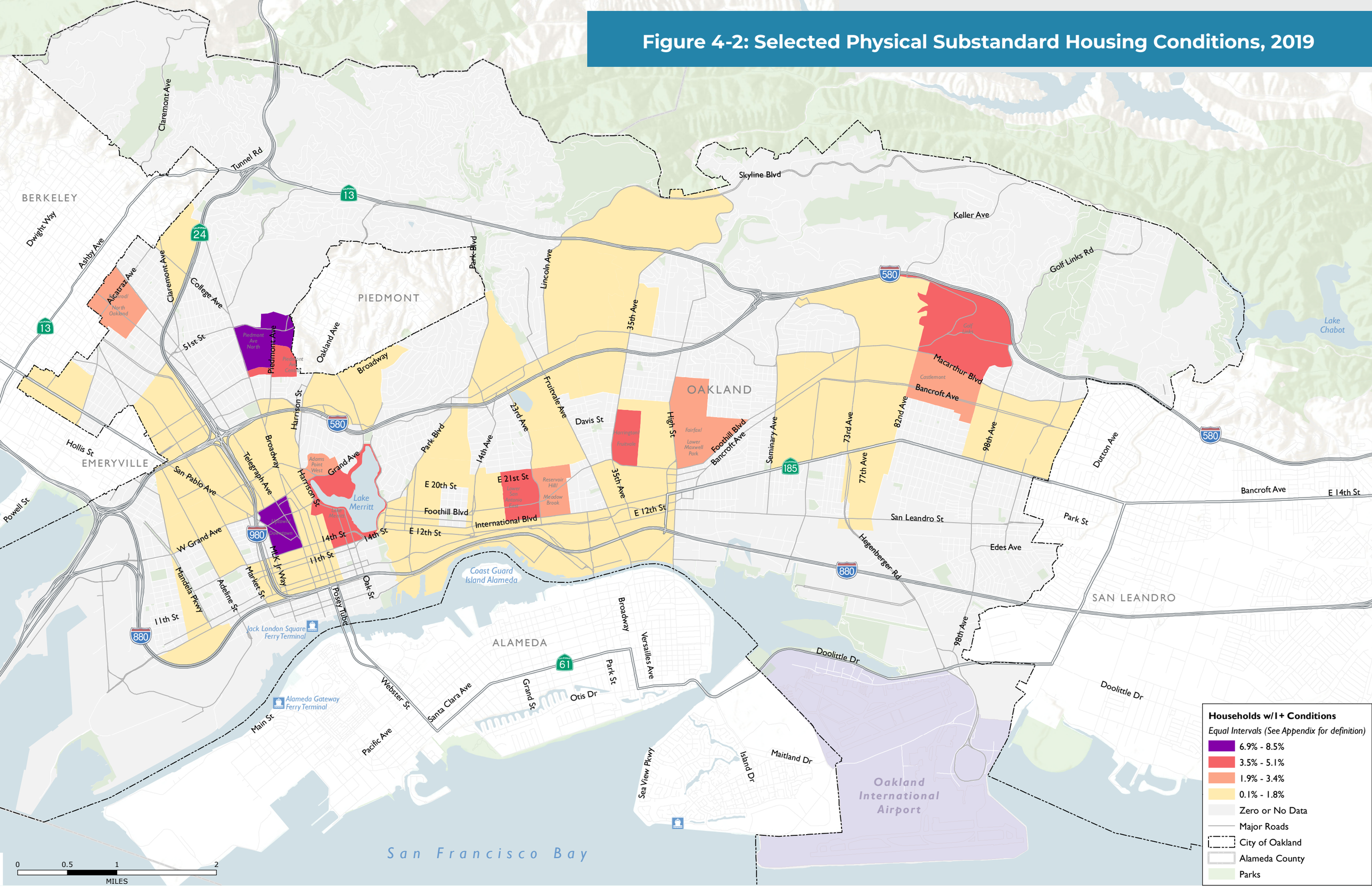
9 See the Appendix for a map of census tracts by name. More information about risk of lead poisoning in Oakland can be found in the Lead Paint REIA: https://cao-94612.s3.amazonaws.com/documents/Lead-Paint-REIA_9-23-21_FINAL.pdf

Chart 4-3: Physical Substandard Housing Conditions by Census Tract Racial Majority, 2019



Sources: ACS 2015-2019; Dyett & Bhatia, 2022.

Figure 4-2: Selected Physical Substandard Housing Conditions, 2019



Households w/1+ Conditions

Equal Intervals (See Appendix for definition)

- 6.9% - 8.5%
- 3.5% - 5.1%
- 1.9% - 3.4%
- 0.1% - 1.8%
- Zero or No Data
- Major Roads
- City of Oakland
- Alameda County
- Parks

HOUSING AFFORDABILITY AND STABILITY

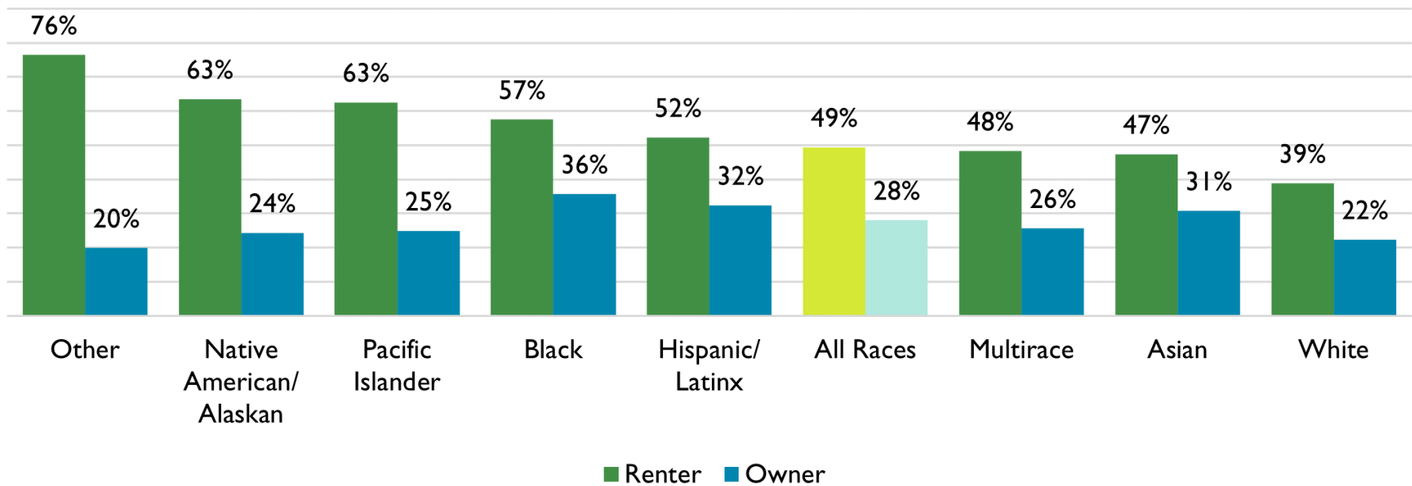
The 2018 Oakland Equity Indicators Report reminds us that housing affordability has become perhaps the most critical barrier to equity. The private residential development market is mainly focused on and responsive to roughly the top 20 percent of the market, and production of housing affordable to households with moderate or lower incomes has become extremely costly, especially without subsidies that are inadequately available to meet the need, as well as hard to build or preserve. This is a regional, if not statewide issue, but it takes a particularly virulent form in Oakland given its relatively high proportions of people needing below-market housing and the generally high cost of housing in the Bay Area. Each national wave of predatory lending, foreclosures, and speculative ownership of residential properties hits Oakland's lower-income neighborhoods especially hard. The current crisis of homelessness is unprecedented in its scope but has its roots in systemic failures of the housing market and discriminatory housing policies and practices.

Housing affordability can be estimated by comparing the cost of renting or owning a home in Oakland with household income levels. State HCD has estimated that in 2021 the maximum affordable home price in Alameda County for a three-person household (equivalent to a two-bedroom home, which is typical for Oakland) is $364,642 for owners and $2,245 for renters at a low-income level. [10]

Housing costs have risen dramatically over the past couple of decades. Zillow estimates of a typical home value in Oakland (known as the Zillow Home Value Index, or ZHVI) reached $730,338 in 2020,[11] which is over double the price affordable to a low-income household. Similarly, real (inflation-adjusted) rent for multifamily homes in Oakland has increased from $2,182 to $2,245 (three percent) between 2015 and 2019. This is significantly higher than the statewide average of $2,011 in 2019, though the Bay Area average rent remains higher than Oakland at $2,603.[12] In order to rent a $2,245 unit without being housing burdened (spending 30 percent or more of their income on housing), a household must earn $7,483 per month or $89,791 per year. This translates into an hourly wage of $43.17 for a full-time worker.[13]

The Bay Area faces a deep housing affordability crisis. According to ACS estimates for 2019, 33 percent of homeowners in Oakland were housing burdened, and 14 percent were severely housing burdened (spend 50 or more of their income on housing costs) – both of which are higher than the statewide average. Likewise, more than half (51 percent) of Oakland renters are housing burdened and 27 percent are severely housing burdened, though both of these rates are lower than the statewide average for renters. Just as cost burdens vary by tenure, they also vary racially. **Chart 4-4** shows that Black homeowners in Oakland are more impacted by high housing costs, and Native American/Alaskan and Pacific Islander renters (as well as people of "Other" races) are among the most cost-burdened groups. White populations are consistently among the least cost-burdened.

Chart 4-4: Housing Cost Burden by Race and Tenure, 2019



Note: PUMS data includes areas outside Oakland such as parts of Emeryville, San Leandro, Alameda, and Piedmont.
Source: ACS 5-Year Estimates PUMS, 2019; Dyett & Bhatia, 2022

10 Income levels are determined by HCD annually and are adjusted by county. For Alameda County in 2021, the low-income threshold (upper limit) for a three-person household is $98,650. This income level differs from the low-income areas defined in Chapter 2, which are based on 2019 values.

11 Zillow, Housing Data - Zillow Home Value Index (ZHVI), 2020, https://files.zillowstatic.com/research/public_csvs/zhvi/Metro_zhvi_uc_sfrcondo_tier_0.33_0.67_sm_sa_month.csv?t=1645037658, downloaded May 17, 2021.

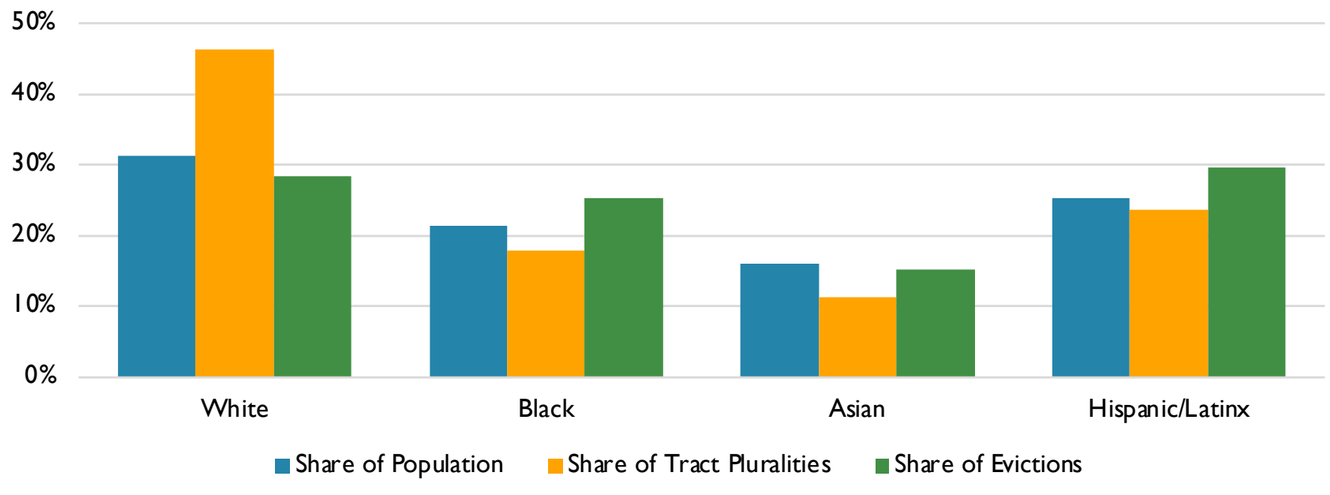
12 Multifamily rent trend data from CoStar, provided by Economic & Planning Systems in March 2022.

13 Calculated using the same methodology used in the National Low Income Housing Coalition's 2021 Out of Reach Report, cited in the California Department of Housing and Community Development's 2022 Statewide Housing Plan: A Home for Every Californian, March 2022, https://storymaps.arcgis.com/stories/94729ab1648d43b1811c1698a748c136, accessed March 20, 2022.

The compounded effect of high housing costs paired with lack of affordability can increase risk of evictions. **Figure 4-3** maps evictions by census block group in Oakland based on eviction data from 2016. This map shows that certain areas of the city are significantly more impacted than other parts, specifically in neighborhoods such as Millsmont, Fitchburg/Hegenberger, Adams Point West, and Downtown. **Chart 4-5** also illustrates that evictions disproportionately impact people of color; despite white residents making up the largest proportion of the city's populations as well as more than half of census block group pluralities (i.e., where white populations represent the largest proportion of the block group's population), majority-Hispanic/Latinx block groups represent the largest share of evictions in the city. Moreover, only majority-white block groups represent less evictions than proportion of total population or proportion of block groups, underlining the fact that BIPOC communities are disproportionately more at risk of eviction than their white counterparts.

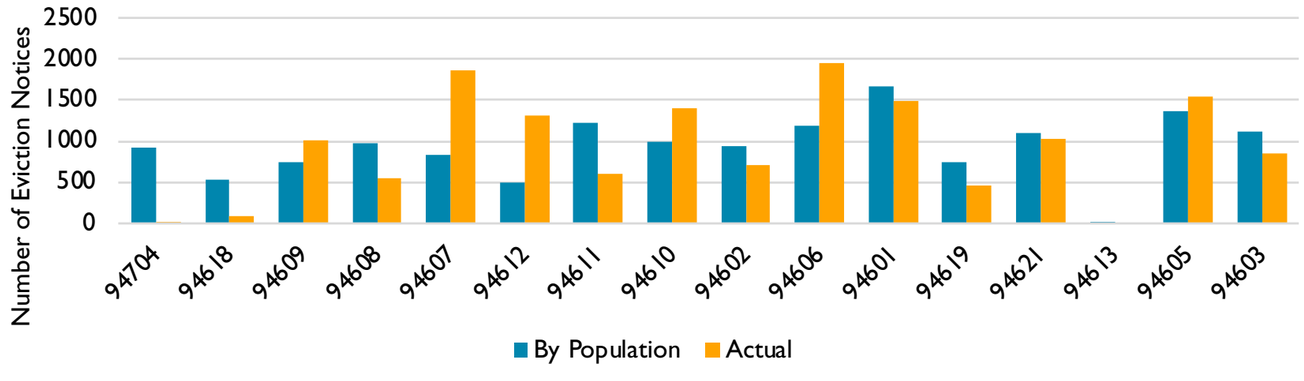
Several studies have shown that the COVID-19 pandemic has disproportionately impacted BIPOC and low-income communities, particularly in relation to evictions. According to data from the Oakland Housing Authority, there were 14,901 eviction notices between January 2018 and February 2022. In order to protect personal information, the number of eviction notices is disaggregated only by zip code. **Chart 4-6** illustrates that there is disparity among zip codes; the blue bars indicate how the 14,901 eviction notices would be distributed if they were proportional to the population, which differs substantially from the actual distribution of eviction notices (shown in orange). There is an even wider gap when comparing how evictions would be distributed if they were proportional to block group pluralities. The orange bars represent the share of block groups in Oakland that each racial group has a majority in, for which majority-white block groups make up almost half of the city yet represent only a third of all evictions. On the other hand, majority-Black, majority-Asian, and majority-Hispanic/Latinx block groups represent a greater share of the city's evictions than they do block groups. For more explanation about the methodology for pluralities, see the Appendix.

Chart 4-5: 2016 Evictions by Census Block Group Racial Majority



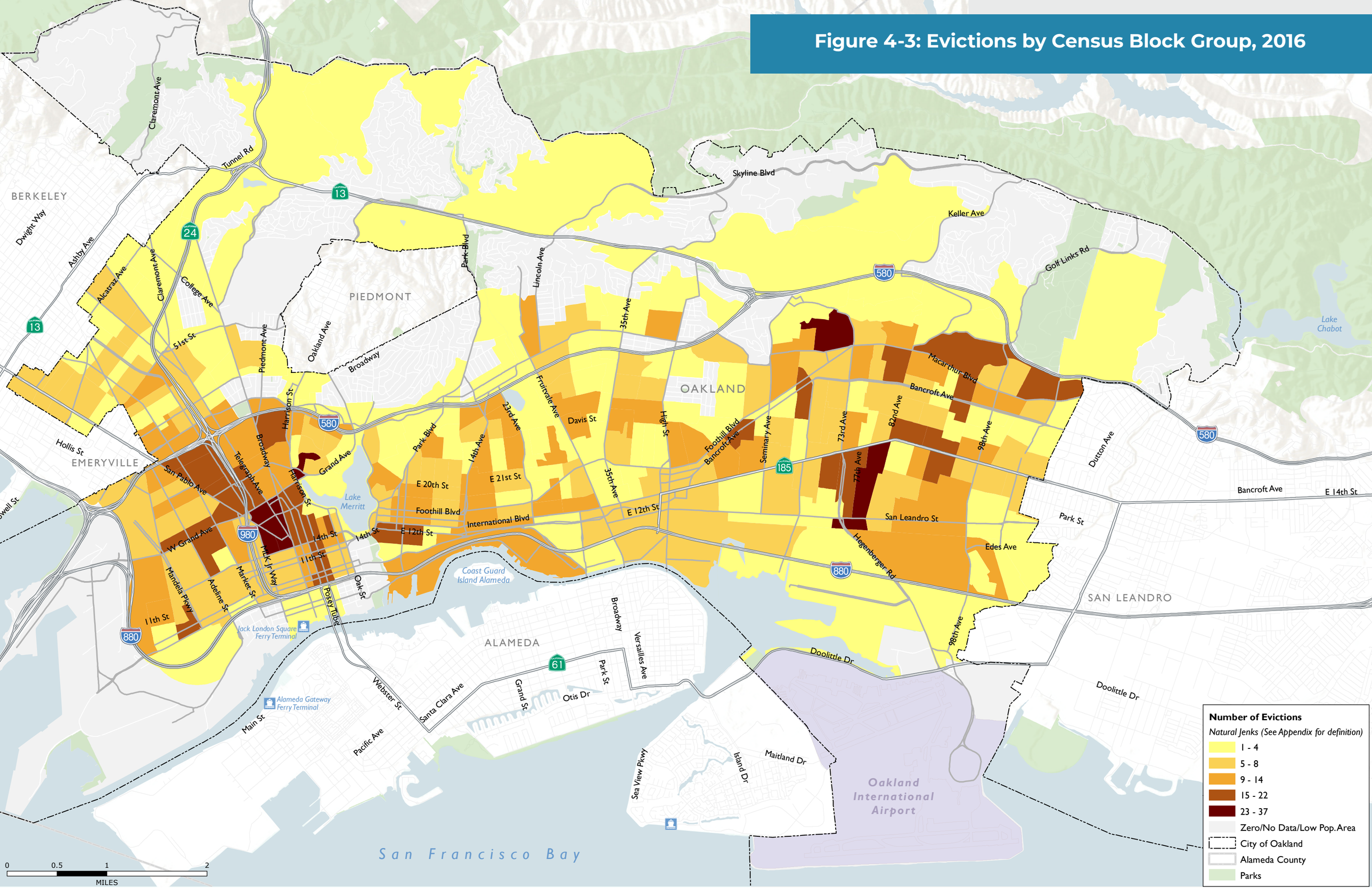
Sources: Eviction Lab, 2019; ACS 2015-2019; Dyett & Bhatia, 2022.

Chart 4-6: Distribution of Eviction Notices by Zip Code, Actual and by Population, January 2018-February 2022



Sources: City of Oakland Housing and Community Development, 2022; Dyett & Bhatia, 2022

Figure 4-3: Evictions by Census Block Group, 2016



Number of Evictions

Natural Jenks (See Appendix for definition)

- 1 - 4
- 5 - 8
- 9 - 14
- 15 - 22
- 23 - 37
- Zero/No Data/Low Pop. Area
- City of Oakland
- Alameda County
- Parks

Availability of affordable housing and freedom of housing choice also influences the types and quality of resources that a resident can access. Since 2017, State HCD and the California Tax Credit Allocation Committee (TCAC) has annually created opportunity maps to identify areas in every region of the state whose characteristics have been shown by research to support positive economic, education, and health outcomes for low-income families – particularly long-term outcomes for children. These maps are used in policies aimed at increasing access to high-opportunity areas for families with children in housing financed with Low Income Housing Tax Credits (LIHTCs) and can also be used to inform similar policies in other State funding programs such as HCD's Multifamily Housing Program and the California Debt Limit Allocation Committee's regulations for other LIHTCs. **Figure 4-4** shows the distribution of LIHTC properties identified by the City in 2020 in comparison to the category of opportunity areas designated by TCAC and State HCD in 2021. The map shows that a majority of the low-income units are concentrated in areas that have less access to resources (e.g., jobs and quality education), and some of these areas are places of high segregation and poverty. In comparison, there are far fewer low-income units located in the higher resource areas (shown in green).

DISPLACEMENT AND GENTRIFICATION

"How do you balance being invested in my Oakland community when they may not be invested in me."

-Oakland resident, interviewed at the Oakland Asian Cultural Center Cultural Hub Event on February 6, 2022

Source: City of Oakland General Plan Update Community Events – OACC Cultural Hub Event Post-Event Summary

The relationship between gentrification and displacement is complex (see callout box for more information on displacement). Gentrification is a type of neighborhood change that occurs when new investments in a historically disinvested neighborhood lead to socioeconomic change.[14] When policies and community involvement adequately support the process, these investments can be a positive force of change such as more housing, increased home values for those who are able to be homeowners, and improved amenities like street trees and lighting that enhance safety and comfort in public spaces.[15] Gentrification can also be a negative force, however, when the economic and cultural changes that come with gentrification make existing residents and local businesses feel like they may not be able to afford increased taxes, or may feel uncomfortable or unwelcome among new neighbors. Displacement can also occur when lack of investment in sufficient housing in neighborhoods creates competitive pressure that lead new residents to displace existing ones rather than move into new homes; several areas of Oakland have had disparate outcomes relating to displacement with and without new housing.[16] Although a typical American moves over 11 times in their lifetime, displaced low-income families are likely to move to lower-income neighborhoods. This pattern can intensify poverty conditions, and historic discriminatory housing policies, systemic disinvestment, and less equitable access to resources and opportunities can inhibit economic mobility in these communities.[17]

14 Urban Displacement Project, "What Are Gentrification and Displacement," 2021, https://www.urbandisplacement.org/about/what-are-gentrification-and-displacement/, accessed February 17, 2022.

15 An example of successful gentrification without resident displacement is Emeryville and the Broadway Valdez area.

16 See for example, Owens, Darrell, Discourse Lounge, "Where Did All the Black People in Oakland Go?", September 8, 2021. https://darrellowens.substack.com/p/where-did-all-the-black-people-in?utm_source=url, accessed February 21, 2022.

17 Ibid.

Displacement

Direct displacement: Residents can no longer afford to remain in their homes due to rising housing costs or other actions like lease non-renewals, evictions, landlords not maintaining homes, etc.

Indirect displacement: Units being vacated by low-income residents are no longer affordable to other low-income households (also known as 'exclusionary displacement')

Cultural displacement: Changes in the aspects of a neighborhood that have provided long-time residents with a sense of belonging and allowed residents to live their lives in familiar ways.

Source: the Uprooted Project, accessed at https://sites.utexas.edu/gentrificationproject gentrification-and-displacement-in-austin/

The Urban Displacement Project, a study out of the University of California, Berkeley and the University of Toronto, has mapped patterns of neighborhood change based on data from the census. The most recent update to the maps for the San Francisco Bay Area were produced based on data from 2018. **Figure 4-5** shows the displacement risk and gentrification typologies by census tract as determined by Urban Displacement Project. It is noted that demographic shifts, such as in response to the COVID-19 pandemic, have since occurred, and the typologies mapped in **Figure 4-5** may not reflect with current conditions.

Figure 4-4: TCAC/HCD Opportunity Areas (2021) and Low-Income Housing Tax Credit Properties (2020)

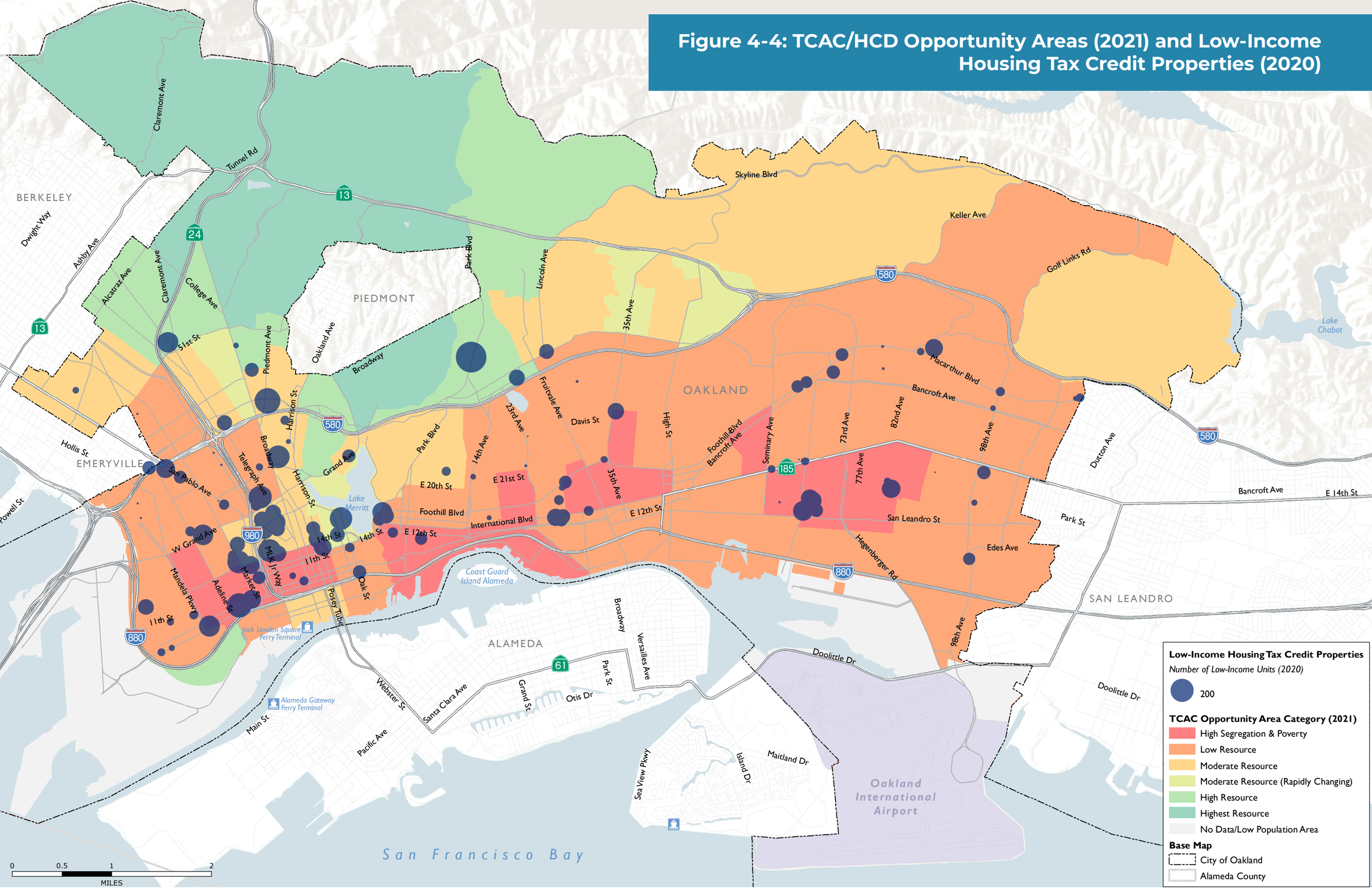
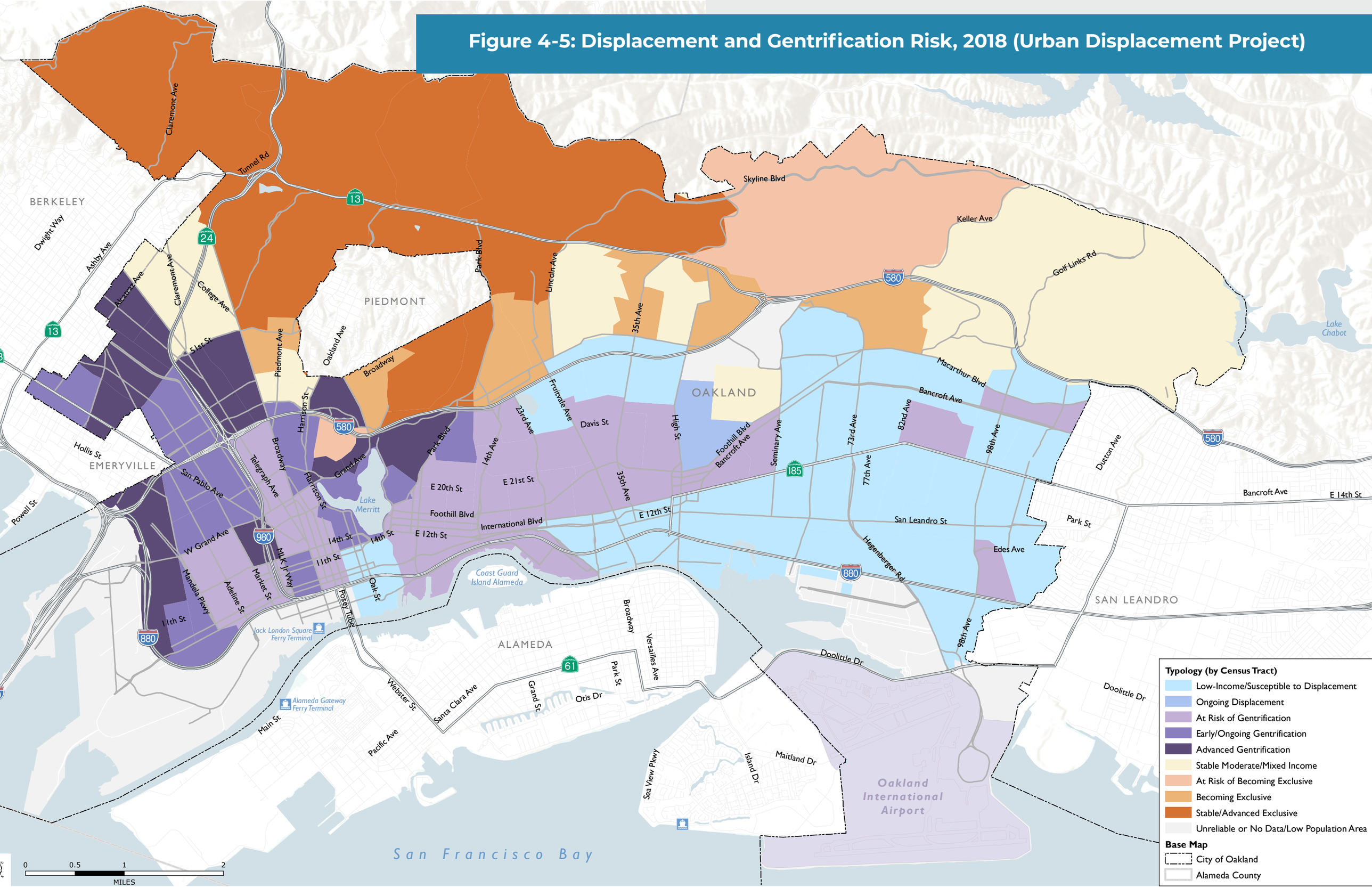


Figure 4-5: Displacement and Gentrification Risk, 2018 (Urban Displacement Project)



There is a clear delineation between geographic areas in Oakland based on their typologies; the Oakland hills to the northwest is classified as "Stable/Advanced Exclusive," indicating an exclusively higher income area not at risk of gentrification. There are a handful of tracts that are "Stable Moderate/Mixed Income," which indicates a level of income diversity that is not particularly susceptible to displacement or gentrification. On the other hand, West Oakland is undergoing a great amount of change; several tracts in deep purple are experiencing "Early/Ongoing Gentrification" or "Advanced Gentrification" where new, higher income residents are displacing existing, lower-income residents. These tracts gradually extend eastward along Highway 185 through central Oakland. East Oakland is predominantly classified as "Low-Income/Susceptible to Displacement," apart from a few tracts that are at risk of gentrification. One tract in the Fremont neighborhood north of Foothill Boulevard and east of High Street is experiencing ongoing displacement.

HOMELESSNESS

Point-in-Time (PIT) Counts are a common way to assess the number of persons experiencing homelessness in a jurisdiction. The PIT Count is a biennial (every two years) census of sheltered and unsheltered persons within a Continuum of Care (CoC) area completed over a 24-hour period in the last 10 days of January.[18] Due to the COVID-19 pandemic, the most recent PIT Count conducted in Alameda County is 2019. At that time, there were a total of 7,475 persons experiencing homelessness, 4,071 of whom were in the City of Oakland on the night of January 30, 2019. This is an increase of 1,310 people (47 percent) from the 2,761 unhoused individuals who were counted in 2017.

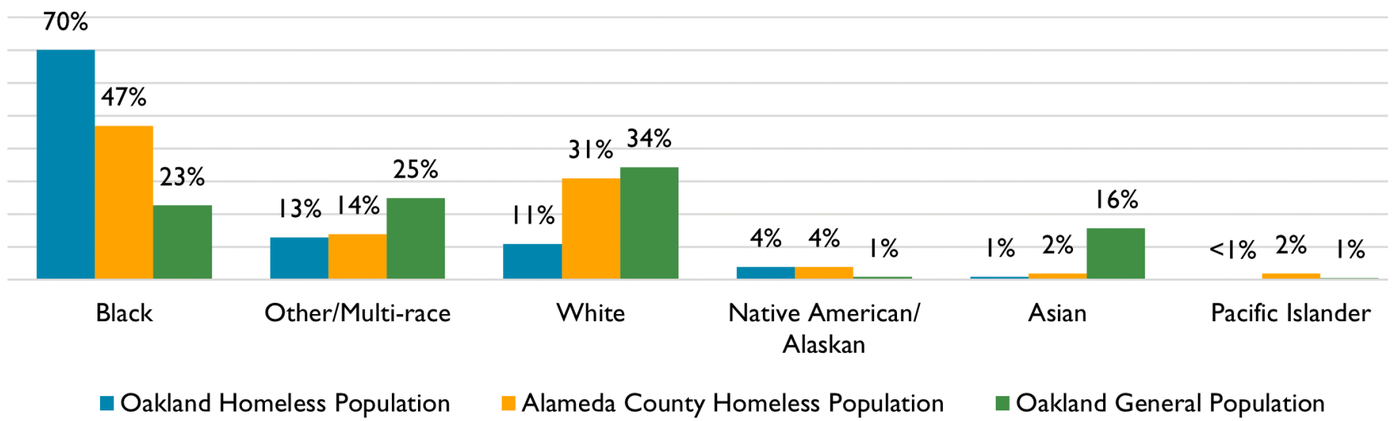
When disaggregated by race, as shown in **Chart 4-7**, the 2019 PIT Count shows that there is a disproportionate representation of Black individuals experiencing homelessness. However, it is noted that data from HUD does not separately distinguish Hispanic/Latinx as a racial group, so those identifying as Hispanic/Latinx may be counted under any of the other racial groups. When considering ethnicity alone, Hispanic/Latinx individuals made up 13 percent of Oakland's homeless population and 17 percent of Alameda County's homeless population, while 27 percent of Oaklanders identify as Hispanic/Latinx (of any race).

The increase in homeless residents over the past five years has resulted in a significant rise in the number of homeless encampments; the City estimates that at least 140 encampments are scattered throughout the city.[19] In 2017, the City established the Encampment Management Team (EMT) to address the physical management of homeless encampments and establish criteria for determining the types of interventions to undertake at encampments. In April 2021, the City of Oakland Office of the City Auditor conducted a performance audit of the City's homeless encampment management interventions and activities, including activities by the EMT. This report highlighted the need to establish and fund a formal encampment management program to implement an effective management system for the City's new encampment policy passed in October 2020.

18 Due to this method, community advocates and local datasets often have a more comprehensive, better understanding of the unhoused population and describe higher numbers of unhoused people than what is reported in PIT Counts.

19 City of Oakland, Homelessness Services Report, March 18, 2021, https://oakland.legistar.com/View.ashx?M=F&ID=9256071&GUID=9ED0688A-A876-4DEF-9EC1-F426269363F0.

Chart 4-7: Point-in-Time Count of the Homeless Population in Oakland, 2019 by Race



Note: Because Hispanic/Latinx origin is tracked as an ethnicity rather than a racial group, data shown above may include Hispanic/Latinx populations.
Source: City of Oakland Homeless Count & Survey Comprehensive Report Applied Survey Research Housing Instability Research Department, 2019; ACS 5-Year Estimates, 2019

Building Resilience: Recent City Actions on Homelessness in Oakland

In March 2021, the City of Oakland Human Services Department Life Enrichment Committee presented a Homelessness Services Report to City Council that included recommendations on co-governed encampments, evaluation of progress and proposal on using hotels/motels for homeless intervention, and identification of public land in each district for homeless intervention such as modular housing and pallet shelter with power and running water.

In response to this report, the City adopted a series of resolutions in May 2021 to address homelessness in Oakland, including: to coordinate with the County to develop plans for coordination of homelessness and public health solutions; to receive $3.1 million from the Oakland Housing Authority to fund the Oakland Path Rehousing Initiative/Sponsor-Based Housing Assistance Program, Local Housing Assistance Program, and Moving to Work program; to contract Sustainable Urban Neighborhoods to develop City-owned or leased parcels for Homeless Intervention Programs; to contract Tiny Logic for management of a co-governed interim intervention (shelter); and to contract Building Opportunities for Self Sufficiency to operate a safe recreational vehicle (RV) parking site on City-leased property. Each of these actions will help implement services and solutions for Oakland's unhoused population.

Source: Concurrent Meeting of the Oakland Redevelopment Successor Agency and the City Council, May 4, 2021 Minutes

4.2 Land Use and Transportation

As discussed in Chapter 3: Environmental Health, the location and type of land uses (i.e., land use compatibility) throughout the city affects people's environments and, in turn, their health. Similarly, the transportation network plays an important role in connecting residents to where they need to go, from daily needs and essential services to recreational opportunities. Provision of facilities and services that are safe, affordable, accessible, clean, and respond to the needs of all residents is a priority to the City of Oakland. This section assesses access to public facilities and healthy food resources.

MOBILITY AND SAFETY

Robust transportation options and access to safe pedestrian and bicycle networks are important components of community livability. In addition to serving as spaces where people can recreate, pedestrian and bicycle facilities can help encourage residents to maintain an active and healthy lifestyle.

The Oakland Department of Transportation (OakDOT) was established in 2016 to assure safe, equitable, and sustainable access and mobility for residents, business, and visitors. The department's first Strategic Plan establishes four goals for the department—equitable jobs and housing, holistic community safety, vibrant sustainable infrastructure, and responsive trustworthy government—each of which is accompanied by a set of actions. In January 2019, OakDOT published its first progress report, which highlighted achievements including community-led street re-designs in underserved areas, the city's first pedestrian hybrid beacon signals[20], five times more Americans with Disabilities Act (ADA)-compliant pedestrian ramps, 23 "Paint the Town" street murals, over 20 miles of improved bikeways in 2018, and facilitation of more transportation options.[21] These efforts have resulted in the continually improving network of existing and planned pedestrian and bicycle facilities.

20 Pedestrian hybrid beacon signals are traffic signals that increase motorists' awareness of pedestrian crossings and are activated by pedestrians when needed, which differs from pre-timed traffic signals and constant-flash warning beacons. According to the Federal Highway Administration (2010), pedestrian hybrid beacon signals were found to reduce pedestrian crashes by 69 percent and total crashes by 29 percent.

21 Oakland Department of Transportation (OakDOT), Progress Report, January 2019, https://cao-94612.s3.amazonaws.com/documents/OakDOT-Progress-Report-with-appendix.pdf, accessed February 16, 2022.

Building Resilience: Oakland 2022 5-Year Paving Plan

The 2019 3-Year Paving Plan (3YP) guided citywide pavement prioritization between July 2019 and June 2022. On December 21, 2021, the City adopted the 2022 5-Year Paving Plan (5YP), which builds on the accomplishments of the 3YP to continue to invest in the care and maintenance of Oakland's streets. Both of these plans leverage repaving to make safety improvements and are center equity in service provision, with a new focus on neighborhood streets.

The 5YP prioritizes $225 million ($45 million a year) toward local streets, and 76 percent of this budget is programmed in consideration of equity factors to provide greater benefit to underserved populations—including people of color, low-income households, people with disabilities, households with severe rent burden, people with limited English proficiency, and youth and older adults (ages 65 and older)—and in geographic areas of greatest needs. Overall, the 5YP represents 350 miles of streets that will receive accessibility improvements including curb ramp improvements, sidewalk repairs, and crosswalk marking upgrades prioritized in local streets and underserved communities.

Source: City of Oakland, 5-Year Paving Plan, 2022

BICYCLE FACILITIES

Let's Bike Oakland (2019), takes an equity-focused approach to bicycle planning. The plan establishes a vision that Oakland will be a bicycle-friendly city where bicycling provides affordable, safe, and healthy mobility for all Oaklanders. The plan highlights new projects and programs that will work to enhance existing communities and their mobility needs. The plan acknowledges the lack of bicycle infrastructure in East Oakland (as illustrated in **Figure 4-6**) despite a strong desire among residents for more opportunities to bike and proposes significant investments in low-stress[22] bikeways, supportive infrastructure[23], and programming in East Oakland neighborhoods. However, the plan acknowledges the potential effect of transportation investments on housing costs, particularly in historically disinvested neighborhoods, in a speculative land market. Let's Bike Oakland recognizes the connection between public investments in transportation infrastructure and new development, and the threat this relationship can pose to housing affordability and stability in Oakland's Black and Brown neighborhoods. Let's Bike Oakland calls on transportation planners to develop and implement projects with community partners to respond to the needs and concerns of existing residents. The plan highlights the need for policies and programs keeping people in place, fostering neighborhood economic development, and protecting labor rights to accompany bicycle infrastructure investments.

Another active initiative by OakDOT is to support electric and shared bicycle/scooter programs, which offer new ways to expand micro mobility in the city. Improvement and expansion of bicycle facilities and supporting infrastructure can also help facilitate these programs.

PEDESTRIAN NETWORK

In 2021, the United States Environmental Protection Agency (EPA) released an update to its Smart Location Database (version 3.0), which includes a variety of transportation accessibility analysis measured by a range of factors including location and quality of employment. **Figure 4-7** maps the Walkability Index from this dataset, which shows that census block groups in Oakland generally fall within the higher (more walkable) range. Areas where there is less walkability include census block groups along the northern edge of the city, in addition to the industrial area of West Oakland (west of I-880) and Oakland International Airport. According to Oakland Walks, the City's Pedestrian Plan, sidewalks in East and West Oakland are more likely to be damaged and to be missing critical amenities such as curb ramps, and these neighborhoods are disproportionately burdened by traffic collisions resulting in fatalities and severe injuries.[24] The neighborhoods along International Boulevard and parts of West Oakland north of Adeline Street are less likely to have sufficient tree coverage, exposing people walking to an uncomfortable environment characterized by extreme heat and pollution.[25]

SAFETY

The traditional approach to transportation planning and design has prioritized expeditious vehicular mobility over safety, resulting in an over-engineered transportation network that poses dangers to people walking and biking, along with segregating neighborhoods. The Oakland Equity Indicators Report also found that pedestrian safety is one of the 12 indicators that received the lowest possible score and is a therefore a top issue for equity.

As mapped in **Figure 4-8**, there were 12,333 crashes that occurred between 2016 and 2020 in Oakland, including 1,552 pedestrian (12.6 percent), 848 bicycle (6.9 percent), 969 motorcycle (7.9), 406 truck (3.3 percent), and 8,559 car (69.4 percent) crashes. About six percent of these accidents resulted in severe injury, and just over one percent resulted in death. The leading causes of these crashes are speeding (24 percent), improper turning (17 percent), violation of traffic signals/signs (16 percent), violation of automobile right-of-way (14 percent).[26]

According to the Citywide Crash Analysis of crashes from 2012-2016, 60 percent of severe and fatal crashes in Oakland occur on just 6 percent of the total street network. Further, reported crash data reveal that certain demographic groups and geographic areas experience a disproportionate share of crashes in Oakland. For example, Black Oaklanders are twice as likely to be killed or severely injured in a crash compared to all other Oaklanders.[27] Based on data from the City's 2018 High Injury Network (HIN), which tracks the intersections and corridors with the greatest volume of crashes in the city, **Chart 4-8** demonstrates how these crashes occur predominantly, and disproportionately, in majority Hispanic/Latinx tracts – more than double the proportion seen in tracts with other racial pluralities. In addition, both Black and Asian populations make up roughly 20 percent of the city's population and experience similar proportions of crashes (i.e., close to a one-to-one ratio), which is a significantly higher rate than for white populations.

22 Low-stress bikeways involve little traffic interaction based on the roadway's vehicle speeds and volumes. Examples include trails, separated or buffered bike lanes on high-speed and high-volume roadways, and neighborhood bike routes.

23 Supportive infrastructure includes bicycle parking, wayfinding, and intersection treatments

24 City of Oakland Department of Transportation, Oakland Walks! 2017 Pedestrian Plan Update, https://cao-94612.s3.amazonaws.com/documents/Ped-Plan-2017-rev-sep2018-compressed.pdf.

25 Ibid.

26 University of California, Berkeley Safe Transportation Research and Education Center, Traffic Injury Mapping System, California Statewide Integrated Traffic Records System query for crashes in Oakland between January 1, 2016 and December 31, 2020, obtained March 3, 2022: https://tims.berkeley.edu/help/Query_and_Map.php

27 City of Oakland, Citywide Crash Analysis, August 29, 2018, https://cao-94612.s3.amazonaws.com/documents/CityofOakland_CrashAnalysis_Infographic_08.29.18.pdf.

Figure 4-6: Existing and Planned Bicycle Network, 2021

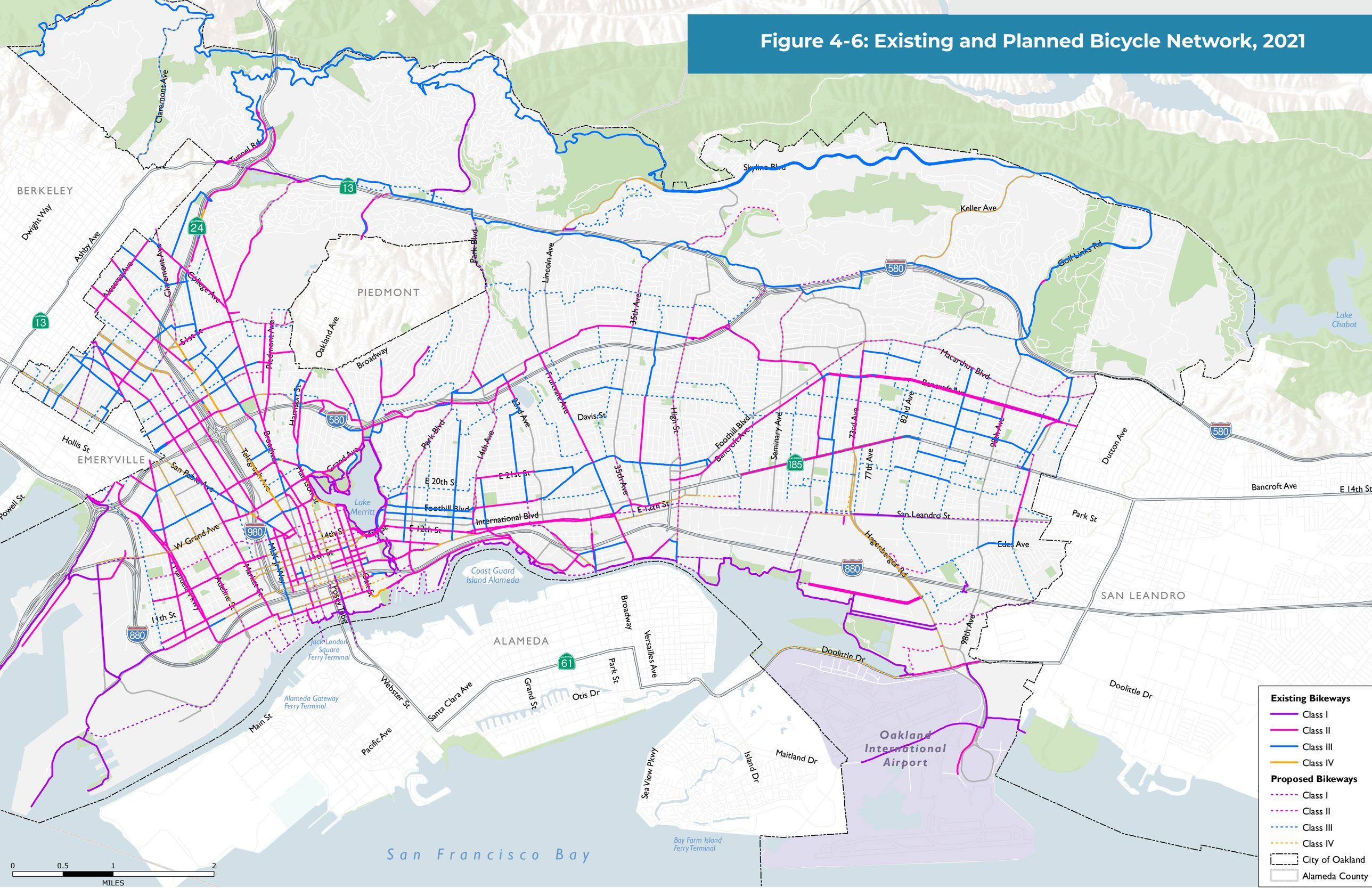


Figure 4-7: EPA Smart Location Database 3.0 Pedestrian Walkability Index, 2021

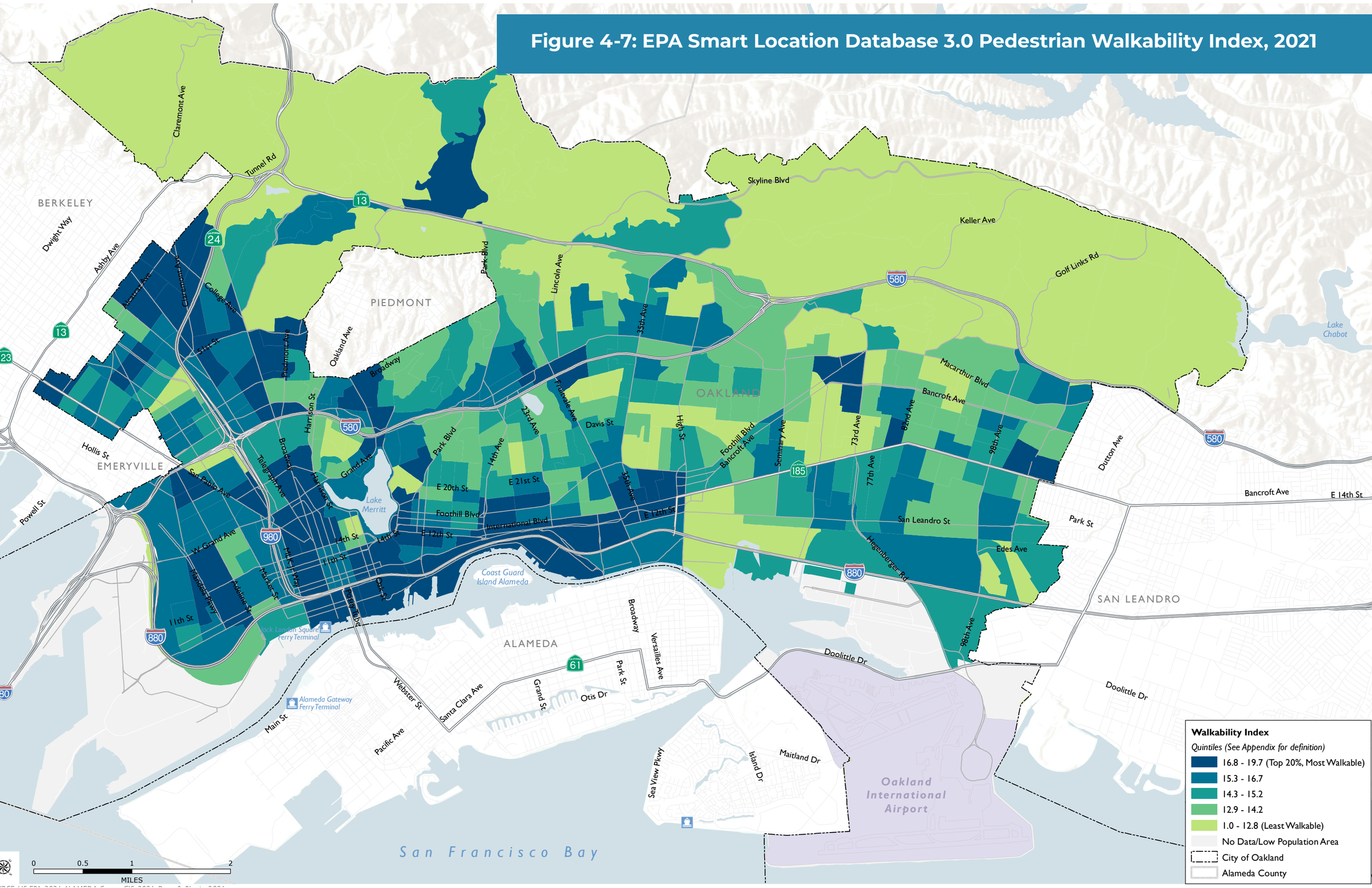
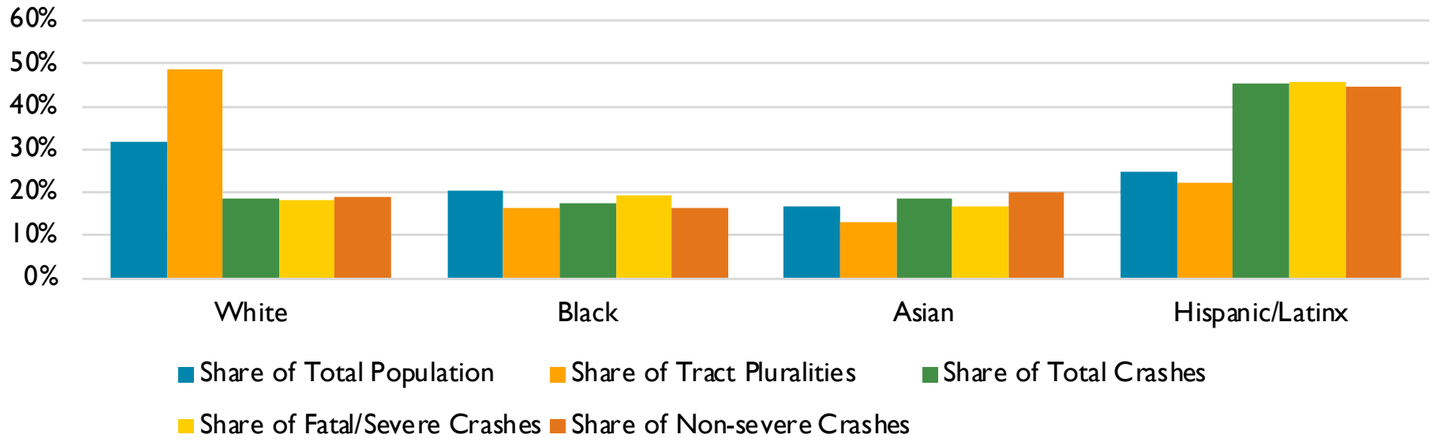


Chart 4-8: High Injury Network Crashes by Census Tract Racial Majority, 2018



Building Resilience: Safe Oakland Streets

Oakland Streets (SOS) is a citywide initiative launched in 2021 to prevent serious and fatal traffic crashes and eliminate crash inequities on Oakland's streets by prioritizing safety over speed with a focus on historically underserved communities. The SOS approach recognizes that all severe and fatal traffic crashes are preventable. One way the City is implementing this approach is through "Safe Systems," through which roadways are designed to anticipate human error and protect those who are most vulnerable rather than the traditional traffic safety approach that often relies on perfecting individual human behavior.

SOS is working across departments and building partnerships with the community to implement the most effective and equitable strategies. Previous planning efforts have laid the foundation for SOS, including OakDOT's 2016 Strategic Transportation Plan, Oakland Walks, and Let's Bike Oakland, which prioritize taking an integrated safety and equity-driven approach. For instance, OakDOT's Geographic Equity Toolbox—which identifies Priority neighborhoods to leverage attention and funding to neighborhoods that may have been historically and currently overlooked by City services and planning processes—and information from the HIN helps the department set data-informed priorities for improvements and reduce the incidence of crashes. Additionally, OakDOT maintains a contracted "community based organization on-call" to continue to support the values of equity and engagement. This contracting mechanism allows OakDOT to pay non-profit organizations for the valuable work they do in support of transportation justice, ranging from grassroots engagement to policy input and meeting facilitation. These include organizations such as Bike East Bay, Safe Passages, Urban Strategies Council, Walk Oakland Bike Oakland, East Bay Asian Local Development Corporation, Transform, Cycles of Change, Eastside Arts Alliance, Building Opportunities for Self Sufficiency.

Source: City of Oakland, "Safe Oakland Streets"

VEHICLE OWNERSHIP

Oakland strives to be a leader in the equitable transition away from fossil fuel use for goods movement, public transportation, vans, and off-road equipment. The transition to zero-emission trucks and other medium- and heavy-duty vehicles in and moving through the city will play a significant impact in reducing poor health impacts in frontline communities, as discussed in Chapter 3: Environmental Health. The City's mobility priorities are aligned with this vision: Active and public transportation are at the top of the list, followed by shared and private electric vehicles. Nevertheless, it is recognized that automobile ownership still constitutes an important means of transportation, particularly where public transit or other means of transportation are not efficient or viable. Yet, access to a car and transportation cost burden are not equal throughout the city, making linkage of land use and public transportation an important means of increasing affordability and transportation equity.

According to 2019 ACS data, 16 percent of Oakland residents do not own a car, and the rate of automobile ownership differs by race as well as tenure, as demonstrated in **Chart 4-9**. Specifically, the chart below shows that a lack of automobile ownership is highest among renters in majority-Black tracts, while lack of automobile ownership is highest among homeowners in majority-Asian tracts. On the contrary, **Figure 4-9** maps areas where automobile ownership is particularly high; a majority of households in census block groups along SR-13/I-580 and parts of the eastern Coliseum Industrial Complex, Brookfield Village, Columbia Gardens, and Sobrante Park neighborhoods own two or more cars. Census block groups where car ownership is notably less are generally located in the Downtown Oakland areas west of Lake Merritt, though it is noted that this may be due to wide availability of public transit options in the area including BART and AC Transit bus services.

Figure 4-8: Crashes in Oakland, 2016-2020

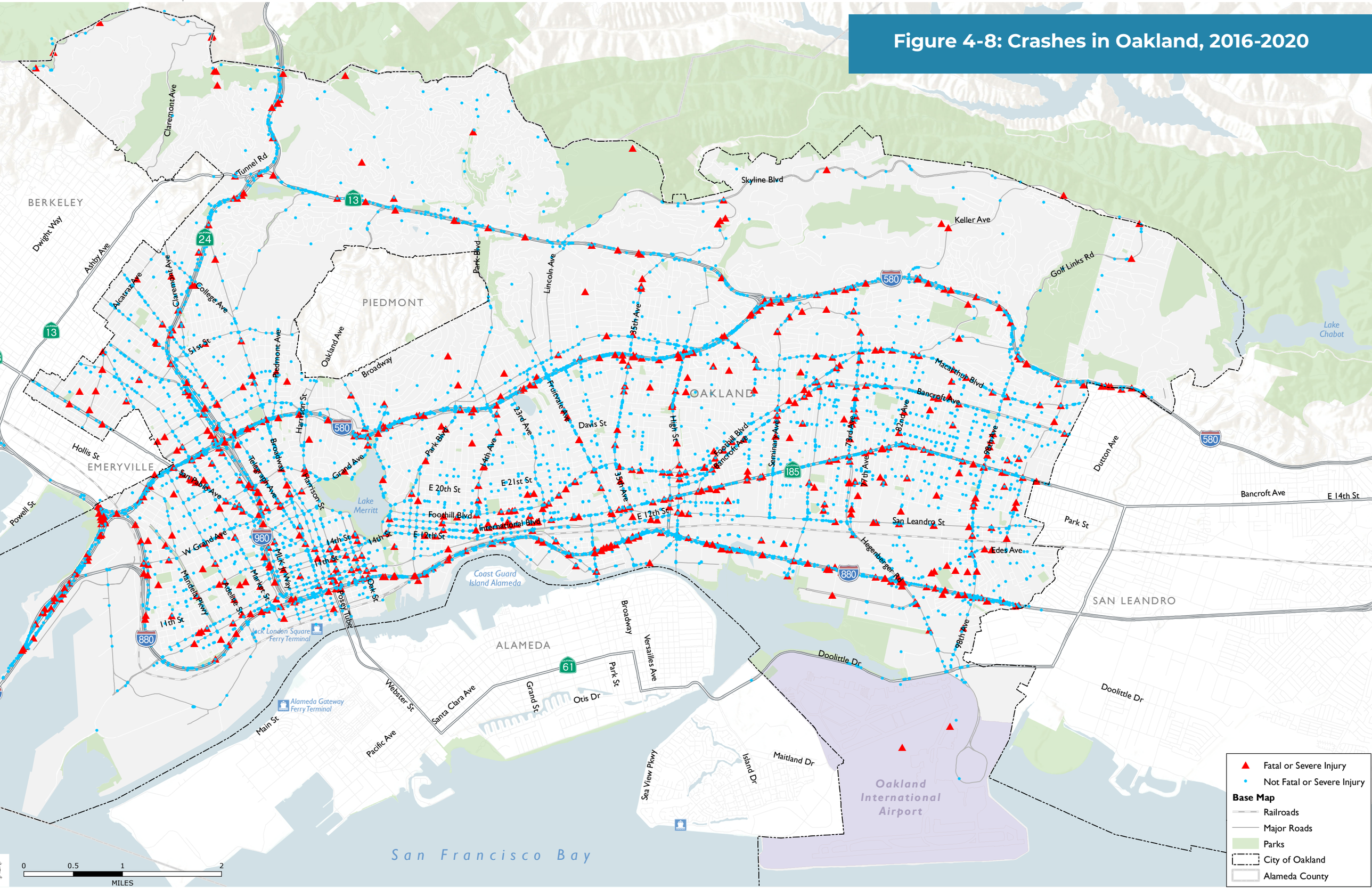


Figure 4-9: Auto Ownership, 2018 (EPA Smart Location Databse 3.0)

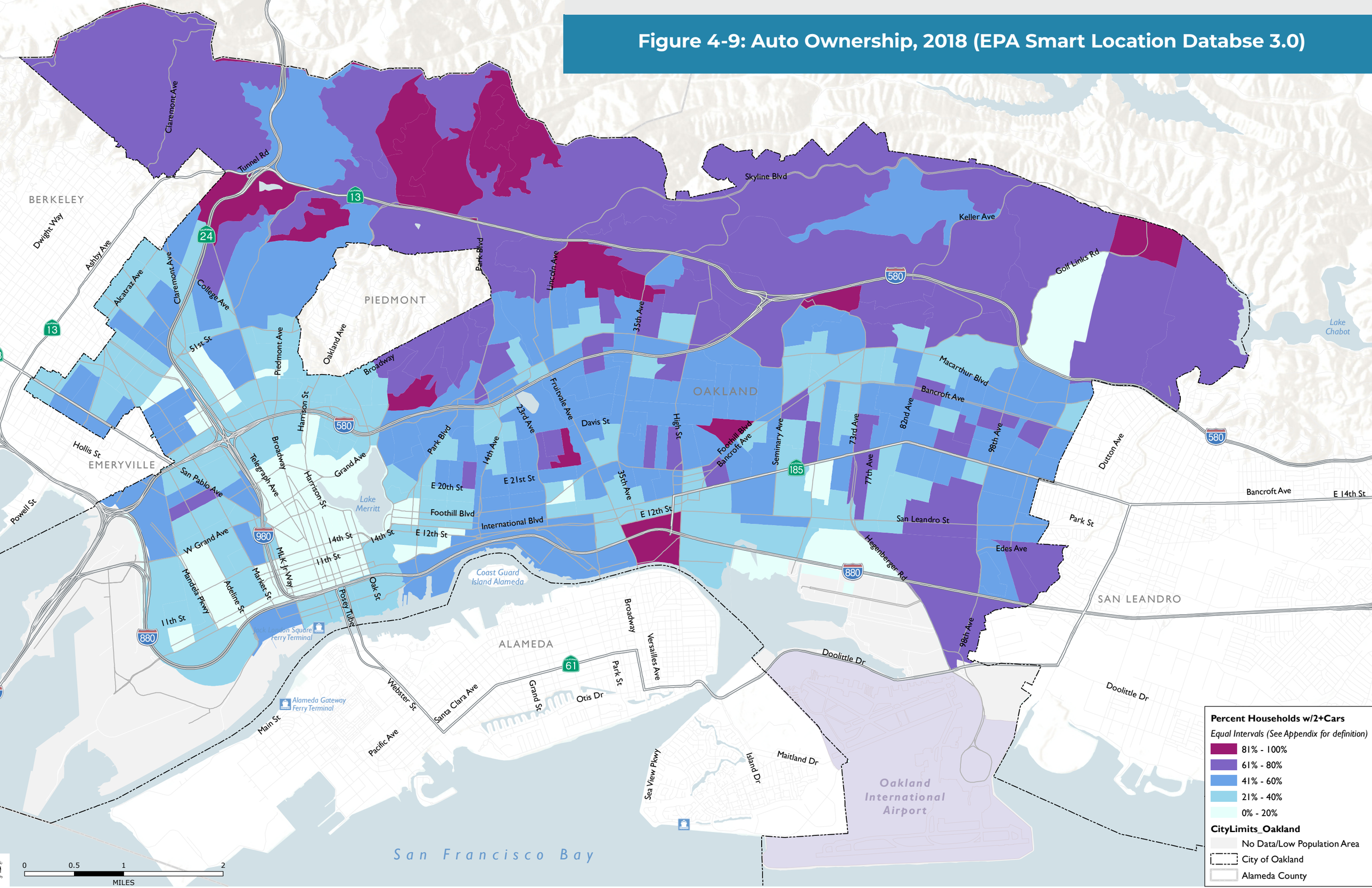
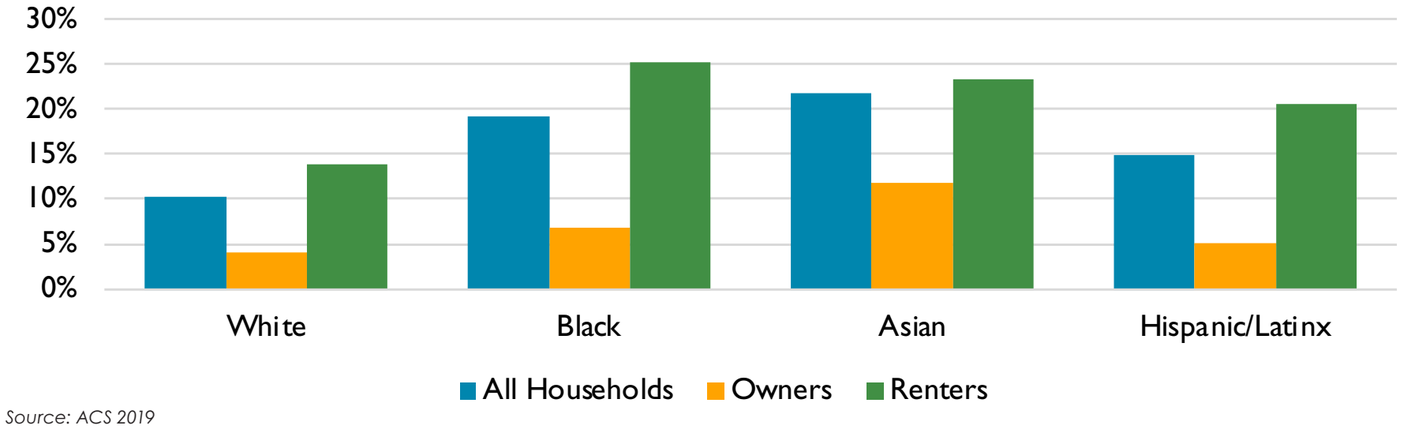


Chart 4-9: Households without a Vehicle by Tenure and Census Tract Racial Majority, 2019



Source: ACS 2019

Although the CalEnviroScreen traffic density indicator (a measure of the number of vehicles on the roads in an area) of Oakland tracts overall averages in the mid-range among tracts in the state, this value varies widely throughout the city, ranging from less than one percentile to over 99th percentile. This means that certain areas of the city are more likely to be exposed to the negative effects of traffic, including a higher chance of crashes and a greater concentration of air pollution (as discussed in Chapter 3: Environmental Health), but major thoroughfares are also important corridors that connect Oakland residents throughout the city and beyond. A dense road network can mean that there is adequate infrastructure for bus service or streets with dedicated bike lanes. Access to such facilities can greatly impact a person's transportation choices. For instance, limited choices and other barriers to mobility can affect commute patterns and lead to higher transportation cost burdens. In 2019, 4.5 percent of Oakland workers ages 16 or older had "extreme commutes," or commuted 90 minutes or more to work, one-way – higher than the state average of 4.2 percent.[28] Longer commutes can have social, health, and economic impacts such as less time with family, elevated stress, and additional costs that often fall disproportionately on those who are already cost-burdened. According to the National Household Travel Survey conducted by the Federal Highway Administration in 2017, 47 percent of households in California responded that travel is a financial burden. This survey also found that 26 percent of California households walk, 13 percent bike, and 23 percent take public transportation to reduce financial burden of travel.[29]

28 Bay Area Equity Atlas 2021. https://bayareaequityatlas.org/indicators/extreme-commuting#/?geo=07000000000653000 Accessed Jan 10 2022.

29 United States Department of Transportation Federal Highway Administration, 2017 National Household Travel Survey Summary Statistics, https://nhts.ornl.gov/.

PUBLIC TRANSPORTATION

Transit is an important mode of transportation that offers a viable alternative to automotive travel throughout the Bay Area. Oakland is served by a variety of transit options, including Alameda Contra-Costa (AC) Transit, Bay Area Rapid Transit (BART), Water Emergency Transportation Authority (WETA), and Capitol Corridor (Amtrak). AC Transit bus routes serve almost all Oakland's neighborhoods, as shown in **Figure 4-10**, including local bus routes, routes serving schools, routes for early morning and late-night periods, and Transbay routes that connect Oakland to San Francisco. BART operates regional rail throughout the Bay Area and has nine stations within the City of Oakland. WETA operates the San Francisco Bay Ferry, which operates out of the ferry terminal at Jack London Square and connects to San Francisco, Alameda, and South San Francisco. Amtrak operates passenger rail service from San Jose to the Sacramento region and has two stations in Oakland (Jack London Square and Oakland Coliseum).

Other transit services not mapped in **Figure 4-10** include East Bay Paratransit, a public transit service for those with a disability, and private shuttles that serve individual employers, developments, and/or business districts.

Bus frequency is an Oakland Equity Indicator (2018) that scores relatively high on a citywide scale, though disparities do exist among racial groups; residents in majority Black census tracts experience less than half the frequency of buses (measured by the average number of buses per hour) than residents in majority white tracts. Further, provision of these services do not align with needs; **Chart 4-10** demonstrates that almost all racial groups have similar percentages of working residents who commute by transit, except for Hispanic/Latinx, Native American/Alaskan, and other races. However, it is noted that because the Census Bureau does not include Hispanic/Latinx as a racial group but rather an ethnic identity, there may be overlap between this group and other races except for the non-Hispanic white category.

Figure 4-10: Transit Commutes (2019) and Services (2021)

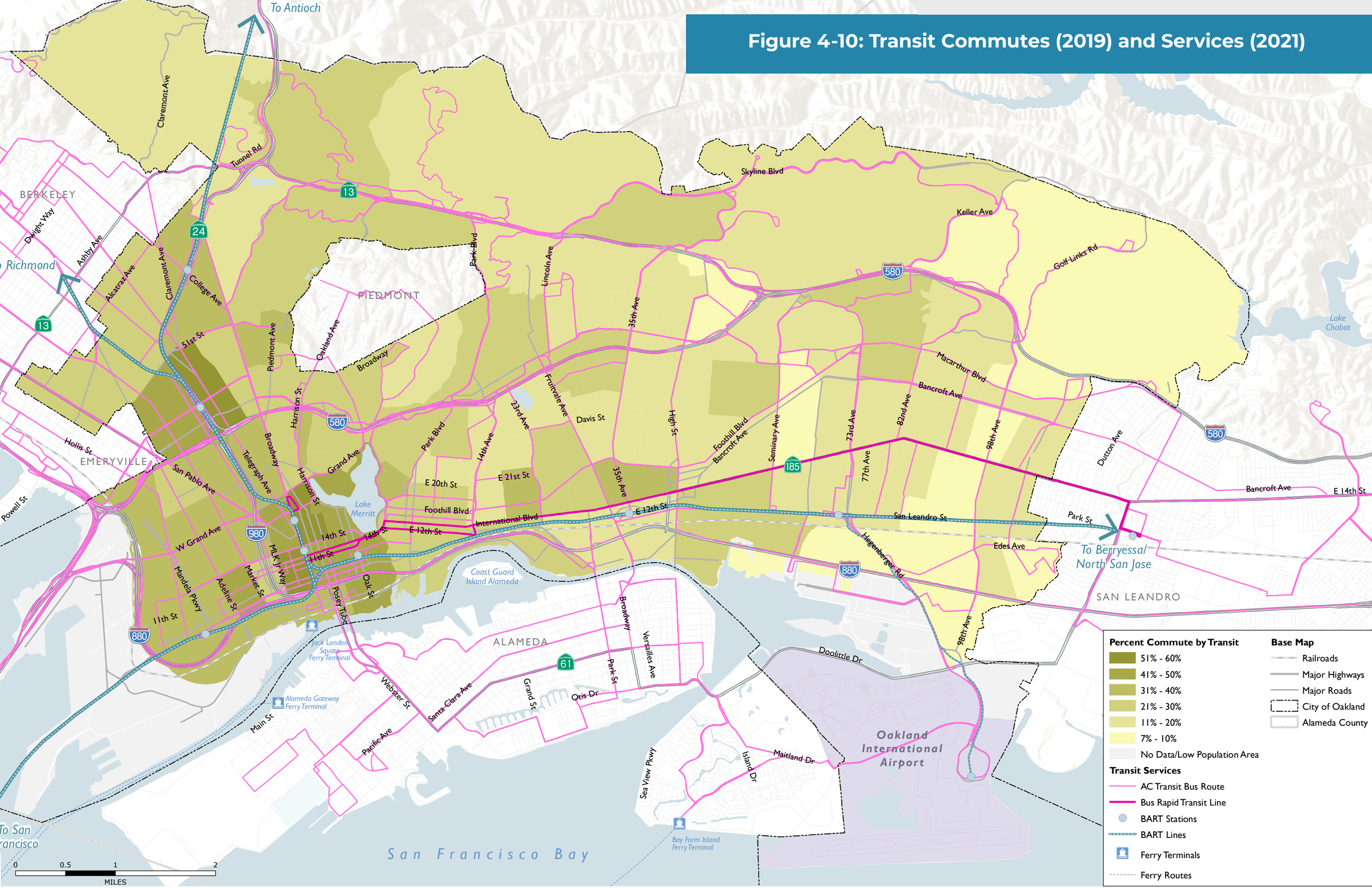
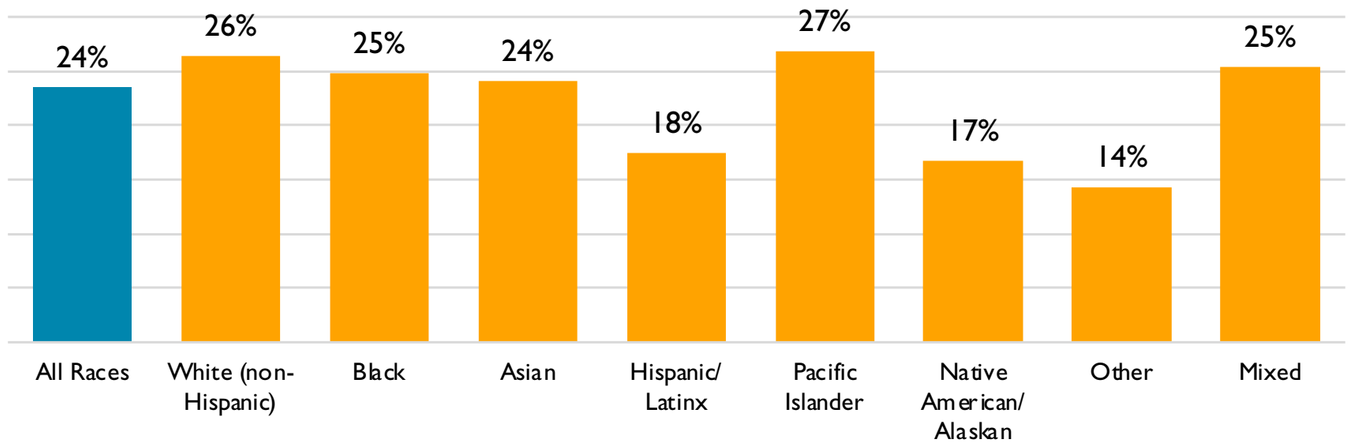


Chart 4-10: Commute by Transit by Race, 2019



Source: ACS 2019

Photo: Greg Linhares, City of Oakland

Building Resilience: Transit Action Strategy

AC Transit and OakDOT are working together to ensure provide safe, reliable, and affordable bus service by identifying street improvements that prioritize fast, frequent, and reliable transit trips, as well as improve comfort and access for bus riders, enabling mobility and access to good jobs and services for Oakland residents. AC Transit and OakDOT's Transit Action Strategy, recently updated in 2020, outlines different actions to help improve the quality, safety, and equity of transit service. Equity was integrated into the strategy, which highlights actions to reduce transit costs for low-income transit users and calls out transit improvements that would benefit vulnerable populations including people of color, people with disabilities, youth, and older adults in order to ensure that better transit access to education, healthcare, and jobs will serve the people who need it most.[30] For example, the Transit Action Strategy looks at ridership in Oakland by race and uses the OakDOT Geographic Equity Toolbox to assess service provision/frequency within high priority neighborhoods.

Recent progress of the Transit Action Strategy includes 26 miles of repaved transit streets, pedestrian lighting installations, bus stop upgrades, Telegraph Avenue Complete Streets, and Tempo Bus Rapid Transit service, among other milestones. Some ongoing projects include preparation of the Grand Avenue Mobility Plan, piloting Universal Basic Mobility Program in East Oakland, creating a low-income transit pass pilot in West Oakland, and the Rapid Corridors Project along San Pablo, Telegraph, and Grand avenues.[31]

30 Oakland Department of Transportation and AC Transit, Transit Action Strategy, 2020, https://cao-94612.s3.amazonaws.com/documents/OakTAS-Final.pdf.

31 AC Transit Board of Directors and City of Oakland Department of Transportation, Transit Action Strategy Implementation Update, December 8, 2021, https://cao-94612.s3.amazonaws.com/documents/Transit-Action-Strategy-Implementation-2020-2021.pdf.

PUBLIC FACILITIES AND INVESTMENT

Public facilities, which are defined in State law to include public improvements (e.g., streets and sidewalks), public services (e.g., utilities and public safety services), and community amenities (e.g., parks and community centers), can greatly support civic life and overall community health. How the City distributes and invests in its public facilities shapes residents' access to services and resources to fulfill their needs. Because of past discriminatory land use policies, there are parts of Oakland that have been overlooked for public investments and development of new amenities, and delayed investments and programs can significantly prolong inequalities. As part of SB 1000, environmental justice elements must ensure that environmental justice communities receive priority for community benefiting and programs, and that they are implemented in a timely fashion. Investments in public systems can include park improvements, transportation infrastructure improvements, upgrades to public facilities, and other systems.

Public Services

Public services in Oakland include water and sewage, electricity and gas, and solid waste services. Oakland is served by existing water supplies, treatment facilities, and distribution systems operated and managed by the East Bay Municipality Utility District (EBMUD). The City provides citywide sanitary sewer collection services, while EBMUD provides sewage transport, treatment, and discharge services. Sewer discharge from buildings within Oakland flows through approximately 930 miles of the City's sewer network and ultimately deposits at the Municipal Wastewater Treatment Plant located in West Oakland. Solid waste services in Oakland are provided by Waste Management of Alameda County, which collects residential and business trash and compost. Residential recycling services are provided by California Waste Solutions. According to CalRecycle's Solid Waste Information System (SWIS) database, there are six active solid waste facilities in Oakland: two facilities operated by Bee Green Recycling & Supply, one operated by Asphalt Shingle Recyclers, and one by Independent Recycling Services in the Coliseum Industrial Complex; and two California Waste Solutions facilities in West Oakland.

Electricity and gas are provided by Pacific Gas & Electric (PG&E) and Comcast (also referred to as "Xfinity") and other companies provide internet service in Oakland. In 2018, Alameda County and 11 of its cities launched the East Bay Community Energy (EBCE) not-for-profit public power agency that governs Community Choice Energy service to help supply clean energy as well as create local green energy jobs, local programs, and clean power projects. EBCE supplies electricity to residential, business, and municipal accounts that are delivered through PG&E.

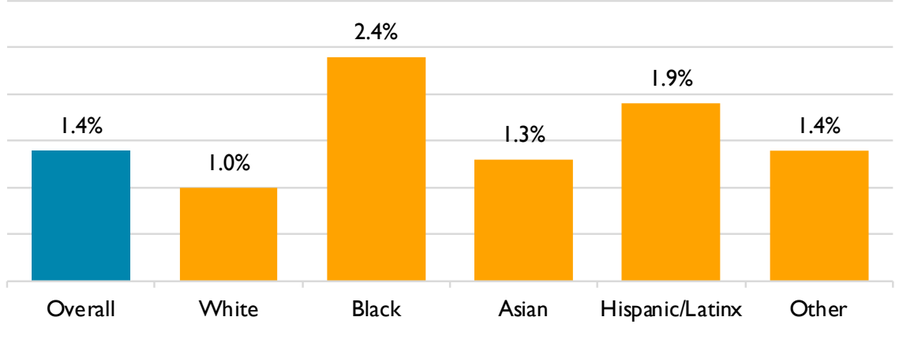
A lack of essential services can have a significant impact on the daily lives of residents. Energy costs is one of these crucial services. High energy cost burdens can have a number of negative effects on households. Low-income households may have to make trade-offs between energy costs and the costs of other basic necessities such as food and medical care. Households that cut back on energy use due to high cost may experience negative health effects, including asthma and arthritis. High energy cost burden also creates a chronic source of stress, which negatively affects the mental health of household members.

At the national level, 2020 research from the American Council for an Energy-Efficient Community that low-income, Black, Hispanic/Latinx, and Native American households all face dramatically higher energy burdens—spending a greater portion of their income on energy bills—than the average household. High energy burdens are correlated with greater risk for respiratory diseases, increased stress and economic hardship, and difficulty in moving out of poverty.[32] According to the 2018 Oakland Indicators Report, the median energy cost burden for Black households was 2.4 percent, compared to 1.0 percent for white households (**Chart 4-11**). Hispanic/Latinx households spent 1.9 percent of their income on energy costs, on average. The median energy cost burden for Asian households was 1.3 percent, which was similar to the citywide median of 1.4 percent. The median energy cost burden for Black households was 2.34 times higher than the cost burden for white households.

More information about utilities and services can be found in Chapter 4: Public Resources and Facilities of the Map Atlas.

32 American Council for an Energy Efficient Community, 2020. How High Are Household Energy Burdens? Accessed at https://www.aceee.org/sites/default/files/pdfs/u2006.pdf on February 2022.

Chart 4-11: Energy Cost Burdens by Race, 2018



Source: Oakland Equity Indicators Report, City of Oakland, 2018.

Public Infrastructure

In 2019, the City introduced a new process to better reflect public input into the Capital Improvement Projects (CIP) budget, which is the City's plan for investments over the next three years. This methodology was further refined for the current (fiscal years 2021-2023) budget to capture more equitable representation of requests and projects in East Oakland. **Figure 4-11** maps the public requests for CIPs received for the current budget and shows that there is a generally equal geographic distribution of existing CIP and non-CIP projects throughout Oakland. Many new CIPs have also been recommended, including a number in Brookfield Village, Sobrante Park, and Stonehurst neighborhoods in East Oakland, Coliseum Industrial Complex area, and Ralph Bunche and Oak Center neighborhoods in West Oakland.

New CIPs will bring public improvements to street and road conditions, facilitated by the recently proposed 5-Year Paving Plan (see Chapter 1: Introduction), which will direct more equitable investment in priority neighborhoods including those with higher concentrations of BIPOC residents and low-income residents.

Photo: Greg Linhares, City of Oakland

City Services and Resources

The City offers a number of services and resources that address community environment and needs. To better ensure that these services, resources, and investments are prioritized in the most burdened communities, the following equity-based metrics could be explored:

- **Environmental Stewardship.** Locations of adopted spots and drains, cleanup events, volunteer hours per location/region, pounds of trash removed.
- **Watershed Protection.** Locations of sewage and stormwater management and riparian restoration projects, or locations of projects and communities served/protected by projects.
- **Environmental Protection & Compliance.** Location of brownfields, Superfund sites, and cleanup projects, as well as waste management sites and projects.
- **Code Enforcement & Compliance.** Volume of code enforcement complaints (see discussion under Section 4.1 above) and type/distribution of response (e.g., inspections).
- **OakDOT Improvements.** Location of paving projects, bicycle and pedestrian projects, traffic safety projects, shared mobility projects, and public electric vehicle chargers. Some of OakDOT's current efforts to center equity are described above.
- **Oakland Fund for Children & Youth.** Location of supported projects and demographics of youth served.
- **Capital Improvement Projects (CIPs).** Location of where CIPs are funded and what demographics will be affected will remain a key equity indicator for the capital projects.

Community Facilities

Community facilities in Oakland include a wide range of places where residents gather and/or receive services such as community centers, senior centers, libraries, schools, and childcare centers. As important locations where community members spend their time, these facilities overlap with the sensitive land uses discussed in Chapter 3: Environmental Health and are mapped in **Figure 3-1**. The Cultural Asset Map (**Figure 2-10**) also includes many of these facilities as places that are culturally important to the community, in addition to cultural resources, such as arts and culture venues and locations of community resources/organizations. Together, community and cultural facilities support and enrich community health.

FOOD ACCESS

Food Insecurity

According to Feeding America, "food insecurity refers to the US Department of Agriculture's (USDA's) measure of lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods. Food-insecure households are not necessarily food insecure all the time. Food insecurity may reflect a household's need to make trade-offs between important basic needs such as housing or medical bills and purchasing nutritionally adequate foods."

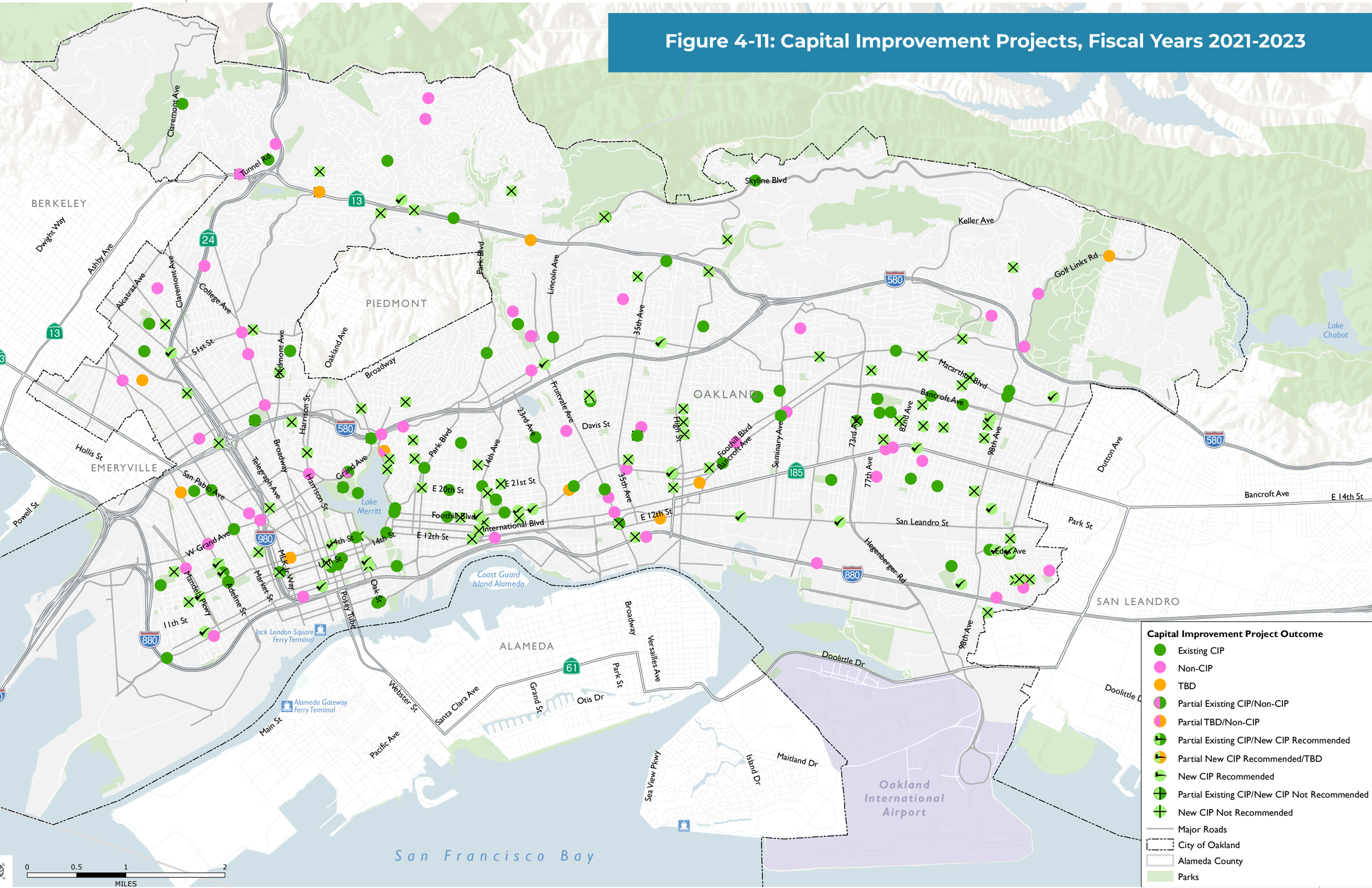
In 2019, 105,770 adults and 34,040 children were food insecure in Alameda County, representing 8.4 percent of the county's population. More than 40 percent of these individuals were not eligible for food assistance programs such as Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps) and other nutrition programs because they make more than 200 percent of the federal poverty level.[33]

A study conducted by Urban Institute for the Alameda County Community Food Bank further showed that food insecurity varies greatly throughout the county; urban areas, including many parts of Oakland, have the greatest rates of food insecurity – up to 40 percent of a census tract's population in downtown Oakland. Marginal food security is also highest in Oakland, with up to 18 percent of a tract.[34]

33 Feeding America. 2021. https://map.feedingamerica.org/county/2019/overall/california/county/alameda. Accessed Jan 10 2022.

34 Elaine Waxman, et. al. Unmet Charitable Food Need in Alameda County: A Report to the Alameda County Community Food Bank. December 16, 2019. Urban Institute. https://www.urban.org/sites/default/files/publication/101443/unmet_charitable_food_need_report_in_alameda_county_1.pdf. Accessed February 2022.

Figure 4-11: Capital Improvement Projects, Fiscal Years 2021-2023



Capital Improvement Project Outcome

- Existing CIP
- Non-CIP
- TBD
- Partial Existing CIP/Non-CIP
- Partial TBD/Non-CIP
- Partial Existing CIP/New CIP Recommended
- Partial New CIP Recommended/TBD
- New CIP Recommended
- Partial Existing CIP/New CIP Not Recommended
- New CIP Not Recommended
- Major Roads
- City of Oakland
- Alameda County
- Parks

Existing Food Resources

Food facilities in Oakland are required to maintain a license in order to handle, sell, or serve food. Common food facilities include retail food vendors such as restaurants, snack bars, and coffee houses. This database also includes food storage facilities, non-commercial vendors such as school cafeterias, and non-traditional sources such as food distribution facilities (food banks). The data does not include the types of food that are available at each facility, but reasonable assumptions can be made based on the type of facility. **Figure 4-12** maps the location of food resources in Oakland where residents are likely to access fresh and/or nutritious foods such as fruits and vegetables. Grocery stores, which are classified as food markets, are generally distributed throughout the city along major roads such as International Boulevard/Highway 185, Market Street, Telegraph Avenue, Fruitvale Avenue, and Foothill Boulevard. The densest cluster occurs in the Chinatown neighborhood.

In addition to these food facilities, other sources of food not mapped in **Figure 4-12** include community food resources such as community food production sites like local agriculture and urban gardens and community food organizations and other services.

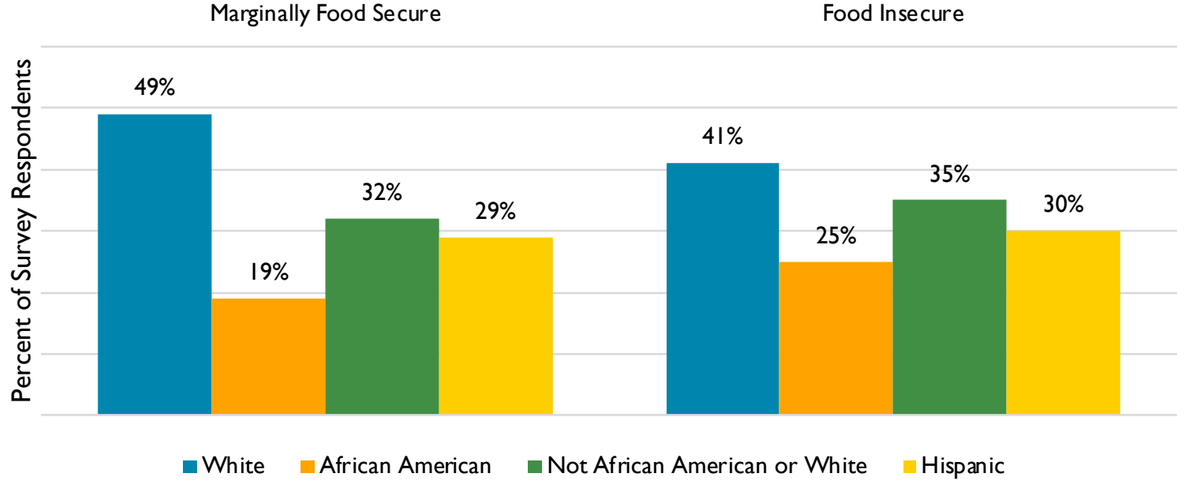
A Closer Look at Food Insecurity in Alameda County

Beginning in fall 2018, the Alameda County Community Food Bank partnered with the Urban Institute to perform an in-depth assessment of food insecurity and unmet need for charitable feeding in the food bank's service area. Over the course of a year, the study conducted a questionnaire, focus group sessions, and other methods to assess the needs of the community and identify challenges to highlight new opportunities to reduce food insecurity and build partnerships for doing so.

Based on the 18-question survey ("Core Food Security Module") related to financial constraints and food sufficiency, households were classified into four categories: (1) Fully food secure: responded affirmatively to zero questions; (2) Marginally food secure: responded affirmatively to one or two questions; (3) Low food secure: responded affirmatively to three or more questions; (4) Very low food secure: Households without children that responded affirmatively to six or more questions. Low and very low food secure together represent food insecurity.

Chart 4-12 shows how food insecurity and marginal food security varies by race in Alameda County, with greater racial disparities among the marginally food secure population.

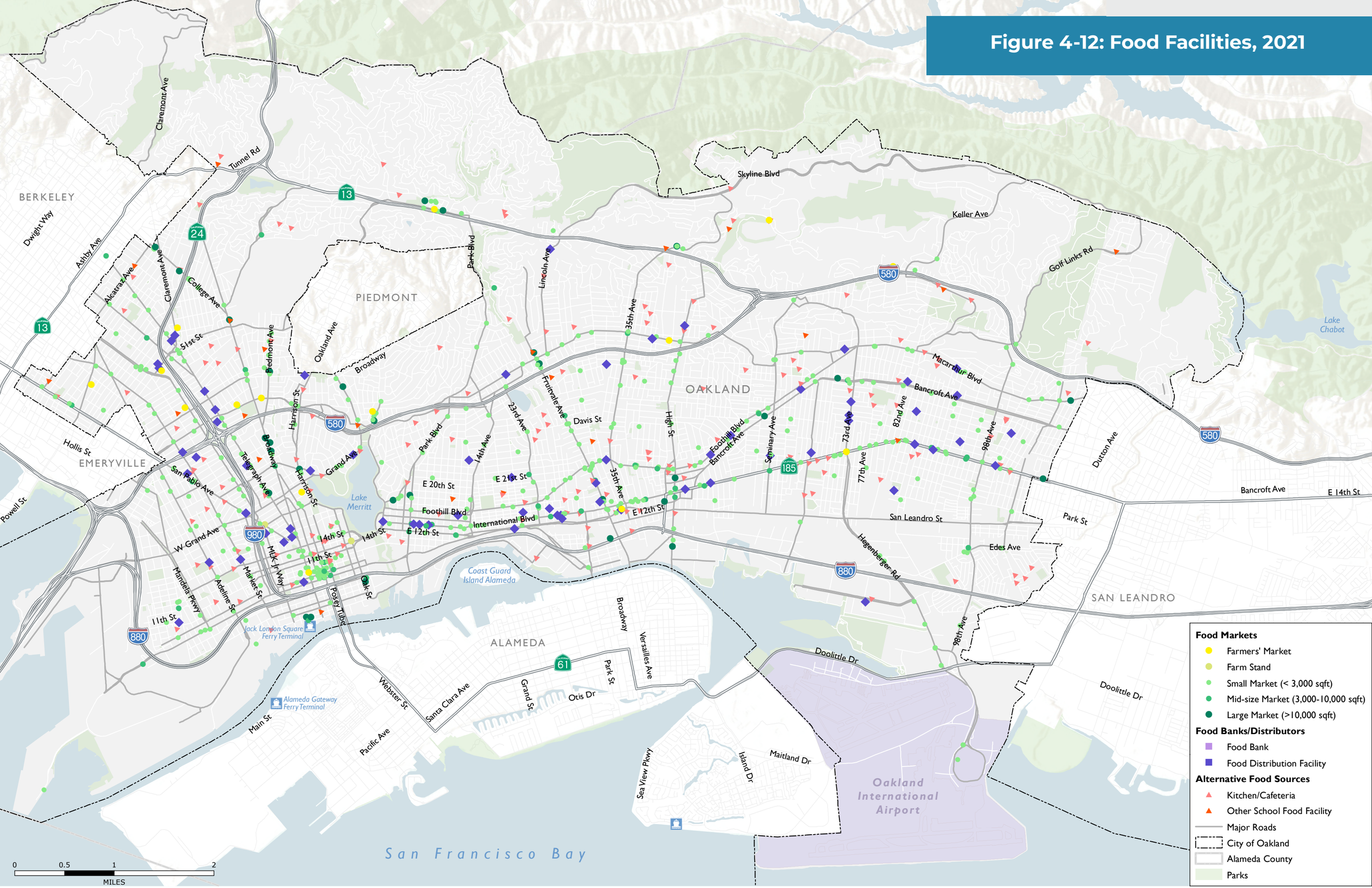
Chart 4-12: Marginal Food Security and Food Insecurity in Alameda County by Race, 2017



Note: White, African American, and Not African American or White racial categories are not exclusive of the Hispanic category. Chart data adapted from Urban Institute report, 2019, which uses data from 2017.

Source: Urban Institute, 2019.

Figure 4-12: Food Facilities, 2021



Building Resilience: Community-Led Food Security

Community organizations have led the charge in building local resilience and increasing food security. City Slicker Farms leads the urban farming and food justice movement in West Oakland, having transformed a vacant brownfield site into a thriving community park and farm. City Slicker has built more than 400 backyard and community gardens since 2001, and their West Oakland Farm Park is a vibrant community hub on land that was once heavily contaminated. City Slicker Farms also includes other programs that increase food access (the Backyard Gardens Program); support food sharing (participation in the Town Fridge collective); and build skills in farming and cooking (the Food and Farming Skill Sharing Program.)

In Deep East Oakland, Planting Justice Nursery (PJ) hires and trains formerly incarcerated people at their two-acre Rolling River tree nursery in the Sobrante Park neighborhood. In the last 10 years, the team has built over 450 edible gardens throughout the Bay Area. In partnership with Sogorea Te' Land Trust (STLT), an urban indigenous women-led community organization, PJ facilitated the transfer of the Rolling River Nursery's plot back into Chochenyo and Karkin Ohlone stewardship. This partnership recognizes Oakland's Ohlone history and grants STLT access to the land in perpetuity.

Mandela Grocery Co-op in West Oakland is a worker cooperative (co-op), which is a model that serves as an effective tool for creating long-term, dignified jobs, particularly in urban low-income communities. The Mandela Grocery Co-op is a grocery store that is operated, centrally governed, and democratically controlled by its worker-owners and sources from local entrepreneurs and farmers in California with a focus on Black and Brown farmers and food makers.

Sources: City Slicker Farms website, Planting Justice Website, Mandela Grocery Co-op website, Oakland Equitable Climate Action Plan 2030.

4.3 Open Space, Conservation, and Recreation

In addition to providing ecological benefits (see Chapter 3: Environmental Health), green spaces in parks and natural areas are valuable public assets that can greatly improve community livability and support healthy and active lifestyles.

The Trust for Public Land reports that the 100 most populous cities in the U.S. (including Oakland) have continued to provide more parks close to home; the proportion of residents in these cities who live within a 10-minute (half mile) walk of a public park has continued to increase, up by 7.5 percent since 2012. Based on this study for 2020, residents who identify as people of color have about the same, and in some cases better, 10-minute walk access compared to white residents and is also true when comparing by income or age. However, when comparing the amount of park space between neighborhoods in each city by race and income, there is a stark park equity gap. On average (among the 100 cities), residents of neighborhoods where a majority of people identify as BIPOC have access to 44 percent less park space per person than in predominantly white neighborhoods. In fact, residents in neighborhoods of color have access to less park space than white neighborhoods in 70 of the 100 cities.[35]

Based on the Trust for Public Land's ParkServe database, Oakland—which is the 45th most populous city—ranks 67th in terms of both park acreage and parkland per 1,000 residents. However, the city ranks 23rd for walkable access, with 89 percent of all residents living within a 10-minute walking distance of a park, as demonstrated by **Figure 4-12**. This value is similar or greater for most racial groups except for white populations, 17 percent of whom live beyond walkable access of a park (see **Chart 4-13**). As demonstrated nationwide, Oakland experiences a racial gap in terms of parkland distribution. Ranking 84th among the 100 cities, residents in neighborhoods of color have access to 69 percent less park space per person compared to those in white neighborhoods. Specifically, white neighborhoods have access

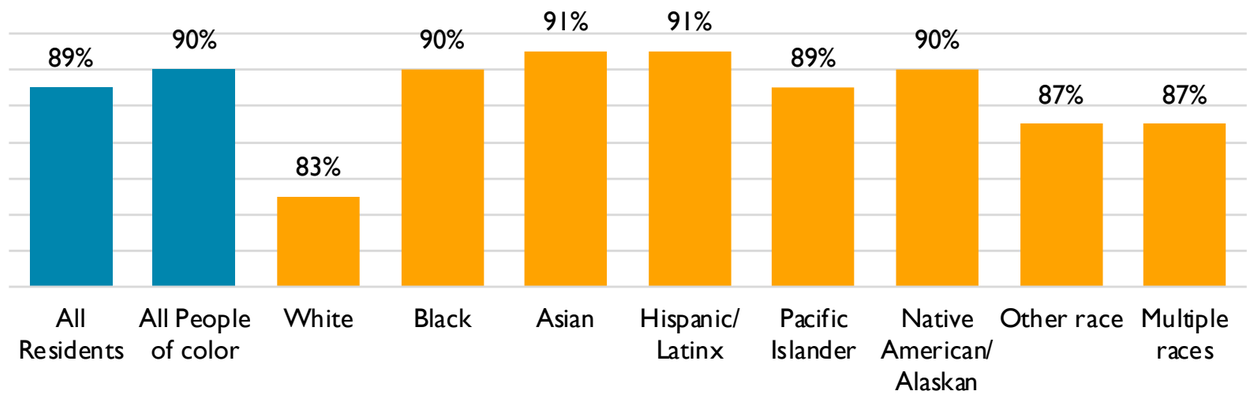
35 The Trust for Public Land, "City Park Facts: The Year in Parks," May 2021, https://www.tpl.org/2021-city-park-facts, downloaded May 25, 2021.

to 135 percent more park space per person relative to the city median (i.e., more than double), while Hispanic/Latinx neighborhoods have access to the least amount of park space with 32 percent less than the city median (see **Chart 4-14)**.

As such, the City of Oakland overall has excellent access to parks and open space, but there are also geographic disparities on the neighborhood level. **Figure 4-13** shows that the Oakland Hills is almost entirely bordered by and includes some regional parks (several of which are owned by the East Bay Park District rather than the City of Oakland). The hills also include some large resource conservation areas and open spaces. The Oakland flatlands contain a much smaller total area of the City's parkland, with most parks being small neighborhood parks. Lake Merritt is the exception, as it is surrounded by substantial community parkland; however, it is also surrounded by some of the densest neighborhoods in the City and a significant share of the City population living within close proximity, resulting in heavy use of these spaces. As shown in **Figure 4-13**, recreation centers are geographically well-distributed in general, though two residential areas that live farther from existing recreation centers include the Caballo Hills and Glen Highlands neighborhoods.

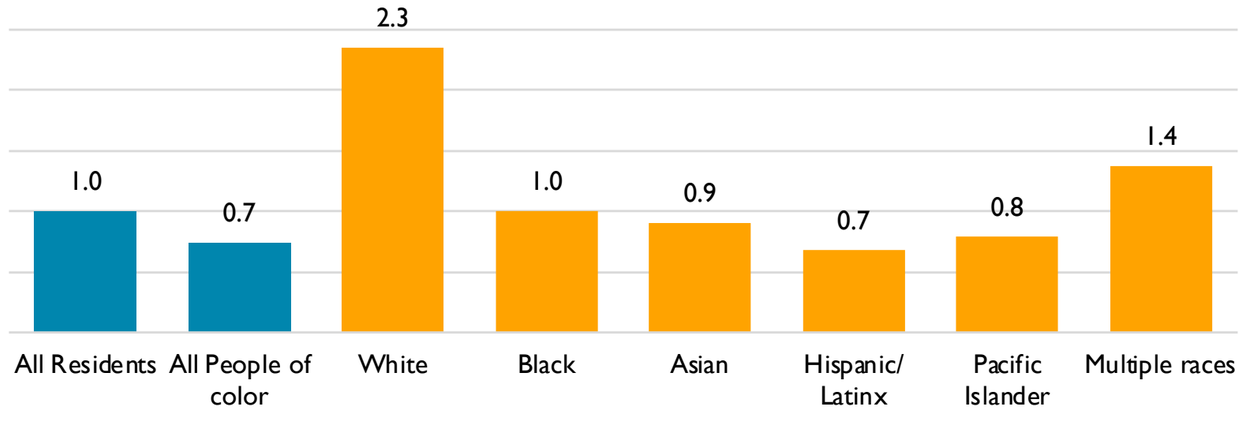
In addition to provision of parkland, distribution of city investments can determine whether park quality is equitable. In 2020, the Oakland Parks and Recreation Foundation surveyed Oakland residents to better understand how to improve citywide park equity. This study found that park quality generally needs improvement, particularly for Black respondents; white respondents had the highest scoring perception of park quality. Furthermore, the study highlighted that maintenance and safety are primary factors in park use, anecdotally showing that some residents feel they "have to drive to find a park that feels safe, has basic amenities, and functioning playground equipment," which was particularly true for residents of the East Oakland/South Hills area. In face of such issues, the City will need to balance park priorities between providing additional acreage and improving existing facilities to meet the needs of its residents. Future assessment of Oakland Public Works major and minor CIP park projects and maintenance by funding and location as well as work orders connected to park facilities can help the City better understand distribution of investments.

Chart 4-13: Residents with Walkable Park Access by Race, 2021



Source: The Trust for Public Land (ParkServe Database), 2021.

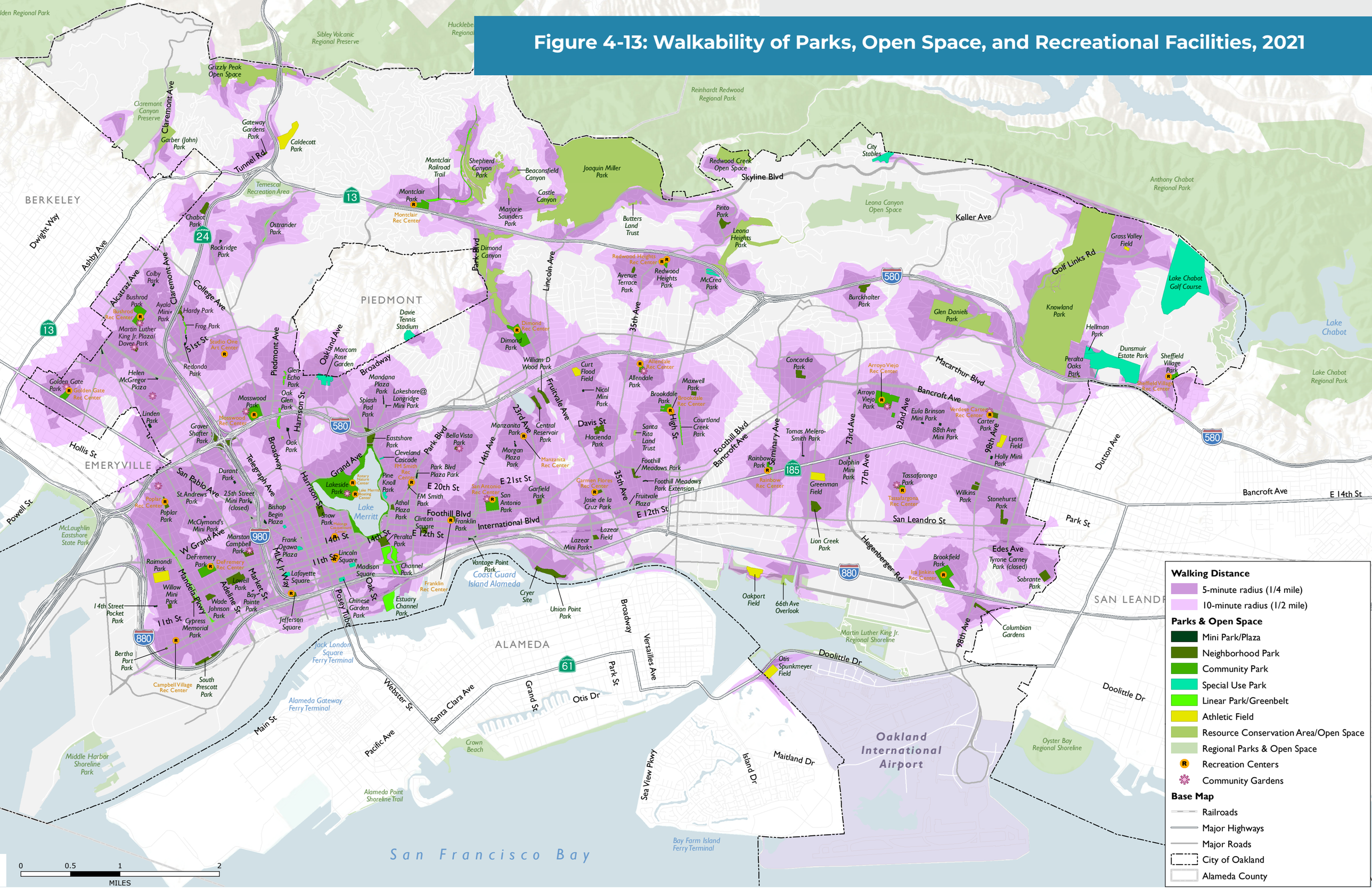
Chart 4-14: Distribution of Park Space (Acres per Person Relative to Citywide Median) by Race, 2021



Note: Other race and Native American/Alaskan groups not included due to insufficient data.

Source: The Trust for Public Land (ParkServe Database), 2021.

Figure 4-13: Walkability of Parks, Open Space, and Recreational Facilities, 2021



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05

SOCIAL AND COMMUNITY ENVIRONMENT

5. Social and Community Environment

The characteristics of the natural and built environment play a visible role in influencing a person's health. However, the structure of social and community environments play a less visible, but equally important role in shaping neighborhood livability. This chapter covers the less tangible social determinants of health, specifically SB 1000 objectives related to civic engagement in the public decision-making process and the prioritization of improvements and programs to address the needs of frontline communities. While some of the topics discussed in this chapter closely align with the Safety Element of the General Plan, other topics relate to objectives and strategies that can and should be integrated throughout all elements of the General Plan.

5.1 Community Stressors

Public safety is a critical area of concern for any city. Violent crime, gun violence and homicides are particularly impacting the lives of people of color in Oakland, whether they are directly harmed or their ability to feel safe going to school or a park or walking down the street. Of the 12 indicators with the greatest level of racial disparity in the 2018 Racial Equity Indicators Report, six were in the category of public safety. With national, state, and local attention on police reform, Oakland communities and City departments are exploring other ways to reimagine and reconstruct the public safety system in Oakland by developing recommendations to increase community safety through alternative responses to calls for assistance, and investments in programs that address the root causes of violence and crime.[1]

How long it takes for patrol to respond to a call can directly affect whether citizens feel well-served and supported by public safety services. According to the Oakland Equity Indicators, the average police response times by the Oakland Police Department in 2017 were 7 minutes and 47 seconds for Priority 1 calls (those that include potential danger for serious injury to persons, prevention of violent crimes, serious public hazards, felonies in progress with possible suspect on scene) and 1 hour and 8 minutes for Priority 2 calls (urgent but not an emergency situation, hazardous/sensitive matters, in-progress misdemeanors and crimes where quick response may facilitate apprehension of suspects). Due to the greater volume of Priority 2 calls, the police response times indicator focuses on the disparity between five different police areas, each of which consist of a defined set of police beats and therefore cover a specific geographic part

1 See Oakland's Reimagining Public Safety page: https://www.oaklandca.gov/topics/reimagining-public-safety and the Mobile Assistance Community Responders of Oakland (MACRO) Program at https://www.oaklandca.gov/projects/macro-mobile-assistance-community-responders-of-oakland

of Oakland (see **Figure A-2** in Appendix for police areas). The areas with the fastest median response times were Areas 1 and 3 (West Oakland and Central Oakland, roughly between Lake Merritt and 35th Avenue) at just about 50 minutes each. The slowest was Area 5 at 1 hour and 31 minutes. Priority 2 calls for service in Area 5 therefore waited 1.82 times longer than if the same call from Area 1 or 3.[2] However, Area 5 had the fastest response time for Priority 1 calls, meaning that the disparity differs for the two different types of calls. Additionally, it is noted that the City anticipates future analysis of this indicator at the police-beat-level to better understand patterns by race/ethnicity.

Research has found that there are large disparities by race/ethnicity in who experiences use of force from police. These disparities are not linked to crime rates in different communities, and they span across many different cities and types of force

2 City of Oakland, "Oakland Equity Indicators: Law Enforcement," 2018, https://data.oaklandca.gov/stories/s/8jmx-2znw, accessed February 17, 2022.

used. Fear of use of unwarranted police force can also be a why people do not call the police in emergency situations, among other reasons.

According to the Bay Area Equity Atlas, there are large racial disparities in police use-of-force incidents in Oakland: the rate of use-of-force incidence on Black residents is 1.74 times higher than the average for all groups over the four-year period of 2016 to 2019, as shown in **Chart 5-1**. Police use of force in Oakland between 2016 and 2019 resulted in one case with guns fired but no or non-serious injury, 11 cases of serious bodily injury, and three deaths. Of these, five of the serious bodily injury and one of the deaths were Black civilians; four of the serious bodily injury were Hispanic/Latinx civilians; and two of the serious bodily injury, two of the deaths, and the case of fired guns involved white civilians.[3] In 2020 (the most recent data available), there were four incidences of police use of force in Oakland that resulted in two serious injuries and two deaths (by gunshot wound), all of Hispanic/Latinx civilians.[4]

Domestic violence has serious negative effects on the lives of the victims, who are predominantly women and children. These effects range from the physical to emotional and can be long-lasting, even after the abuse stops, impacting every part of a victim's life.[5] The Oakland Equity Indicators Report found that the rate of becoming a domestic violence victim among Black residents in 2017 was 2,112 per 100,000, which is substantially higher than 835 among Hispanic/Latinx, 322 among white, and 224 among Asian populations. In essence, a Black person in Oakland was 6.56 times more likely to be a victim of domestic violence than a white person and 9.45 times more likely than an Asian person. A Hispanic/Latinx person in Oakland was 2.60 times more likely to be a victim of domestic violence than a white person and 3.74 more likely than an Asian person.

3 Bay Area Equity Atlas, "Police use of force," 2022, https://bayareaequityatlas.org/indicators/police-use-of-force#/?breakdown=5&geo=07000000000653000&racethdimmigsex=010000, accessed February 17, 2022.

4 California Department of Justice, Use of Force Incident Reporting – Civilian-Officer 2020, released July 2021, https://openjustice.doj.ca.gov/data, accessed March 21, 2022.

5 Oakland Equity Indicators Report, 2018.

Table 5-1: Domestic Violence by Race, 2017

RACE/ ETHNICITY OF VICTIM	NUMBER OF VICTIMS IN 2017	POPULATION IN OAKLAND (ALL AGES)	RATE PER 100,000 PEOPLE
White	374	116,230	321.8
Black/African American	2,048	96,981	2,111.8
Asian	151	67,535	223.6
Hispanic/ Latinx	917	109,762	835.4

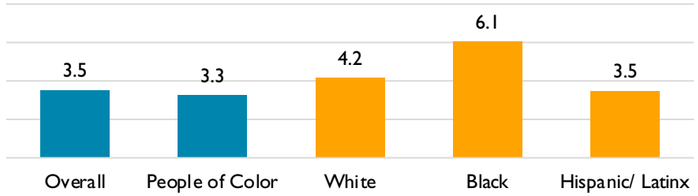
Source: Oakland Police Department, 2017 and ACS 1-year estimates, 2016 as cited in Oakland Equity Indicators Report, 2018

The prevalence of violent crimes, including assault (misdemeanors and felonies), homicide, rape, and other sex offenses, also has a large impact on the perception of public safety and hinder the ability of community connection. Homicides have a devastating effect that extends beyond just the victim to the victim's family, friends, and broader community. **Chart 5-2** shows that there is a stark racial disparity in violent crimes; residents in majority Hispanic/Latinx tracts experienced the greatest rate of violent crimes per 1,000 people over the five-year period from 2016 to 2020, nearly double the overall average. Moreover, all other racial groups were under the average, with majority white tracts having the lowest rate.

A felony is a serious crime that typically results in a prison sentence of over one year. For young people under age 18, a felony is punishable by a sentence to a Youth Authority facility or adult prison. Young people sentenced to adult prison are more likely to be re-arrested and incarcerated as adults than the general population.[6] Juvenile felony arrests are one of the 12 Oakland Equity Indicators that received a score of one, indicating the highest degree of disparity. Specifically, in 2017, Black youth

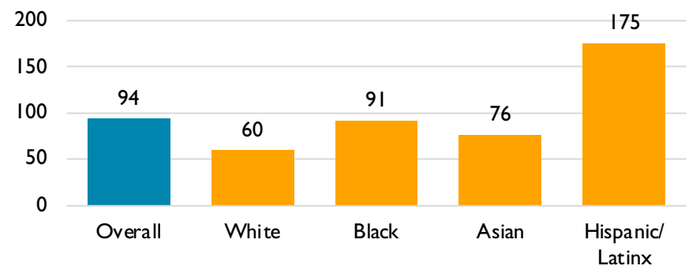
6 Centers for Disease Control and Prevention, Effects on Violence of Laws and Policies Facilitating the Transfer of Youth from the Juvenile to the Adult Justice System: A Report on Recommendations of the Task Force on Community Preventive Services, November 30, 2007, https://www.cdc.gov/mmwr/pdf/rr/rr5609.pdf, as cited in Oakland Equity Indicators Report, 2018.

Chart 5-1: Police Use of Force per 100,000 people in Oakland by Race of Civilians Involved, 2016-2019



Source: Bay Area Equity Atlas, 2022

Chart 5-2: Violent Crimes per 1,000 Tract Population by Race, 2016-2020



Note: Data includes 5-year total of crimes from 2016 to 2020 including types classified as attempted rape, felony assaults, forcible rape, homicide, misdemeanor assault, and other sex offense for which there were geographic coordinates.

Source: Oakland Police Department CrimeWatch 2016-2020

Photo credit: CURYJ website

Building Resilience: Youth Engagement

A wealth of community-based organizations in Oakland center youth as the community leaders of tomorrow.

In Deep East Oakland, Youth Uprising's mission is to develop the leadership of youth and young adults and improving the systems that impact them. The Youth Uprising facility serves a neighborhood hub, offering young people services and programs to increase physical and mental wellbeing, community connection, educational attainment, and career achievement among youth members.

In Fruitvale, Communities United for Restorative Youth Justice (CURYJ) has been building community and mobilizing young leaders in the movement to end youth criminalization and mass incarceration since 2011. CURYJ hosts culturally rooted healing practices, provides education and professional development opportunities, and weaves a zone of empowerment and belonging through community gardens, murals, cultural celebrations, and rapid response violence prevention.

Source: YouthUpRising website, CURYJ website.

were the most likely to be arrested out of all racial groups at a rate of 1,971 arrests per 100,000 people, while the rate of arrests of white youth was less than 18. Hispanic/Latinx juvenile felony arrests were the next highest rate, at about 371 per 100,000, and juvenile felony arrests among Asian civilians was only about 30.

California represents one of the states with the highest number of human-trafficking incidents reported in the U.S., according to the National Human Trafficking Hotline.[7] While trafficking data can be difficult to obtain, a review of youth identified in Alameda County as at risk for or already involved in commercial sexual exploitation from 2011-2018 indicated that 64% are African American; 15% are Latino/a; and 11% are Caucasian; and the rest are of other races.[8]

Incarceration is a topic that consistently scored at the lowest end of the Oakland Equity Indicators, including the indicators for adult felony arrests, jail incarceration, and prison incarceration. For this reason, disparities in incarceration are a key equity concern for public safety. The jail incarceration rate in 2015 was by far the highest for Black people at about 975 per 100,000 people in Alameda County, followed by Hispanic/Latinx people at 258 per 100,000 people. The jail incarceration rates of both white and Asian9 people (113 and 50, respectively) were below the overall county average of 228 per 100,000 people. These disparities are even more stark for prison incarceration. Prison incarceration of Black people was 1,857 per 100,000 people in Alameda County in 2015, which is 5.6 times higher than the county average. Asian (and other race), Hispanic/Latinx, and white people were all below the county average, though the rate for Hispanic/Latinx was significantly gher than the other two groups.

5.2 Economy and Education

Research shows that addressing social and economic inequalities like inadequate education, which contributes to inequitable mortality rates, would make a bigger impact on overall population health than the emergence of new medical advances.[10] Economic well-being is one of the most critical determinants of health; living in poverty is associated with significantly worse health outcomes across all races/ethnicities, as explored in Chapter 2: Background and Chapter 3: Environmental Health. Education is another key determinant of health; people who achieve higher levels of educational achievement experience lower illness risks, longer life expectancy, and greater

7 National Human Trafficking Hotline. 2020. Statistics: California. Accessed at https://humantraffickinghotline.org/state/california in March 2022.

8 H.E.A.T. Watch. 2018. Young People at Risk: Race/Ethnicity. Accessed at http://www.heatwatch.org/take_action/files/SN_ethnicity.pdf in March 2022.

9 People identifying as a race other than Black, Hispanic/Latinx, or white were included in the "Asian/other" category.

10 American Public Health Institute, Health in All Policies: A Guide for State and Local Governments (Washington, DC and Oakland, CA: American Public Health Association and Public Health Institute), 2013.

economic well-being. Moreover, the health of students significantly impacts school dropout rates, attendance, and academic performance.[11]

For more detailed information about Oakland's economy, see the Economic Trends and Prospects baseline analysis.

Access to jobs and employment opportunities is an indicator of a place's economic health. By providing enough jobs and the means to live near those jobs, cities can significantly help foster community and support residents. **Figure 5-1** shows where high-wage jobs are located in Oakland by census block group, based on data from 2017 in the EPA Smart Location 3.0 database. At the low end, areas between International Boulevard and I-580 throughout central and East Oakland have a lower percentage of high-wage employment. Downtown Oakland and the industrial area of West Oakland have high proportions of high-wage jobs, ranging between 73 and 90 percent of workers in the census block group.

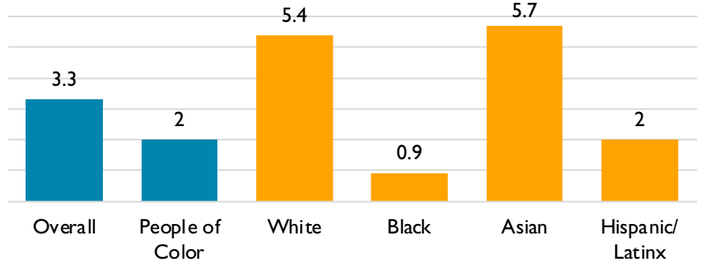
However, access to high-wage employment is more than just proximity; factors such as educational attainment also play a role in who has the ability to obtain a high-wage job. Along with employment, factors such as job retention affect a person or household's economic security. In 2017, the City adopted an Economic Development Strategy to guide policy, regulation, and partnerships for the years 2018-2020 based on three objectives: increasing economic productivity, improving economic security, and reducing racial wealth disparities. Economic productivity and employment increased in the years leading up to the pandemic, and the number of Oakland households earning less than a living wage ($35,000 a year) was reduced by four percent. However, racial disparities in income and asset poverty remained; Black and multi-racial households earning below a living wage increased by 16 and 18 percent, respectively.[12] Moreover, pandemic-related unemployment has disproportionately impacted lower-wage workers; wage losses align with racial disparities in the Oakland workforce, both in workers facing job losses and essential workers facing increased COVID-19 exposure. The April 2021 performance report on the Economic Development Strategy also evaluated that the City has not met its target to reduce the asset poverty rate of Black and Latinx Oakland residents by 50 percent. Although these rates decreased by one percent between 2018 and 2019, which is a move in the right direction, impacts of the pandemic including racial unemployment disparities will continue to pose a challenge to achieving the City's goal.[13]

Although median earnings have increased modestly in the Bay Area between 2000 and 2019, median earnings continue to show large racial disparities. The median earnings across all racial groups in Oakland in 2019 was $59,612. All racial groups except for white workers had median earnings below the average, particularly Hispanic/Latinx workers, who had median earnings of $39,411, while white workers had median earnings of $89,250 (2.26 times more).[14]

In addition to income gaps, racial wealth disparities could also be attributed to differences in income growth. The Bay Area Equity Atlas income growth indicator shows that full-time wage and salary workers in Oakland who made less than the median earnings experienced a decline in incomes between 2000 and 2019 – workers at the 20th percentile of incomes experienced the greatest decline, at six percent. In comparison, workers at the median income range (50th percentile) experienced nine percent growth, and workers at the 80th percentile experienced the greatest growth, at 29 percent.

Entrepreneurship, specifically business ownership, is also an indicator of economic opportunity at both an individual and neighborhood level. The Oakland Equity Indicators Report scored business ownership at a 36 out of 100 citywide, indicating a moderate level of disparity. The ECAP REIA found that the percentage of white people who own their own business (3.9 percent) is more than twice that of Black people (1.4 percent), and people identifying as a race other than white, Black, Hispanic/Latinx, or Asian are the least likely to own their own business, representing only 0.5 percent of business owners in 2016. The Bay Area Equity Atlas generally supports this finding, with the exception of Asian business owners, who had the highest rate of business ownership in Oakland in 2017, with 5.7 firms with paid employees per 100 workers.

Chart 5-3: Business Ownership (Firms with Paid Employees per 100 Workers), 2017



Source: Bay Area Equity Atlas, 2022

A job profile of Oakland residents for 2019 shows that the top three North American Industry Classification System (NAICS)[15]

11 Ibid.

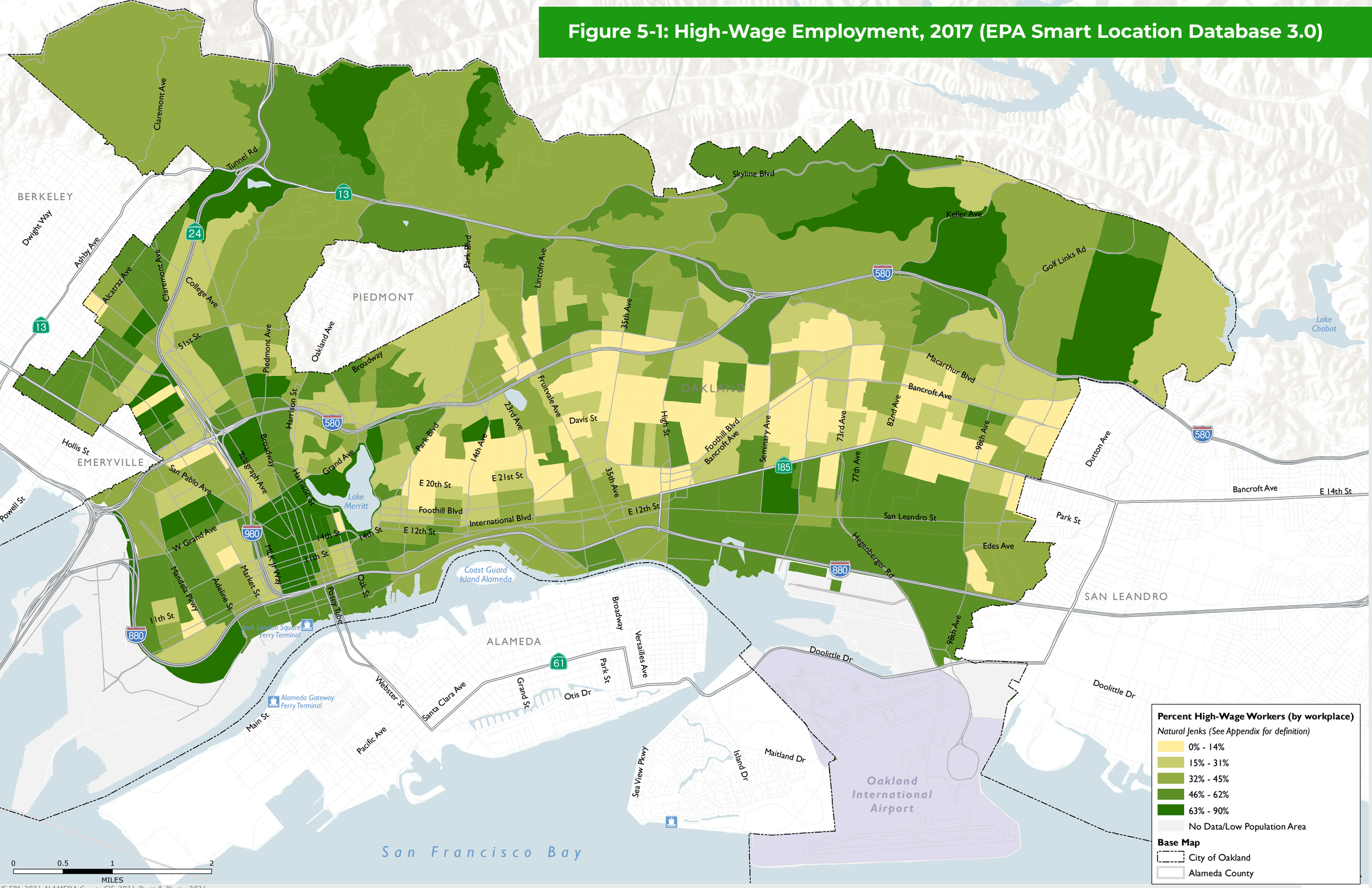
12 City of Oakland Economic and Workforce Development Department Community and Economic Development Committee, Economic Development Strategy 2018-2020 Informational Report, April 14, 2021, https://oakland.legistar.com/View.ashx?M=F&ID=9317664&GUID=43B1B672-EB2D-43F9-A643-5C83199602BA.

13 *Ibid.*

14 Bay Area Equity Atlas, "Median earnings," 2022, https://bayareaequityatlas.org/indicators/median-earnings#/?geo=07000000000653000, accessed February 17, 2022.

15 The NAICS is the standard used by federal statistical agencies such as the Census Bureau in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. More information about NAICS and the types of jobs in each sector can be found at this website: https://www.census.gov/naics/

Figure 5-1: High-Wage Employment, 2017 (EPA Smart Location Database 3.0)

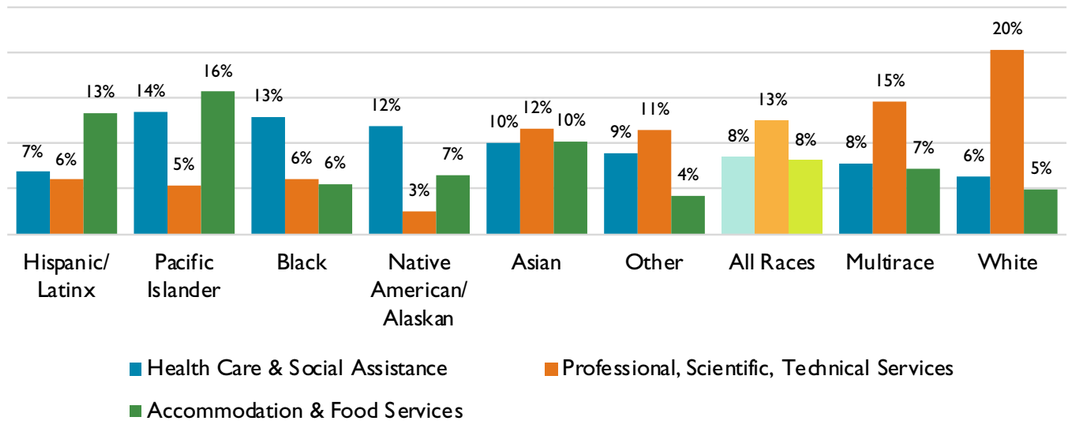


industry sectors with the most employees are health care and social assistance (16 percent); professional, scientific, and technical services (11 percent); and accommodation and food services (about 10 percent). Based on 2019 ACS data, the average annual wage/salary income for these industries varies dramatically, ($53,652; $81,333; and $28,764 respectively). **Chart 5-4** shows how employment of Oakland residents in these top sectors differs by race. Specifically, Black residents have the greatest share of health care and social assistance jobs, while Hispanic/Latinx and white residents represent less than the citywide average. White residents have the most professional, scientific, and technical service jobs by far, while Native American/Alaskan and Black residents have the least. For accommodation and food service jobs, Pacific Islanders are the most represented—double the city average—followed by Hispanic/Latinx. This means that white residents tend to have the highest paying jobs overall.

A child's ability to obtain high-wage jobs can be shaped from an early age, based on the environment in which they grow up. Areas with high access to opportunity have more and higher quality resources, including high-performing schools with higher levels of educational attainment (discussed below), graduation rates, and English Learner Progress. However, these determinants and indicators are often intertwined and can have negative cyclical effects that are perpetuated by the consequences of systemic racial injustices. **Figure 5-2** shows that areas where the greatest proportions of adults over 25 have less than a high school diploma are notably concentrated in East Oakland, specifically tracts along International Boulevard.

Chart 5-5 illustrates how school performance among students for the 2018-2019 school year significantly differs by race. In the Oakland Unified School District (OUSD), Black and Hispanic/Latinx students' average scores are less than the State standards for the Smarter Balanced Summative Assessments and California Alternative Assessments as reported by the California Department of Education (CDE). Moreover, students of all races fall further behind as they progress in their education (i.e., senior/high school performance is worse than elementary school level performance). At a school level, Hillcrest Elementary has the overall highest achieving levels for both English/language arts and mathematics, while the lowest-performing elementary school for both subjects is Markham Elementary. These outcomes often reflect patterns in race and income; schools in majority-white and more affluent areas (such as Hillcrest Elementary) tend to score higher and often are supported by Parent Teacher Associations (PTAs) with substantial budgets for enrichment activities than schools in lower income and/or majority-BIPOC neighborhoods (such as Markham Elementary).

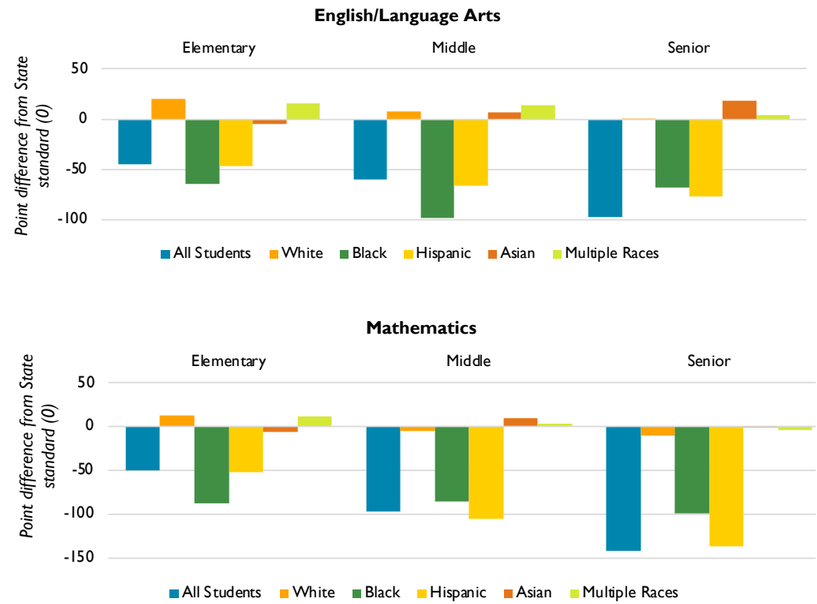
Chart 5-4: Employment of Oakland Residents in Top Industry Sectors by Race, 2019



Note: Does not include unemployed residents, people not of working age, or residents in the military. PUMS data includes parts of Emeryville, San Leandro, Alameda, and Piedmont.

Source: ACS 5-Year Estimates PUMS, 2019; Dyett & Bhatia, 2022

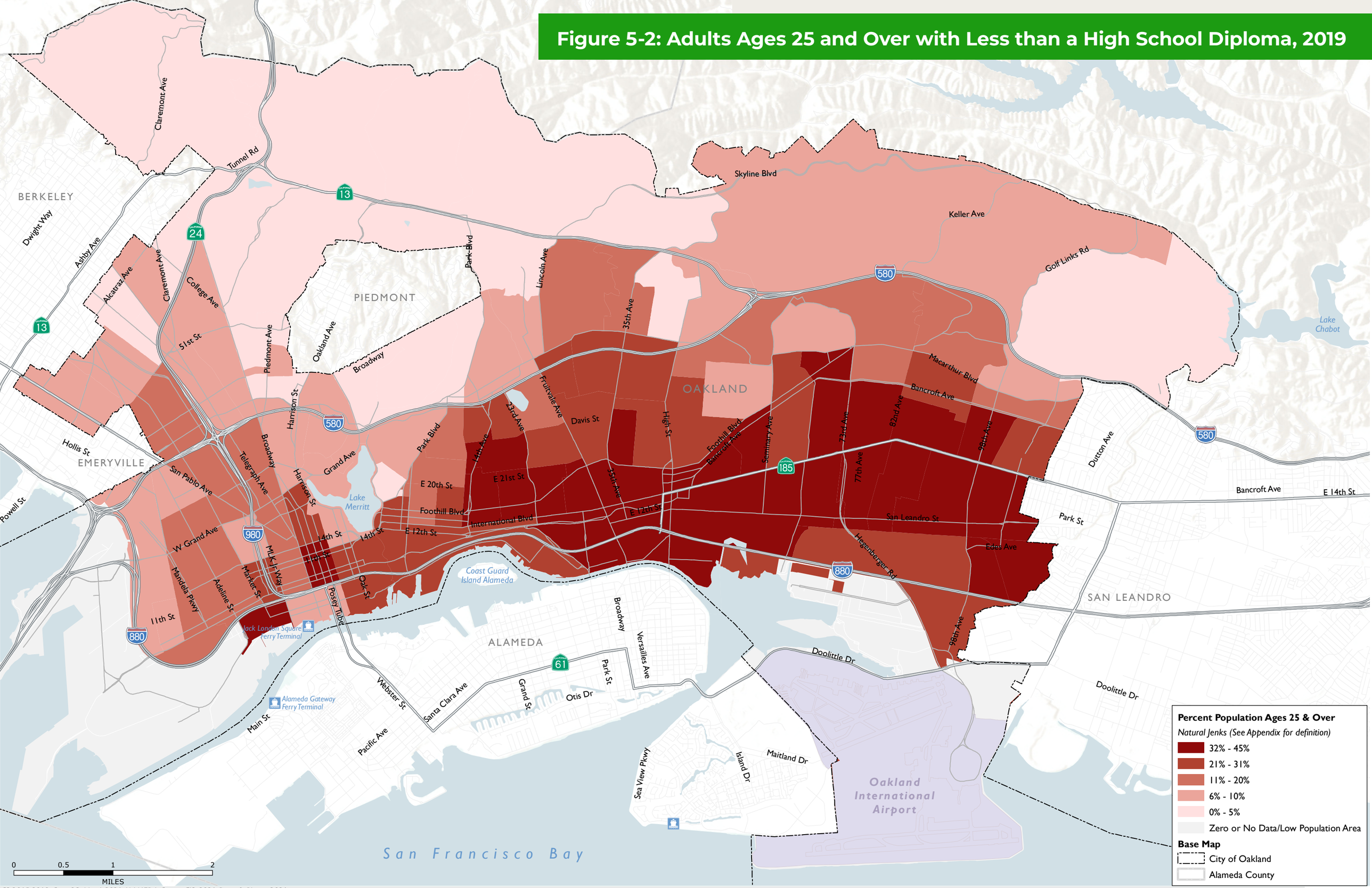
Chart 5-5: OUSD Student Performance by Race (2018-2019 School Year)



Notes: Other categories not shown due to insufficient data: Pacific Islander, Filipino, Native American/Alaskan. Elementary includes K-8; Middle includes 6-12; Senior includes Alternative. Charter schools and Independent Study not included.

Sources: California Department of Education, 2019; Oakland Unified School District, 2021; Dyett & Bhatia, 2022.

Figure 5-2: Adults Ages 25 and Over with Less than a High School Diploma, 2019



5.3 Civic Engagement

Civic engagement means working to make a difference in the civic life of one's community through both political and non-political processes. Civic engagement includes both paid and unpaid forms of political activism, environmentalism, and community and national service. In Oakland, civic engagement involves everything from voting in national elections, to participating in city planning processes, to volunteering with a community organization.

VOTING

Exercising one's right to vote is a critically important way for citizens to be civically engaged. However, socioeconomic barriers affect turnout: some people simply cannot afford to miss work to participate, others have language or educational barriers, and others feel that the candidates fail to speak to their community's needs.

Voter registration and voter turnout (the share of registered voters who vote) have increased in the Bay Area between 2012 and 2020 by about 5 percent for presidential elections and by 21 percent for midterm elections.[16] According to the Bay Area Equity Atlas, voting data disaggregated for Hispanic/Latinx and Asian/Pacific Islander voters shows that registration and voting rates are lower for these groups than for the population overall. This remains true for Oakland; in 2020 (a presidential election year), 69 percent of Oakland citizens voted, while only 51 percent of Hispanic/Latinx and 46 percent of Asian/Pacific Islander citizens voted.

The diversity of elected officials (those holding the municipal offices of mayor or councilmember, or county offices of supervisor or district attorney) can increase community trust of government and should reflect the diversity of the population to ensure that decision-makers are appropriately reflecting the perspectives and needs of their communities. In 2021, 40 percent of Oakland's elected officials are white, 33 percent are Black, 20 percent are Asian/Pacific Islander, seven percent are Hispanic/Latinx, and less than one percent are Native American or mixed/other race(s). Based on the proportion of each of these racial groups, Hispanic/Latinx populations are most disproportionately underrepresented, as demonstrated in **Chart 5-6**.

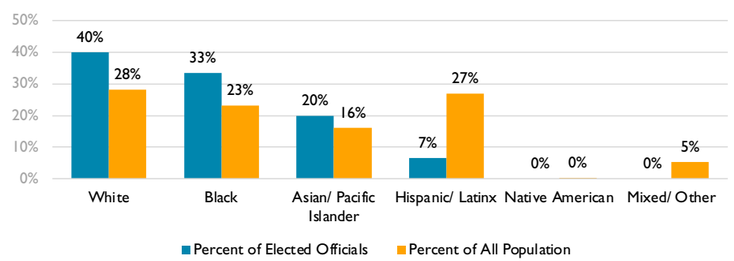
16 Bay Area Equity Atlas, "Voting," 2022, https://bayareaequityatlas.org/indicators/voting#/?breakdown=2&geo=07000000000653000, accessed February 17, 2022.

LINGUISTIC ISOLATION

One of Oakland's strengths is its diversity: residents come from many different cultures and backgrounds. Nearly 27 percent were born in another country, and common languages spoken at home (by at least one percent of the city's population, ages 5 and over) include Spanish, Vietnamese, Arabic, and Chinese (including Mandarin and Cantonese).

However, many of these residents who do not speak or read English as a first language or at all, and experience barriers to civic engagement, health and safety as a result. The people and institutions that provide social services and medical care often fail to provide translation or interpretation for adults who are not able to speak or read English well, which means they may not get the health care and information they need. Linguistically isolated households may not hear or understand important information when there is an emergency like a fire, earthquake, or extreme heat waves. An entire household's inability to communicate in English can create even more barriers to social and civic inclusion. A household is considered linguistically isolated when all adults speak a language other than English, and none

Chart 5-6: Diversity of Elected Officials, 2021



Source: Bay Area Equity Atlas, 2022

Building Resilience: Redesigning the Campaign Process to Increase Diversity of Oakland's Elected Officials

In September 2020, the City of Oakland Public Ethics Commission examined outcomes from Oakland's existing public financing program and overall campaign finance system and assessed how the campaign process reflects political power in the city in a report entitled "Race for Power: How Money in Oakland Politics Creates and Perpetuates Disparities Across Incomes and Race."

The report found that Oakland's system of campaign finance, which drives the selection of City government leaders, currently perpetuates systemic inequalities that disempower historically marginalized communities including low-income populations and people of color. Findings from the report suggest that a system of providing "Democracy dollars" that equip all voters with campaign "cash" (as has been done in Seattle through the Seattle Democracy Voucher Program) to contribute to campaigns incentivizes candidates to engage across all demographics regardless of wealth and history of prior engagement. This type of system must be accompanied by broad public engagement infrastructure-building efforts to ensure successful integration of a new system of broader and more diverse participation.

The Public Ethics Commission's recommendations include providing more candidate support, increasing transparency and trust through a candidate information hub, restricting unfair advantages of incumbent candidates, and additional measures to ensure that those who live outside Oakland (especially big money from those who do not live or work in Oakland) are not disproportionately impacting decisions.

Source: City of Oakland Public Ethics Commission, 2020

speaks English very well. **Figure 5-3** shows areas of linguistic isolation, which are greatest in the Jack London Gateway, Chinatown, Lower Laurel/Allendale, and Elmhurst Park tracts in addition to a large portion of south-central Oakland throughout Fruitvale and adjacent neighborhoods.

INTERNET ACCESS

Reliable access to the internet and telecommunications systems plays an increasingly important part in daily and civic life, helping people to work, learn, access services, participate in government, and stay connected to friends and family. Despite this importance, there are still households without access to the internet or to computers at home. The impacts of digital isolation, especially for older adults and communities of color, could include less access to resources, decreased ability to participate in civic political and non-political activities, among other barriers to civic engagement, thus compounding impacts of racial disparities in access to resources and opportunities.

Figure 5-4 shows that tracts with the greatest proportion of households without internet access are located in the Lockwood/Coliseum neighborhood in East Oakland and neighborhoods in Jack London Square. According to the 2018 Equity Indicators Report, Black individuals were the most likely to not have high speed internet access at home (40.8 percent), followed by Hispanic/Latinx individuals (33.5 percent). White individuals were least likely to lack high speed Internet access at home (14.6 percent). Among Asian individuals, 25.2 percent did not have access to high-speed internet at home, slightly lower than the citywide percent (26.8 percent). Black residents were 2.79 times more likely than white residents to not have high speed internet access at home.

Building Resilience: Bridging the Digital Divide

Even before the COVID-19 pandemic, essential activities like completing homework, finding a job, working from home, starting a business, making appointments, and accessing government services increasingly take place online. Yet, according to 2019 ACS estimates, over 15,000 Oakland residents do not have a computer and 27,600 do not have internet at home. Inability to access internet or broadband excludes the marginalized from educational and economic benefits available to those who are connected; this disparity between the have and have-nots is referred to as the "digital divide." The City has developed a program for "digital inclusion" with the objective of achieving digital equity. By targeting four intervention points--advocacy and awareness, internet access, devices, and digital literacy (skills)—the program can positively impact education, healthcare, employment, and economic development.

Funded through the federal CARES Act, the Oakland CARES Act: OAK WiFi Initiative provides free internet access for students, older adults, job seekers, small businesses, the underserved, and unconnected. Beginning in November 2020, the City has provided OAK WiFi live hotspots throughout the city, greatly expanding coverage from West Oakland through Downtown and along the International Boulevard corridor to the San Leandro border.

The #OaklandUndivided campaign is a partnership between the City Office of Education, Oakland Promise, Oakland Public Education Fund, Oakland Unified School District, and Tech Exchange that provides free school-loaned laptop computers, reliable internet connection, and ongoing tech support to public school students.

The City of Oakland also has also collaborated with the Greenlining Institute to address barriers to digital access through a year-long program called The Town Link, which builds digital inclusion and digital literacy through trainings and educational programs; builds awareness around free and affordable broadband plans; provides computers and tablets to residents that lack devices; and provides $100,000 in grants and technical assistance to 10 local organizations ($10,000 per organization) with the goal of increasing internet adoption and digital literacy in priority communities and neighborhoods.

In October 2021, the Greenlining Institute announced the grant recipients, which included the following 10 grassroots Oakland organizations: Allen Temple Baptist Church, El Timpano, Homies Empowerment, Oakland Workers Fund, Vietnamese American Community Center of East Bay, Center for Empowering Refugees and Immigrants, Roots Community Health Center, The Unity Council, St. Mary's Center, and Building Opportunities for Self-Sufficiency.

Sources: ACS 5-Year Estimates, 2019; City of Oakland Digital Inclusion Report; City of Oakland "OAK WiFi – A Small Step to Closing the Digital Divide" website; #OaklandUndivided website; Greenlining website

Figure 5-3: Limited English-Speaking Ability by Language Spoken at Home, Population Ages 5 and Over, 2019

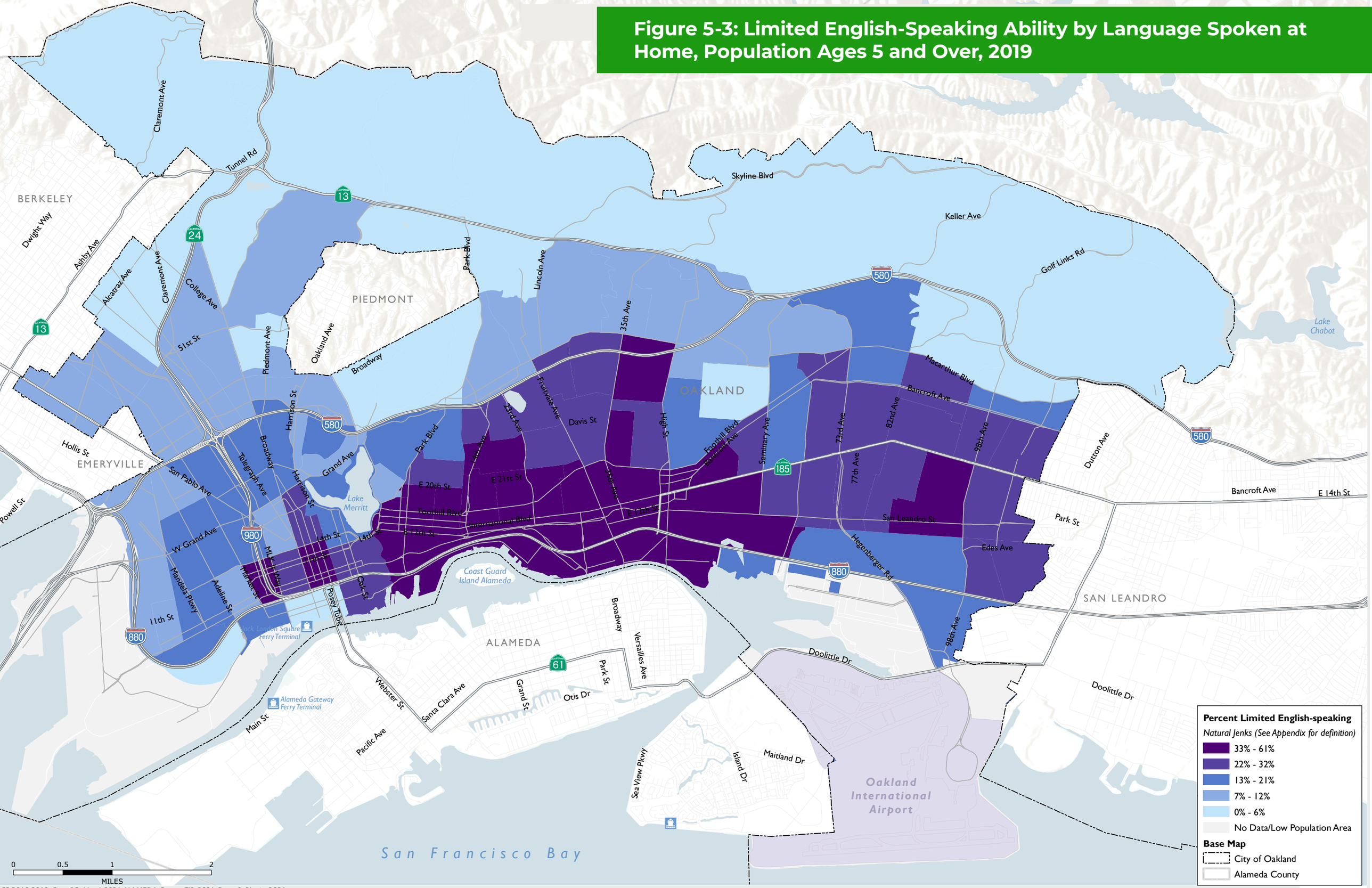
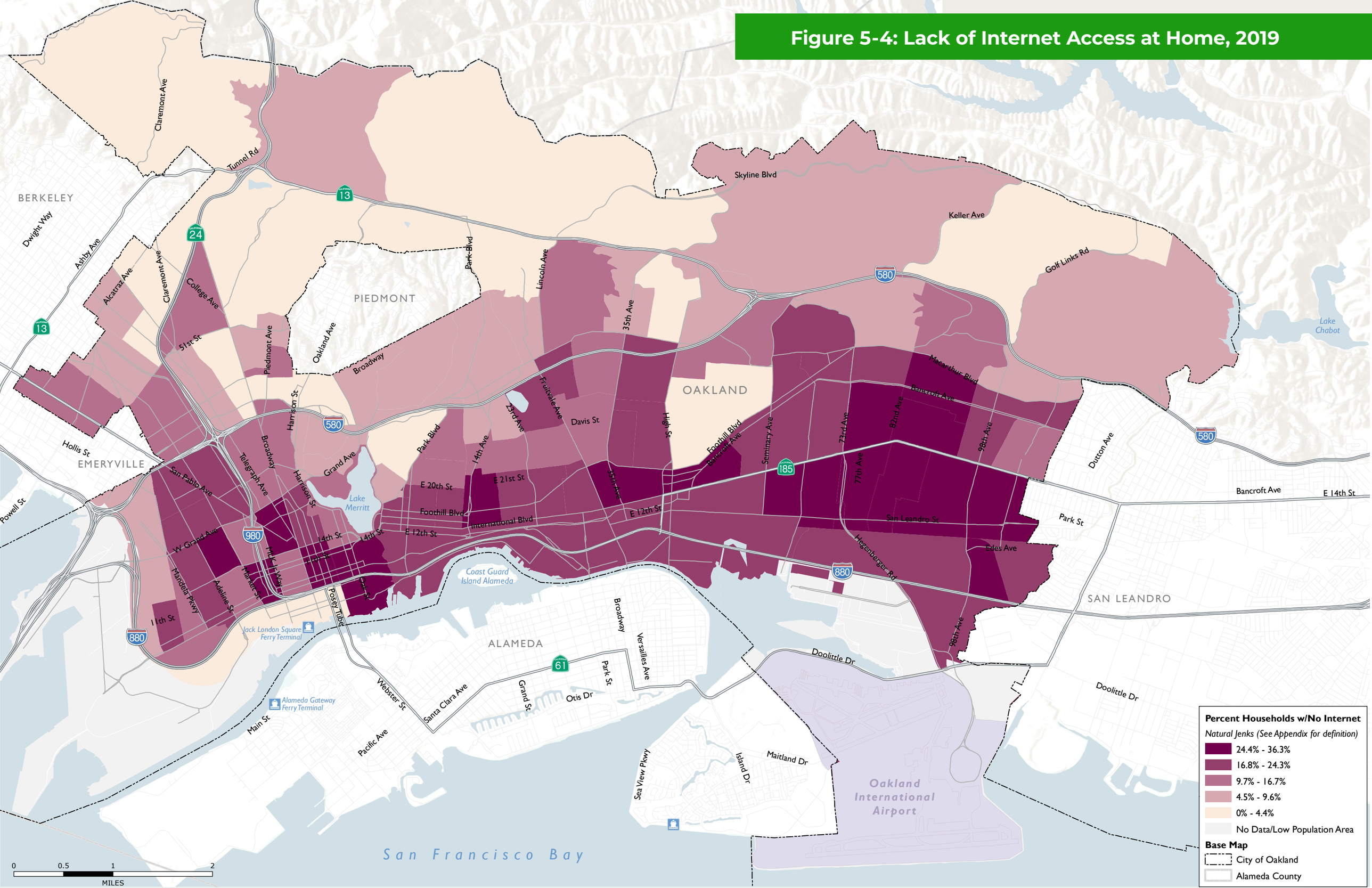


Figure 5-4: Lack of Internet Access at Home, 2019



Percent Households w/No Internet

Natural Jenks (See Appendix for definition)

- 24.4% - 36.3%
- 16.8% - 24.3%
- 9.7% - 16.7%
- 4.5% - 9.6%
- 0% - 4.4%
- No Data/Low Population Area

Base Map

- City of Oakland
- Alameda County

06

DEVELOPMENT PROCESS AND EJ COMMUNITIES SCREENING ANALYSIS

6 Development Process and Screening Analysis

6.1 Identifying Environmental Justice Communities

As one of the first steps of the Environmental Justice planning process, local jurisdictions must identify environmental justice communities[1] that are low-income areas and disproportionately impacted by pollution burden. While Senate Bill (SB) 1000 specifies CalEnviroScreen as the primary tool for identifying disadvantaged communities, State guidance also encourages thorough, community-focused processes to identify environmental justice communities, by taking into consideration local impacts, concerns, and priorities. To tailor State requirements for development of an Environmental Justice Element that works best for Oakland, the City has chosen to adapt the latter approach into a customized screening method.

While SB 1000 uses the term "disadvantaged communities" to describe most burdened areas, the California Environmental Justice Alliance notes that "impacted communities often prefer to use the term 'environmental justice communities' instead of 'disadvantaged communities' when describing areas that are most burdened by pollution and vulnerable to its effects, as this term more accurately describes the neighborhoods that experience the highest cumulative burden and can encompass other important environmental justice indicators, such as race, that are known to correlate with disproportionate environmental burdens." In line with these findings, the City of Oakland will use the term "environmental justice communities" to refer to these most burdened areas.

1 As noted in Chapter 1, SB 1000 defines "disadvantaged communities" as areas identified by CalEPA or areas that are both low-income and disproportionately affected by environmental pollution and other hazards that can lead to negative health outcomes. The City has opted to use the term "environmental justice communities" in place of "disadvantaged communities" in the General Plan.

Once environmental justice communities are identified, policies in the Environmental Justice Element (and environmental justice policies integrated throughout other General Plan elements) must reduce the unique or compounded health risks in these communities. Policies also must identify and reverse systemic funding inequities, prioritize improvements and programs that benefit environmental justice communities by promoting equitable development, and ensure that environmental justice communities are the primary beneficiaries of investments.

The methodology described below is a ***preliminary*** analysis intended to identify ***potential*** environmental justice communities that will be the focus of environmental justice policies. T**he methodology and resulting map will continue to undergo refinement in later stages of the General Plan process, particularly in response to community feedback, and updated results and an Environmental Justice Communities map will be included in the Environmental Justice Element.**

6.2 Methodology

The environmental justice communities mapping process expands on the methodologies used in CalEnviroScreen and OakDOT's Geographic Equity Toolbox to include community conditions, including racial/ethnic makeup, beyond pollution and hazards that can lead to negative health effects, exposure, or environmental degradation. To identify most burdened communities, the screening process used in this baseline report took the following steps. **Future refinement of the environmental justice communities map that will be used in the Environmental Justice Element may alter the methodology to reflect feedback from ongoing community engagement.**

STEP 1: IDENTIFY INDICATORS

To identify cumulatively impacted areas in Oakland, a custom set of indicators were selected from CalEnviroScreen and supplemented with other, locally relevant indicators. These indicators draw from datasets described in this report, as well as recommendations from community organization partners. Because the most complete datasets are often available at the census tract level, this geographic level is used for this analysis.

Figure 6-1 demonstrates the general process for indicator selection, which is based on guidance by OPR. Namely, CalEnviroScreen indicators and indicators covering each of the SB 1000 topics as discussed in this report were combined with race, income, and other socioeconomic or demographic factors not included in CalEnviroScreen or SB 1000 but are part of the definition of environmental justice communities ("disadvantaged communities" in State law). This includes both definitions of low-income areas (see discussion in Chapter 1: Introduction).

A comprehensive list of all potential indicators (as available data permits) was then filtered to remove overlapping indicators (e.g., the more local and updated data for air pollution provided by

BAAQMD was kept in place of the statewide CalEnviroScreen PM 2.5 and diesel indicators). Issues that do not have disparities in Oakland were omitted (e.g., drinking water, as discussed in Chapter 3).

As shown in **Table 6-1**, there are 50 individual indicators in all, grouped into four categories. Each of these categories cover a range of topics that in turn are comprised of a set of indicators that assess inequities related to the topic. This approach is similar to the structure used for the Oakland Equity Indicators.

Although the indicators are based on raw values that vary based on the issue being measured (e.g., percent of population affected by sea level rise or average distance to nearest health facility), all of these values were translated into percentile scores, on a scale of 0 (least impacted) to 100 (most impacted).

STEP 2: HIGHLIGHT THE TOP 25 CENSUS TRACTS FOR EACH INDICATOR

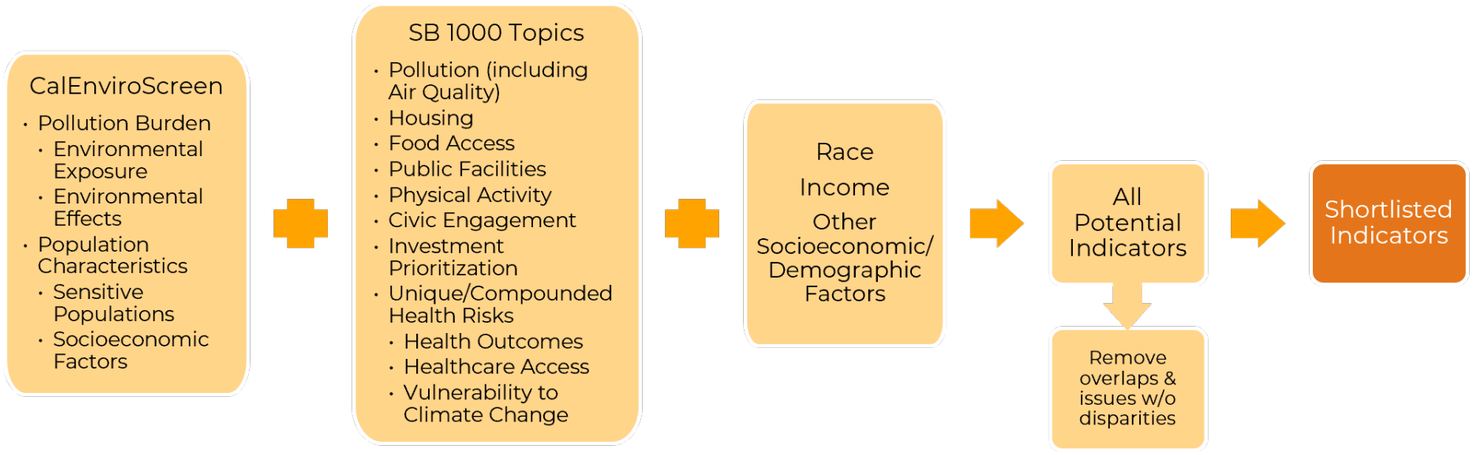
To identify which areas of Oakland face the greatest environmental justice burden, various datasets were layered on top of each other in what is known as a composite analysis. However, a composite analysis can sometimes obscure factors that are driving the burden. To understand which indicators are most important in each census tract, the top 25 census tracts impacted within each indicator are tracked, which will aid more targeted policy development later. Tables of top 25 census tracts by individual indicator are included in the Appendix.

STEP 3: SCORE TRACTS OVERALL

Each census tract was assigned an overall percentile ranking score based on the value and weight of the indicators for that tract. As was done for OakDOT's Geographic Equity Toolbox, some indicators are weighted more heavily than others to reflect community priorities, as shown in Table 6-1. Notably, extra weight is given to whether a tract is low income and whether a tract has a plurality of people of color.

Topic scores are calculated as the percentile rank of the sum of all indicators within that topic. Category scores are calculated as the percentile rank of the sum of all topics within that category. Likewise, the overall score is the percentile rank of the sum of the category scores. For example, the percentile scores of urban heat island and sea level rise are added and turned into a percentile score for the Climate Change topic. Then, the percentile scores of Air Quality, Water, Hazardous Materials, and Climate Change are added and turned into a percentile score for Pollution Burden.

Figure 6-1: Indicator Selection Process



Note: This process ends in "shortlisted" indicators because the environmental justice communities screening process is still under refinement, as mentioned above.

STEP 4: GROUND-TRUTH

The map resulting from Step 3 (**Figure 6-2,** discussed further below) will be used as a starting place to "ground-truth", a community fact-finding process where residents supplement technical information with local knowledge in order to better inform local/neighborhood level policy and project decisions. This will result in more specific, finer-grained areas to be added to the map.

What is a Percentile?

A "percentile" is a rank, commonly on a scale of 0 (or 1) to 100, for each data value when lined up in order from least to greatest.

Unlike a regular percent score, which also ranges from 0 to 100, a percentile takes into account its relative position among all other scores. For example, a student who answered 80 out of 100 questions correct on their math test could receive a score of 80%. Using a percent score like this can be a great way for understanding an individual student's performance. But sometimes it is helpful to take context into account; for instance, if all the other students in the class answered only 50 out of 100 questions correct on the test, a score of 80% would stand out as the highest score in the class. The "raw" score (before it is translated into a percentile) of 80 out of 100 would therefore become a percentile score of 100.

Percentiles can be expressed as a rank (e.g., 1st, 10th, 75th, etc.), or as a percentile score (e.g., 1, 2, ..., 100). These values are equal, but they may be used differently depending on the context. For example, SB 535 identifies eligibility of "disadvantaged communities" for cap-and-trade funding based on whether its CalEnviroScreen score is in the top 25th percentile or is 75 or greater – both mean the same thing. Using the phrase "top 25th percentile" can be useful in emphasizing how high the score is relative to other scores, keeping in mind that percentiles are out of 100 (i.e., top 1 percent = percentile score of 100).

An illustrated example of different ways to visualize and analyze data, including by percentiles, is included in the Appendix.

Table 6-1: Environmental Justice Screening Indicators

CATEGORY	WEIGHT	TOPIC	INDICATOR
Race and Poverty	**25%**	People of Color	People of Color
		Low Income	Low-Income Area, Statewide Median
			Low-Income Area, HCD Income Limit
Pollution Burden	**25%**	Air Quality	Particulate Matter 2.5
			Diesel Particulate Matter
			Traffic Density
			Lead Exposure
		Water	Toxic Releases
			Groundwater Threats
			Impaired Water Bodies
		Hazardous Materials	Cleanup Sites
			Hazardous Waste
			Solid Waste
		Climate Change	Urban Heat Island
			Sea Level Rise
Sensitive Populations	**25%**	Health	Adult Asthma
			Pediatric Asthma, NO2 Attributable
			Life Expectancy at Birth
			Low Birth Weight
			Mortality, NO2 Attributable
			Cardiovascular Disease
			Cancer
			Health Insurance
			Healthcare Facilities
		Socioeconomic	Linguistic Isolation
			Educational Attainment
			Population with a Disability
			Young Children
			Senior Population
			Median Household Income
			Unemployment
			Disconnected Youth
			Internet Access
Built Environment	**25%**	Transportation	Road Safety
			Vehicle Mobility
			Active Commutes
			Transit Access
		Food	SNAP Food Assistance
			Low Food Access
		Housing	Housing Habitability
			House Heating
			Overcrowding
			Housing Burden
			Evictions
			Redlining
		Neighborhood	Community Facilities
			Tree Canopy
			Park Access
			Public Safety
			Illegal Dumping

Note: For more information about each of the indicators and their data sources, see the data dictionary in the Appendix.

6.3 Preliminary Results

As shown in **Figure 6-2**, communities that have higher overall scores are predominantly in the southern half of Oakland, below the I-580 freeway. The top 25 highest-scoring tracts are located in parts of the West Oakland and Downtown areas, Oakland Estuary and San Antonio areas, and many parts of East Oakland. All of these tracts are considered low-income areas under both State definitions. **Table 6-2** summarizes the top indicators, aside from race or income indicators, that contribute to the high scores of these tracts. A full table of results for all tracts is included in the Appendix.

As shown in **Table 6-2**, several indicators are top contributors for many of the highest-scoring tracts; urban heat island appeared the most (six times), followed by redlining, educational attainment, adult asthma, which each appear four times. Lead risk, impaired water bodies, solid waste, life expectancy, cardiovascular disease, linguistic isolation, population with a disability, young children, unemployment, SNAP food assistance, and housing burden each appear three times.

At a topic level, the Health and Socioeconomic topics tend to have the highest scores among the top 25 census tracts. It is noted that even among the top 25 highest-scoring tracts in Oakland, there is a 22.1-percentile range in composite scores.

When compared with CalEnviroScreen, the composite score (of this report) generally tends to be higher than the corresponding overall CalEnviroScreen score, with some exceptions such as in Fitchburg, Melrose, Oakland Estuary, Prescott, and Prescott/Mandela Peralta. Tracts that have substantially higher composite scores than CalEnviroScreen scores include Brookfield Village, New Highland, Jack London Gateway, Lower San Antonio East, Bancroft/Havenscourt East, and Arroyo Viejo. These differences reflect the effectiveness of including additional local indicators and customized weighting to identify potential environmental justice communities. Furthermore, this approach compares tracts in Oakland to each other rather than relative to the state, enabling us to gauge parity within the city.

Table 6-2: Top 25 Highest-Scoring Tracts and Contributing Indicators

RANK	TRACT NEIGHBORHOOD NAME	COMPOSITE SCORE	TOP 3 CONTRIBUTING INDICATORS[1], DESCENDING
1	Lockwood/Coliseum/ Rudsdale	100.0	Median Household Income, SNAP Food Assistance, Toxic Releases
2	Acorn	99.0	Urban Heat, Adult Asthma, Low Birth Weight
3	Brookfield Village	98.1	Community Facilities, Life Expectancy, Traffic Density
4	Brookfield Village/ Hegenberger	97.2	Young Children, Urban Heat Island, Solid Waste, Sea Level Rise,
5	DeFremery/Oak Center	96.3	Urban Heat Island, Unemployment, SNAP Food Assistance, Adult Asthma
6	Fitchburg	95.4	Toxic Releases, Low Birth Weight, Cardiovascular Disease
7	Chinatown	94.4	Linguistic Isolation, Population with a Disability, Older Adult Population, Road Safety
8	Elmhurst	93.5	Health Insurance, Educational Attainment, Redlining
9	New Highland	92.6	Health Insurance, Cardiovascular Disease, Educational Attainment
10	Jack London Gateway	91.7	Median Household Income, Diesel Particulate Matter, Population with a Disability
11	Fremont District	90.8	House Heating Fuel, Overcrowding, Lead Risk, Unemployment, Internet Access
12	Seminary	89.9	Lead Risk, life Expectancy, Adult Asthma
13	Stonehurst	88.9	Young Children, Cardiovascular Disease, Redlining
14	Lower San Antonio East	88.0	Overcrowding, Linguistic Isolation, Educational Attainment, Housing Burden
15	Melrose	87.1	Solid Waste, Impaired Water Bodies, Tree Canopy
16	Oakland Estuary	86.2	Impaired Water Bodies, Cleanup Sites, Violent Crime
17	Lower San Antonio West	85.3	Educational Attainment, Linguistic Isolation, Impaired Water Bodies
18	Clawson/Dogtown	84.4	Urban Heat Island, Low Birth Weight, Population with a Disability, Housing Habitability
19	Hoover/Foster	83.4	Groundwater Threats, Housing Burden, Particulate Matter 2.5, Pediatric Asthma (NO_2 Attributable)
20	Bancroft/Havenscourt East	82.5	Housing Burden, Lead Risk, SNAP Food Assistance
21	Arroyo Viejo	81.6	Young Children, Internet Access, Adult Asthma
22	Downtown	80.7	Pediatric Asthma (NO_2 Attributable), Mortality (NO_2 Attributable), Vehicle Ownership
23	Bunche/Oak Center	79.8	Urban Heat Island, Redlining, House Heating Fuel,
24	Prescott	78.8	Urban Heat Island, Redlining, Solid Waste, Violent Crime
25	Prescott/Mandela Peralta	77.9	Urban Heat Island, Community Facilities, Cleanup Sites, Housing Habitability

1. Race (People of Color) and income (Low-Income, Statewide and Low-Income, HCD) indicators are not included because these are necessary criteria for environmental justice communities. Rather, top indicators from the Pollution Burden, Sensitive Populations, and Built Environment categories are listed to better understand the unique burdens that a community is facing.
2. More than three indicators may be listed due to ties.

Table 6-3: Top 25 Highest-Scoring Tracts and CalEnviroScreen 4.0 Scores (2021)

RANK	TRACT NEIGHBORHOOD NAME	EJ SCREENING COMPOSITE SCORE	CALENVIRO-SCREEN SCORE	DIFFERENCE
1	Lockwood/Coliseum/ Rudsdale	100.0	90.3	9.7
2	Acorn	99.0	88.7	10.3
3	Brookfield Village	98.1	83.5	14.6
4	Brookfield Village/ Hegenberger	97.2	94.0	3.2
5	DeFremery/Oak Center	96.3	n/a	n/a
6	Fitchburg	95.4	97.2	-1.8
7	Chinatown	94.4	91.2	3.2
8	Elmhurst	93.5	91.4	2.1
9	New Highland	92.6	62.9	29.7
10	Jack London Gateway	91.7	78.2	13.5
11	Fremont District	90.8	82.4	8.4
12	Seminary	89.9	82.5	7.4
13	Stonehurst	88.9	88.3	0.6
14	Lower San Antonio East	88.0	74.5	13.5
15	Melrose	87.1	97.8	-10.7
16	Oakland Estuary	86.2	88.1	-1.9
17	Lower San Antonio West	85.3	77.0	8.3
18	Clawson/Dogtown	84.4	81.4	3.0
19	Hoover/Foster	83.4	82.1	1.3
20	Bancroft/Havenscourt East	82.5	64.4	18.1
21	Arroyo Viejo	81.6	63.6	18.0
22	Downtown	80.7	69.7	11.0
23	Bunche/Oak Center	79.8	71.0	8.8
24	Prescott	78.8	82.2	-3.4
25	Prescott/Mandela Peralta	77.9	93.1	-15.2

Figure 6-2: PRELIMINARY Environmental Justice Communities

Map Date: 3/24/2022

BERKELEY
PIEDMONT
EMERYVILLE
OAKLAND
ALAMEDA
SAN LEANDRO
Lake Chabot
Lake Merritt
Coast Guard Island Alameda
Oakland International Airport
San Francisco Bay
Jack London Square Ferry Terminal
Alameda Gateway Ferry Terminal
Claremont Ave
Tunnel Rd
Dwight Way
Ashby Ave
Alcatraz Ave
College Ave
51st St
Piedmont Ave
Oakland Ave
Broadway
Park Blvd
Lincoln Ave
35th Ave
Skyline Blvd
Keller Ave
Golf Links Rd
Macarthur Blvd
Bancroft Ave
Dutton Ave
E 14th St
Harrison St
Grand Ave
Fruitvale Ave
23rd Ave
Davis St
High St
Foothill Blvd
Seminary Ave
73rd Ave
82nd Ave
98th Ave
E 20th St
E 21st St
E 12th St
International Blvd
14th St
Park St
San Leandro St
Edes Ave
Hollis St
San Pablo Ave
Telegraph Ave
W Grand Ave
Market St
Adeline St
MLK Jr Way
11th St
Oak St
Posey Tube
Broadway
Versailles Ave
Webster St
Santa Clara Ave
Grand St
Otis Dr
Park St
Main St
Pacific Ave
Sea View Pkwy
Island Dr
Maitland Dr
Doolittle Dr
Doolittle Dr
Hegenberger Rd
73rd Ave
80
580
24
61
185
880
980

0 0.5 1 2
MILES

Composite Indicator Score
Percentile Range
- 91 - 100 (Most Impacted)
- 81 - 90
- 71 - 80
- 61 - 70
- 51 - 60
- 41 - 50
- 31 - 40
- 21 - 30
- 11 - 20
- 0 - 10 (Least Impacted)
- No Data/Low Population Area
- Top 25 Highest Scoring Tracts

Base Map
- Railroads
- Major Roads
- City of Oakland
- Alameda County

07

NEXT STEPS

7. Next Steps

Creating the Environmental Justice and Racial Equity Baseline is one of the first steps in the Environmental Justice Element planning process. It synthesizes and builds on separate efforts that precede this document in order to establish a comprehensive baseline of environmental justice and racial equity in Oakland. This will inform future conversations with the community, which will in turn guide development of the Environmental Justice Element.

This baseline will also inform the City of Oakland's Racial Equity Impact Analysis (REIA), a task completed in tandem with policy development to assess how policy choices in the General Plan could lead to more equitable treatment and better outcomes for populations that have been harmed or marginalized by past decisions and current trends.

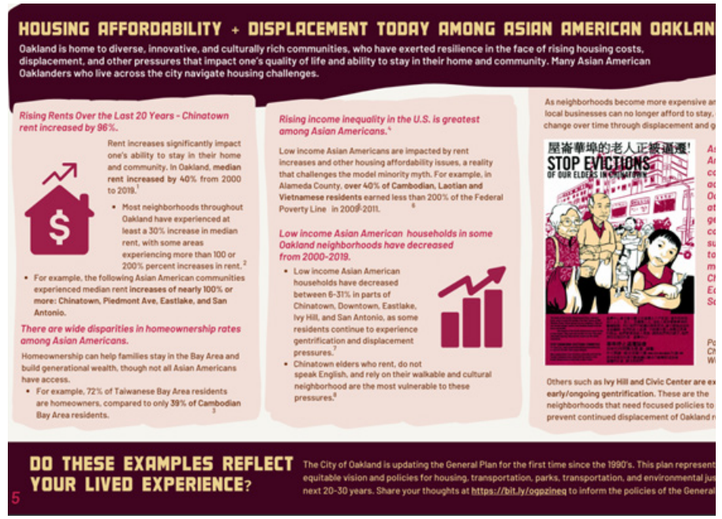
Proactive, meaningful community engagement from the very beginning of the General Plan update process to the implementation and monitoring of policies and actions is critical to achieving environmental justice and racial equity goals. Following this document, the next objective will be to receive input and brainstorm ideas on how General Plan issues (including environmental justice issues and objectives) can be prioritized in the planning process. At planned town halls, neighborhood workshops, and other neighborhood-rooted community engagement activities, the City of Oakland will continue documenting health, equity, and environmental justice issues that communities are facing. These activities will be conducted before and during the development of General Plan goals and policies.

7.1 Refining Environmental Justice Communities

As noted in Chapter 6: Environmental Justice Development Process and EJ Communities Screening Analysis, **the results of this baseline report are intended to highlight potential areas that may later be identified as environmental justice communities in the General Plan.** As a starting place, the methodology described in the previous chapter has identified the top 25 highest-scoring census tracts (see Table 6-2), which differs slightly from the statewide CalEnviroScreen results that is traditionally the primary tool for identifying environmental justice communities.

Based on feedback from community partners and findings from the preliminary analysis, the following revisions are being considered to refine the mapping process:

- Control of population density so that large tracts with low populations but high pollution burden, such as in western West Oakland, are not left out. It is noted that many indicators currently used in the analysis have been population-weighted, such as those that are calculated as "per 1,000 residents." Another similar consideration is for indicators based on distance to resources/amenities (e.g., health facilities), which may inadvertently over-weight low-population areas such as industrial areas, where these resources are less common.
- Update to the Urban Heat Island Index indicator, which represents 2013 urban heat conditions but was released as an index by CalEPA in 2015. Availability of data will need to be assessed.
- Revision of the Vehicle Ownership indicator to measure the percentage of households that own two or more vehicles, scored so that low vehicle ownership represents a more impacted community. This change would better control for areas, such as Downtown, where residents voluntarily do not own a car because they have high access to alternative modes of transportation (e.g., transit). Data would be obtained from the census (ACS 5-Year Estimates, 2015-2019).



- Substitution of the Active Commutes indicator with a Length of Commute indicator, which would be a measure of the number of minutes it takes a worker to get to work. Existing disparities and impacts pertaining to extreme commuting are discussed in Chapter 4: Neighborhood and Built Environment. Data would be obtained from the census (ACS 5-Year Estimates, 2015-2019).
- Expansion of fresh food sources used to assess food access by the Low Food Access indicator, which currently only includes supermarkets/supercenters/large grocery stores, as used in the U.S. Department of Agriculture's Food Access Research Atlas (2019). Local sources of fresh food may include smaller markets and corner stores that offer fresh fruit and veggies, in addition to other sources such as farmers' markets and community gardens. Availability of this type of data will need to be assessed.

- Addition of a Healthy Housing indicator that uses code enforcement complaint data from the City, especially housing habitability inspections, to measure the risk of household mold and asbestos exposure. Availability of this type of data will need to be assessed.
- Inclusion of a Wildfire Smoke indicator that measures air quality during Oakland's worst smoke days. The disparities and impacts related to smoke from wildfires are discussed in Chapter 3: Environmental Health. Availability of this type of data will need to be assessed.
- Update of the Evictions indicator using data from the Oakland Housing and Community Development Department at the census tract level or other available datasets that cover changes in foreclosures/evictions and housing insecurity in Oakland over the last decade. Currently, the Evictions indicator uses data from Eviction Lab (updated for Oakland in 2018 using data from 2000-2016). Availability of this data will need to be assessed.
- Addition of an Affordable Housing indicator that measures the availability and location of affordable housing throughout the city. This indicator would assess the distribution of housing affordable to low-, very-low-, and extremely-low-income residents. Availability of this data will need to be assessed.

As stated earlier in this report, one of the main guiding principles of Oakland's General Plan Update involves working with communities in developing solutions for long-term and systemic changes. This principle is an essential component of Environmental Justice, which calls for proactive and inclusive engagement of communities most impacted by racial inequity, environmental pollution and adverse health outcomes, so that they can "... participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement, and evaluation."[1] Therefore, the methodology of this Environmental Justice Communities Screening Analysis and resulting map will continue to undergo refinement in later stages of the General Plan process, particularly in response to feedback from ongoing community engagement, and updated results and an Environmental Justice Communities map will be included in the Environmental Justice Element.

1 Environmental Justice Network, Principles of Environmental Justice, April 6, 1996, http://www.ejnet.org/ej/principles.html.

Photo: Greg Linhares, City of Oakland

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Appendix

A.1 Reference Figures and Tables

Table A-1: Census Tract Names

TRACT NUMBER	TRACT NEIGHBORHOOD NAME	ZIP
600010400100	Panoramic Hill	94704
600010400200	Rockridge	94618
600010400300	Shafter/Rockridge	94618
600010400400	Upper Telegraph/Fairview Park	94609
600010400500	Bushrod/North Oakland	94609
600010400600	Bushrod/Childrens Hospital	94609
600010400700	Santa Fe/North Oakland	94608
600010400800	Paradise Park/Golden Gate	94608
600010400900	Gaskill	94608
600010401000	Longfellow	94608
600010401100	Temescal West	94609
600010401200	Temescal East	94609
600010401300	Pill Hill	94609
600010401400	Hoover/Foster	94608
600010401500	Clawson/Dogtown	94608
600010401600	McClymonds	94607
600010401700	Port Upper	94607
600010401800	Prescott	94607
600010402200	Prescott/Mandela Peralta	94607
600010402400	Bunche/Oak Center	94607
600010402500	Acorn	94607
600010402600	Jack London Gateway	94607
600010402700	Bunche/MLK Jr	94612
600010402800	Uptown/Downtown	94612
600010402900	Downtown	94612
600010403000	Chinatown	94607
600010403100	Downtown/Old Oakland	94607
600010403300	Chinatown/Laney	94607
600010403400	Lake Merritt	94612
600010403501	Oakland/Harrison West	94611
600010403502	Oakland/Harrison East	94610

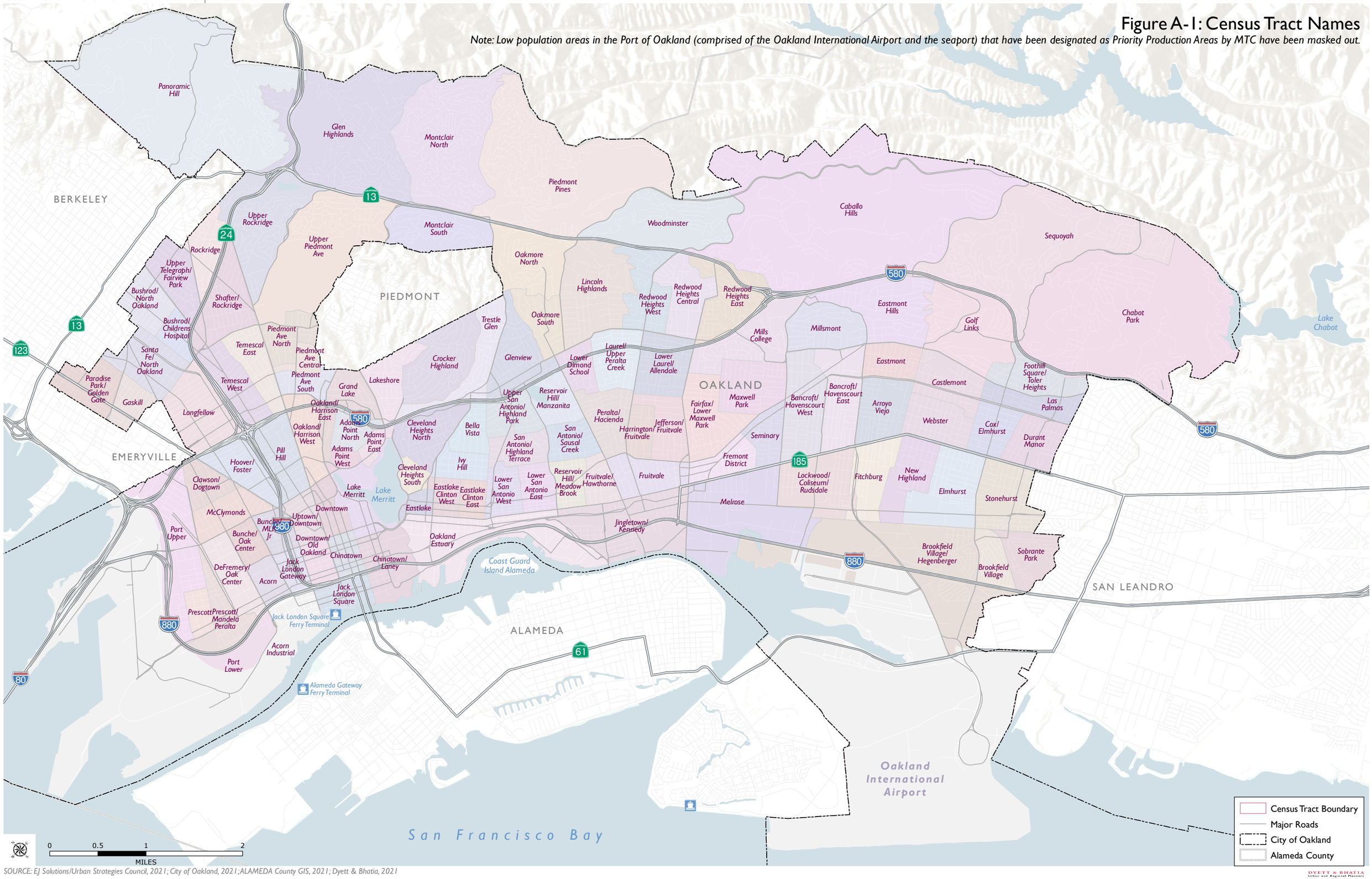
TRACT NUMBER	TRACT NEIGHBORHOOD NAME	ZIP
600010403600	Adams Point North	94610
600010403701	Adams Point West	94610
600010403702	Adams Point East	94610
600010403800	Lakeshore	94610
600010403900	Grand Lake	94610
600010404000	Piedmont Ave South	94611
600010404101	Piedmont Ave North	94611
600010404102	Piedmont Ave Central	94611
600010404200	Upper Piedmont Ave	94611
600010404300	Upper Rockridge	94618
600010404400	Glen Highlands	94611
600010404501	Montclair South	94611
600010404502	Montclair North	94611
600010404600	Piedmont Pines	94611
600010404700	Oakmore North	94602
600010404800	Oakmore South	94602
600010404900	Glenview	94602
600010405000	Trestle Glen	94610
600010405100	Crocker Highland	94610
600010405200	Cleveland Heights North	94606
600010405301	Cleveland Heights South	94606
600010405302	Eastlake	94606
600010405401	Eastlake Clinton West	94606
600010405402	Eastlake Clinton East	94606
600010405500	Ivy Hill	94606
600010405600	Bella Vista	94610
600010405700	Upper San Antonio/Highland Park	94606
600010405800	San Antonio/Highland Terrace	94606
600010405901	Lower San Antonio East	94606
600010405902	Lower San Antonio West	94606
600010406000	Oakland Estuary	94606
600010406100	Jingletown/Kennedy	94601
600010406201	Reservoir Hill/Meadow Brook	94601
600010406202	Fruitvale/Hawthorne	94601
600010406300	San Antonio/Sausal Creek	94601
600010406400	Reservoir Hill/Manzanita	94602
600010406500	Peralta/Hacienda	94601
600010406601	Laurel/Upper Peralta Creek	94602
600010406602	Lower Dimond School	94602
600010406700	Lincoln Highlands	94602
600010406800	Redwood Heights West	94602
600010406900	Redwood Heights Central	94619
600010407000	Lower Laurel/Allendale	94619

TRACT NUMBER	TRACT NEIGHBORHOOD NAME	ZIP
600010407101	Harrington/Fruitvale	94601
600010407102	Jefferson/Fruitvale	94601
600010407200	Fruitvale	94601
600010407300	Melrose	94601
600010407400	Fremont District	94601
600010407500	Seminary	94621
600010407600	Fairfax/Lower Maxwell Park	94601
600010407700	Maxwell Park	94619
600010407800	Mills College	94613
600010407900	Redwood Heights East	94619
600010408000	Woodminster	94619
600010408100	Caballo Hills	94619
600010408200	Millsmont	94605
600010408300	Eastmont Hills	94605
600010408400	Eastmont	94605
600010408500	Arroyo Viejo	94621
600010408600	Bancroft/Havenscourt East	94605
600010408700	Bancroft/Havenscourt West	94605
600010408800	Lockwood/Coliseum/Rudsdale	94621
600010408900	Fitchburg	94621
600010409000	Brookfield Village/Hegenberger	94621
600010409100	Brookfield Village	94603
600010409200	Sobrante Park	94603
600010409300	Stonehurst	94603
600010409400	Elmhurst	94603
600010409500	New Highland	94621
600010409600	Webster	94621
600010409700	Castlemont	94605
600010409800	Golf Links	94605
600010409900	Sequoyah	94605
600010410000	Chabot Park	94605
600010410100	Foothill Square/Toler Heights	94605
600010410200	Las Palmas	94603
600010410300	Cox/Elmhurst	94603
600010410400	Durant Manor	94603
600010410500	DeFremery/Oak Center	94607
600010981900	Port Lower	94607
600010982000	Acorn Industrial	94607
600010983200	Jack London Square	94607

Notes:
1. Neighborhood names are based on those used in the Lead Paint Hazards REIA (2021), with some revisions to more accurately describe the neighborhood geographically.

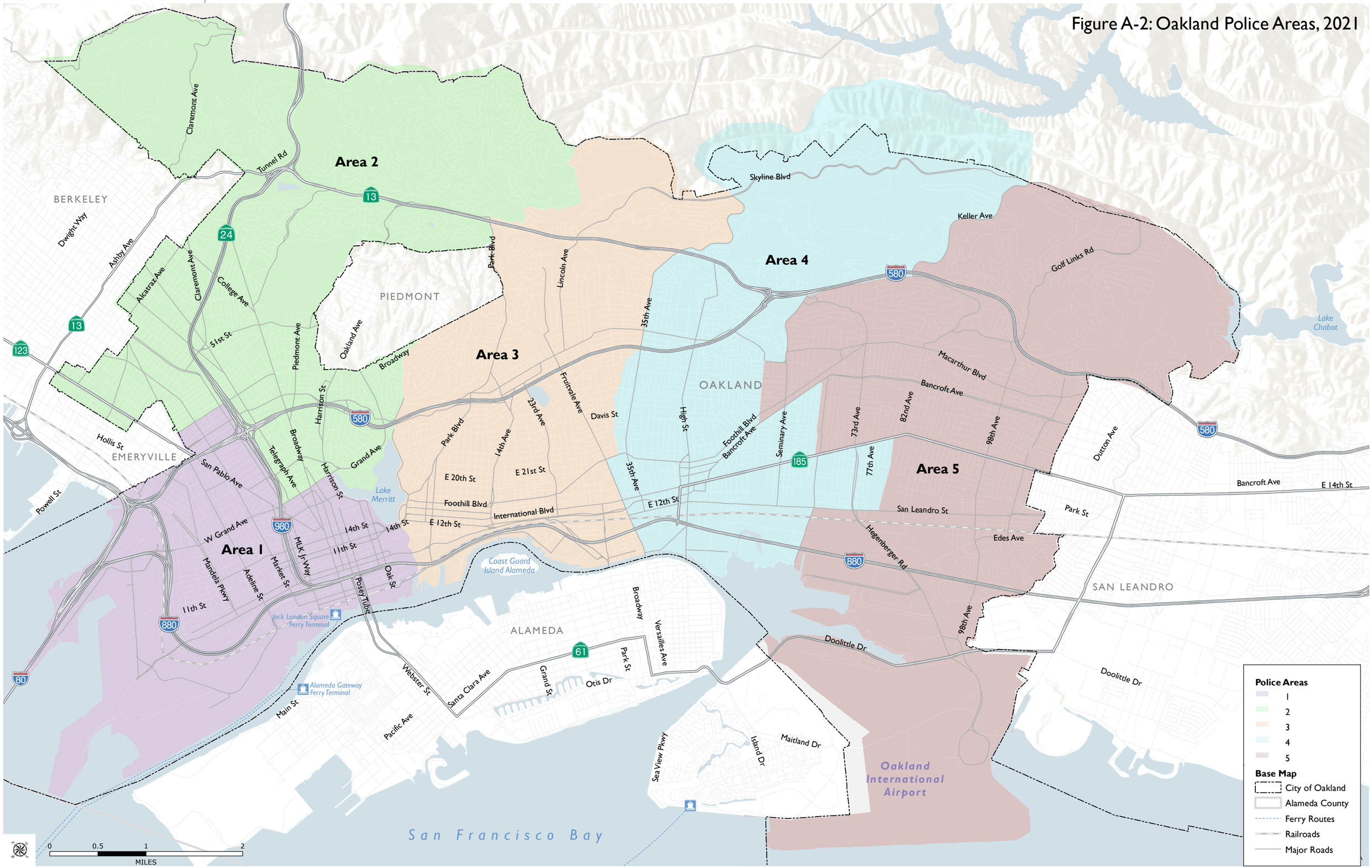
Figure A-1: Census Tract Names

Note: Low population areas in the Port of Oakland (comprised of the Oakland International Airport and the seaport) that have been designated as Priority Production Areas by MTC have been masked out.



SOURCE: EJ Solutions/Urban Strategies Council, 2021; City of Oakland, 2021; ALAMEDA County GIS, 2021; Dyett & Bhatia, 2021

Figure A-2: Oakland Police Areas, 2021



SOURCE: City of Oakland, 2021; ALAMEDA County GIS, 2021; Dyett & Bhatia, 2021

DYETT & BHATIA
Urban and Regional Planners

Table A-2: Oakland Equity Indicators Scores, 2018

THEME	TOPIC	INDICATOR	SCORE
ECONOMY Score: 41.8	**Business Development** Score: 33.7	Business Ownership	36
		Prime Contracts Awarding	31
		Long-term Business Vacancy	34
	Employment Score: 49.0	Disconnected Youth	35
		Labor Force Participation	72
		Unemployment	40
	Financial Health Score: 32.7	Access to Healthy Financial Institutions	31
		Median Household Income	34
		Poverty	33
	Job Quality Score: 51.7	Employment in High Wage Industries	54
		Living Wage	29
		Participation in Workforce Development Programs	72
EDUCATION Score: 29.0	**Enrollment** Score: 22.3	Preschool Enrollment	22
		Chronic Absenteeism	25
		High School On-Time Completion	20
	Achievement Score: 32.0	3rd Grade ELA Proficiency	20
		High School Readiness	37
		A-G Completion	39
	Program Access Score: 33.3	AP Course Enrollment	37
		Linked Learning Pathway Enrollment	62
		Suspensions	1
	Teachers Score: 28.3	Representation of Student Population	1
		Teacher Experience	55
		Teacher Turnover	29
PUBLIC HEALTH Score: 25.8	**Access to Preventive Care** Score: 28.7	Acute Preventable Hospitalizations	39
		Chronic Disease Preventable Hospitalizations	26
		Health Insurance	21
	Child Health Score: 27.7	Childhood Asthma Emergency Department Visits	1
		Physical Fitness	63
		SNAP Recipiency	19
	Mortality Score: 42.0	Infant Mortality	16
		Life Expectancy	77
		Premature Death	33
	Physical and Mental Health Score: 4.7	Severe Mental Illness Emergency Department Visits	7
		Substance Abuse Emergency Department Visits	1
		HIV New Diagnoses	6
HOUSING Score: 36.8	**Affordability** Score: 49.0	Homeownership	53
		Loan Denial	40
		Rent Burden	54
	Displacement Score: 29.0	Homelessness	1
		Homeownership with Mortgage	78
		Eviction Notices	8
	Essential Services Score: 36.0	Complete Plumbing Facilities	35
		Energy Cost Burden	38
		High Speed Internet Access	35
		Housing Habitability Complaints	40
		Complete Kitchen Facilities	37

THEME	TOPIC	INDICATOR	SCORE
	Housing Quality Score: 33.0	Overcrowding	22
PUBLIC SAFETY Score: 17.3	**Incarceration** Score: 1.0	Adult Felony Arrests	1
		Jail Incarceration	1
		Prison Incarceration	1
	Law Enforcement Score: 18.3	Police Response Times	48
		Stops	6
		Use of Force	1
	Staffing Score: 48.3	Representation	45
		Attrition from Academy	63
		Attrition from Field Training	37
	Community Stressors Score: 1.7	Domestic Violence	3
		Homicides	1
		Juvenile Felony Arrests	1
NEIGHBORHOOD AND CIVIC LIFE Score: 50.6	**Built Environment** Score: 33.3	Pedestrian Safety	1
		Soft Story Buildings	67
		Long-term Residential Vacancy	32
	Civic Engagement Score: 75.0	Adopt a Drain	80
		Voter Turnout	45
		Equal Access Accommodations	100
	Environmental Health Score: 46.7	Park Quality	57
		Abandoned Trash	28
		Pollution Burden	55
	Transportation and Infrastructure Score: 47.3	Access to a Car	33
		Bus Frequency	60
		Curb Ramps	49
OVERALL EQUITY INDICATORS SCORE			**33.5**

Source: City of Oakland, 2018

Table A-3: EJ Screening Indicators Data Dictionary

INDICATOR	DESCRIPTION	SOURCE
RACE AND POVERTY		
People of Color		
People of Color	Percentage of non-white, non-Hispanic/Latinx population in tract	2019 ACS 5-Year Estimates Table DP05
Low Income		
Low-Income Area, Statewide Median	0- Tract Median Household Income is above 80% statewide median (not Low-Income). 1- Tract is at/below 80% state median (Low-Income Area).	2019 ACS 5-Year estimates Table B19013, California Department of Housing and Community Development (HCD) 2019 State Income Limits
Low-Income Area, HCD Income Limit	Tract Median Household Income is within HCD's 2019 State Income Limits for: 0 – Moderate Income or higher; 1 – Low-Income; 2 – Very-Low-Income; 3 – Extremely Low-Income	2019 ACS 5-Year estimates Table B19013, HCD 2019 State Income Limits
POLLUTION BURDEN		
Air Quality		
PM 2.5	Concentration of Particulate Matter 2.5 (2018), average of 1-km grid cell centers within the tract	Bay Area Air Quality Management District (BAAQMD) 2021, Dyett & Bhatia (D&B)
Diesel Particulate Matter	Concentration of Diesel Particulate Matter (2018), average of 1-km grid cell centers within the tract	BAAQMD 2021, D&B
Traffic Density	CES 4.0 raw score for Traffic Density	CalEnviroScreen 4.0
Lead	CES 4.0 raw score for Children's Lead Risk from Housing	CalEnviroScreen 4.0
Water		
Toxic Releases	CES 4.0 raw score for Toxic Releases	CalEnviroScreen 4.0
Groundwater Threats	CES 4.0 raw score for Groundwater Threats	CalEnviroScreen 4.0
Impaired Water Bodies	CES 4.0 raw score for Impaired Water Bodies	CalEnviroScreen 4.0
Hazardous Materials		
Cleanup Sites	CES 4.0 raw score for Cleanup Sites	CalEnviroScreen 4.0
Hazardous Waste	CES 4.0 raw score for Hazardous Waste	CalEnviroScreen 4.0
Solid Waste	CES 4.0 raw score for Solid Waste	CalEnviroScreen 4.0
Climate Change		
Urban Heat Island	Urban Heat Island Index for California (2013)	CalEPA 2015

INDICATOR	DESCRIPTION	SOURCE
Sea Level Rise	Percent of population living in 100-year flood zone and 66 inches of sea level rise.	City of Oakland 2021, D&B
SENSITIVE POPULATIONS		
Health		
Adult Asthma	Prevalence of current asthma in adults (18 years and over)	Centers for Disease Control and Prevention (CDC) PLACES 2020
Pediatric Asthma, NO2 Attributable	Percentage of annual cases of pediatric (children, under 18) asthma attributable to exposure to NO2, population-weighted tract average of census block groups	Environmental Defense Fund (EDF) 2021
Life Expectancy at Birth	Life expectancy at birth in years	Alameda County Public Health Department (ACPHD) 2021
Low Birth Weight	CES 4.0 raw score for Low Birth Weights	CalEnviroScreen 4.0
Mortality, NO2 Attributable	Percentage of annual deaths attributable to exposure to NO2, population-weighted tract average of census block groups	EDF 2021
Cardiovascular Disease	CES 4.0 raw score for Cardiovascular Disease	CalEnviroScreen 4.0
Cancer	Prevalence of adults diagnosed with cancer (except skin)	CDC PLACES 2020
Health Insurance	Percentage of adults <65 who do not have health insurance	CDC PLACES 2020
Healthcare Facilities	Average distance to nearest healthcare facility (meters), population-weighted	California Department of Public Health (CDPH) 2022
Socioeconomic		
Linguistic Isolation	CES 4.0 raw score for Linguistic Isolation	CalEnviroScreen 4.0
Educational Attainment	CES 4.0 raw score for Educational Attainment	CalEnviroScreen 4.0
Population with Disability	Percentage of population with one or more disabilities	2019 ACS 5-Year estimates Table C18108
Young Children	Percent of population who are 5 years of age or younger	2019 ACS 5-Year estimates Table B01001
Older Adult Population	Percentage of population who are 65 years or older	2019 ACS 5-Year estimates Table B01001
Median Household Income	Tract median household income	2019 ACS 5-Year estimates Table B19013
Unemployment	CES 4.0 raw score for Unemployment	CalEnviroScreen 4.0
Disconnected Youth	Percentage of population ages 16-24 not enrolled in school	2019 ACS 5-Year estimates tables B14003 and B14005
Internet Access	Percentage of households without internet subscription	2019 ACS 5-Year estimates Table B28002
BUILT ENVIRONMENT		
Transportation		

INDICATOR	DESCRIPTION	SOURCE
Road Safety	Number of crashes (traffic accidents, all modes and including both fatal/severe and non-severe) from 2016-2020 per mile of streets	SafeTREC Transportation Injury Mapping System (TIMS) 2022, D&B
Vehicle Ownership	Percentage of households that do not own a vehicle	2019 ACS 5-Year estimates Table B25044
Active Commutes	Percentage of workers who commute by biking or walking	2019 ACS 5-Year estimates Table B08301
Transit Access	Frequency of Peak Hour (weekday 4-7pm) Transit Service per capita, population-weighted tract average	EPA SmartLocation Database 3.0 2021
Food		
SNAP Food Assistance	Percentage of households receiving SNAP food assistance	US Department of Agriculture Food Access Research Atlas 2019
Low Food Access	Percentage of population living beyond 1/2 mile of a supermarket/supercenter/large grocery store	City of Oakland 2021, D&B
Housing		
Housing Habitability	Code enforcement complaints (zoning, blight, housing habitability, 2020) per 1,000 tract residents	City of Oakland 2021, D&B
House Heating	Percentage of households without heating fuel	2019 ACS 5-Year estimates Table B25040
Overcrowding	Percentage of households with more than one occupant per room	2019 ACS 5-Year estimates Table B25014
Housing Burden	CES 4.0 raw score for Housing Burden	CalEnviroScreen 4.0
Evictions	Number of evictions (2000-2016) per 1,000 population	Eviction Lab 2018
Neighborhood		
Redlining	Score based on HOLC redlining map grades: A=1, B=2, C=3, D (redlined)=4, population-weighted tract average	HCD Affirmatively Furthering Fair Housing Data and Mapping Resources Database 2021
Community Facilities	Number of community facilities (libraries, senior centers, daycare centers, schools, recreation centers) per 1,000 population	City of Oakland 2021, D&B
Tree Canopy	Lack of tree canopy coverage (percent area without tree canopy), population-weighted tract average	NLCD 2019 (Tree Canopy Coverage 2016), D&B
Park Access	Percentage of population within 10-minute (half-mile) walk of a park	City of Oakland 2021, D&B

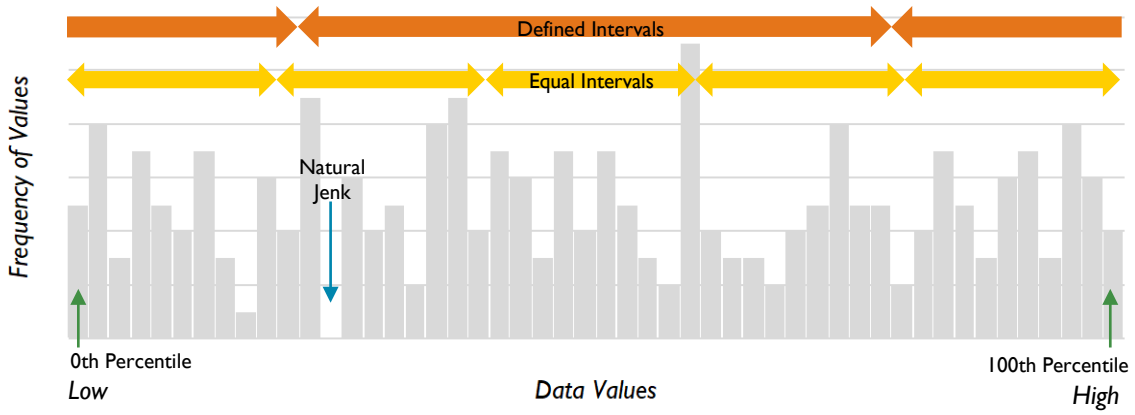
INDICATOR	DESCRIPTION	SOURCE
Public Safety	Number of violent crimes (aggravated assault, homicide, rape, and other sex offenses) between 2016-2020 per 1,000 population	Oakland Police Department (OPD) CrimeWatch 2020, D&B
Illegal Dumping	OAK 311 Service calls for illegal dumping per 1,000 tract residents	City of Oakland 2021, D&B

A.2 Methodologies of Analysis

MAP SYMBOLIZATION OF QUANTITATIVE DATA

The following approaches describe different ways to divide up numerical data. Each looks at how data is distributed (such as in Figure A-3 below) to create groups. Different maps may use different approaches based on what is most appropriate for that dataset, as well as use a different number of groups.

Figure A-3: Data Partitioning Methods



Natural Jenks

"Jenks" are breaks or divisions, and "natural jenks" refer to thresholds where data naturally drops off. For example, the blue arrow in Figure A-3 shows where a gap in the distribution of data might be a good place to define a certain group.

Quantiles

"Percentiles" are commonly used to rank data based on their relative position or score among the other scores. Typically, percentiles range from zero to 100 (shown with green arrows in Figure A-3), and a 50th percentile score would represent the median value.

"Quantiles" refer to the number of groups created from percentiles. For example, quartiles are four groups (i.e., 0-25, 26-50, 51-75, 76-100), and deciles are 10 groups (i.e., 0-10, 11-20, 21-30, etc.). Quantiles are a good approach for when the data should be put into equally sized groups.

Equal and Defined Intervals

"Intervals" refer to the partitions of a dataset and are good for when there is already structure for how the data should be divided. The sizes of the groups themselves can vary widely, based on the data.

Equal intervals divide up the range of data into an equal number of groups. For example, if a list of 25 last names was alphabetized (i.e., A to Z) and divided into four groups, there might be five people between A and G, ten people between H and M, seven between N and S, and three T and Z. The intervals are equal, even if the sizes of the groups are not.

Defined intervals break up the data based on a defined range of values. This differs from equal intervals because a defined interval may extend beyond the minimum and maximum values of the dataset. For example, if a group of adults (ages 18 and older) was asked to sit at a table based on their age and each table included a 10-year range, there would be a table for ages 10 and under, but no adults would sit at this table.

RACIAL CONCENTRATION TYPOLOGIES

Rules, in order of consideration:

1. Any group 50% or more is "majority"
2. If two groups together constitute 80% or more of the tract population, those two groups are the (2-group) mixed majority
    - 2-group mixed are labeled in alphabetical order of groups, not by concentration. (see examples)
    - Where 2 groups do not add up to 80% but there is no additional group that meets the 10% or 15% threshold (rule #3 below), that tract is a 2-group majority. (see examples 3 and 4)
3. A concentration greater than 10% (11% or more) is considered a substantial concentration, except for White, which is substantial above 15% (16% or more).
4. Where the "2 or more races" category is greater than 10%, that tract is "Mixed" (even if there are only 2 other concentrations - see example 8).
    - Before 1980, when only Black, White, and Other populations are distinguished, the tract is "Mixed" if there is a substantial/majority concentration of "Other" (see example 9)
5. Beyond "3 Group Mixed," tract is considered diverse, and label is simplified to "Mixed"

Examples:

1. 19% White, 51% Black, 20% Asian, 10% Hispanic/Latinx is "Majority Black"

2. 42% White, 38% Black, 11% Asian, 7% Hispanic/Latinx, and 2% balance is "Black and White"
3. 29% White, 49% Black, 6% Asian, 10% Hispanic/Latinx, and 5% balance is "Black and White"
4. 29% White, 47% Black, 7% Asian, 8% Hispanic/Latinx, and 9% balance is "Black and White"
5. 40% White, 38% Black, 11% Asian, 7% Hispanic/Latinx, and 4% balance is "3 Group Mixed"
6. 15% White, 40% Black, 35% Asian, 10% Hispanic/Latinx is "Asian and Black"
7. 30% White, 28% Black, 22% Asian, 14% Hispanic/Latinx, and 6% balance is "Mixed"
8. 29% White, 40% Black, 5% Asian, 9% Hispanic/Latinx, 14% 2+ races, and 2% balance is "Mixed"
9. 1950: 48% White, 20% Black, 33% Other is "Mixed"

CENSUS TRACT RACIAL PLURALITIES

Racial pluralities (majority/greatest concentration or share of population) were assigned to each census tract based on demographic census information (2015-2019 ACS). For example, a tract with 52% white population is a white plurality. Even if the greatest concentration is not a majority (i.e., 50% or greater), the tract is assigned to that maximum concentration. Table A-3 below shows the pluralities determined for each tract that intersects with the City of Oakland.

Table A-4: Census Tract Racial Pluralities by 2019 Population

TRACT	PLURALITY	HISPANIC/ LATINX	NON-HISPANIC/LATINX						
			WHITE	BLACK	ASIAN	PACIFIC ISLAND	NATIVE AMERICAN/ ALASKAN	OTHER	2+ RACES
6001400100	White	4%	74%	3%	13%	-	-	-	6%
6001400200	White	9%	74%	3%	9%	-	0%	-	7%
6001400300	White	7%	68%	9%	12%	1%	-	2%	2%
6001400400	White	12%	64%	7%	11%	-	1%	-	6%
6001400500	White	10%	45%	21%	11%	1%	-	0%	12%
6001400600	White	8%	49%	21%	10%	1%	0%	2%	10%
6001400700	White	19%	38%	28%	6%	-	-	-	8%
6001400800	White	11%	44%	23%	15%	-	0%	-	7%
6001400900	White	16%	42%	29%	4%	-	3%	1%	6%
6001401000	White	19%	33%	30%	7%	2%	-	0%	9%
6001401100	White	11%	52%	8%	20%	0%	-	2%	7%
6001401200	White	12%	61%	11%	12%	-	0%	-	4%
6001401300	White	10%	38%	29%	17%	-	1%	-	6%
6001401400	Black	19%	26%	32%	12%	0%	2%	1%	8%
6001401500	Black	14%	37%	37%	5%	1%	-	-	6%
6001401600	Black	20%	29%	36%	10%	1%	-	-	4%
6001401700	White	27%	39%	17%	12%	0%	-	-	5%
6001401800	Black	20%	34%	38%	6%	-	0%	1%	1%
6001402200	Black	16%	30%	32%	16%	-	1%	-	5%

TRACT	PLURALITY	HISPANIC/ LATINX	NON-HISPANIC/LATINX						
			WHITE	BLACK	ASIAN	PACIFIC ISLAND	NATIVE AMERICAN/ ALASKAN	OTHER	2+ RACES
6001402400	Black	9%	24%	48%	13%	0%	-	-	5%
6001402500	Black	15%	11%	58%	13%	-	-	-	3%
6001402600	Asian	17%	14%	26%	39%	-	1%	-	4%
6001402700	Black	21%	23%	42%	11%	-	1%	1%	2%
6001402800	Black	6%	28%	38%	19%	-	1%	-	8%
6001402900	Asian	18%	22%	17%	38%	-	0%	1%	5%
6001403000	Asian	2%	7%	4%	81%	3%	0%	1%	2%
6001403100	Asian	13%	28%	18%	38%	1%	0%	0%	2%
6001403300	Asian	6%	26%	8%	52%	-	2%	-	6%
6001403400	White	8%	40%	19%	26%	1%	0%	1%	5%
6001403501	White	12%	38%	24%	19%	1%	1%	-	6%
6001403502	White	12%	42%	25%	11%	-	-	1%	9%
6001403600	Black	14%	29%	41%	9%	-	0%	1%	5%
6001403701	White	12%	43%	27%	13%	-	-	1%	4%
6001403702	White	10%	52%	15%	18%	-	-	1%	5%
6001403800	White	4%	68%	13%	12%	0%	-	-	4%
6001403900	White	7%	57%	14%	16%	-	0%	-	5%
6001404000	White	16%	55%	7%	10%	3%	1%	1%	7%
6001404101	White	7%	62%	8%	13%	-	0%	2%	8%
6001404102	White	10%	67%	5%	12%	1%	1%	1%	4%
6001404200	White	6%	62%	6%	19%	1%	0%	1%	5%
6001404300	White	12%	65%	2%	14%	-	-	1%	7%
6001404400	White	5%	67%	2%	13%	-	0%	-	12%
6001404501	White	7%	66%	7%	12%	1%	-	1%	7%
6001404502	White	8%	76%	1%	10%	-	-	-	6%
6001404600	White	5%	70%	4%	13%	2%	0%	1%	5%
6001404700	White	10%	70%	6%	11%	0%	-	-	3%
6001404800	White	14%	49%	16%	11%	-	0%	1%	8%
6001404900	White	12%	56%	10%	15%	1%	1%	0%	6%
6001405000	White	7%	62%	12%	11%	-	-	0%	8%
6001405100	White	3%	65%	14%	10%	-	-	0%	8%
6001405200	White	16%	38%	9%	32%	1%	0%	-	5%
6001405301	White	18%	53%	12%	10%	0%	-	-	7%
6001405302	Asian	8%	31%	13%	42%	-	0%	1%	5%
6001405401	Asian	23%	21%	16%	35%	-	-	1%	5%
6001405402	Asian	21%	17%	26%	28%	3%	0%	-	5%
6001405500	Asian	9%	21%	22%	42%	1%	1%	-	4%
6001405600	White	24%	27%	18%	22%	-	2%	1%	6%
6001405700	Asian	14%	14%	21%	46%	-	1%	2%	3%
6001405800	Asian	17%	15%	22%	43%	1%	1%	0%	2%

TRACT	PLURALITY	HISPANIC/ LATINX	NON-HISPANIC/LATINX						
			WHITE	BLACK	ASIAN	PACIFIC ISLAND	NATIVE AMERICAN/ ALASKAN	OTHER	2+ RACES
6001405901	Hispanic/Latinx	41%	4%	14%	37%	1%	1%	2%	1%
6001405902	Asian	25%	9%	12%	49%	-	1%	1%	4%
6001406000	Asian	24%	19%	14%	42%	0%	-	-	2%
6001406100	Hispanic/Latinx	57%	15%	9%	17%	1%	-	-	1%
6001406201	Hispanic/Latinx	42%	5%	21%	29%	0%	0%	1%	2%
6001406202	Hispanic/Latinx	60%	10%	14%	13%	-	2%	0%	2%
6001406300	Hispanic/Latinx	34%	13%	27%	24%	-	0%	-	3%
6001406400	White	22%	32%	21%	19%	1%	0%	-	7%
6001406500	Hispanic/Latinx	51%	12%	17%	14%	3%	-	0%	4%
6001406601	Hispanic/Latinx	36%	15%	20%	22%	-	0%	0%	7%
6001406602	Asian	28%	13%	16%	36%	0%	2%	-	5%
6001406700	White	14%	45%	15%	21%	-	1%	1%	4%
6001406800	White	25%	33%	11%	21%	-	0%	4%	5%
6001406900	White	10%	47%	19%	16%	0%	0%	-	7%
6001407000	Hispanic/Latinx	30%	13%	21%	25%	-	1%	-	10%
6001407101	Hispanic/Latinx	54%	5%	14%	25%	-	0%	-	2%
6001407102	Hispanic/Latinx	45%	10%	26%	14%	-	0%	-	5%
6001407200	Hispanic/Latinx	65%	10%	8%	14%	-	0%	0%	3%
6001407300	Hispanic/Latinx	64%	12%	11%	10%	1%	0%	-	3%
6001407400	Hispanic/Latinx	70%	2%	18%	7%	0%	-	-	3%
6001407500	Hispanic/Latinx	55%	4%	29%	7%	0%	0%	1%	4%
6001407600	Black	32%	17%	39%	8%	-	-	-	4%
6001407700	Black	16%	30%	43%	5%	0%	-	0%	5%
6001407800	White	20%	31%	24%	20%	0%	-	-	5%
6001407900	White	8%	50%	18%	16%	0%	-	2%	6%
6001408000	White	13%	55%	9%	19%	0%	0%	1%	4%
6001408100	White	10%	40%	24%	20%	-	-	-	6%
6001408200	Black	16%	18%	51%	5%	1%	1%	-	8%
6001408300	Black	22%	23%	37%	12%	1%	0%	-	5%
6001408400	Black	38%	7%	50%	2%	0%	-	0%	2%
6001408500	Hispanic/Latinx	54%	2%	37%	2%	2%	-	1%	3%
6001408600	Hispanic/Latinx	52%	3%	35%	4%	-	0%	-	5%
6001408700	Hispanic/Latinx	45%	8%	42%	2%	-	-	-	2%
6001408800	Hispanic/Latinx	47%	5%	38%	4%	5%	-	-	1%
6001408900	Hispanic/Latinx	66%	5%	21%	5%	1%	-	-	2%
6001409000	Hispanic/Latinx	54%	2%	35%	5%	0%	-	1%	4%
6001409100	Hispanic/Latinx	59%	2%	28%	4%	-	1%	-	6%
6001409200	Hispanic/Latinx	57%	3%	31%	7%	-	-	-	3%
6001409300	Hispanic/Latinx	65%	5%	25%	3%	1%	-	-	2%
6001409400	Hispanic/Latinx	70%	5%	15%	9%	0%	-	-	1%

TRACT	PLURALITY	HISPANIC/ LATINX	NON-HISPANIC/LATINX						
			WHITE	BLACK	ASIAN	PACIFIC ISLAND	NATIVE AMERICAN/ ALASKAN	OTHER	2+ RACES
6001409500	Hispanic/Latinx	65%	4%	25%	2%	2%	0%	1%	1%
6001409600	Hispanic/Latinx	57%	3%	33%	5%	1%	0%	1%	1%
6001409700	Hispanic/Latinx	58%	4%	32%	2%	0%	-	0%	4%
6001409800	Black	13%	20%	55%	4%	-	0%	2%	5%
6001409900	Black	8%	29%	47%	7%	-	-	1%	8%
6001410000	Black	9%	29%	40%	5%	1%	0%	1%	14%
6001410100	Black	18%	12%	56%	5%	1%	-	0%	9%
6001410200	Black	35%	2%	55%	3%	2%	1%	-	2%
6001410300	Hispanic/Latinx	66%	2%	25%	3%	1%	1%	1%	2%
6001410400	Hispanic/Latinx	48%	6%	34%	10%	-	0%	-	2%
6001410500	Black	10%	15%	61%	11%	1%	0%	0%	2%
6001421600	White	4%	74%	3%	13%	1%	-	-	6%
6001422000	White	7%	64%	11%	8%	-	-	1%	8%
6001422600	Asian	12%	39%	3%	44%	-	-	-	2%
6001422700	White	17%	45%	2%	29%	0%	1%	-	5%
6001423700	White	11%	61%	2%	20%	1%	0%	-	5%
6001423800	White	6%	79%	2%	7%	-	-	0%	5%
6001423901	White	14%	63%	11%	9%	-	0%	1%	2%
6001423902	White	6%	71%	3%	16%	-	-	0%	5%
6001424001	White	16%	47%	22%	8%	0%	0%	2%	4%
6001424002	Black	23%	27%	34%	10%	-	1%	0%	5%
6001425103	White	8%	44%	15%	26%	-	0%	-	7%
6001425104	White	14%	36%	27%	18%	0%	-	0%	5%
6001426100	White	2%	73%	1%	20%	-	-	-	4%
6001426200	White	7%	68%	2%	15%	0%	0%	0%	8%
6001428301	Asian	11%	32%	5%	44%	1%	0%	0%	8%
6001430102	White	12%	58%	2%	19%	1%	-	1%	7%
6001430400	White	12%	59%	2%	22%	0%	-	-	5%
6001432100	White	18%	45%	12%	19%	2%	-	1%	4%
6001432200	White	24%	35%	22%	12%	1%	0%	0%	6%
6001432300	Hispanic/Latinx	33%	19%	11%	28%	3%	0%	0%	6%
6001432400	Hispanic/Latinx	42%	17%	7%	30%	2%	-	-	3%
6001432502	Asian	30%	14%	13%	41%	-	0%	1%	1%
6001432700	White	26%	44%	6%	17%	1%	0%	0%	6%
6001432800	Asian	21%	29%	10%	34%	0%	0%	1%	4%
6001981900	White	14%	86%	-	-	-	-	-	-
6001982000	Black	13%	16%	37%	32%	-	3%	-	-
6001983200	White	8%	53%	9%	24%	1%	2%	1%	3%
6013352202	White	3%	71%	0%	19%	0%	-	-	6%
6013353001	White	3%	68%	3%	20%	-	-	-	7%

TRACT	PLURALITY	HISPANIC/ LATINX	NON-HISPANIC/LATINX						
			WHITE	BLACK	ASIAN	PACIFIC ISLAND	NATIVE AMERICAN/ ALASKAN	OTHER	2+ RACES
6013354001	White	3%	73%	-	16%	3%	-	-	5%

Source: ACS 2015-2019

CODE ENFORCEMENT COMPLAINTS BY RACE WITHIN CENSUS BLOCK GROUPS

This methodology was used because complaints data is anonymous and is not given by race.

Code enforcement complaints data is available as geolocated points, which are associated with certain parcels. Points were summarized by type of complaint (i.e., blight, housing habitability, or zoning) and the census block groups within which they are located. Using racial pluralities (see above) by census block group, the number of complaints was then tallied to compare the share of complaints by race with the share of the population.

DATA BY RACE WITHIN CENSUS TRACTS

For data available at the census tract level for which the data itself is not given by race.

The same methodology described above, except using census tract geography and information from ACS 2015-2019, was used.

COMPARISON WITH ALL-TRACT AVERAGE BY RACE

This methodology was used in favor of data by race within census tracts because the underlying data already represents a prevalence (rate), rather than raw counts (number of people).

Similar to the methodology described above, census tracts were assigned by racial plurality. The average across all census tracts was determined as a baseline for comparing tract averages by race (i.e., tract plurality). Tracts were then separated by racial plurality then averaged for each group. The ratio of the plurality's average over the all-tract average was calculated, then subtracted from the all-tract average to show the difference.

A.3 Screening Analysis Results

The following tables provide more detail about the screening analysis results discussed in Chapter 6.

- Table A-5 shows the overall summary of all census tracts in Oakland, in descending order by the composite score, and includes each tract's categorical scores.
- Table A-6 shows each tract's score for the 12 topics.
- Tables A-7 through A-9 list the top 25 tracts for each indicator by category.

Table A-5: Composite and Category Percentile Scores, All Tracts

			CATEGORY SCORES			
NO.	TRACT NAME	COMP. SCORE	RACE & POV.	POLLUTION BURDEN	SENSITIVE POPULATIONS	BUILT ENVIRON.
1	Lockwood/Coliseum/ Rudsdale	**100.0**	**99.0**	**91.0**	**100.0**	**100.0**
2	Prescott/Mandela Peralta	**77.9**	42.3	**93.7**	52.2	**99.0**
3	Hoover/Foster	**83.4**	61.2	**88.3**	57.7	**98.1**
4	Bunche/MLK Jr	66.0	45.9	75.8	47.7	**97.2**
5	Brookfield Village	**98.1**	**92.7**	**86.6**	**89.9**	**96.3**
6	Lower San Antonio West	**85.3**	76.5	61.6	74.3	**95.4**
7	Castlemont	69.7	**86.4**	11.6	**84.4**	**94.4**
8	Lower San Antonio East	**88.0**	**85.5**	66.9	75.2	**93.5**
9	Prescott	**78.8**	53.1	**78.5**	65.1	**92.6**
10	Stonehurst	**88.9**	**81.9**	54.4	**93.5**	**91.7**
11	Fitchburg	**95.4**	**80.1**	77.6	**95.4**	**90.8**
12	Longfellow	68.8	38.7	76.7	67.8	**89.9**
13	Elmhurst	**93.5**	**82.8**	75.0	**94.4**	**88.9**
14	San Antonio/Highland Terrace	61.4	66.6	29.4	54.1	**88.0**
15	Bancroft/Havenscourt East	**82.5**	**87.3**	40.1	**88.9**	**87.1**
16	Oakland Estuary	**86.2**	63.9	**96.4**	70.6	**86.2**
17	Acorn	**99.0**	**97.2**	**89.2**	**95.4**	**85.3**
18	Melrose	**87.1**	72.0	**100.0**	62.3	**84.4**
19	Arroyo Viejo	**81.6**	**90.0**	41.0	**85.3**	**83.4**
20	Clawson/Dogtown	**84.4**	52.2	**90.1**	**80.7**	**82.5**
21	Lower Laurel/Allendale	53.2	55.8	21.4	55.0	**81.6**
22	Chinatown	**94.4**	**98.1**	**84.8**	**78.8**	**80.7**
23	Seminary	**89.9**	**100.0**	52.6	**91.7**	**79.8**
24	Fremont District	**90.8**	**94.5**	66.0	**87.1**	**78.8**
25	McClymonds	77.0	58.5	**92.8**	56.8	**77.9**
26	Eastlake Clinton West	63.3	63.0	60.7	43.1	77.0
27	New Highland	**92.6**	**83.7**	73.2	**97.2**	76.1
28	Jack London Gateway	**91.7**	**96.3**	70.5	**88.0**	75.2
29	Harrington/Fruitvale	66.9	**81.0**	45.5	66.9	74.3
30	DeFremery/Oak Center	**96.3**	**93.6**	**91.9**	**92.6**	73.3
31	Bancroft/Havenscourt West	70.6	77.4	36.6	**90.8**	72.4

			CATEGORY SCORES			
NO.	TRACT NAME	COMP. SCORE	RACE & POV.	POLLUTION BURDEN	SENSITIVE POPULATIONS	BUILT ENVIRON.
32	Bunche/Oak Center	**79.8**	62.1	74.1	**86.2**	71.5
33	Eastmont	57.7	**78.3**	4.4	**79.8**	70.6
34	Port Upper	54.1	19.8	**95.5**	33.9	69.7
35	Ivy Hill	51.3	54.0	41.9	41.2	68.8
36	Eastlake Clinton East	55.9	65.7	52.6	41.2	67.8
37	Foothill Square/Toler Heights	48.6	49.5	16.9	69.7	66.9
38	Reservoir Hill/Meadow Brook	73.3	**79.2**	58.0	77.0	66.0
39	Brookfield Village/Hegenberger	**97.2**	**91.8**	**97.3**	**99.0**	65.1
40	Webster	67.8	**88.2**	23.2	**97.2**	64.2
41	Upper San Antonio/Highland Park	50.4	69.3	35.7	35.7	63.3
42	Santa Fe/North Oakland	45.8	36.9	59.8	39.4	62.3
43	Cox/Elmhurst	65.1	**90.9**	27.6	**82.5**	61.4
44	Fruitvale	72.4	74.7	71.4	72.4	60.5
45	Peralta/Hacienda	58.7	72.9	49.1	53.2	59.6
46	Las Palmas	56.8	**95.4**	17.8	58.7	58.7
47	Lower Dimond School	46.7	71.1	25.0	45.8	57.7
48	Jingletown/Kennedy	76.1	68.4	**99.1**	61.4	56.8
49	Fruitvale/Hawthorne	74.3	75.6	72.3	**77.9**	55.9
50	Uptown/Downtown	75.2	59.4	**85.7**	**83.4**	55.0
51	Pill Hill	64.2	54.9	**83.9**	67.8	54.1
52	Downtown	**80.7**	**84.6**	**87.5**	72.4	53.2
53	Golf Links	44.9	47.7	15.1	**81.6**	52.2
54	Chinatown/Laney	60.5	45.0	**94.6**	46.7	51.3
55	Eastmont Hills	44.0	46.8	14.2	76.1	50.4
56	Jefferson/Fruitvale	59.6	73.8	50.8	63.3	49.5
57	Eastlake	62.3	57.6	68.7	64.2	48.6
58	Fairfax/Lower Maxwell Park	42.2	48.6	48.2	40.3	47.7
59	Millsmont	39.4	64.8	1.7	65.1	46.7
60	Reservoir Hill/Manzanita	41.2	39.6	37.5	59.6	45.8
61	Sobrante Park	71.5	**89.1**	**83.0**	60.5	44.9
62	Oakland/Harrison West	55.0	56.7	**80.3**	44.9	44.0
63	San Antonio/Sausal Creek	52.2	70.2	43.7	55.9	43.1
64	Temescal West	34.8	27.9	63.3	24.7	42.2
65	Paradise Park/Golden Gate	40.3	32.4	69.6	37.6	41.2
66	Downtown/Old Oakland	47.7	44.1	**81.2**	34.8	40.3
67	Adams Point East	33.0	28.8	58.9	22.9	39.4

			CATEGORY SCORES			
NO.	TRACT NAME	COMP. SCORE	RACE & POV.	POLLUTION BURDEN	SENSITIVE POPULATIONS	BUILT ENVIRON.
68	Laurel/Upper Peralta Creek	37.6	67.5	18.7	51.3	38.5
69	Bushrod/Childrens Hospital	28.4	17.1	42.8	23.8	37.6
70	Gaskill	49.5	51.3	65.1	50.4	36.6
71	Mills College	24.7	40.5	9.8	22.0	35.7
72	Adams Point West	31.1	33.3	62.5	16.5	34.8
73	Bella Vista	36.6	60.3	44.6	33.0	33.9
74	Bushrod/North Oakland	22.0	18.0	34.8	12.8	33.0
75	Durant Manor	38.5	50.4	22.3	71.5	32.1
76	Lake Merritt	43.1	36.0	**82.1**	37.6	31.1
77	Oakland/Harrison East	33.9	34.2	67.8	18.3	30.2
78	Redwood Heights East	16.5	16.2	8.9	26.6	29.3
79	Cleveland Heights South	30.2	27.0	51.7	30.2	28.4
80	Chabot Park	29.3	23.4	30.3	47.7	27.5
81	Piedmont Ave Central	26.6	20.7	38.3	28.4	26.6
82	Piedmont Ave South	23.8	26.1	47.3	7.3	25.6
83	Temescal East	21.1	12.6	50.0	8.2	24.7
84	Shafter/Rockridge	18.3	4.5	33.9	25.6	23.8
85	Cleveland Heights North	32.1	37.8	56.2	31.1	22.9
86	Adams Point North	35.7	43.2	64.2	32.1	22.0
87	Maxwell Park	25.6	41.4	6.2	44.0	21.1
88	Upper Telegraph/Fairview Park	14.6	9.9	31.2	5.5	20.1
89	Sequoyah	27.5	24.3	24.1	49.5	19.2
90	Lakeshore	17.4	5.4	46.4	16.5	18.3
91	Glen Highlands	4.5	6.3	3.5	6.4	17.4
92	Redwood Heights Central	19.2	30.6	7.1	36.6	16.5
93	Piedmont Ave North	20.1	22.5	39.2	13.7	15.5
94	Oakmore North	6.4	3.6	10.7	11.0	14.6
95	Oakmore South	15.5	29.7	5.3	27.5	13.7
96	Panoramic Hill	8.2	0.9	32.1	2.7	12.8
97	Caballo Hills	11.9	18.9	8.0	21.1	11.9
98	Trestle Glen	13.7	11.7	28.5	11.9	11.0
99	Woodminster	1.8	14.4	0.0	4.5	10.0
100	Lincoln Highlands	12.8	31.5	2.6	19.2	9.1
101	Montclair North	3.6	0.0	16.0	9.1	8.2
102	Glenview	11.0	13.5	18.7	20.1	7.3
103	Piedmont Pines	0.9	2.7	13.3	2.7	6.4
104	Montclair South	2.7	7.2	20.5	0.0	5.5
105	Grand Lake	22.9	25.2	55.3	15.5	3.6

			CATEGORY SCORES			
NO.	TRACT NAME	COMP. SCORE	RACE & POV.	POLLUTION BURDEN	SENSITIVE POPULATIONS	BUILT ENVIRON.
106	Upper Piedmont Ave	10.0	10.8	33.0	10.0	3.6
107	Upper Rockridge	0.0	8.1	12.5	0.9	2.7
108	Redwood Heights West	9.1	21.6	0.8	29.3	1.8
109	Crocker Highland	5.5	9.0	26.7	1.8	0.9
110	Rockridge	7.3	1.8	25.8	14.6	0.0
111	Jack London Square	n/a	15.30	**98.2**	n/a	n/a
112	Acorn Industrial	n/a	35.10	**79.4**	n/a	n/a
113	Port Lower	n/a	n/a	56.2	n/a	n/a

Note:
1. Scores that appear in **bold** indicate that score is among the top 25 highest scores.

Table A-6: Topic Percentile Scores of all Tracts

	RACE & POVERTY		POLLUTION BURDEN				SENSITIVE POPULATIONS		BUILT ENVIRONMENT			
TRACT NAME	POC	LOW INCOME	AIR QUALITY	WATER	HAZ. MAT.	CLIMATE CHANGE	HEALTH	SOCIO-ECON.	TRANSP.	FOOD	HOUS-ING	NEIGH-BORHD.
Acorn	**99.0**	**97.2**	**89.2**	**95.4**	**85.3**	75.60	**100.0**	**89.2**	73.2	72.3	**91.9**	**88.0**
Acorn Industrial	n/a	35.10	**79.4**	n/a	n/a	63.90	0.0	36.6	**84.8**	77.6	**99.1**	n/a
Adams Point East	33.0	28.8	58.9	22.9	39.4	21.60	25.0	76.7	58.0	18.7	75.8	38.5
Adams Point North	35.7	43.2	64.2	32.1	22.0	45.90	25.0	**85.7**	57.1	33.0	70.5	43.1
Adams Point West	31.1	33.3	62.5	16.5	34.8	28.80	25.0	60.7	60.7	40.1	76.7	7.3
Arroyo Viejo	**81.6**	**90.0**	41.0	**85.3**	**83.4**	**95.40**	**75.0**	44.6	18.7	64.2	20.5	**88.9**
Bancroft/Havenscourt East	**82.5**	**87.3**	40.1	**88.9**	**87.1**	**92.70**	**75.0**	39.2	28.5	58.0	20.5	**92.6**
Bancroft/Havenscourt West	70.6	77.4	36.6	**90.8**	72.4	**80.10**	75.0	35.7	32.1	51.7	20.5	**78.8**
Bella Vista	36.6	60.3	44.6	33.0	33.9	51.30	75.0	69.6	39.2	11.6	41.0	30.2
Brookfield Village	**98.1**	**92.7**	**86.6**	**89.9**	**96.3**	**98.10**	**75.0**	**96.4**	49.1	**83.0**	**83.9**	**97.2**
Brookfield Village/Hegenberger	**97.2**	**91.8**	**97.3**	**99.0**	65.1	**97.20**	**75.0**	74.1	**95.5**	**99.1**	**98.2**	**95.4**
Bunche/MLK Jr	66.0	45.9	75.8	47.7	**97.2**	54.90	25.0	**79.4**	**92.8**	56.2	53.5	71.5
Bunche/Oak Center	**79.8**	62.1	74.1	**86.2**	71.5	54.00	75.0	51.7	76.7	54.4	**95.5**	**86.2**
Bushrod/Childrens Hospital	28.4	17.1	42.8	23.8	37.6	24.30	0.0	48.2	17.8	37.5	53.5	39.4
Bushrod/North Oakland	22.0	18.0	34.8	12.8	33.0	26.10	0.0	25.8	20.5	39.2	53.5	22.0
Caballo Hills	11.9	18.9	8.0	21.1	11.9	31.50	0.0	8.0	16.9	26.7	0.0	22.9
Castlemont	69.7	**86.4**	11.6	**84.4**	**94.4**	**91.80**	**75.0**	11.6	7.1	32.1	20.5	**94.4**
Chabot Park	29.3	23.4	30.3	47.7	27.5	46.80	0.0	13.3	46.4	63.3	4.4	66.0
Chinatown	**94.4**	**98.1**	**84.8**	**78.8**	**80.7**	**81.90**	**100.0**	**82.1**	**88.3**	**85.7**	53.5	46.7
Chinatown/Laney	60.5	45.0	**94.6**	46.7	51.3	52.20	25.0	**84.8**	**96.4**	**84.8**	**91.0**	33.0
Clawson/Dogtown	**84.4**	52.2	**90.1**	**80.7**	**82.5**	37.80	50.0	**78.5**	**81.2**	**90.1**	**92.8**	**85.3**

	RACE & POVERTY		POLLUTION BURDEN				SENSITIVE POPULATIONS		BUILT ENVIRONMENT			
TRACT NAME	POC	LOW INCOME	AIR QUALITY	WATER	HAZ. MAT.	CLIMATE CHANGE	HEALTH	SOCIO-ECON.	TRANSP.	FOOD	HOUS-ING	NEIGH-BORHD.
Cleveland Heights North	32.1	37.8	56.2	31.1	22.9	36.00	25.0	77.6	56.2	16.0	74.1	27.5
Cleveland Heights South	30.2	27.0	51.7	30.2	28.4	19.80	25.0	42.8	53.5	16.0	**80.3**	35.7
Cox/Elmhurst	65.1	**90.9**	27.6	**82.5**	61.4	**96.30**	**75.0**	34.8	16.0	45.5	20.5	73.3
Crocker Highland	5.5	9.0	26.7	1.8	0.9	9.90	0.0	29.4	38.3	24.1	20.5	8.2
DeFremery/Oak Center	**96.3**	**93.6**	**91.9**	**92.6**	73.3	65.70	**100.0**	**83.0**	**83.0**	**93.7**	**93.7**	**90.8**
Downtown	**80.7**	**84.6**	**87.5**	72.4	53.2	56.70	**100.0**	66.0	**85.7**	**80.3**	**81.2**	56.8
Downtown/Old Oakland	47.7	44.1	**81.2**	34.8	40.3	50.40	25.0	71.4	**87.5**	**86.6**	53.5	20.1
Durant Manor	38.5	50.4	22.3	71.5	32.1	**82.80**	25.0	16.0	22.3	42.8	20.5	**81.6**
Eastlake	62.3	57.6	68.7	64.2	48.6	43.20	75.0	58.0	66.0	52.6	**84.8**	36.6
Eastlake Clinton East	55.9	65.7	52.6	41.2	67.8	62.10	75.0	70.5	67.8	22.3	41.0	41.2
Eastlake Clinton West	63.3	63.0	60.7	43.1	77.0	58.50	75.0	64.2	70.5	25.0	71.4	32.1
Eastmont	57.7	**78.3**	4.4	**79.8**	70.6	**81.00**	**75.0**	18.7	14.2	8.0	4.4	**92.6**
Eastmont Hills	44.0	46.8	14.2	76.1	50.4	55.80	25.0	33.9	2.6	36.6	4.4	76.1
Elmhurst	**93.5**	**82.8**	75.0	**94.4**	**88.9**	**88.20**	**75.0**	67.8	48.2	**92.8**	72.3	**89.9**
Fairfax/Lower Maxwell Park	42.2	48.6	48.2	40.3	47.7	63.00	25.0	31.2	53.5	70.5	20.5	69.7
Fitchburg	**95.4**	**80.1**	77.6	**95.4**	**90.8**	**85.50**	**75.0**	65.1	52.6	**95.5**	**82.1**	**91.7**
Foothill Square/Toler Heights	48.6	49.5	16.9	69.7	66.9	72.90	25.0	28.5	23.2	29.4	4.4	68.8
Fremont District	**90.8**	**94.5**	66.0	**87.1**	**78.8**	**99.00**	**75.0**	**80.3**	66.0	**82.1**	20.5	65.1
Fruitvale	72.4	74.7	71.4	72.4	60.5	77.40	75.0	**90.1**	**82.1**	76.7	20.5	59.6
Fruitvale/Hawthorne	74.3	75.6	72.3	**77.9**	55.9	**78.30**	75.0	**95.5**	76.7	61.6	41.0	58.7
Gaskill	49.5	51.3	65.1	50.4	36.6	30.60	50.0	53.5	71.4	55.3	66.9	63.3
Glen Highlands	4.5	6.3	3.5	6.4	17.4	6.30	0.0	4.4	0.0	30.3	4.4	9.1
Glenview	11.0	13.5	18.7	20.1	7.3	16.20	0.0	26.7	35.7	11.6	20.5	26.6

	RACE & POVERTY		POLLUTION BURDEN				SENSITIVE POPULATIONS		BUILT ENVIRONMENT			
TRACT NAME	POC	LOW INCOME	AIR QUALITY	WATER	HAZ. MAT.	CLIMATE CHANGE	HEALTH	SOCIO-ECON.	TRANSP.	FOOD	HOUS-ING	NEIGH-BORHD.
Golf Links	44.9	47.7	15.1	**81.6**	52.2	59.40	25.0	27.6	1.7	47.3	4.4	**99.0**
Grand Lake	22.9	25.2	55.3	15.5	3.6	15.30	25.0	61.6	41.0	46.4	73.2	16.5
Harrington/Fruitvale	66.9	**81.0**	45.5	66.9	74.3	**86.40**	**75.0**	46.4	58.9	35.7	20.5	55.9
Hoover/Foster	**83.4**	61.2	**88.3**	57.7	**98.1**	53.10	75.0	**98.2**	**93.7**	70.5	53.5	66.9
Ivy Hill	51.3	54.0	41.9	41.2	68.8	57.60	50.0	41.9	65.1	8.9	41.0	44.9
Jack London Gateway	**91.7**	**96.3**	70.5	**88.0**	75.2	68.40	**100.0**	73.2	72.3	66.9	53.5	64.2
Jack London Square	n/a	15.30	**98.2**	n/a	n/a	18.90	0.0	**88.3**	**97.3**	**91.9**	**90.1**	n/a
Jefferson/Fruitvale	59.6	73.8	50.8	63.3	49.5	76.50	75.0	40.1	61.6	67.8	20.5	57.7
Jingletown/Kennedy	76.1	68.4	**99.1**	61.4	56.8	67.50	75.0	**100.0**	**100.0**	**94.6**	**79.4**	45.8
Lake Merritt	43.1	36.0	**82.1**	37.6	31.1	32.40	25.0	47.3	**90.1**	**83.9**	**78.5**	28.4
Lakeshore	17.4	5.4	46.4	16.5	18.3	5.40	0.0	32.1	33.0	28.5	75.0	23.8
Las Palmas	56.8	**95.4**	17.8	58.7	58.7	**100.00**	**75.0**	16.9	25.0	26.7	20.5	**87.1**
Laurel/Upper Peralta Creek	37.6	67.5	18.7	51.3	38.5	66.60	75.0	49.1	41.0	0.0	4.4	37.6
Lincoln Highlands	12.8	31.5	2.6	19.2	9.1	27.00	25.0	5.3	26.7	1.7	4.4	6.4
Lockwood/Coliseum/ Rudsdale	**100.0**	**99.0**	**91.0**	**100.0**	**100.0**	**83.70**	**100.0**	**87.5**	**80.3**	**88.3**	**87.5**	**100.0**
Longfellow	68.8	38.7	76.7	67.8	**89.9**	39.60	25.0	**97.3**	**79.4**	59.8	53.5	**84.4**
Lower Dimond School	46.7	71.1	25.0	45.8	57.7	72.00	75.0	54.4	33.9	1.7	20.5	25.6
Lower Laurel/Allendale	53.2	55.8	21.4	55.0	**81.6**	70.20	50.0	57.1	37.5	1.7	4.4	55.0
Lower San Antonio East	**88.0**	**85.5**	66.9	75.2	**93.5**	**90.90**	**75.0**	**92.8**	**91.0**	31.2	41.0	47.7
Lower San Antonio West	**85.3**	76.5	61.6	74.3	**95.4**	**79.20**	75.0	75.8	**83.9**	34.8	41.0	42.2
Maxwell Park	25.6	41.4	6.2	44.0	21.1	44.10	25.0	15.1	3.5	25.8	4.4	61.4
McClymonds	77.0	58.5	**92.8**	56.8	**77.9**	48.60	75.0	**83.9**	**86.6**	**87.5**	**96.4**	62.3
Melrose	**87.1**	72.0	**100.0**	62.3	**84.4**	73.80	75.0	**99.1**	**99.1**	**97.3**	**89.2**	**82.5**

	RACE & POVERTY		POLLUTION BURDEN				SENSITIVE POPULATIONS		BUILT ENVIRONMENT			
TRACT NAME	POC	LOW INCOME	AIR QUALITY	WATER	HAZ. MAT.	CLIMATE CHANGE	HEALTH	SOCIO-ECON.	TRANSP.	FOOD	HOUS-ING	NEIGH-BORHD.
Mills College	24.7	40.5	9.8	22.0	35.7	42.30	25.0	41.0	9.8	1.7	4.4	21.1
Millsmont	39.4	64.8	1.7	65.1	46.7	61.20	75.0	14.2	8.0	7.1	4.4	**83.4**
Montclair North	3.6	0.0	16.0	9.1	8.2	0.00	0.0	0.0	12.5	69.6	0.0	11.0
Montclair South	2.7	7.2	20.5	0.0	5.5	8.10	0.0	7.1	15.1	68.7	4.4	0.9
New Highland	**92.6**	**83.7**	73.2	**97.2**	76.1	**89.10**	**75.0**	56.2	47.3	**96.4**	77.6	**96.3**
Oakland Estuary	**86.2**	63.9	**96.4**	70.6	**86.2**	60.30	75.0	**94.6**	**98.2**	**89.2**	**83.0**	52.2
Oakland/Harrison East	33.9	34.2	67.8	18.3	30.2	29.70	25.0	62.5	64.2	43.7	**86.6**	15.5
Oakland/Harrison West	55.0	56.7	**80.3**	44.9	44.0	36.90	75.0	72.3	75.8	62.5	**88.3**	33.9
Oakmore North	6.4	3.6	10.7	11.0	14.6	3.60	0.0	2.6	19.6	38.3	4.4	2.7
Oakmore South	15.5	29.7	5.3	27.5	13.7	23.40	25.0	8.9	30.3	1.7	4.4	29.3
Panoramic Hill	8.2	0.9	32.1	2.7	12.8	0.90	0.0	3.5	26.7	**81.2**	20.5	3.6
Paradise Park/Golden Gate	40.3	32.4	69.6	37.6	41.2	27.90	25.0	50.0	74.1	73.2	66.9	72.4
Peralta/Hacienda	58.7	72.9	49.1	53.2	59.6	74.70	75.0	55.3	69.6	41.9	20.5	51.3
Piedmont Ave Central	26.6	20.7	38.3	28.4	26.6	7.20	25.0	23.2	29.4	50.0	41.0	13.7
Piedmont Ave North	20.1	22.5	39.2	13.7	15.5	11.70	25.0	22.3	31.2	50.8	41.0	12.8
Piedmont Ave South	23.8	26.1	47.3	7.3	25.6	17.10	25.0	37.5	36.6	57.1	41.0	0.0
Piedmont Pines	0.9	2.7	13.3	2.7	6.4	2.70	0.0	0.8	12.5	60.7	0.0	1.8
Pill Hill	64.2	54.9	**83.9**	67.8	54.1	34.20	75.0	**91.0**	**94.6**	65.1	53.5	74.3
Port Lower	n/a	n/a	56.2	n/a	n/a	n/a	0.0	30.3	61.6	65.1	66.9	n/a
Port Upper	54.1	19.8	**95.5**	33.9	69.7	33.30	0.0	75.0	**89.2**	**100.0**	**100.0**	53.2
Prescott	**78.8**	53.1	**78.5**	65.1	**92.6**	38.70	50.0	43.7	67.8	**91.0**	**94.6**	**80.7**
Prescott/Mandela Peralta	**77.9**	42.3	**93.7**	52.2	**99.0**	45.00	25.0	**81.2**	**78.5**	**98.2**	**97.3**	70.6
Redwood Heights Central	19.2	30.6	7.1	36.6	16.5	25.20	25.0	21.4	4.4	19.6	4.4	40.3

	RACE & POVERTY		POLLUTION BURDEN				SENSITIVE POPULATIONS		BUILT ENVIRONMENT			
TRACT NAME	POC	LOW INCOME	AIR QUALITY	WATER	HAZ. MAT.	CLIMATE CHANGE	HEALTH	SOCIO-ECON.	TRANSP.	FOOD	HOUS-ING	NEIGH-BORHD.
Redwood Heights East	16.5	16.2	8.9	26.6	29.3	22.50	0.0	24.1	6.2	19.6	4.4	31.1
Redwood Heights West	9.1	21.6	0.8	29.3	1.8	40.50	0.0	12.5	8.9	0.8	4.4	17.4
Reservoir Hill/Manzanita	41.2	39.6	37.5	59.6	45.8	41.40	25.0	59.8	51.7	8.9	20.5	48.6
Reservoir Hill/Meadow Brook	73.3	**79.2**	58.0	77.0	66.0	**84.60**	**75.0**	68.7	75.0	41.0	41.0	67.8
Rockridge	7.3	1.8	25.8	14.6	0.0	1.80	0.0	17.8	25.8	15.1	53.5	19.2
San Antonio/Highland Terrace	61.4	66.6	29.4	54.1	**88.0**	64.80	75.0	33.0	40.1	10.7	41.0	49.5
San Antonio/Sausal Creek	52.2	70.2	43.7	55.9	43.1	71.10	75.0	58.9	59.8	21.4	20.5	50.4
Santa Fe/North Oakland	45.8	36.9	59.8	39.4	62.3	35.10	25.0	52.6	63.3	48.2	66.9	54.1
Seminary	**89.9**	**100.0**	52.6	**91.7**	**79.8**	**90.00**	**100.0**	66.9	55.3	58.9	20.5	**79.8**
Sequoyah	27.5	24.3	24.1	49.5	19.2	47.70	0.0	9.8	24.1	75.8	0.0	75.2
Shafter/Rockridge	18.3	4.5	33.9	25.6	23.8	4.50	0.0	25.0	21.4	33.9	53.5	24.7
Sobrante Park	71.5	**89.1**	**83.0**	60.5	44.9	**94.50**	**75.0**	**91.9**	44.6	**78.5**	**85.7**	**77.9**
Stonehurst	**88.9**	**81.9**	54.4	**93.5**	**91.7**	**87.30**	**75.0**	45.5	50.0	75.0	41.0	77.0
Temescal East	21.1	12.6	50.0	8.2	24.7	14.40	0.0	50.8	41.0	44.6	53.5	14.6
Temescal West	34.8	27.9	63.3	24.7	42.2	20.70	25.0	**93.7**	45.5	49.1	53.5	44.0
Trestle Glen	13.7	11.7	28.5	11.9	11.0	13.50	0.0	38.3	50.8	11.6	20.5	18.3
Upper Piedmont Ave	10.0	10.8	33.0	10.0	3.6	12.60	0.0	6.2	10.7	74.1	41.0	5.5
Upper Rockridge	0.0	8.1	12.5	0.9	2.7	9.00	0.0	10.7	5.3	16.0	41.0	4.5
Upper San Antonio/Highland Park	50.4	69.3	35.7	35.7	63.3	69.30	75.0	63.3	43.7	11.6	20.5	34.8

	RACE & POVERTY		POLLUTION BURDEN				SENSITIVE POPULATIONS		BUILT ENVIRONMENT			
TRACT NAME	POC	LOW INCOME	AIR QUALITY	WATER	HAZ. MAT.	CLIMATE CHANGE	HEALTH	SOCIO-ECON.	TRANSP.	FOOD	HOUS-ING	NEIGH-BORHD.
Upper Telegraph/Fairview Park	14.6	9.9	31.2	5.5	20.1	10.80	0.0	19.6	34.8	23.2	53.5	11.9
Uptown/Downtown	75.2	59.4	**85.7**	**83.4**	55.0	49.50	75.0	**86.6**	**91.9**	**79.4**	53.5	60.5
Webster	67.8	**88.2**	23.2	**97.2**	64.2	**93.60**	**75.0**	20.5	11.6	53.5	20.5	**98.1**
Woodminster	1.8	14.4	0.0	4.5	10.0	18.00	0.0	1.7	0.8	1.7	0.0	10.0

Note:
1. Scores that appear in **bold** indicate that score is among the top 25 highest scores.

Table A-7: Top 25 Tracts for Race/Poverty and Pollution Burden Indicators

	RACE & POVERTY			POLLUTION BURDEN											TALLY
TRACT NAME	POC	LIA, MED	LIA, HCD	$PM_{2.5}$	DPM	TRAF-FIC	LEAD	TOXIC	GW	IWB	CLEAN UP	HAZ. WAS	SOL. WAS	UHI	SLR	
Acorn			•		•				•		•	•		•		6
Acorn Industrial					•				•		•	•		•	•	6
Adams Point East				•		•				•					•	4
Adams Point North						•										1
Adams Point West				•											•	2
Arroyo Viejo	•						•									2
Bancroft/Havenscourt East	•						•									2
Bancroft/Havenscourt West	•						•						•			3
Bella Vista						•				•						2
Brookfield Village	•					•	•	•		•	•		•			7
Brookfield Village/Hegenberger	•					•	•	•		•	•	•	•	•	•	10
Bunche/MLK Jr				•	•				•	•						4
Bunche/Oak Center					•				•					•	•	4
Bushrod/Childrens Hospital								•								1
Bushrod/North Oakland								•								1
Caballo Hills																0
Castlemont	•															1
Chabot Park						•							•			2
Chinatown	•		•	•	•				•	•	•		•			8
Chinatown/Laney				•	•				•	•	•		•		•	7
Clawson/Dogtown				•	•			•	•		•		•	•		7
Cleveland Heights North						•				•					•	3
Cleveland Heights South										•					•	2

	RACE & POVERTY			POLLUTION BURDEN												TALLY
TRACT NAME	POC	LIA, MED	LIA, HCD	$PM_{2.5}$	DPM	TRAF-FIC	LEAD	TOXIC	GW	IWB	CLEAN UP	HAZ. WAS	SOL. WAS	UHI	SLR	
Cox/Elmhurst	•						•									2
Crocker Highland						•										1
DeFremery/Oak Center			•		•		•		•		•	•		•	•	8
Downtown			•	•	•				•	•		•				6
Downtown/Old Oakland				•	•				•	•	•	•				6
Durant Manor	•															1
Eastlake				•	•					•					•	4
Eastlake Clinton East							•			•						2
Eastlake Clinton West				•	•					•						3
Eastmont	•						•									2
Eastmont Hills						•										1
Elmhurst	•						•					•	•			4
Fairfax/Lower Maxwell Park																0
Fitchburg	•							•			•	•	•		•	6
Foothill Square/Toler Heights						•										1
Fremont District	•			•			•						•			4
Fruitvale				•			•			•						3
Fruitvale/Hawthorne	•			•			•			•						4
Gaskill								•						•		2
Glen Highlands								•					•			2
Glenview																0
Golf Links						•										1
Grand Lake						•						•				2
Harrington/Fruitvale	•									•						2
Hoover/Foster				•	•				•	•	•	•				6
Ivy Hill										•						1

	RACE & POVERTY			POLLUTION BURDEN												TALLY
TRACT NAME	POC	LIA, MED	LIA, HCD	$PM_{2.5}$	DPM	TRAF-FIC	LEAD	TOXIC	GW	IWB	CLEAN UP	HAZ. WAS	SOL. WAS	UHI	SLR	
Jack London Gateway			•		•							•				3
Jack London Square				•	•	•			•	•	•	•			•	8
Jefferson/Fruitvale							•			•						2
Jingletown/Kennedy				•		•			•	•	•		•		•	7
Lake Merritt				•					•	•			•		•	5
Lakeshore															•	1
Las Palmas	•						•									2
Laurel/Upper Peralta Creek						•										1
Lincoln Highlands																0
Lockwood/Coliseum/Ruds dale	•		•				•	•		•	•		•		•	8
Longfellow				•	•			•	•							4
Lower Dimond School																0
Lower Laurel/Allendale																0
Lower San Antonio East	•			•	•		•			•						5
Lower San Antonio West	•			•			•			•						4
Maxwell Park																0
McClymonds					•				•		•		•	•	•	6
Melrose				•		•	•		•	•	•	•	•		•	9
Mills College						•										1
Millsmont																0
Montclair North													•			1
Montclair South																0
New Highland	•						•	•			•	•	•		•	7
Oakland Estuary				•	•	•			•	•	•	•			•	8
Oakland/Harrison East																0
Oakland/Harrison West				•					•			•			•	4

	RACE & POVERTY			POLLUTION BURDEN												TALLY
TRACT NAME	POC	LIA, MED	LIA, HCD	$PM_{2.5}$	DPM	TRAF-FIC	LEAD	TOXIC	GW	IWB	CLEAN UP	HAZ. WAS	SOL. WAS	UHI	SLR	
Oakmore North																0
Oakmore South																0
Panoramic Hill								•				•	•			3
Paradise Park/Golden Gate								•	•		•	•		•		5
Peralta/Hacienda										•						1
Piedmont Ave Central								•								1
Piedmont Ave North								•				•				2
Piedmont Ave South								•				•				2
Piedmont Pines													•			1
Pill Hill				•	•	•			•	•		•				6
Port Lower					•						•	•			•	4
Port Upper					•	•			•		•	•	•	•	•	8
Prescott					•						•		•	•	•	5
Prescott/Mandela Peralta					•				•		•	•	•	•	•	7
Redwood Heights Central																0
Redwood Heights East						•										1
Redwood Heights West																0
Reservoir Hill/Manzanita						•				•						2
Reservoir Hill/Meadow Brook	•						•			•						3
Rockridge								•								1
San Antonio/Highland Terrace										•						1
San Antonio/Sausal Creek							•			•						2
Santa Fe/North Oakland								•						•		2
Seminary	•		•				•						•			4
Sequoyah													•			1
Shafter/Rockridge								•								1

	RACE & POVERTY			POLLUTION BURDEN												TALLY
TRACT NAME	POC	LIA, MED	LIA, HCD	$PM_{2.5}$	DPM	TRAF-FIC	LEAD	TOXIC	GW	IWB	CLEAN UP	HAZ. WAS	SOL. WAS	UHI	SLR	
Sobrante Park	•					•		•		•	•		•			**6**
Stonehurst	•						•				•		•			**4**
Temescal East								•								**1**
Temescal West						•		•	•							**3**
Trestle Glen						•										**1**
Upper Piedmont Ave								•					•			**2**
Upper Rockridge								•								**1**
Upper San Antonio/Highland Park										•						**1**
Upper Telegraph/Fairview Park								•								**1**
Uptown/Downtown				•	•				•	•		•				**5**
Webster	•						•									**2**
Woodminster			•		•				•		•	•		•		**6**

POC = People of Color LIA = Low-Income Area MED = Statewide Median PM = Particulate Matter DPM = Diesel PM
GW = Groundwater Threats IWB = Impaired Water Bodies UHI = Urban Heat Island SLR = Sea Level Rise

Notes:
"•" indicates the tract is among the top 25 highest scores for that indicator, with some exceptions:
1. Low-income indicators were a "yes/no" indicator, meaning all tracts were either zero or a non-zero value, and all non-zero values are tied.
2. Impaired water bodies has many ties, with 11 tracts representing the top 7 values (all above the 90th percentile). The next greatest score is an 11-way tie for 68th percentile.
3. The underlying data for urban heat island is an index ranging from 4 to 9; all tracts selected as top tracts had the highest value of 9, or a percentile score of 89.

Table A-8: Top 25 Census Tracts for Sensitive Populations Indicators

TRACT	AAS	PAS	LEB	LBW	MOR	CDV	CAN	INS	HFA	LIN	EDU	DIS	CHI	SEN	INC	UNE	DYO	INT	TALLY
Acorn	•	•	•	•	•								•		•	•	•		9
Acorn Industrial		•			•						•								3
Adams Point East																			0
Adams Point North					•														1
Adams Point West		•			•		•							•					4
Arroyo Viejo	•		•			•		•			•		•					•	7
Bancroft/Havenscourt East	•			•		•		•			•		•		•			•	8
Bancroft/Havenscourt West	•		•			•		•					•				•	•	7
Bella Vista				•															1
Brookfield Village	•		•			•		•			•		•					•	7
Brookfield Village/Hegenberger	•		•	•		•		•					•		•				7
Bunche/MLK Jr		•		•	•							•							4
Bunche/Oak Center		•			•				•	•		•			•			•	7
Bushrod/Childrens Hospital																			0
Bushrod/North Oakland																	•		1
Caballo Hills							•		•					•					3
Castlemont	•		•	•				•	•		•				•			•	8
Chabot Park						•	•		•				•	•					5
Chinatown		•			•		•			•	•	•		•	•	•		•	10
Chinatown/Laney		•			•					•		•		•				•	6
Clawson/Dogtown		•	•	•	•							•					•		6
Cleveland Heights North																	•		1
Cleveland Heights South																			0
Cox/Elmhurst	•		•			•		•			•		•			•	•		8
Crocker Highland							•		•					•					3
DeFremery/Oak Center	•	•		•	•								•		•	•			7
Downtown		•	•		•					•		•		•	•			•	8

TRACT	AAS	PAS	LEB	LBW	MOR	CDV	CAN	INS	HFA	LIN	EDU	DIS	CHI	SEN	INC	UNE	DYO	INT	TALLY
Downtown/Old Oakland		•			•					•							•		**4**
Durant Manor				•		•										•			**3**
Eastlake		•			•					•		•		•	•		•		**7**
Eastlake Clinton East										•									**1**
Eastlake Clinton West										•									**1**
Eastmont	•		•	•		•									•				**5**
Eastmont Hills						•			•			•				•			**4**
Elmhurst	•		•			•		•	•	•	•		•		•		•	•	**11**
Fairfax/Lower Maxwell Park																			**0**
Fitchburg	•		•			•		•			•		•		•			•	**8**
Foothill Square/Toler Heights	•					•							•			•	•		**5**
Fremont District			•			•		•		•	•		•			•	•	•	**9**
Fruitvale						•		•		•	•				•	•		•	**7**
Fruitvale/Hawthorne			•			•		•		•	•				•			•	**7**
Gaskill				•													•		**2**
Glen Highlands							•		•					•					**3**
Glenview							•		•				•	•					**4**
Golf Links	•		•	•		•	•		•			•					•		**8**
Grand Lake																	•		**1**
Harrington/Fruitvale								•		•	•		•					•	**5**
Hoover/Foster	•	•			•							•							**4**
Ivy Hill				•															**1**
Jack London Gateway		•			•					•		•		•	•	•		•	**8**
Jack London Square		•			•												•		**3**
Jefferson/Fruitvale										•			•					•	**3**
Jingletown/Kennedy								•		•	•		•					•	**5**
Lake Merritt		•			•							•		•			•		**5**
Lakeshore																	•		**1**

TRACT	AAS	PAS	LEB	LBW	MOR	CDV	CAN	INS	HFA	LIN	EDU	DIS	CHI	SEN	INC	UNE	DYO	INT	TALLY
Las Palmas	•		•	•															3
Laurel/Upper Peralta Creek													•						1
Lincoln Highlands							•					•		•					3
Lockwood/Coliseum/Rudsdale	•		•	•		•		•			•		•		•	•		•	10
Longfellow	•	•			•							•					•		5
Lower Dimond School													•						1
Lower Laurel/Allendale				•						•									2
Lower San Antonio East								•		•	•				•	•			5
Lower San Antonio West								•		•	•	•			•	•		•	7
Maxwell Park				•			•					•							3
McClymonds		•	•	•	•							•				•			6
Melrose								•	•		•					•			4
Mills College	•															•			2
Millsmont	•			•		•													3
Montclair North							•		•				•						3
Montclair South							•							•					2
New Highland	•		•			•		•	•		•		•		•			•	9
Oakland Estuary		•			•					•		•			•	•			6
Oakland/Harrison East		•			•														2
Oakland/Harrison West		•			•					•		•					•		5
Oakmore North							•		•					•			•		4
Oakmore South							•		•										2
Panoramic Hill							•		•					•					3
Paradise Park/Golden Gate				•															1
Peralta/Hacienda								•							•	•			3
Piedmont Ave Central							•					•		•					3
Piedmont Ave North							•										•		2
Piedmont Ave South																	•		1

TRACT	AAS	PAS	LEB	LBW	MOR	CDV	CAN	INS	HFA	LIN	EDU	DIS	CHI	SEN	INC	UNE	DYO	INT	TALLY
Piedmont Pines							•		•					•					**3**
Pill Hill		•			•							•							**3**
Port Lower		•																	**1**
Port Upper		•			•														**2**
Prescott	•		•	•															**3**
Prescott/Mandela Peralta				•															**1**
Redwood Heights Central																	•		**1**
Redwood Heights East							•		•										**2**
Redwood Heights West													•						**1**
Reservoir Hill/Manzanita			•				•					•		•					**4**
Reservoir Hill/Meadow Brook								•		•	•		•		•	•			**6**
Rockridge							•		•					•			•		**4**
San Antonio/Highland Terrace										•	•								**2**
San Antonio/Sausal Creek						•				•		•				•			**4**
Santa Fe/North Oakland																			**0**
Seminary	•		•					•		•	•				•	•		•	**8**
Sequoyah				•		•	•		•					•					**5**
Shafter/Rockridge																			**0**
Sobrante Park	•		•	•				•			•								**5**
Stonehurst	•		•			•		•			•	•	•		•	•		•	**10**
Temescal East																			**0**
Temescal West																			**0**
Trestle Glen							•		•					•					**3**
Upper Piedmont Ave							•		•							•			**3**
Upper Rockridge							•		•					•					**3**
Upper San Antonio/Highland Park																•			**1**
Upper Telegraph/Fairview Park																			**0**
Uptown/Downtown		•			•							•		•	•	•		•	**7**

Appendix

TRACT	AAS	PAS	LEB	LBW	MOR	CDV	CAN	INS	HFA	LIN	EDU	DIS	CHI	SEN	INC	UNE	DYO	INT	TALLY
Webster	•		•	•		•		•	•		•					•	•	•	**10**
Woodminster							•		•					•					**3**

AAs = Adult Asthma PAs = Pediatric Asthma LEB = Life Expectancy at Birth LBW = Low Birth Weight Mor = Mortality CDV = Cardiovascular Disease
Can = Cancer Ins = Health Insurance HFa = Health Facilities Lin = Linguistic Isolation Edu = Educational Attainment Dis = Population with a Disability
Chi = Young Children Sen = Senior Population Inc = Median Household Income Une = Unemployment DYo = Disconnected Youth Int = Internet Access

Note:
1. Some indicators may have more than 25 top scoring tracts due to ties.

Table A-9: Top 25 Census Tracts for Built Environment Indicators

TRACT	RS	VO	AC	TS	SNA	FOO	HAB	HEA	OVE	BUR	EVI	RED	CF	TREE	PARK	VIO	ID	TALLY
Acorn	•	•	•		•	•					•	•				•		8
Acorn Industrial			•			•	•							•		•	•	6
Adams Point East	•		•															2
Adams Point North																		0
Adams Point West			•															1
Arroyo Viejo				•			•		•	•							•	5
Bancroft/Havenscourt East	•				•		•	•	•	•								6
Bancroft/Havenscourt West									•	•	•							3
Bella Vista						•												1
Brookfield Village		•		•	•	•	•		•	•			•	•	•		•	11
Brookfield Village/Hegenberger				•		•			•					•		•	•	6
Bunche/MLK Jr	•	•	•		•		•				•	•				•	•	9
Bunche/Oak Center	•	•		•				•			•	•						6
Bushrod/Childrens Hospital						•												1
Bushrod/North Oakland			•															1
Caballo Hills				•		•									•			3
Castlemont					•	•			•		•							4
Chabot Park																		0
Chinatown	•	•	•		•		•	•		•				•		•	•	10
Chinatown/Laney	•	•	•									•		•				5
Clawson/Dogtown		•	•				•				•	•					•	6
Cleveland Heights North																		0
Cleveland Heights South																		0
Cox/Elmhurst				•	•				•			•						4

Appendix

TRACT	RS	VO	AC	TS	SNA	FOO	HAB	HEA	OVE	BUR	EVI	RED	CF	TREE	PARK	VIO	ID	TALLY
Crocker Highland			•												•			2
DeFremery/Oak Center		•			•	•						•						4
Downtown	•	•									•			•		•		5
Downtown/Old Oakland	•	•						•						•		•		5
Durant Manor				•									•		•			3
Eastlake	•	•	•					•										4
Eastlake Clinton East		•			•					•							•	4
Eastlake Clinton West								•		•	•						•	4
Eastmont							•			•	•		•			•		5
Eastmont Hills					•													1
Elmhurst				•	•				•	•		•	•	•				7
Fairfax/Lower Maxwell Park				•			•	•										3
Fitchburg	•							•	•	•	•	•		•		•	•	9
Foothill Square/Toler Heights							•				•					•	•	4
Fremont District	•				•			•	•					•	•			6
Fruitvale	•	•						•	•				•					5
Fruitvale/Hawthorne	•				•			•	•	•								5
Gaskill			•									•			•			3
Glen Highlands				•		•									•			3
Glenview																		0
Golf Links						•	•								•		•	4
Grand Lake													•					1
Harrington/Fruitvale				•	•			•	•				•					5
Hoover/Foster	•	•	•		•		•			•	•			•		•	•	10
Ivy Hill								•					•					2
Jack London Gateway	•	•	•															3
Jack London Square							•						•	•		•	•	5

TRACT	RS	VO	AC	TS	SNA	FOO	HAB	HEA	OVE	BUR	EVI	RED	CF	TREE	PARK	VIO	ID	TALLY
Jefferson/Fruitvale				•	•				•									3
Jingletown/Kennedy	•						•	•	•	•		•		•		•	•	9
Lake Merritt		•	•															2
Lakeshore																		0
Las Palmas							•	•			•		•					4
Laurel/Upper Peralta Creek																		0
Lincoln Highlands															•			1
Lockwood/Coliseum/Rudsdale	•	•			•			•				•		•		•		7
Longfellow		•			•					•	•	•	•					6
Lower Dimond School									•								•	2
Lower Laurel/Allendale							•			•							•	3
Lower San Antonio East	•				•	•			•	•		•		•				7
Lower San Antonio West								•		•							•	3
Maxwell Park															•			1
McClymonds							•	•		•	•	•		•		•	•	8
Melrose	•						•	•	•	•				•	•	•	•	9
Mills College			•			•									•			3
Millsmont											•		•		•			3
Montclair North				•											•			2
Montclair South													•		•			2
New Highland				•				•		•		•		•		•		6
Oakland Estuary	•						•	•	•			•		•		•	•	8
Oakland/Harrison East			•															1
Oakland/Harrison West	•	•	•								•		•					5
Oakmore North						•							•		•			3
Oakmore South																		0
Panoramic Hill				•		•							•		•			4

TRACT	RS	VO	AC	TS	SNA	FOO	HAB	HEA	OVE	BUR	EVI	RED	CF	TREE	PARK	VIO	ID	TALLY
Paradise Park/Golden Gate			•									•	•					3
Peralta/Hacienda				•				•	•	•								4
Piedmont Ave Central		•											•					2
Piedmont Ave North																		0
Piedmont Ave South			•										•					2
Piedmont Pines				•		•									•			3
Pill Hill		•	•								•					•		4
Port Lower			•			•	•				•	•		•		•	•	8
Port Upper							•					•	•	•			•	5
Prescott		•		•		•	•	•			•	•					•	8
Prescott/Mandela Peralta					•	•	•			•	•	•	•			•	•	9
Redwood Heights Central				•											•			2
Redwood Heights East															•			1
Redwood Heights West															•			1
Reservoir Hill/Manzanita					•													1
Reservoir Hill/Meadow Brook		•						•	•	•				•				5
Rockridge																		0
San Antonio/Highland Terrace				•	•	•			•	•		•	•					7
San Antonio/Sausal Creek													•					1
Santa Fe/North Oakland						•							•					2
Seminary	•							•	•	•	•		•	•		•		8
Sequoyah				•		•									•			3
Shafter/Rockridge			•															1
Sobrante Park				•	•	•			•									4
Stonehurst	•			•	•		•					•		•		•		7
Temescal East							•											1

TRACT	RS	VO	AC	TS	SNA	FOO	HAB	HEA	OVE	BUR	EVI	RED	CF	TREE	PARK	VIO	ID	TALLY
Temescal West		•																**1**
Trestle Glen						•									•			**2**
Upper Piedmont Ave															•			**1**
Upper Rockridge																		**0**
Upper San Antonio/Highland Park						•					•							**2**
Upper Telegraph/Fairview Park			•															**1**
Uptown/Downtown	•	•	•		•						•			•		•		**7**
Webster				•					•		•	•				•		**5**
Woodminster				•											•			**2**

RS = Road Safety VO = Vehicle Ownership AC = Active Commute TS = Transit Service SNA = SNAP Food Assistance Foo = Food Access
Hab = Housing Habitability Hea = House Heating Ove = Overcrowding Bur = Housing Burdened Evi = Eviction Red = Redlining
CF = Community Facilities Tree = Tree Canopy Park = Park Access Vio = Violent Crime ID = Illegal Dumping

Note:
1. Some indicators may have more than 25 top scoring tracts due to ties.

OAKLAND 2045
GENERAL PLAN