

# Demographics of the I-580 and I-880 Corridors in the East Bay

## TECHNICAL MEMORANDUM

*Prepared for:*  
*The Coalition for Healthy Air and Safe Roads*

*CHASRcoalition.org*

*Prepared by:*

*Skyrak Engineering Services*  
*(510) 301-2182*  
*admin@skyrak.com*

*Principal Investigator:*  
*Donald Duggan D.Phil., P.E.*



*Skyrak Report 60.26.01, Revision 1*  
*April 14, 2026*

# Table of Contents

**TABLE OF CONTENTS ..... I**

**EXECUTIVE SUMMARY ..... 1**

**1.0 INTRODUCTION ..... 3**

    1.1 ABBREVIATIONS ..... 3

**2.0 THE TRUCK BAN: HISTORY AND CURRENT STATUS..... 4**

*Note on I-980* ..... 5

    2.1 HISTORY OF THE TRUCK BAN ..... 5

**3.0 WHERE ARE THE AFFECTED POPULATIONS? ..... 7**

    3.1 DISTANCE FROM HIGHWAY ..... 7

    3.2 GRANULARITY OF POPULATION DATA..... 7

    3.3 AVAILABLE POPULATION AND COMMUNITY DATA .....11

**4.0 RESULTS.....12**

    4.1 POPULATION DENSITY .....12

    4.2 POPULATION CLOSE TO THE HIGHWAYS .....12

*Notes on Coordinate Reference Systems and population counts:* .....14

    4.3 COMMUNITY FACILITIES CLOSE TO HIGHWAYS.....14

    4.4 HOUSING OWNERSHIP.....17

    4.5 RACE .....18

**5.0 DISCUSSION AND CONCLUSIONS.....22**

    5.1 KEY STATISTICS .....22

    5.2 CONCLUSIONS.....23

**6.0 REFERENCES .....24**

## Executive Summary

The California Department of Transportation (Caltrans) has initiated a study to evaluate the effects of revoking the long-standing ban on heavy trucks from traveling on a stretch of I-580 in the City of Oakland. One of the main drivers of the Caltrans study is the possibility that allowing trucks to use I-580 will result in environmental improvement for environmentally overburdened communities (West Oakland and East Oakland) along the I-880 corridor.

The purpose of the study reported here (the Skyrak Demographics Study) is to determine and summarize the demographics of both corridors: I-880 and I-580 (including their feeder routes), so that a comparative analysis of the benefits of the proposed action can be made. The objective of this Skyrak study is to provide policymakers with unambiguous data so that decisions can be made in a data-driven manner<sup>1</sup>.

This study is intended to provide policymakers with information that can help with deciding whether or not to revoke the ban on heavy trucks on I-580 through Oakland. We recognize that there is additional data that needs to be considered in making those recommendations and decisions. The additional data includes: truck origins and destinations; truck traffic increase caused by opening up the lanes of I-580 to trucks (“induced travel”); socio-economic data; health outcomes; air and ground pollution data; noise issues; environmental protection; wildlife conservation; energy and natural resource conservation; the reliability of existing infrastructure; and road safety. This study only addresses demographics: who and where are the people who will be most affected by changes to the truck ban.

In this study we looked at the populations who live alongside all the highways that will be affected by revoking the truck ban. Some, like I-880 and possibly I-238, could see some reduction in truck traffic<sup>2</sup>. Others, like I-580 and SR-13 will see an increase in truck traffic. Based on the results of this study we can draw the following summary statistics:

- 35,634 people live within 1,000 ft. of the I-880 freeway between the Bay Bridge/MacArthur Maze and I-238; 44,447 if we include the stretch of I-238 between I-880 and I-580 (we considered a typical truck traveling from the Port of Oakland to a warehouse in Livermore or Tracy.)

---

<sup>1</sup> This Skyrak Study utilizes data from the 2020 US Census to determine resident populations close to major highways. It also uses Alameda County data to determine the sizes and locations of schools (K-12) and hospitals.

<sup>2</sup> A reduction in truck traffic along I-880 would be expected, at least in the short term. However, it is likely that increased truck traffic would occur on both I-880 and I-580 over time, as studies have shown that increasing roadway capacity results in increased traffic.

- 63,172 people live within 1,000 ft. of the I-580 freeway between the MacArthur Maze and the I-238 intersection. This is 42% more people than the number of people that live along the I-880/I-238 corridor.
- An additional 8,079 people live within 1,000 ft. of the Warren freeway (State Route 13), which will also see a significant increase in truck traffic if the I-580 truck ban is removed.
- An additional 14,885 people live within 1,000 ft. of the portion of State Route 13 along Ashby Avenue and Tunnel Road, which will likely see some increase in truck traffic if the I-580 truck ban is removed.

A similar distribution, with bigger numbers, is shown when the distance from the highway is increased from 1,000 ft. to 2,640 ft. (½ mile). Almost a quarter of a million people live within half a mile of a highway that will see more truck traffic if the I-580 truck ban is removed.

The study determined that there are more people of color living alongside the I-580 corridor than alongside the I-880/I-238 corridor.

The study concludes the following:

- Almost a quarter of a million (234,561) residents live within a ½ mile of highways where truck traffic is currently banned or significantly limited by the existing ban, and will be exposed to pollution/noise/safety issues from trucks if the truck ban is revoked.
- 42% more people live within 1,000 ft. of the I-580 highway between MacArthur Maze and the I-238 merge than live within 1,000 ft. of I-880/I-238 over the same stretch. This means that every truck rerouted from I-880 to I-580 will cause harm to 42% more people as a result of the reroute.
- 26% more people of color live within 1,000 ft. of the I-580 highway between MacArthur Maze and the I-238 merge than live within 1,000 ft. of I-880/I-238 over the same stretch. This means that every truck rerouted from I-880 to I-580 will cause harm to 26% more people of color as a result of the reroute.

# 1.0 Introduction

Caltrans has initiated a study to evaluate the effects of revoking the long-standing ban on trucks exceeding 9,000 lbs. from traveling on a stretch of I-580 from Grand Avenue in Oakland to Foothill Blvd (at the Oakland boundary with San Leandro). One of the main drivers of the Caltrans study is the possibility that allowing trucks to use I-580 will result in environmental improvement for environmentally overburdened communities along the I-880 corridor. I-880 is currently the main truck route through Oakland. These communities have been identified by the California Air Resources Board (CARB) as targets for air quality and other environmental improvement actions as required by AB 617 (2017).

The purpose of the study reported here (the Skyrak Demographics Study) is to determine and summarize the demographics of both corridors: I-880 and I-580, so that a comparative analysis of the benefits of the proposed action can be made. The objective of this Skyrak study is to provide policymakers with unambiguous data so that decisions can be made in a data-driven manner.

This Skyrak Study utilizes data from the 2020 US Census to determine resident populations close to major highways. It also uses Alameda County data to determine the sizes and locations of schools (K-12) and hospitals.

## 1.1 Abbreviations

BAAD	Bay Area Air District
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CRS	Coordinate Reference System
CTA	California Trucking Association
CVC	California Vehicle Code
ft.	Feet
GIS	Geographical Information System
I	Interstate (highway)
lbs.	Pounds (weight)
SR	State Route (highway)
WOEIP	West Oakland Environmental Indicators Project

Engineering quantities in this report are in customary English units (miles, feet, inches, pounds, tons). Where the US Census data reports areas in square meters, these have been converted to square miles for the purpose of reporting population densities.

## 2.0 The Truck Ban: History and Current Status



*Figure 2-1: Map Showing Extent of the Existing Truck Ban and the Effects of Overturning the Ban*

Figure 2-1 shows the extent of the existing ban on trucks weighing more than 9,000 lbs. from Grand Avenue to Foothill Boulevard in Oakland. Note that the existing ban results in an effective ban on through trucks on the Warren Freeway (SR-13), because there is no way that trucks can currently access the south end of SR-13.

If the truck ban is overturned, trucks that currently go through Oakland from North to South will be able to travel south on I-580, either from the MacArthur Maze (I-80/I-580), or using Highway 13 (Ashby Avenue/Tunnel Road/Warren Freeway). Trucks traveling

from the Port of Oakland could now access I-580 at the Bay Bridge/Oakland Army Base, or use I-980.

### **Note on I-980**

The future of I-980 is the subject of a separate Caltrans Study – Vision 980, which may result in several different outcomes, including removal of the freeway. For this reason, we have not included the I-980 corridor in this Study, because it is not clear if or how a removal of the I-580 truck ban would have an effect on truck traffic on I-980, or the people who live near I-980.

## **2.1 History of the Truck Ban**

In 1951 the City of Oakland prohibited truck traffic on MacArthur Blvd, the eventual footprint of I-580.

In the 1960's, when I-580 was in the conceptual stages, the City of Oakland committed to keep heavy trucks off I-580, and secured a “Scenic Highway” status for the freeway within the city limits, which limited certain types of development along the I-580 corridor. Homeowners who lost houses to construction, or found that their homes now bordered an interstate highway, considered the commitment to be a lasting promise to keep trucks off I-580.

In 1963 Oakland City Ordinance #6789 prohibits trucks exceeding 4.5 tons on I-580 from Grand Ave. to San Leandro.

In 1967 Caltrans reaffirms the ban on the basis of an existing adequate alternative route: I-880/I-238. Caltrans reviewed the ban periodically until 1972, when it determined further review was unnecessary.

In 1990, the California Trucking Association (CTA), a trucking industry lobbying group, proposed that the ban be removed. The proposal was defeated by local opposition. However, CTA kept up the pressure on the California State Legislature.

In 2000, the California State legislature codified the truck ban as CVC 35655.5, part of the California Vehicle Code, and enforced by the Highway Patrol.

In 2017, AB 617 was signed into law and directs the California Air Resources Board (CARB) and all local air districts, including the Bay Area Air District (BAAD), to take measures to protect communities disproportionately impacted by air pollution from trucks and other sources (e.g. manufacturing, power generation, port operations, etc.)

In 2021, responding to continued CTA pressure and the requirements of AB 617, Caltrans and BAAD proposed a study to determine how removal of the truck ban would impact traffic along the I-880 and I-580 corridors, and other affected highways, and how this change would impact public health equity for the identified AB 617 communities.

In 2025, Caltrans awarded a contract to Fehr and Peers, an engineering company, to evaluate the effects of overturning the truck ban. The Caltrans study is currently underway and is scheduled to be completed in late 2026/early 2027.

## 3.0 Where are the Affected Populations?

### 3.1 Distance from Highway

The environmental community typically uses a distance of 1,000 ft. from a point source of air pollution as the impacted area. There is nothing magic about this number. The impact of air pollution and noise pollution from a freeway is influenced by many factors: freeway grade, freeway curves, sound walls, geography, vegetation, elevation, prevailing winds, etc. However, this (Skyrak) study does not attempt to account for these factors. This study is only intended to look at the populations that surround the freeways, and the facilities that are served by the freeways.

This study looks at two “buffer” zones around the affected highways:

- A typical 1,000 ft. buffer as measured from the centerline of the highway. In the case of divided highways, such as the freeways discussed here, the 1,000 ft. is measured from the centerline of each directional set of lanes (e.g. the eastbound and westbound lanes of I-580).
- The second buffer zone considered extends ½ mile (2,640 ft.) measured from the centerline of the roadway (or centerline of the directional lanes, in the same way as the 1,000 ft. buffer, above).

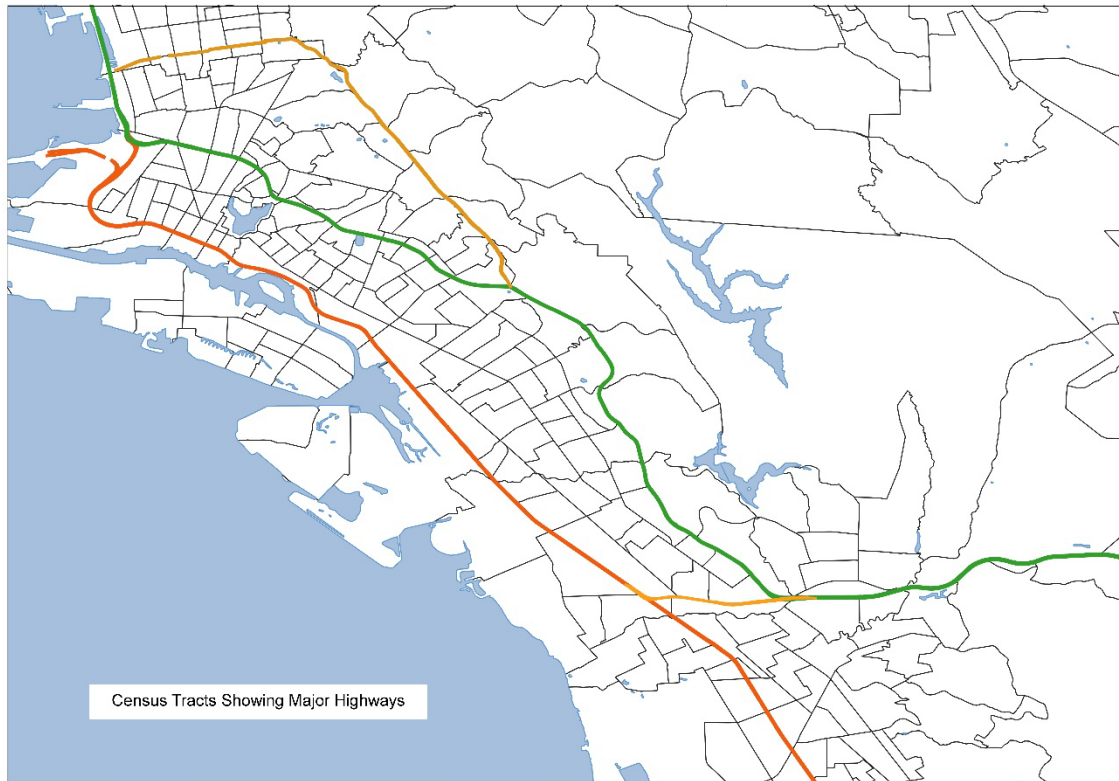
This study used GIS software, combined with 2020 US Census data, on a Census Block level, to calculate the number of households, residents, schools and hospitals within each of the buffer zones of the following stretches of highway:

1. I-880 from the Bay Bridge and MacArthur Maze to I-238
2. I-238 from I-880 to I-580
3. I-580 from the MacArthur Maze to I-238
4. Warren Freeway (SR-13) from SR-24 to I-580
5. SR13 from I-80 to SR-24 (Ashby Avenue and Tunnel Road)

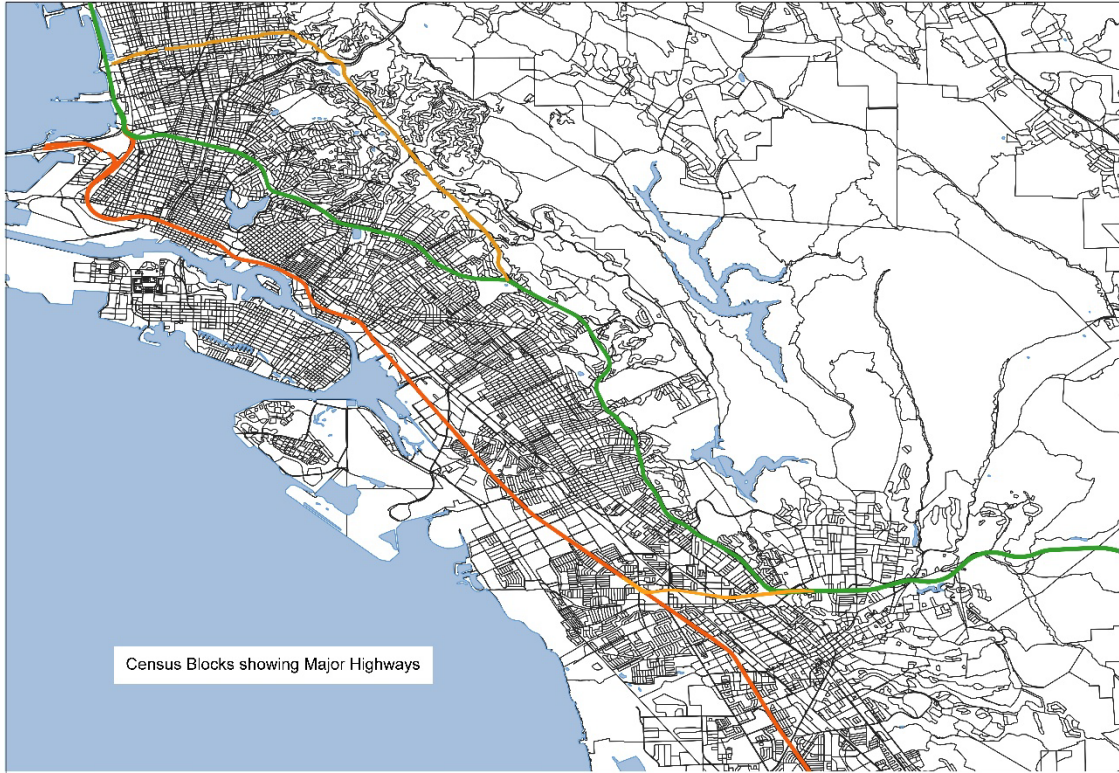
### 3.2 Granularity of Population Data

Figures 3.1 and 3.2 illustrate why it is important to perform this analysis on the Census Block level instead on the Census Tract level. Many demographic studies, such as those published by CalEnviroScreen, work at the Tract level, because they cover the entire state, and they are looking for environmental discrepancies at the community level. For the purposes of this study, we need data on the population who live close to the highways – these are much smaller distances that require much finer granularity of data than the tract level can provide. Thus, this study provides much more accurate results than a tract-level study.

This also explains why we use the 2020 Decennial Census Data, instead of the more recent 2025 American Community Survey (ACS) data. The ACS data is a statistical prediction based on the 2020 census data and samples of community data. It is not available on a block level – only on a tract or block group level. This does not provide the precision required for determining who lives close to the highways.



*Figure 3-1: Census Tracts*



*Figure 3-2: Census Blocks*

Figures 3-3 and 3-4 show the buffer zones superimposed on the Census Blocks.

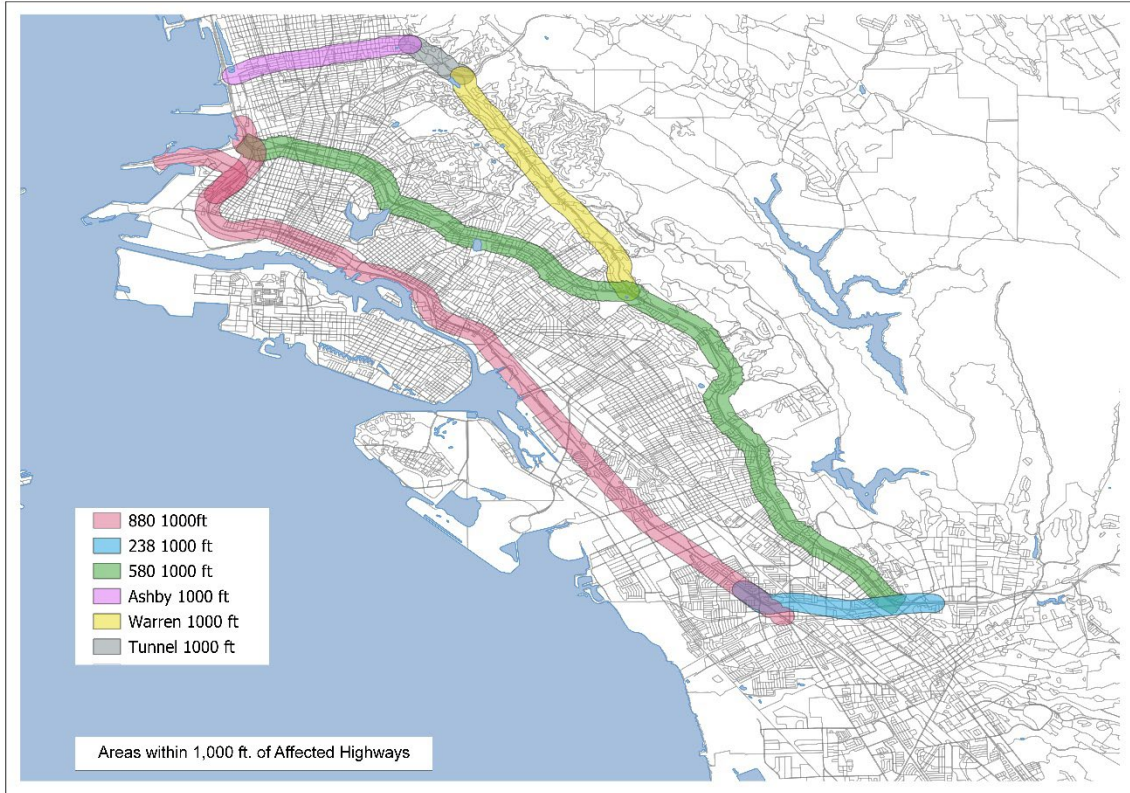
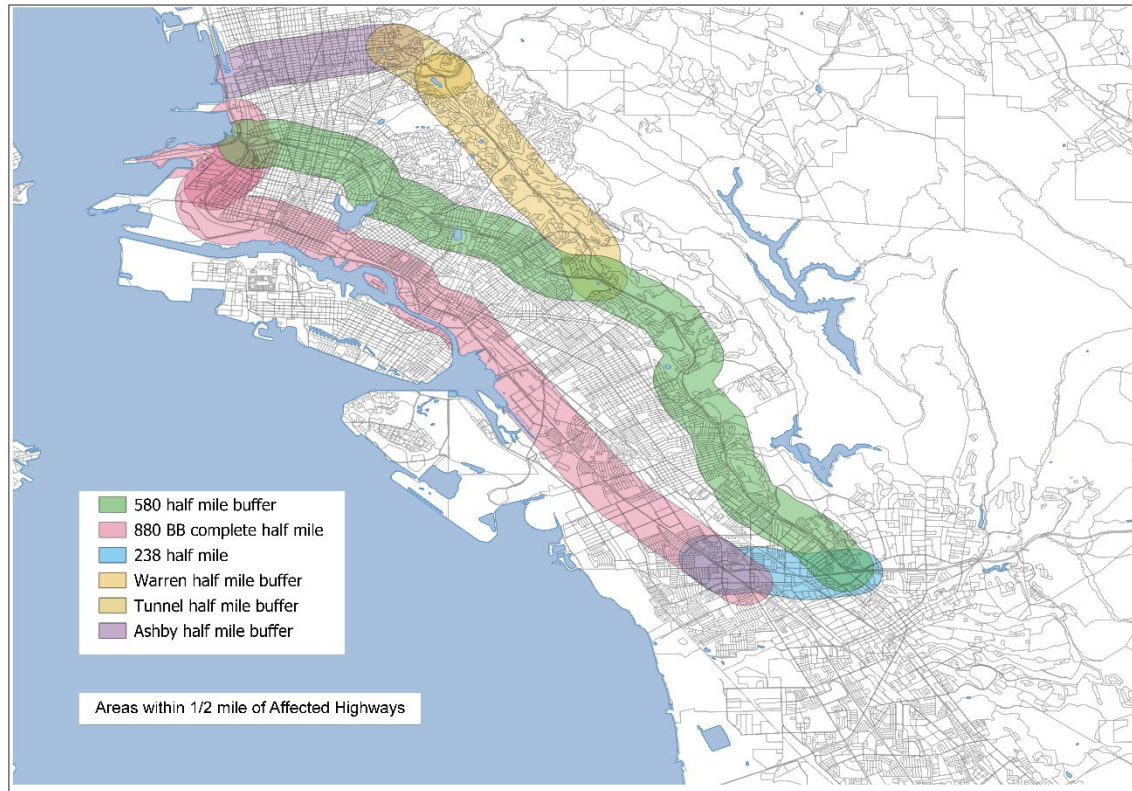


Figure 3-3: Areas within 1,000 ft. of Affected Highways



*Figure 3-4: Areas within Half a Mile of Affected Highways*

### **3.3 Available Population and Community Data**

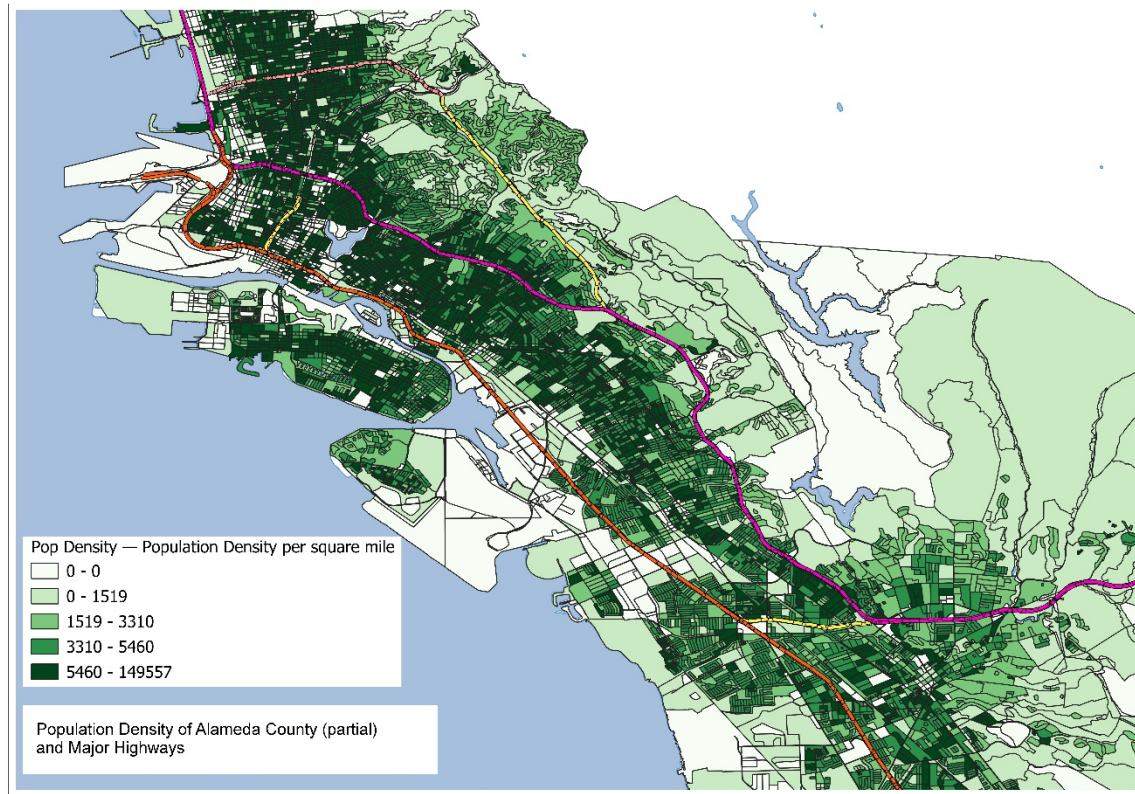
The US Census (census.gov) provides geography (in the form of TIGER/Line Shapefiles) and population data at the County, Tract and Block levels. The data includes: housing units and ownership status; and population by age group, gender and race.

We used data from the 2020 Census Demographic and Housing Characteristics File (DHC), which provides data for each census block in Alameda County.

## 4.0 Results

### 4.1 Population Density

Looking at the total populations and land area of each census block, we developed the population density map shown in Figure 4-1.



*Figure 4-1: Population Density Distribution in Alameda County (Partial) Relative to Major Highways*

It is clear from Figure 4-1 that Interstate 580 (shown as a dark purple line) cuts right through the residential heart of the East Bay.

### 4.2 Population Close to the Highways

Using GIS software, we were able to merge the buffer zones described in Section 3.2 and the population for each block from the Census data, to get total populations close to each highway. We used an overlap analysis to determine which blocks were inside a buffer,

so we could sum the populations in those blocks. Where a block was partially inside a buffer zone, we used an overlap function to calculate the percentage of the block area that was included within the buffer zone, and multiplied that percentage by the total population of the block, to determine the affected population in that block. By summing the populations in each block or partial block in a buffer zone, we could calculate total populations within each buffer zone. Tables 4-1 and 4-2 show the results of those calculations,

	I-880 <sup>1</sup>	I-880 + I-238 <sup>2</sup>	I-580 <sup>3</sup>	I-580 +Warren (SR-13) <sup>4</sup>	I-580 +SR-13 (Warren+Tunnel+Ashby) <sup>5</sup>
Housing Units	12,217	15,345	27,262	30,425	37,256
Population	35,634	44,447	63,172	71,251	86,136

*Table 4-1: Housing Units and Resident Population within 1,000 ft. of Affected Highways*

*Notes for Tables 4-1, 4-2, 4-3, 4-4, 4-5 and 4-6:*

1. I-880 from Bay Bridge and MacArthur Maze to I-238
2. I-238 from I-880 to I-580
3. I-580 from MacArthur Maze to I-238
4. Warren Freeway from SR-24 to I-580
5. State Route 13 from I-80 to I-580

Table 4-1 shows that there are 77% more people living within 1,000 ft. of I-580 between MacArthur Maze and I-238, than live within 1,000 ft. of I-880 between the maze and I-238. (63,172/35,634).

For a typical truck trip between the MacArthur Maze and I-580 at the I-238 merge (such as may be taken by a truck traveling from the Port of Oakland to a warehouse in Livermore or Tracy), there are 42% more people living within 1,000 ft. of the I-580 route than the I-880 route. (63,172/44,447)

If we look at the populations that will likely be exposed to an increase in truck traffic as a result of removing the I-580 truck ban, this includes the feeder route from SR-13, including the Warren Freeway, and (with probably lower traffic numbers) Ashby Avenue and Tunnel Road. The total population within 1,000 ft. of those highways is 86,136, compared with the 44,447 population along I-880 and I-238 that might benefit from a reduction in truck traffic. In other words, almost twice as many people will be exposed to increased truck traffic, than might benefit from reduced truck traffic. A broader way to look at this is that if the State of California decides to revoke the truck ban, it will allow heavy trucks to pass within 1,000 ft. of 86,000 residents, who were not previously exposed to heavy truck traffic. It will also allow heavy trucks to travel within a half mile of almost a quarter of a million residents who were not previously exposed to heavy truck traffic. (See Table 4-2).

Table 4-2 shows the population data within a half mile (2,640 ft.) of the highway.

	I-880 <sup>1</sup>	I-880 +I-238 <sup>2</sup>	I-580 <sup>3</sup>	I-580 +Warren (SR-13) <sup>4</sup>	I-580 +SR-13 (Warren+Tunnel+Ashby) <sup>5</sup>
<b>Housing Units</b>	39,351	46,791	73,225	82,083	103,061
<b>Population</b>	108,206	129,987	166,645	188,917	234,561

*Table 4-2: Housing Units and Resident Population within ½ mile of Affected Highways*

The conclusions from Table 4-2 are very similar to those from Table 4-1: 54% more people live within ½ mile of I-580 than I-880 between the Maze and I-238. For the typical truck journey between the Maze and I-238 on the way to Livermore/Tracy, there are 28% more people within ½ mile of the I-580 route than the I-880 route. When including the SR-13 population, there are 80% more people exposed to increased traffic than those who might see a reduction in truck traffic.

#### **Notes on Coordinate Reference Systems and population counts:**

1. To perform the calculations of buffer zones and populations described above, we reprojected the GIS data to a planar CRS: ESRI: 102643 – NAD\_1983\_StatePlane\_California\_III\_FIPS\_0403\_Feet.
2. In order to avoid double-counting of populations, we merged the buffer zones of combined highways (e.g. I-880+I-238) into a single merged buffer layer, and calculated the population within that layer.
3. Population counts were verified by using the same methods to sum the population blocks for the entire county, to compare with the total population of Alameda County as reported by the 2020 census: 1,682,353; and the total land area of Alameda County: 1,910 square km. (737.5 sq. miles).

### **4.3 Community Facilities Close to Highways**

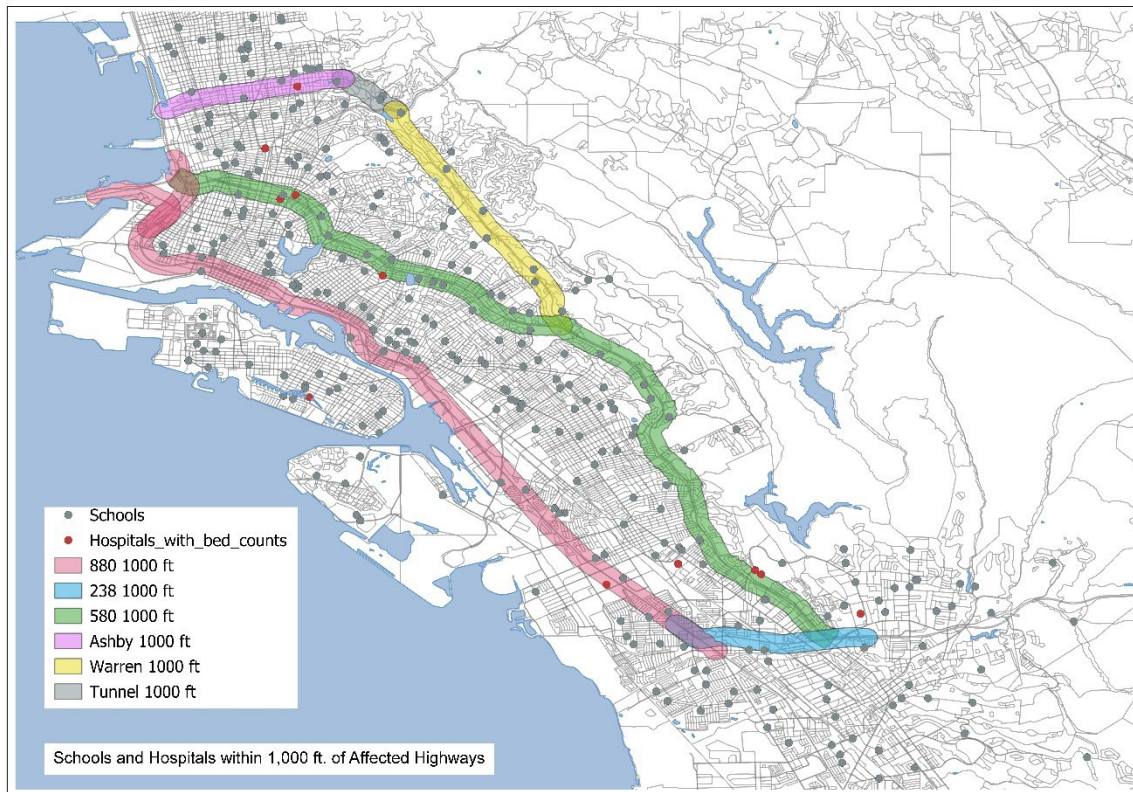
The major highways of the East Bay serve a large population by providing access to community facilities that include daycare centers, preschools, K-12 schools, colleges and universities, medical facilities, fire stations, and other facilities. In this study, we are focusing only on K-12 schools and hospitals. We used data from the following:

Alameda County Data Hub: Alameda County Schools Dataset, updated 1/2/2020.  
([data.acgov.org](http://data.acgov.org))

Alameda County Data Hub: Hospitals with Bed Counts Dataset (Regional Data), updated 12/20/2019. (data.acgov.org)

We used this data to plot the schools and hospitals against the 1,000 ft. and ½ mile buffer zones as shown in Figures 4-2 and 4-3.

The results are summarized in Tables 4-3 and 4-4



*Figure 4-2: Schools and Hospitals within 1,000 ft. of Affected Highways*

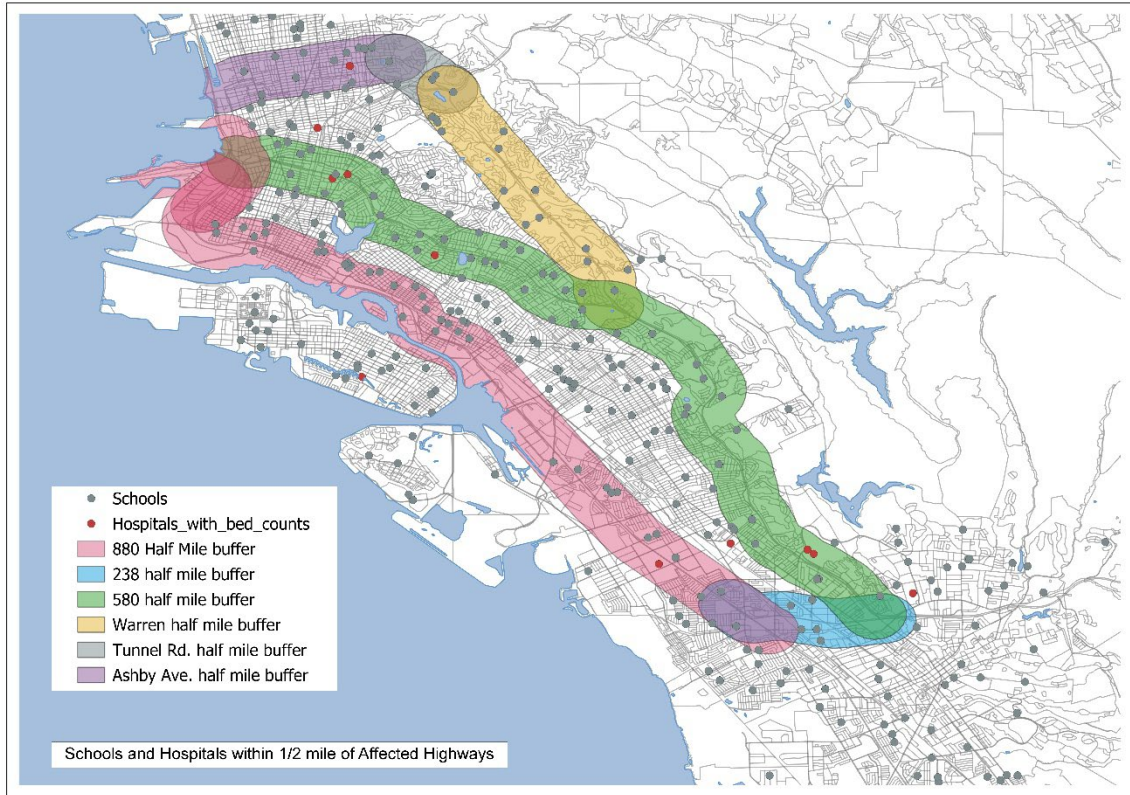


Figure 4-3: Schools and Hospitals within Half a Mile of Affected Highways

	I-880 <sup>1</sup>	I-880 + I-238 <sup>2</sup>	I-580 <sup>3</sup>	I-580 + Warren (SR-13) <sup>4</sup>	I-580 + SR-13 (Warren + Tunnel + Ashby) <sup>5</sup>
Schools <sup>6</sup>	9	10	17	24	30
Hospitals <sup>7</sup>	1	1	3	3	4

Table 4-3: Schools and Hospitals within 1,000 ft. of Affected Highways

Notes to Tables 4-3 and 4-4:

6. Schools in the Alameda County data set – mostly K-12, but a few outliers that exist in the County data set.
7. Hospitals that are within the “Hospitals with bed counts” data from Alameda County.

	I-880 <sup>1</sup>	I-880 +I-238 <sup>2</sup>	I-580 <sup>3</sup>	I-580 +Warren (SR-13) <sup>4</sup>	I-580 +SR-13 (Warren+Tunnel+Ashby) <sup>5</sup>
<b>Schools<sup>6</sup></b>	41	47	45	61	76
<b>Hospitals<sup>7</sup></b>	1	1	5	5	6

*Table 4-4: Schools and Hospitals within ½ mile (2,640 ft.) of Affected Highways*

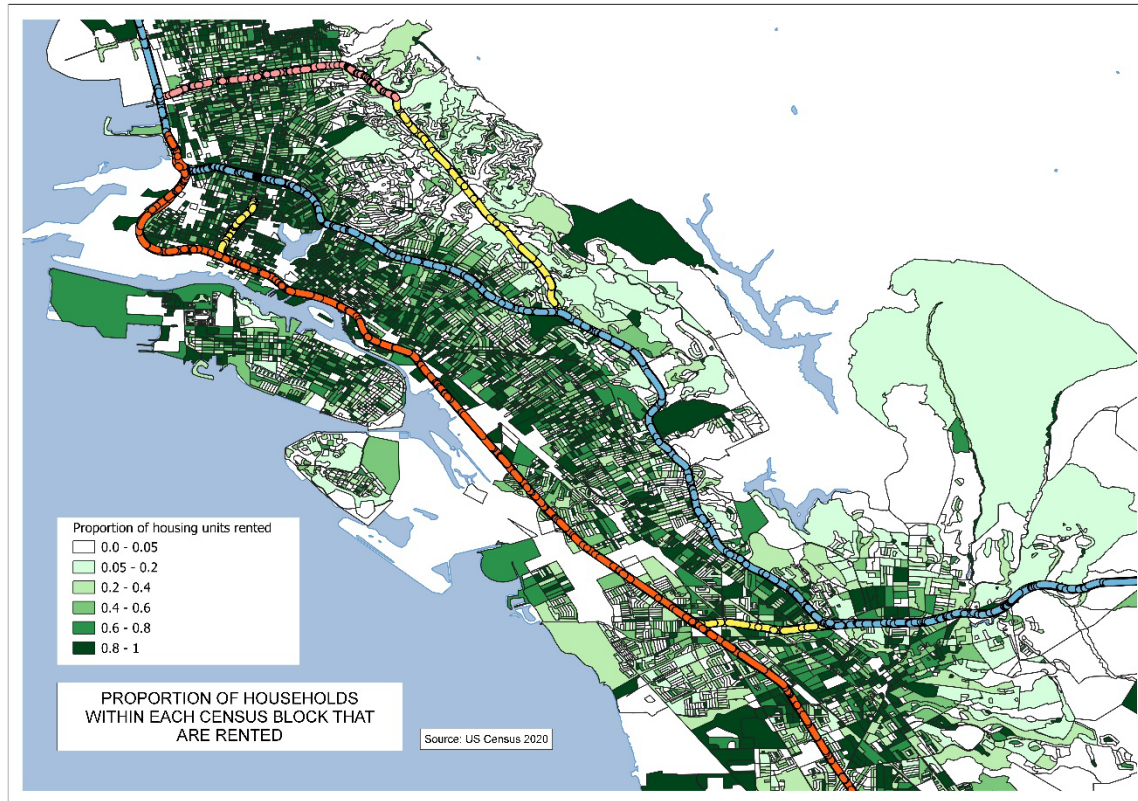
The data shows that there are a lot of schools close to the highways. Unlike the population data, there are about the same number of schools in the I-580 half-mile buffer zone as in the equivalent I-880 zone. Within 1,000 ft., there are 17 schools in the I-580 zone, compared with 10 schools in the I-880 zone.

The story is different for hospitals. There is one hospital in the I-880 corridor: the Kaiser San Leandro hospital. But there are five hospitals in the I-580 corridor, plus Sutter/Alta Bates in Berkeley, that would be affected by an increase in truck traffic on I-580.

#### **4.4 Housing Ownership**

The US census data includes data on household ownership: it records whether a housing unit is owner-occupied or rented. Figure 4-4 shows the proportion of homes in each census block that are rented. The major highways are shown by thick colored lines. The map shows that there is no significant difference between I-580 and I-880 in terms of whether the housing units in the corridor are owner-occupied or not. The Warren Freeway however (SR-13 between SR-24 and I-580), passes through neighborhoods that are primarily owner-occupied.

The data was sourced from Table H10 of the 2020 Census Demographic and Housing Characteristics File (DHC), which contains ownership details for housing units.



*Figure 4-4: Proportion of Housing Units that are Rented*

## 4.5 Race

Racial inequity has been identified by Caltrans and BAAD as one of the criteria for considering a repeal of the truck ban on I-580. The US Census data includes data on the race of residents on a Census Block basis. We used the same approach as outlined in Section 4.2 to calculate the population of each racial group living close to the highways. The data was sourced from Table P5 of the 2020 Census Demographic and Housing Characteristics File (DHC), which contains racial characteristics by Census Block.

Tables 4-5 and 4-6 provide the results for the 1,000 ft. and half mile buffer zones respectively.

	I-880 <sup>1</sup>	I-880 +I-238 <sup>2</sup>	I-580 <sup>3</sup>	I-580 +Warren (SR-13) <sup>4</sup>	I-580 +SR-13 (Warren+Tunnel+Ashby) <sup>5</sup>
Hispanic	10,767	14,067	14,540	15,384	17,352
Asian + Pacific Islander	10,304	12,769	11,582	12,837	14,666
White	6,911	8,443	17,927	22,491	30,282
Black	5,610	6,641	14,444	15,010	16,905
Native American	179	199	201	209	233
Other	1,863	2,328	4,478	5,320	6,698
<b>Totals</b>	<b>35,634</b>	<b>44,447</b>	<b>63,172</b>	<b>71,251</b>	<b>86,136</b>

Table 4-5: Resident Population within 1,000 ft. of Affected Highways by Race

	I-880 <sup>1</sup>	I-880 +I-238 <sup>2</sup>	I-580 <sup>3</sup>	I-580 +Warren (SR-13) <sup>4</sup>	I-580 +SR-13 (Warren+Tunnel+Ashby) <sup>5</sup>
Hispanic	33,909	43,269	37,341	39,447	45,070
Asian + Pacific Islander	31,967	37,148	31,624	35,046	42,461
White	19,204	22,831	50,857	64,052	86,815
Black	17,369	19,940	34,524	35,864	41,518
Native American	442	506	507	543	629
Other	5,315	6,293	11,792	13,965	18,068
<b>Totals</b>	<b>108,206</b>	<b>129,987</b>	<b>166,645</b>	<b>188,917</b>	<b>234,561</b>

Table 4-6: Resident Population within ½ mile of Affected Highways by Race

See Table 4-1 for Notes.

The data show that twice as many people who identify as Black live in the I-580 corridor as compared with the I-880 corridor. Hispanics and Asians/Pacific Islanders tend to be evenly distributed, and people who identify as White-only tend to be concentrated in the I-580/SR-13 corridors.

Figure 4-5 shows the proportion of residents in each census block that are considered to be “people of color”, that is the total population of a block minus the total “white-only” people in that block expressed as a proportion of the total population of the block. The

map shows that there is minimal difference between the distribution of people of color between the I-880 and the I-580 corridors. The Warren Freeway portion of SR-13, however, has a lower proportion of people of color.

Tables 4-7 and 4-8 show the distribution of People of Color

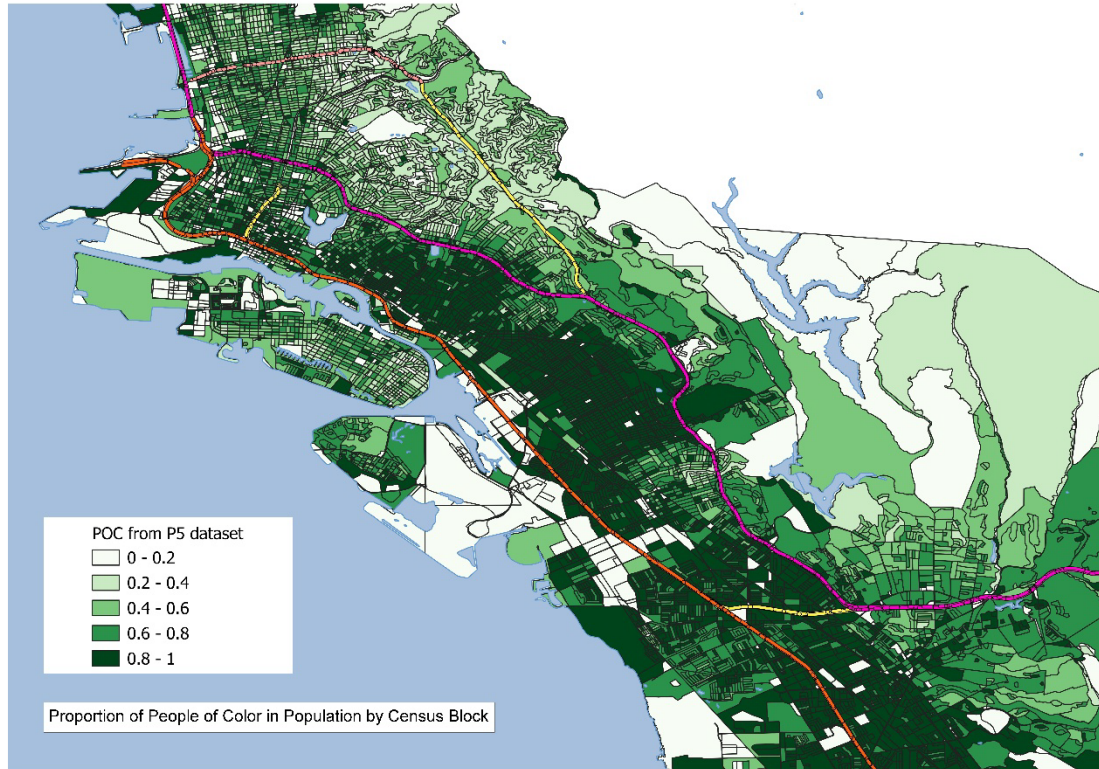


Figure 4-5: Proportion of Population who are People of Color

	I-880 <sup>1</sup>	I-880 +I-238 <sup>2</sup>	I-580 <sup>3</sup>	I-580 +Warren (SR-13) <sup>4</sup>	I-580 +SR-13 (Warren+Tunnel+Ashby) <sup>5</sup>
White	6,911	8,443	17,927	22,491	30,282
POC	28,723	36,004	45,245	48,760	55,854
%POC	81%	81%	72%	68%	65%

Table 4-7: Resident People of Color within 1,000 ft. of Affected Highways

See Table 4-1 for Notes.

	I-880 <sup>1</sup>	I-880 +I-238 <sup>2</sup>	I-580 <sup>3</sup>	I-580 +Warren (SR-13) <sup>4</sup>	I-580 +SR-13 (Warren+Tunnel+Ashby) <sup>5</sup>
<b>White</b>	19,204	22,831	50,857	64,052	86,815
<b>POC</b>	89,002	107,156	115,788	124,865	147,746
<b>%POC</b>	82%	82%	69%	66%	63%

*Table 4-8: Resident People of Color within ½ mile. of Affected Highways*

See Table 4-1 for Notes.

Table 4-7 shows that there are 58% more people of color who live within 1,000 ft. of I-580 than live within 1,000 ft. of I-880. (45,245/28,723). If we include I-238 (for the truck run between the Port of Oakland and Livermore/Tracy), there are 26% more people of color along the I-580 route than along the I-880/I-238 route. (45,245/36,004).

Table 4-8 provides the equivalent data for people of color living within ½ mile of the highways: 30% more people of color live within 1,000 ft. of I-580 than live within 1,000 ft. of I-880. (115,788/89,002). If we include I-238 (for the truck run between the Port of Oakland and Livermore/Tracy), there are 8% more people of color along the I-580 route than along the I-880/I-238 route. (115,788/107,156).

## 5.0 Discussion and Conclusions

This study is intended to provide policymakers with information that can help with deciding whether or not to revoke the ban on heavy trucks on I-580 through Oakland. We recognize that there is additional data that needs to be considered in making those recommendations and decisions. The additional data includes: truck origins and destinations; truck traffic increase caused by opening up the lanes of I-580 to trucks (“induced travel”); socio-economic data; health outcomes; air and ground pollution data; noise issues; environmental protection; wildlife conservation; energy and natural resource conservation; the reliability of existing infrastructure; and road safety. This study only addresses demographics: who and where are the people who will be most affected by changes to the truck ban.

This analysis does not address the likely increase in total truck traffic through the study area which would normally result from opening more truck routes or increasing available lanes (induced travel).

### 5.1 Key Statistics

Based on the results of this study we can draw the following summary statistics:

- 35,634 people live within 1,000 ft. of the I-880 freeway between the Bay Bridge/MacArthur Maze and I-238; 44,447 if we include the stretch of I-238 between I-880 and I-580.
- 63,172 people live within 1,000 ft. of the I-580 freeway between the MacArthur Maze and the I-238 intersection. This is 42% more than live along the I-880/I-238 corridor.
- An additional 8,079 people live within 1,000 ft. of the Warren freeway (SR-13 between SR-24 and I-580), which will also see a significant increase in truck traffic if the I-580 truck ban is removed.
- An additional 14,885 people live within 1,000 ft. of State Route 13 along Ashby Avenue and Tunnel Road, which will see some increase in truck traffic if the I-580 truck ban is removed.

A similar distribution, with bigger numbers, is shown when the distance to the highway is increased from 1,000 ft. to 2,640 ft. (½ mile). Almost a quarter of a million people live within half a mile of a highway that will see more truck traffic if the I-580 truck ban is removed.

Some supporters of removing the truck ban have assumed that the I-880 corridor has a larger population of racial minorities than the I-580 corridor. The data does not support this narrative. Almost every racial category has more residents in the I-580 corridor than

in the I-880 corridor. The only exception in the 1,000 ft. buffer zone is Asians and Pacific Islanders, where 12,769 live within 1,000 ft. of I-880/I-238, compared with 11,582 living within the same stretch of I-580. At the ½ mile level, there are also more Hispanics living close to I-880/I-238 than those living close to I-580. However, for people who identify as Black and, more generally, for people of color (non-Whites), the conclusions are clear – there are twice as many Black people living along I-580 than live along I-880/I-238; and there are 25% more people of color along I-580 compared with I-880/I-238.

The data show that both I-880 and I-580 run through some of the most racially diverse neighborhoods in the nation, with a non-white population of between 70% and 80%. The data also shows that the diversity is less evident along the Warren freeway (portion of SR-13) – the residents close to that freeway are about 40-45% people of color, but the Warren freeway has a lower population density than the other highways, with a total population of 8,079 within 1,000 ft. of the highway, and 22,272 within a ½ mile.

The numbers above do not include those non-residents who use the highways to commute to workplaces, schools, hospitals, or community facilities, that are numerous in the I-580 and SR-13 corridors.

## **5.2 Conclusions**

- Almost a quarter of a million (234,561) residents live within ½ mile of highways where truck traffic is currently banned or significantly limited by the existing ban, and will be exposed to pollution/noise/safety issues from trucks if the truck ban is revoked.
- 42% more people live within 1,000 ft. of the I-580 highway between MacArthur Maze and the I-238 merge than live within 1,000 ft. of I-880/I-238 over the same stretch. This means that every truck rerouted from I-880 to I-580 will cause harm to 42% more people as a result of the reroute.
- 26% more people of color live within 1,000 ft. of the I-580 highway between MacArthur Maze and the I-238 merge than live within 1,000 ft. of I-880/I-238 over the same stretch. This means that every truck rerouted from I-880 to I-580 will cause harm to 26% more people of color as a result of the reroute.
- In addition to the residents, commuters and users of hospitals and other facilities along I-580 will also be negatively impacted by a removal of the truck ban.

## 6.0 References

Census.gov: 2020 TIGER/Line Shapefiles: Blocks (2020), California.

Data.census.gov: 2020 Census: Demography and Housing (DEC), Alameda County, California: Tables: P1 (Total Population); P5 (Race); H10 (Tenure by Race of Householder).

Data.ac.gov: Schools; Hospitals

Oehha.ca.gov/calenviroscreen

Caltrans Truck Ban Study: <https://dot.ca.gov/caltrans-near-me/district-4/d4-projects/d4-580-truck-access-study>