



# Opportunity, Race, and Low Income Housing Tax Credit Projects

An Analysis of LIHTC Developments  
in the San Francisco Bay Area

by Phuong Tseng, Heather Bromfield, Samir Gambhir, and Stephen Menendian



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The Haas Institute for a Fair and Inclusive Society at UC Berkeley brings together researchers, community stakeholders, policymakers, and communicators to identify and challenge the barriers to an inclusive, just, and sustainable society and create transformative change. The Haas Institute advances research and policy related to marginalized people while essentially touching all who benefit from a truly diverse, fair, and inclusive society.



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## TABLE OF CONTENTS

Introduction .....	5
Background .....	7
I. Opportunity Analysis.....	8
Analysis of LIHTC Developments by Opportunity.....	9
Analysis of Acquisition, Rehabilitation, and New Construction by Opportunity .....	12
Analysis of Four Percent and Nine Percent Tax Credits Timeline .....	12
II. Demographic Analysis .....	13
Analysis of Large Family Projects by Opportunity .....	14
Analysis of LIHTC Developments and Neighborhood Demographics .....	15
Limitations .....	17
Conclusion .....	18
Key Findings .....	19
Appendix.....	20

# KEY FINDINGS

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- Housing projects financed by the LIHTC in the Bay Area were relatively well distributed across boundaries of opportunity, although there was variability depending on program type, project year, and project type (See Charts 1, 2b, and 3a).
- Nine Percent Tax Credit projects outperformed the Four Percent Tax Credit in financing projects in higher opportunity neighborhoods. For example, Nine Percent Tax Credit projects were more likely to be sited in Very High opportunity neighborhoods than Four Percent Tax Credit projects (25.7% versus 17.5%) (See Table 1).
- More than 45% of Large Family projects were sited in Low and Very Low opportunity areas. In particular, Large Family New Construction projects and units were disproportionately placed in low-opportunity areas, where resources for families with children are inadequate to support healthy development and upward mobility (See Table 3 and Appendix Table 8).
- A large plurality of Nine Percent Tax Credit Acquisition and Rehabilitation projects were sited in Very High opportunity neighborhoods, and these projects robustly outperformed both Nine Percent New Construction projects and Four Percent Tax Credit projects of all types (See Chart 2b).
- While more Nine Percent Acquisition and Rehabilitation projects were sited in Very High opportunity neighborhoods than other project types, changes are needed to reduce the percentage of Nine Percent and Four Percent projects in both the New Construction and Acquisition and Rehabilitation categories that are sited in Low and Very Low opportunity areas (See Table 2).
- More than 61% of LIHTC developments and awards were dispersed in areas where over 60% of the population were people of color (See Table 4).
- In neighborhoods with populations that were majority-people of color, there were three times the amount of LIHTC projects than majority-white neighborhoods. Additionally, the ratio of Nine Percent Tax Credit units in majority-people of color neighborhoods to majority-white neighborhoods was 3.78:1. These findings demonstrate that there is much to be desired in terms of promoting LIHTC projects in racially integrated areas (See Tables 4 and 5).

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# INTRODUCTION

The Low Income Housing Tax Credit (LIHTC) program is the largest federal housing program in the United States, redirecting hundreds of millions of dollars per year in funds towards the creation and preservation of low-income rental housing. Indirectly subsidized by federal coffers, states enjoy enormous discretion in administering the program, with each state establishing its own criteria for awarding the tax credit.

The Haas Institute for a Fair and Inclusive Society at UC Berkeley analyzed LIHTC data from the California Department of Housing and Community Development (HCD) and the California Tax Credit Allocation Committee (TCAC) on housing projects financed by the tax credit within the San Francisco Bay Area.<sup>1</sup> The intention was to understand the temporal and spatial patterns of LIHTC developments from 1987–2014, including projects financed with both federal Four Percent (4%) and Nine Percent (9%) Tax Credits.<sup>2</sup> To assess the state's efficacy in promoting housing opportunities for low-income Californians in well-resourced, racially integrated neighborhoods, this report analyzes project categories by neighborhood opportunity and demographic composition:

## Opportunity Analysis

- LIHTC projects
- LIHTC units
- Total Awards<sup>3</sup>
- Acquisition, Rehabilitation, and New Construction<sup>4</sup>

## Demographic Analysis

- Large Family<sup>5</sup> projects
- Race-based analysis

We utilized UC Davis' Center for Regional Change Regional Opportunity Index (ROI) methodology and their place-based data to recalculate the opportunity index for the Bay Area at the census tract level, as displayed in Map 1 in the Appendix.<sup>6</sup> Additional data were gathered from the U.S. Census Bureau American Community Survey (ACS).

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- 1 The IRS administers the LIHTC program to states, while the California Tax Credit Allocation Committee determines how the two federal tax credits are allocated within California. Refer to page 2 of the Description of California Tax Credit Allocation Committee Programs via <http://www.treasurer.ca.gov/ctcac/program.pdf>.
  - 2 The Four Percent and Nine Percent Tax Credits indicate that housing projects are eligible for different levels of tax credit financing. For the Four Percent Credit, the dollar amount of the tax credits is 30% of the qualified costs of a housing project, while for the Nine Percent Tax Credit, the tax credit value is 70% of the qualified costs. See Novogradac, Michael J. 2002. *Novogradac Renewable Energy Tax Credit Handbook-2010 Edition*. Novogradac & Company LLP, June 1.
  - 3 Federal and state contributions were aggregated by multiplying federal awards by 10 years of tax credits and adding the one-time state award to obtain the sum of awards categorized as "Total Awards."
  - 4 Acquisition/Rehabilitation and New Construction are the two different construction classifications that help determine the eligibility basis and building calculation. Novogradac, Michael J. 2002. *Novogradac Renewable Energy Tax Credit Handbook-2010 Edition*. Novogradac & Company LLP, June 1.
  - 5 Large Family is defined in the California Tax Credit Allocation Committee Code of Regulation Section 10325(g)(1)(A). Prior to 2016, Large Family projects were defined by having at least 25% of units with apartments that have three or more bedrooms. <http://www.treasurer.ca.gov/ctcac/programreg/2015/20150121/regulations.pdf>.
  - 6 The Regional Opportunity Index has two indices: People-based and Place-based. Our analysis used the place-based index because we are interested in understanding and assessing the spatial patterns of LIHTC developments at the census tract level. The 2014 ROI data are accessible via <http://interact.regionalchange.ucdavis.edu/roi/data.html>. The Haas Institute served on the peer review committee and assisted the Center for Regional Change in developing the ROI methodology.

This comprehensive report shows that LIHTC developments in the Bay Area are relatively well spread across boundaries of opportunity. We also find that the Nine Percent Tax Credit outperforms the Four Percent in financing projects in higher opportunity neighborhoods. Furthermore, based on a 2015 report published by the United States Department of Housing and Urban Development Office of Policy Development and Research, California's LIHTC funding allocation formula has reduced the number of LIHTC projects that are sited in areas with high concentrations of poverty.<sup>7</sup> Upon deeper inspection, however, our analysis illuminates areas for improvement, including the need to provide more LIHTC developments in higher opportunity neighborhoods. Thus, TCAC should adopt Qualified Allocation Plan (QAP) criteria that will promote LIHTC projects in higher opportunity areas to ensure that households seeking subsidized rental housing have access to opportunity and upward mobility.

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<sup>7</sup> Refer to page 24 in the U.S. Department of Housing and Urban Development Office of Policy Development and Research 2015 [Effect of QAP Incentives on the Location of LIHTC Properties](#) report.

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## BACKGROUND

California is in the midst of a housing affordability crisis, with over half of renters statewide considered to be “cost-burdened” and nearly a third considered to be “severely cost-burdened” according to federal criteria.<sup>8</sup> Additionally, there is a 1.5 million unit shortfall of rental housing units that are affordable to very low- and extremely low-income renters. State criteria to determine which projects receive California’s limited amount of federal tax credits, as enacted in the, must be analyzed to ensure that the state is incentivizing the siting of low-income rental housing in high-opportunity areas.<sup>9,10</sup>

The QAP matters because it is a crucial determinant of where developers can receive public financing for Nine Percent Tax Credit projects, affecting whether projects are sited in neighborhoods with higher or lower opportunity and whether projects are built in racially integrated or segregated areas. It is vital to site LIHTC projects in high-opportunity areas—where quality resources and services enhance opportunity for residents. Understanding the patterns of community-level resource distribution and service provision surrounding LIHTC-financed projects provides insights as to whether government housing subsidies are fostering upward mobility and furthering fair housing for low-income residents.

Two existing state-by-state research studies provide initial suggestions as to how California’s QAP has affected project siting within the state, though it should be noted that prior to this report’s publication no study has assessed LIHTC projects in the Bay Area relative to other metro regions. Most recently, an analysis in 2015 from HUD revealed that California is making moderate strides at reducing the poverty exposure of LIHTC units. There was a 13.1% decrease in the number of neighborhoods with LIHTC projects which had poverty rates over 30% between the 2003-2005 period and the 2011-2013 period.<sup>11</sup> However, a study in 2006 indicated that California was not successful at promoting LIHTC projects in racially integrated neighborhoods. More than 70% of LIHTC projects in California’s metropolitan areas were sited in census tracts where the percentage of non-whites was greater than the percentage living in the respective metropolitan area, suggesting that projects were disproportionately sited in segregated neighborhoods.<sup>12,13</sup>

This report presents a series of tables, charts, and maps that display the analyses we performed to assess LIHTC projects, units, awards, construction types, and housing types in terms of neighborhood opportunity and demographic composition.

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8 California Department of Housing and Community Development, 2016. “California’s Housing Future: Challenges and Opportunities.” Statewide Housing Assessment 2025 Public Draft.

9 The Qualified Allocation Plan is defined in Regulation Section 10302(ee). [http://www.huduser.gov/portal/publications/pdf/QAP\\_incentive\\_mdrt.pdf](http://www.huduser.gov/portal/publications/pdf/QAP_incentive_mdrt.pdf).

10 The QAP applies only to the Nine Percent Tax Credit, meaning that developers must compete with one another for Nine Percent Tax Credit awards by proposing housing developments which meet the greatest number of criteria in the QAP.

11 U.S. HUD Office of Policy Development and Research, 2015. “Effect of QAP Incentives on the Location of LIHTC Properties.”

12 In this study, California LIHTC neighborhoods were roughly as segregated as those in Texas, where the Supreme Court determined in a 2013 landmark case that the segregated siting pattern of LIHTC properties created a disparate racial impact, and was therefore a violation of the Fair Housing Act. See *Brief of Housing Scholars as Amici Curiae, supporting Respondent. Texas Dept. of Housing and Community Affairs v. The Inclusive Communities Project, Inc.*, 135 S. Ct. 2507 (2015). Texas is also a useful comparison state because it receives the second highest number of LIHTC funds after California, and because at the time data was collected, metro areas in California and Texas had roughly the same percentage of non-white residents. See Exhibit 10 in *Khadduri, Buron, & Climaco, 2006. “Are States Using the Low Income Housing Tax Credit to Enable Families with Children to Live in Low Poverty and Racially Integrated Neighborhoods?”* [http://www.prrac.org/pdf/LIHTC\\_report\\_2006.pdf](http://www.prrac.org/pdf/LIHTC_report_2006.pdf).

13 While the findings here on racial segregation in LIHTC neighborhoods can neither confirm nor deny the 2006 findings with respect to racial segregation because of divergent methodologies, it is important to conduct additional research statewide to understand whether the Bay Area is an exception to the trends found in 2006 study, or whether LIHTC neighborhoods have become less segregated over the last ten years in California.

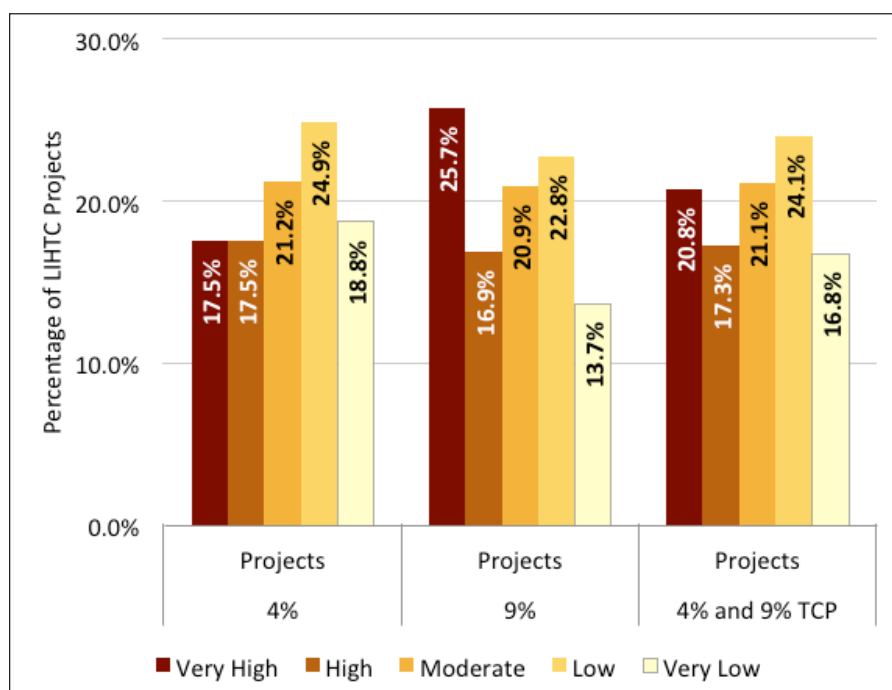


## OPPORTUNITY ANALYSIS

To conduct the opportunity analysis, we used the ROI methodology to recalculate the Opportunity Index for each census tract in the Bay Area and divided these tracts into 5 quintiles based on the index value—higher values as higher opportunity and vice versa. The opportunity categories, ranking from highest to lowest opportunity scores, were labeled as Very High, High, Moderate, Low, and Very Low opportunity. The opportunity categories for each census tract are presented visually in Appendix Map 1. The following tables and charts present California LIHTC developments relative to opportunity, disaggregated by Four Percent and Nine Percent Tax Credits.

CHART 1

### Opportunity Analysis of LIHTC Projects



### Analysis of LIHTC Developments by Opportunity

Our initial interpretation of the data on LIHTC projects, units, and total awards by opportunity shows that both Four Percent and Nine Percent Tax Credits are fairly evenly distributed across five categories of opportunity: Very High, High, Moderate, Low, and Very Low (Refer to Table 1 and Chart 1). There are more Four Percent Tax Credit projects than Nine Percent Tax Credit projects sited in the Bay Area (See Table 1 and Appendix Map 2). However, 64.9% of Four Percent Tax Credit projects are sited in the Moderate, Low, and Very Low opportunity areas. In addition, the opportunity category with the highest percentage of projects (24.9%) was the Low opportunity category, a trend that is seen throughout our Opportunity Analysis of LIHTC developments that received the Four Percent Tax Credits (See Chart and Appendix Charts 1b and 1c).

The performance of the Nine Percent Tax Credits stands in stark contrast to that of the Four Percent Tax Credits, due to a relatively high percentage of projects (25.7%), units (28.7%), and awards (25.9%) sited in Very High opportunity areas (See Chart 1; see also Charts 1b and 1c in the Appendix). For the Nine Percent Credit, the Very High opportunity category has the highest number of projects (25.7%); additionally, the allocation between Moderate and Low opportunity is comparable (20.9% and 22.8%, respectively). Thus, simply disaggregating projects by Four and Nine Percent Tax Credits shows that developments which received Nine Percent Tax Credits (which are awarded through the competitive application process according to QAP criteria) are far more likely to be sited in higher opportunity neighborhoods.<sup>14</sup>

<sup>14</sup> See page 4 in California Tax Credit Allocation Committee <http://www.treasurer.ca.gov/ctcac/program.pdf>.



TABLE 1  
Opportunity Analysis of LIHTC Developments

		Very High	High	Moderate	Low	Very Low	Total
Four Percent (4%)	Number of Projects	100	100	121	142	107	570
	Total Units	10,150	9,228	12,875	14,849	13,910	61,012
	Total Awards	\$808m	\$651m	\$850m	\$936m	\$808m	\$4053m
Nine Percent (9%)	Number of Projects	96	63	78	85	51	373
	Total Units	7,380	4,181	4,993	5,274	3,911	25,739
	Total Awards	\$845m	\$555m	\$753m	\$651m	\$454m	\$3258m
All Projects	Number of Projects	196	163	199	227	158	943
	Total Units	17,530	13,409	17,868	20,123	17,821	86,751
	Total Awards	\$1653m	\$1206m	\$1603m	\$1587m	\$1263m	\$7311m

\*Note: The letter “m” in Total Awards refers to millions. For these figures listed as percentages, refer to chart 1 and Appendix charts 1b and 1c.

## Analysis of Acquisition, Rehabilitation, and New Construction by Opportunity

To understand the distribution of Acquisition, Rehabilitation, and New Construction developments, the data—which spanned the years 1987–2014—was divided into two categories: before 2007 and after 2007.<sup>15</sup> This data is displayed visually in Appendix Map 3. Our data analysis revealed that before 2007, there were more Acquisition, Rehabilitation, and New Construction projects in the Four Percent Credit category located in lower opportunity areas. After 2007, however, more Acquisition, Rehabilitation, and New Construction projects were sited in higher opportunity areas.

For the Nine Percent Tax Credits, there were too many fluctuations and inconsistencies in the trends before and after 2007 to draw conclusions about how projects were sited relative to opportunity. The aggregated total of Four and Nine Percent before 2007, however, showed that about two-thirds of New Construction projects were sited in Moderate and Low opportunity categories. After 2007, the distribution of New Construction projects became fairly even except for the Moderate opportunity category, which had more projects than other opportunity categories (See Table 2).

15 The reason for this choice was that legislation enacted in the wake of the economic crisis of 2008 had important implications for LIHTC, namely the Housing and Economic Recovery Act (HERA) of 2008 and the American Recovery and Reinvestment Act (ARRA) of 2009. See Novogradac 2012.

TABLE 2

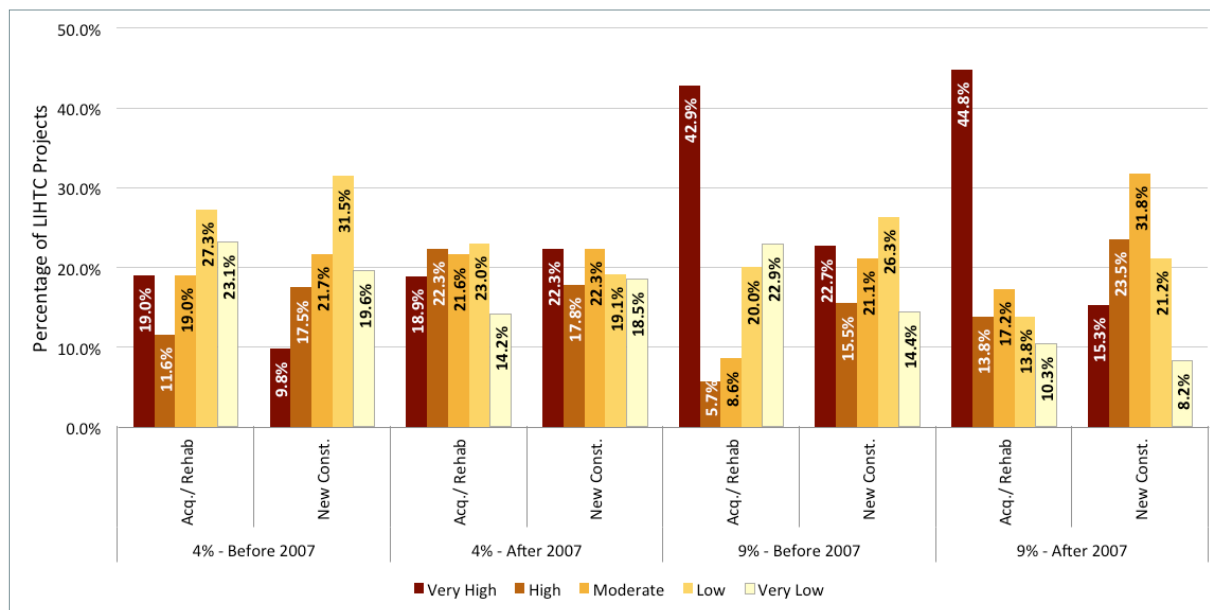
# Opportunity Analysis of Acquisition, Rehabilitation, and New Construction LIHTC Projects before and after 2007

		Very High	High	Moderate	Low	Very Low	Total
Four Percent (4%)– Before 2007	Acquisition/Rehabilitation	23	14	23	33	28	121
	New Construction	14	25	31	45	28	143
	Unknown	0	0	0	0	1	1
Four Percent (4%)– After 2007	Acquisition/Rehabilitation	28	33	32	34	21	148
	New Construction	35	28	35	30	29	157
Nine Percent (9%)– Before 2007	Acquisition/Rehabilitation	15	2	3	7	8	35
	New Construction	44	30	41	51	28	194
	Unknown	11	7	2	5	5	30
Nine Percent (9%)– After 2007	Acquisition/Rehabilitation	13	4	5	4	3	29
	New Construction	13	20	27	18	7	85
Total 4% and 9% – Before 2007	Acquisition/Rehabilitation	38	16	26	40	36	156
	New Construction	58	55	72	96	56	337
	Unknown	11	7	2	5	6	31
Total 4% and 9% – After 2007	Acquisition/Rehabilitation	41	37	37	38	24	177
	New Construction	48	48	62	48	36	242

\*Note: For these figures listed as percentages, refer to chart 2b. For additional visualizations refers to charts 2c - 2d and Appendix chart 2a and table 2a.

CHART 2B

## Opportunity Analysis of LIHTC Projects before and after 2007



Further assessments of the construction types before and after 2007 revealed there was a clear decrease in the percentage of projects that were sited in the lowest opportunity categories across program and project types (See Chart 2b). Prior to 2007, 71.3% of Four Percent Tax Credit projects of all types were sited in Moderate, Low, or Very Low opportunity areas. After 2007, this number dropped to 59.3%. As for the Nine Percent Credit, both before 2007 and after 2007, a plurality of Acquisition and Rehabilitation projects (42.8% and 44.9%, respectively) were in Very High opportunity areas; however, the proportion of projects in the lower four opportunity categories shifted dramatically over time. Whereas before 2007, nearly 43% of Acquisition and Rehabilitation projects were in the Very Low and Low opportunity categories, after 2007 this figure diminished to 24.1%, and a far greater percentage of projects were sited in High and Moderate areas. There was also an increase of New Construction projects in Moderate and High opportunity groups after 2007. However, the percentage of Nine Percent Credits New Construction projects in the Very High opportunity category declined significantly after 2007, falling from 22.7% to 15.3%.

## Analysis of Four Percent and Nine Percent Tax Credits Timeline

The timelines in Charts 2c and 2d present data from 1987 - 2014 LIHTC developments and show the trajectory of both types of tax credits and the number of projects per year. For both the Four Percent and Nine Percent program, the number of Acquisition and Rehabilitation projects financed by tax credits has historically been lower than the number of New Construction projects. Chart 2c shows that the number of Four Percent Acquisition and Rehabilitation projects increased around 1996 and remained steady from 1998 - 2009. As seen in Chart 2d, there were very few Acquisition and Rehabilitation projects financed by the Nine Percent Tax Credit, though the number of these projects temporarily increased between 1998 and 2001, and again between 2011 and 2013.

In the early years of the LIHTC program, more New Construction projects were financed using the Nine Percent credit than the Four Percent credit, though this trend reversed in the early 2000's, and in more recent years similar numbers of projects have been financed by the two programs. The trajectory of Nine Percent New Construction projects fluctuated throughout the time frame considered, as shown in Chart 2d. The numbers rose sharply after 1989, when there were zero projects constructed, but after 1995 New Construction projects dropped and never returned to the levels seen in the early 1990's. As seen in Chart 2c, the number of Four Percent Tax Credit New Construction projects rose from 1995 to 2005 with a peak value in 2003, but the quantity of projects dipped and increased periodically.

CHART 2C

### Four Percent Tax Credit LIHTC Projects from 1987 - 2014

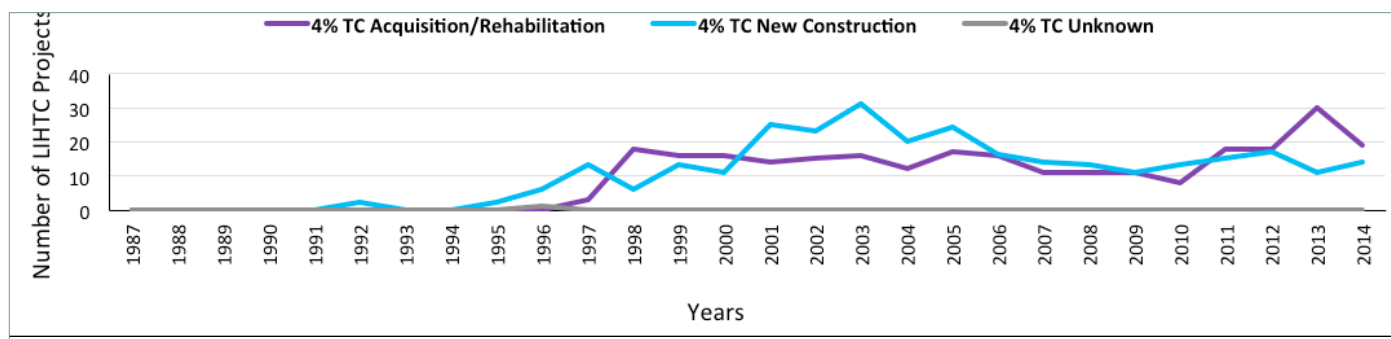
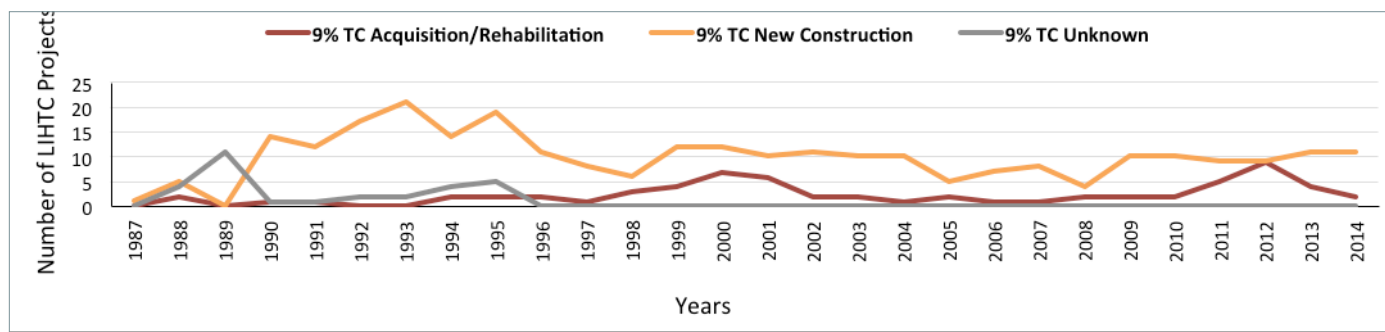


CHART 2D

### Nine Percent Tax Credit LIHTC Projects from 1987 - 2014



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## DEMOGRAPHIC ANALYSIS

In this section we demonstrate how Large Family LIHTC developments were sited relative to opportunity as compared to other types of developments, and we subsequently discuss project siting relative to the racial/ethnic composition of neighborhoods. Prior to 2016, Large Family projects were defined by having at least 25% of units with three or more bedrooms, and with at least 1,000 square feet of living room space. These projects are important to consider independently from other kinds of housing because they are more likely to house families with children, and the consensus in the academic literature is that child well-being, as well as their lifetime opportunities, are correlated with the neighborhoods in which they are raised.<sup>16</sup> Our racial and ethnic analysis demonstrated that there are a disproportionate number of LIHTC projects, units, and awards in neighborhoods where the population of non-whites is greater than 40%.

In order to better understand the spatial pattern of Large Family housing developments, we analyzed Large Family by neighborhood opportunity and demographic composition. In Appendix Map 4 we have displayed the spatial distribution of Large Family projects and “Other” types of LIHTC projects. Table 3 shows that the Four Percent Tax Credit financed a total of 223 Large Family projects (39.19%), whereas it financed 346 projects (60.80%) ‘Other’ projects. The Nine Percent category financed 195 Large Family projects, while 178 projects are classified as ‘Other’. When both federal tax credit programs are aggregated, there are fewer Large Family housing projects than all other housing types combined (See Table 3).

TABLE 3  
Housing Types

	Large Family		Other		Total
	No.	Percentage	No.	Percentage	
Four Percent (4%)	223	39.19%	346	60.80%	569
Nine Percent (9%)	195	52.27%	178	47.72%	373
Total	418	44.37%	524	55.62%	942*

\*The total number of projects is 943. We recognize that only 942 projects are listed in this table because a record has a missing value that is neither Large Family nor Other. For other visualizations of this data refer to charts 3a - 3c.

We recognize that aggregating all housing types that are not classified as Large Family as ‘Other’ does not show the distinctions between different LIHTC project types—which include at-risk, special needs, non-targeted, and Single-Room Occupancy (SRO)—and we may therefore be overlooking or neglecting a variety of other dynamics. Yet, the process of combining these other categories allows us to draw clear distinctions between housing types that are likely to have smaller unit sizes and standards from Large Family housing.

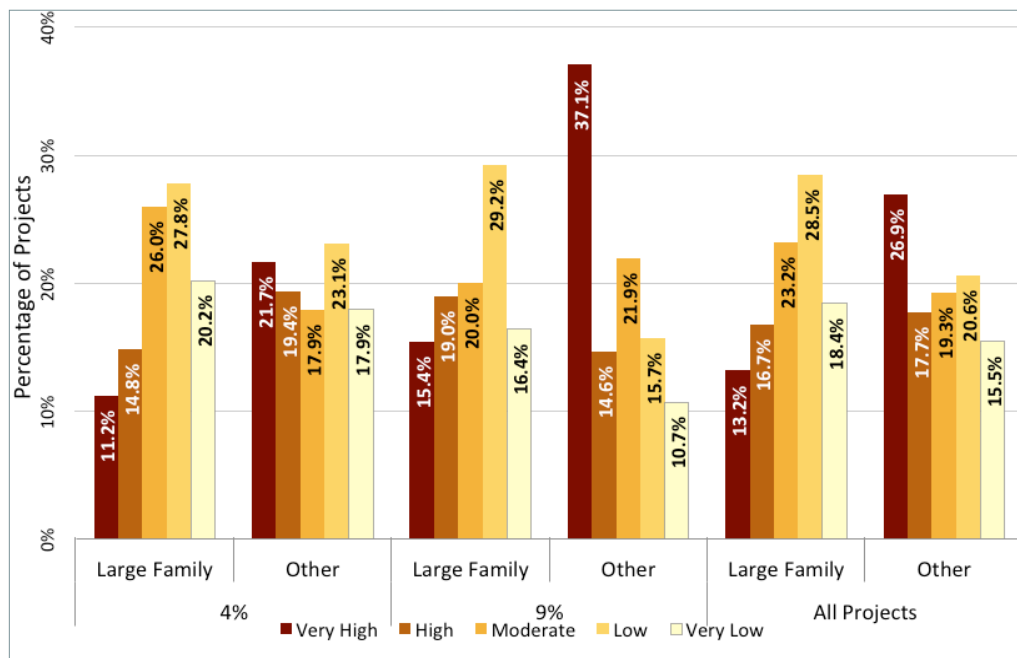
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16 See, for example, Chetty, Hendren, Kline, and Saez. 2014. “Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States.” *The Quarterly Journal of Economics* 129:4.

## Analysis of Large Family Projects by Opportunity

Analyzing tax credit projects by housing type reveals that Large Family projects in both Four and Nine Percent Tax Credit categories are disproportionately concentrated in low-opportunity areas – 46.9% of the total of Large Family projects are in Low and Very Low opportunity neighborhoods, as opposed to 36.1% of all ‘Other’ types of projects (see Table 2a in the Appendix). Furthermore, disaggregating Large Family projects and units by type shows that over 46% of New Construction projects and total units are sited in Low and Very Low opportunity neighborhoods.

CHART 3A  
Opportunity Analysis of Large Family Projects



It is concerning that New Construction Large Family housing projects are built in areas that are not ideal for families because resources, services, and amenities are limited or inadequate, and may be in areas with poorly-performing neighborhood schools, high crime, or environmental hazards. We urge that priorities must be given to siting Large Family developments in high-opportunity neighborhoods to benefit families with children and foster well-being and upward mobility (see Table 8, and Charts 3b and 3c in the Appendix).

## Analysis of LIHTC Developments and Neighborhood Demographics

This section presents California LIHTC projects, units, and awards relative to racial or ethnic composition of census tracts disaggregated by Four Percent and Nine Percent Tax Credits. It is crucial to analyze these residential patterns relative to opportunity to determine whether LIHTC developments are reinforcing or exacerbating patterns of segregation.<sup>17</sup> For a visual illustration of LIHTC projects and neighborhood demographic composition, refer to Map 5 in the Appendix.

To conduct this demographic analysis, we pulled data from the American Community Survey (2010 - 2014, 5-year estimates) and divided the population of non-whites into 5 categories with equal intervals of 20% each. These categories range from less than 20%, 20.01–40%, 40.01–60%, 60.01–80%, and above 80%.<sup>18</sup>

TABLE 4  
Demographic Analysis of LIHTC Developments

		POPULATION NON-WHITES (PEOPLE OF COLOR)					Total
		20% or below	20.01–40%	40.01–60%	60.01–80%	Above 80%	
Four Percent (4%)	No. of Projects	5	69	143	185	168	570
	Total Units	342	5,795	13,743	21,283	19,849	61,012
	Total Awards	\$20m	\$413m	\$870m	\$1334m	\$1416m	\$4053m
Nine Percent (9%)	No. of Projects	8	45	94	136	90	373
	Total Units	320	2,278	6,625	9,904	6,612	25,739
	Total Awards	\$38m	\$277m	\$901 m	\$1160m	\$882m	\$3258m
All Projects	No. of Projects	13	114	237	321	258	943
	Total Units	662	8,073	20,368	31,187	26,461	86,751
	Total Awards	\$58m	\$690m	\$1771m	\$2495m	\$2297m	\$7311m
All Bay Area Census Tracts	No. of Tracts	41	281	478	404	378	1582
	Percentage tracts	2.59%	17.76%	30.21%	25.54%	23.89%	N/A

\*Note: For percentage breakdowns refer to Appendix charts 4a - 4c.

17 Within the academic literature on the “neighborhood effects” of poverty, and within more recent research on lifetime opportunity, there is a consensus that segregated, impoverished, non-white neighborhoods are areas of concentrated disadvantage that reduce social mobility over time. See, for example, Chetty et. al. 2014.

18 We gathered data for the total population and subtracted non-Hispanic whites to obtain the non-white population, comprised of Hispanics, Blacks, Asians, Native Americans, and mixed-race groups.



In 2014, the Bay Area has a total population of 7,360,487 residents. Of these, 1,743,954 residents identify as Hispanic or Latino; 3,050,293 as non-Hispanic white; 1,758,791 as Asian; 455,865 as Black or African American; and 351,584 as Native American, Pacific Islander, or mixed-race.<sup>19</sup> Thus, non-whites are 58.56% of the Bay Area population and 41.44% are non-Hispanic whites (see Tables 6 and 7 in the Appendix). With this degree of diversity, it is challenging to assess whether the Bay Area is racially integrated or segregated and whether LIHTC plays a role in reinforcing or exacerbating segregation.

However, as shown in table 4, there are a disproportionate number of projects, units, and awards located in neighborhoods with non-white populations above 60%. While about 50% of the Bay Area population lives in census tracts where non-whites constitute 60% or more of the tract population, almost two-thirds (61%) of LIHTC projects are in census tracts where 60% or more of the population was non-white. The number of projects disaggregated by Four Percent and Nine Percent Credits shows similar breakdowns of developments in these neighborhoods. Furthermore, the data in table 5 (see Appendix) indicates that more than 74% (representing \$5.751 billion of investments) of Bay Area LIHTC projects, units, and awards are located in areas with a concentration of non-whites greater than 50%.

As seen in charts 4a, 4b, and 4c (in the Appendix), 61% of projects, 67% of units, and 66% of awards are located in areas where 60% or more of the population is non-white. Areas with high proportions of non-whites do not necessarily suggest that they are low-opportunity neighborhoods, but do raise fair housing concerns.

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19 The demographic analysis of Bay Area's nine counties—Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma—is done at the US Census Bureau census tract level using the 2010-2014 ACS 5-year-estimates. The racial/ethnic categories are also based on the US Census Bureau demographic classification. We addressed this categorization in the limitation section.

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## LIMITATIONS

While effort was taken to ensure that this analysis was performed as rigorously as possible, it is important to highlight several limitations. One limitation is our breakdown of project data from 1987–2014 into two groups. The “before 2007” category is a span of 19 years of data, meaning that there are far more projects, units, and awards in that category, whereas there is only 7 years’ worth of data for the “after 2007” category presented in table 2. To mitigate this issue, the charts display the percentage of projects; this standardizes the data by showing proportions instead of sums of 19 years’ and 7 years’ worth of data, respectively.

A limitation of our demographic analysis is our aggregation of the Hispanic, African American, Asian, and Other racial groups into the category of “non-white”. Combining several racial groups together may not provide a holistic evaluation of which racial group(s) receives the least affordable housing options and support from the federal housing program.

In addition, we classified Asians as “non-whites” for the purpose of the demographic analysis. Nationally, a high level of non-white segregation generally raises fair housing concerns because of the nation’s history of racial discrimination and exclusion. However, in the Bay Area context, the dynamics may be different for Asians because many neighborhoods—particularly those in close proximity to Silicon Valley—may have very high populations of Asians who are employed by nearby technology firms, which pay salaries above the regional median income. Currently, there is a lack of research on whether neighborhoods with high percentages of Asians experience lower levels of opportunity than whites with similar incomes—especially in areas where these groups have high-paying jobs.

Finally, we have computed opportunity using 2014 data on neighborhood attributes. High-opportunity neighborhoods in 2014 may actually be different from where high-opportunity neighborhoods were in 2007 or 1989, yet we are analyzing projects which received credits in those years according to 2014 levels of opportunity.

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## CONCLUSION

Since the inception of the LIHTC program in 1986, research on the location of LIHTC projects in relation to opportunity have been mixed in their assessments on the efficacy of the program.<sup>20</sup> Our analysis of LIHTC projects in the San Francisco Bay Area has revealed similar patterns to those historically observed, in addition to some novel trends.

After assessing tax credit housing locations in the Bay Area, the pattern of LIHTC developments seems to promote a larger-than-desired percentage of its affordable housing in low-opportunity areas non-whites comprise 50% or more of the population. While California has made improvements in ensuring that LIHTC units are not exposed to high levels of poverty in the last ten years, there are still areas for improvement, such as encouraging Large Family and New Construction projects in higher opportunity neighborhoods and maintaining the number and quality of Acquisition and Rehabilitation developments.<sup>21</sup>

There are several topics pertinent to LIHTC project siting and opportunity that are important to consider, but which are outside of the scope of what we were able to analyze in this report, including:

- What levels of neighborhood opportunity were present at the time that LIHTC projects were constructed?
- Have neighborhoods with LIHTC projects gradually transitioned from having lower opportunity levels to higher levels, or vice versa?
- Have the most recently constructed projects been sited in higher opportunity areas than the projects that were constructed in the earlier years of the LIHTC program?

Below is a summary of our key findings.

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20 Lance Freeman, 2004. Siting Affordable Housing: Location and Development Trends of Low Income Housing Tax Credit Developments in the 1990s. <http://www.brookings.edu/research/reports/2004/04/metropolitanpolicy-freeman>.

21 Refer to page 24 in the U.S. Department of Housing and Urban Development Office of Policy Development and Research 2015 [Effect of QAP Incentives on the Location of LIHTC Properties](#) report.

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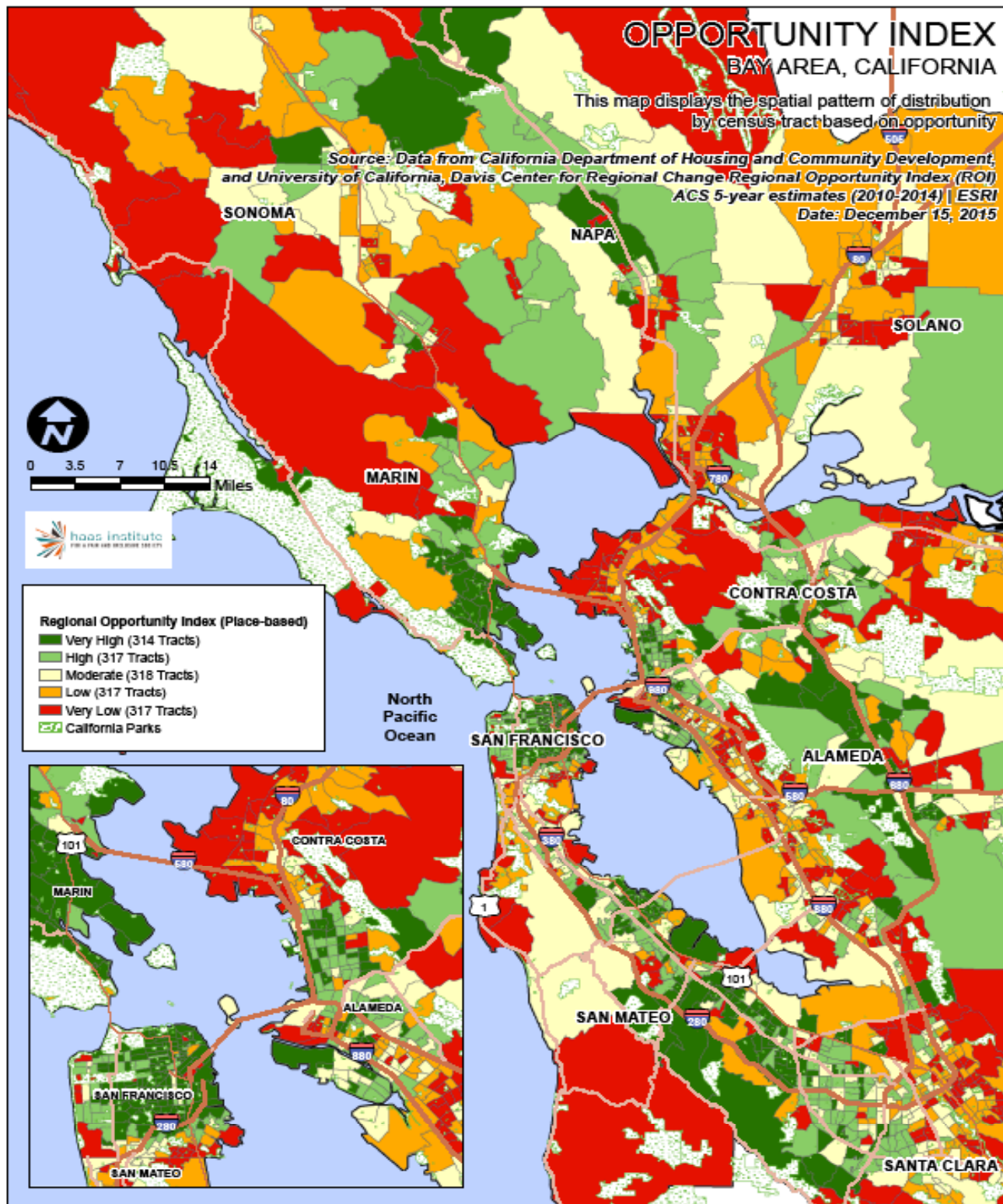
## KEY FINDINGS

- Housing projects financed by the LIHTC in the Bay Area were relatively well distributed across the boundaries of opportunity, although there was variability depending on program type, project year, and project type (See Charts 1, 2b, and 3a).
- Nine Percent Tax Credit projects outperformed the Four Percent Tax Credit in financing projects in higher opportunity neighborhoods. For example, Nine Percent Tax Credit projects were more likely to be sited in Very High opportunity neighborhoods than Four Percent Tax Credit projects (25.7% versus 17.5%) (See Table 1).
- More than 45% of Large Family projects were sited in Low and Very Low opportunity areas. In particular, Large Family New Construction projects and units were disproportionately placed in low-opportunity areas, where resources for families with children are inadequate to support healthy development and upward mobility (See Table 3 and Appendix Table 8).
- A large plurality of Nine Percent Tax Credit Acquisition and Rehabilitation projects were sited in Very High opportunity neighborhoods, and these projects robustly outperformed both Nine Percent New Construction projects and Four Percent Tax Credit projects of all types (See Chart 2b).
- While more Nine Percent Acquisition and Rehabilitation projects were sited in Very High opportunity neighborhoods than other project types, changes are needed to reduce the percentage of Nine Percent and Four Percent projects in both the New Construction and Acquisition and Rehabilitation categories that are sited in Low and Very Low opportunity areas (See Table 2).
- More than 61% of LIHTC developments and awards were dispersed in areas where over 60% of the population were people of color (See Table 4).
- In neighborhoods with populations that were majority-people of color, there were three times the amount of LIHTC projects than majority-white neighborhoods. Additionally, the ratio of Nine Percent Tax Credit units in majority-people of color neighborhoods to majority-white neighborhoods was 3.78:1. These findings demonstrated that there is much to be desired in terms of promoting LIHTC projects in racially integrated areas (See Tables 4 and 5).

As HCD and TCAC explore options to strengthen existing housing programs such as LIHTC, it is important that the state's development of a long-term housing plan ensures fair and equitable affordable rental housing outcomes to combat systemic segregation and poverty, and fosters diverse and balanced living model free from exclusionary barriers where individuals—regardless of their race, background, and status—have access to opportunities.

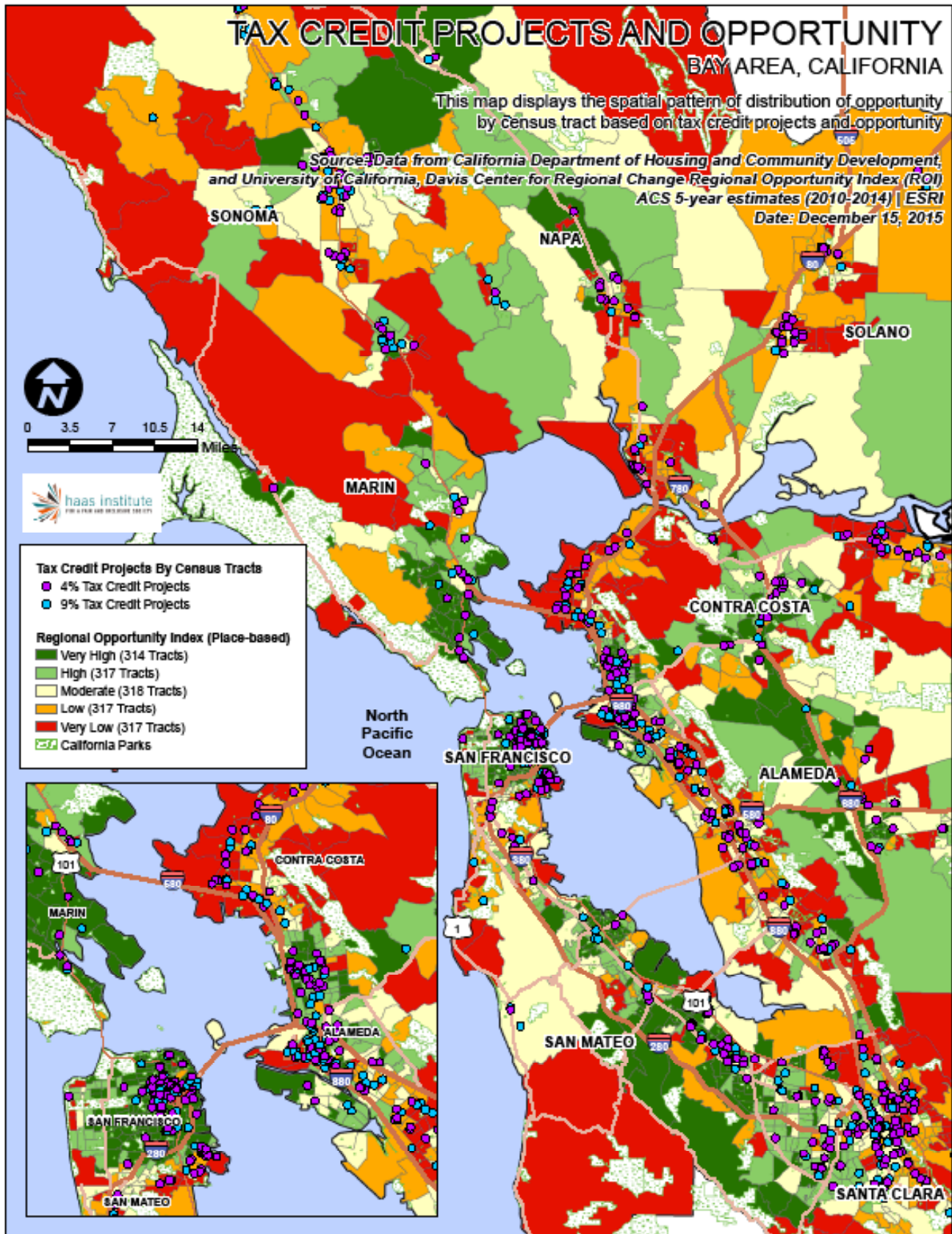
## APPENDIX

Map 1

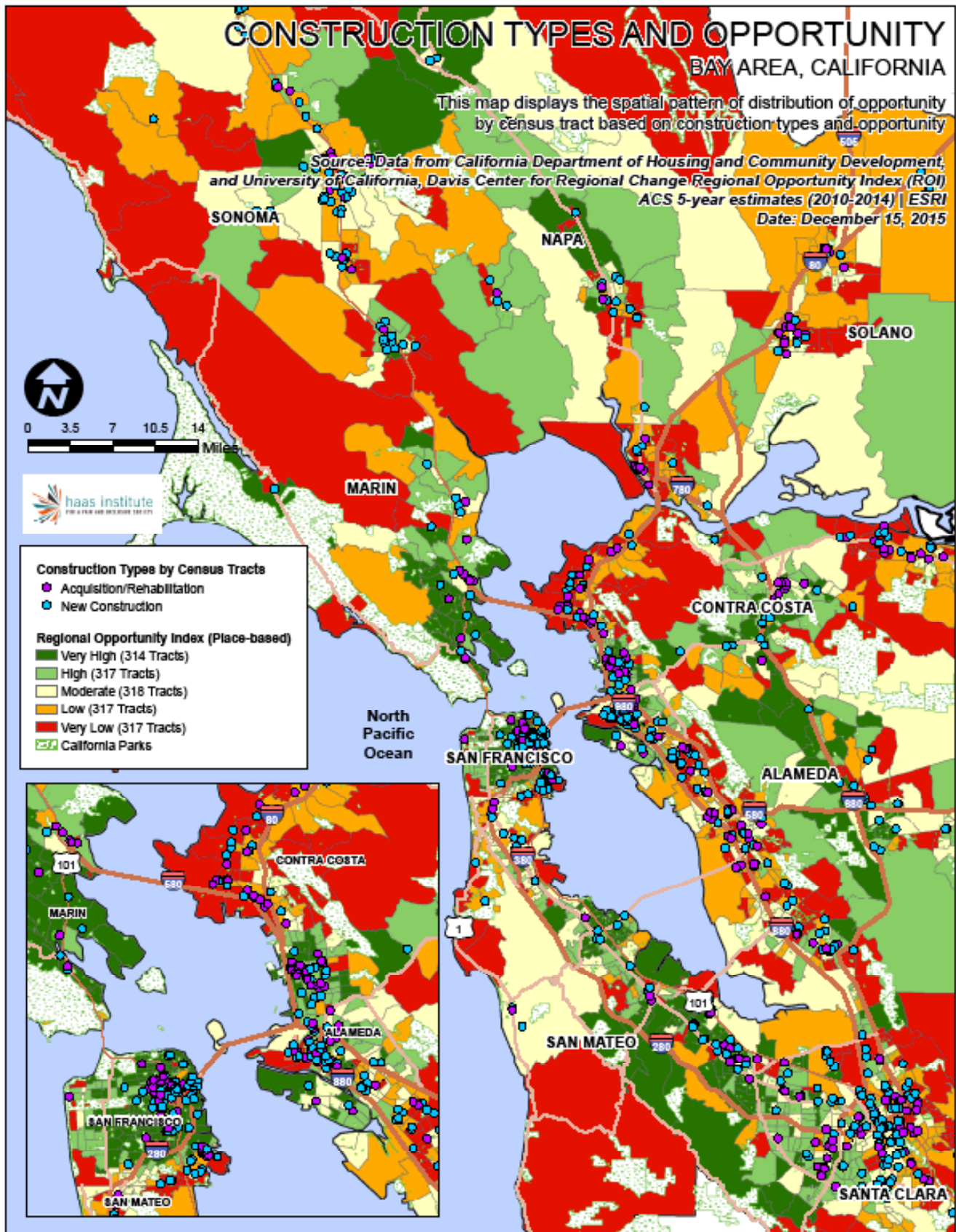




Map 2

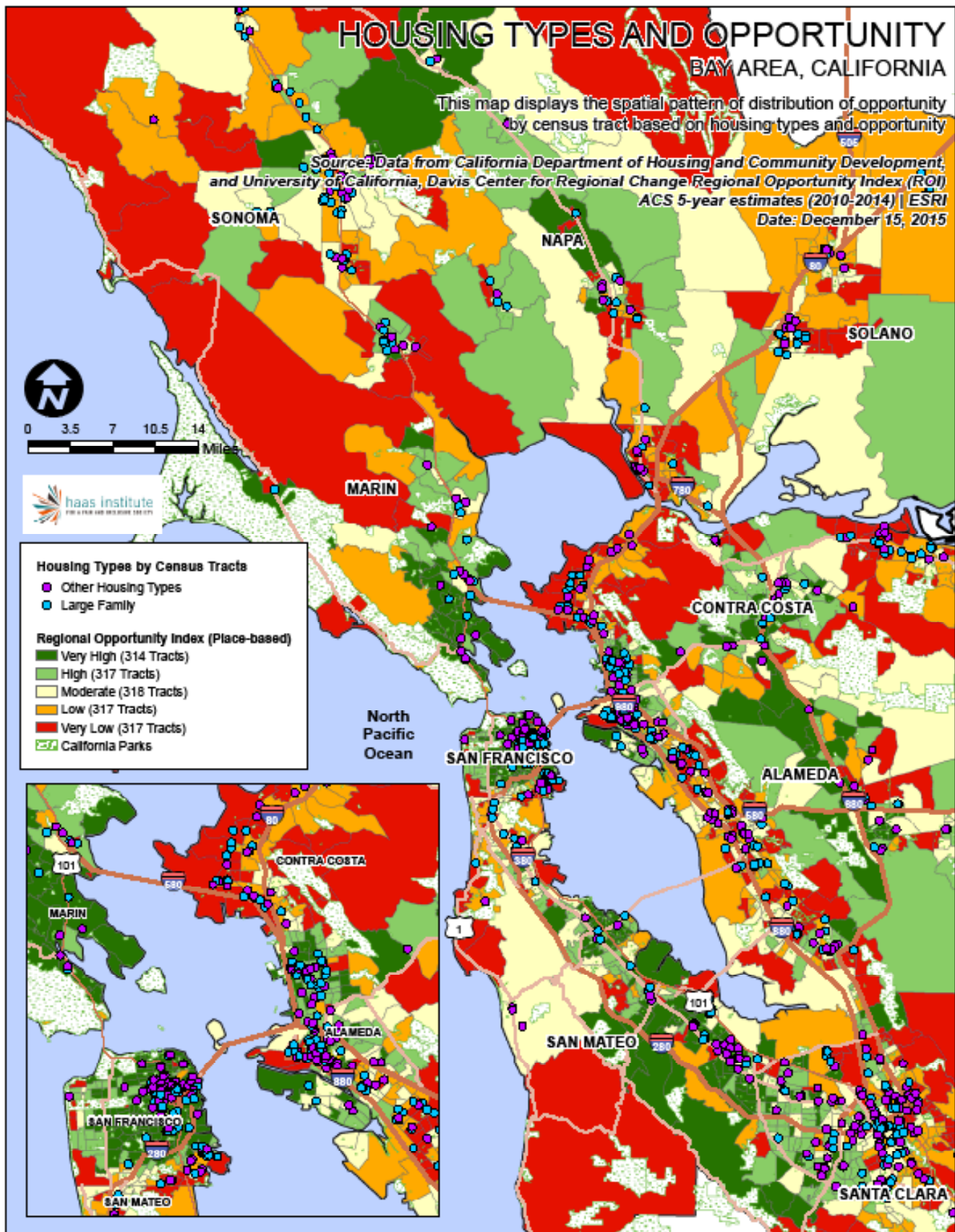


Map 3

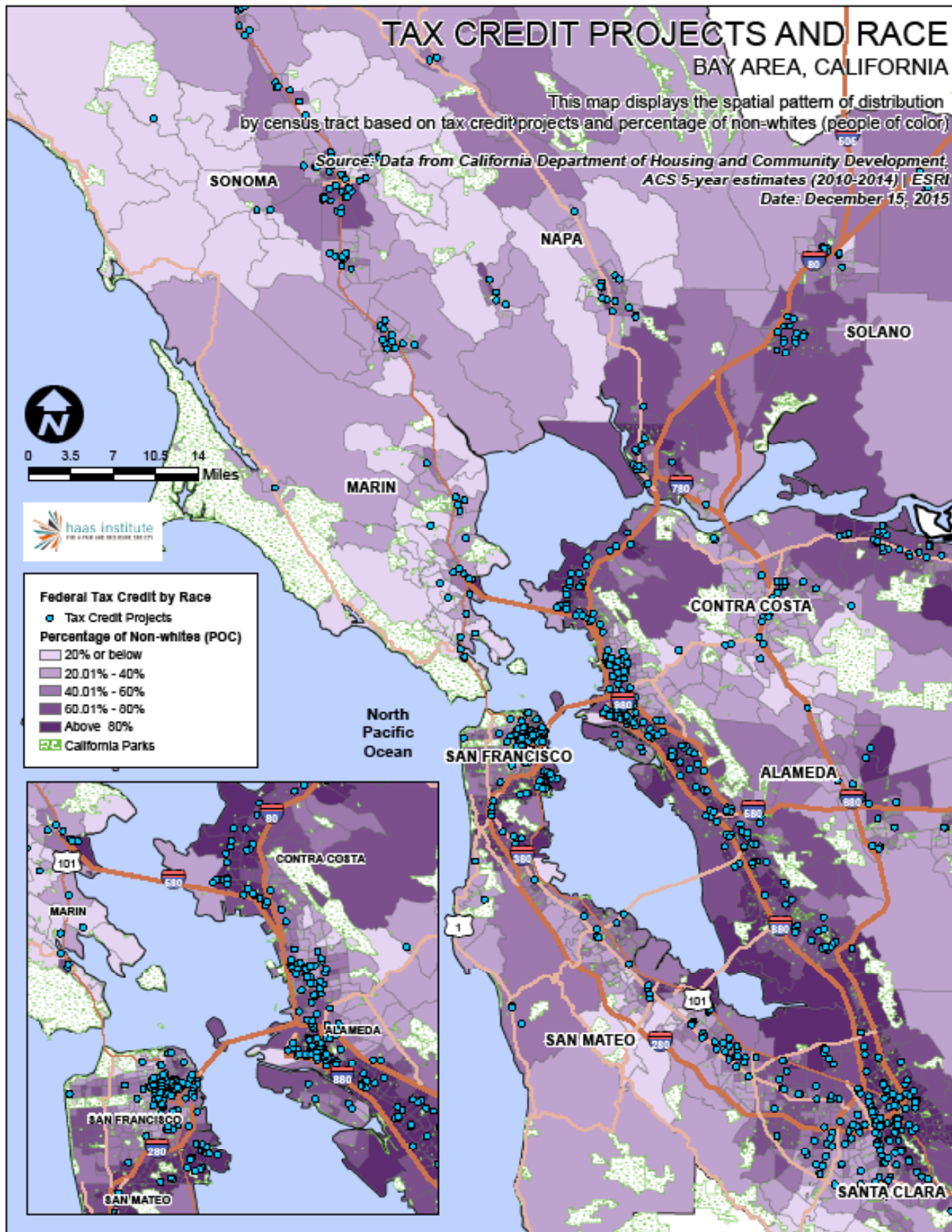




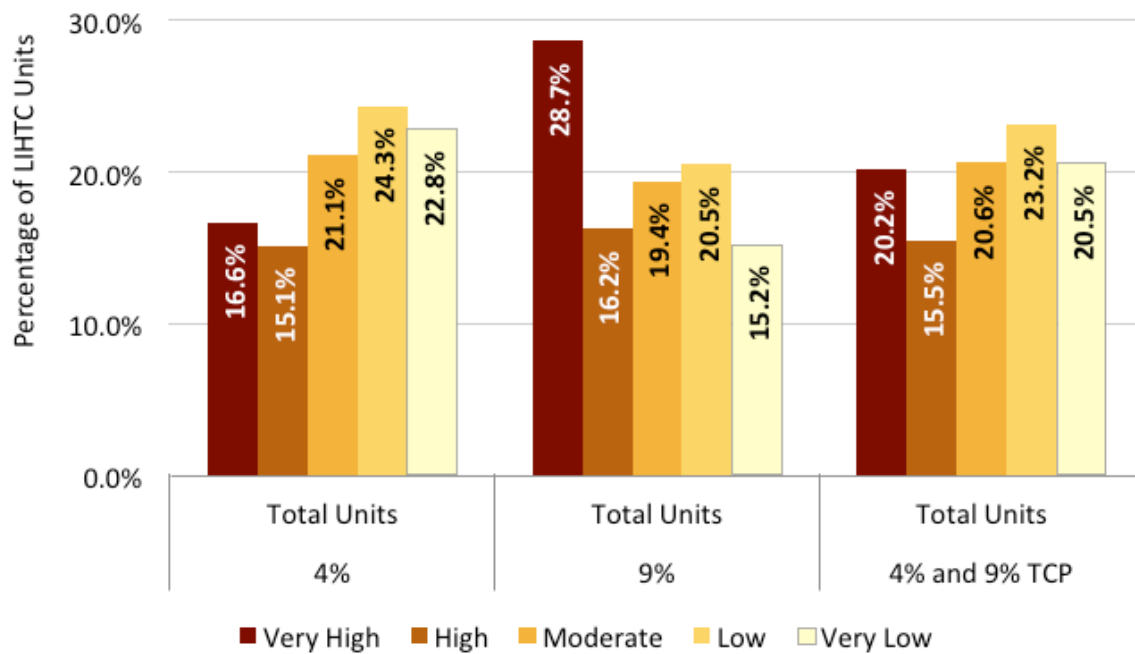
Map 4



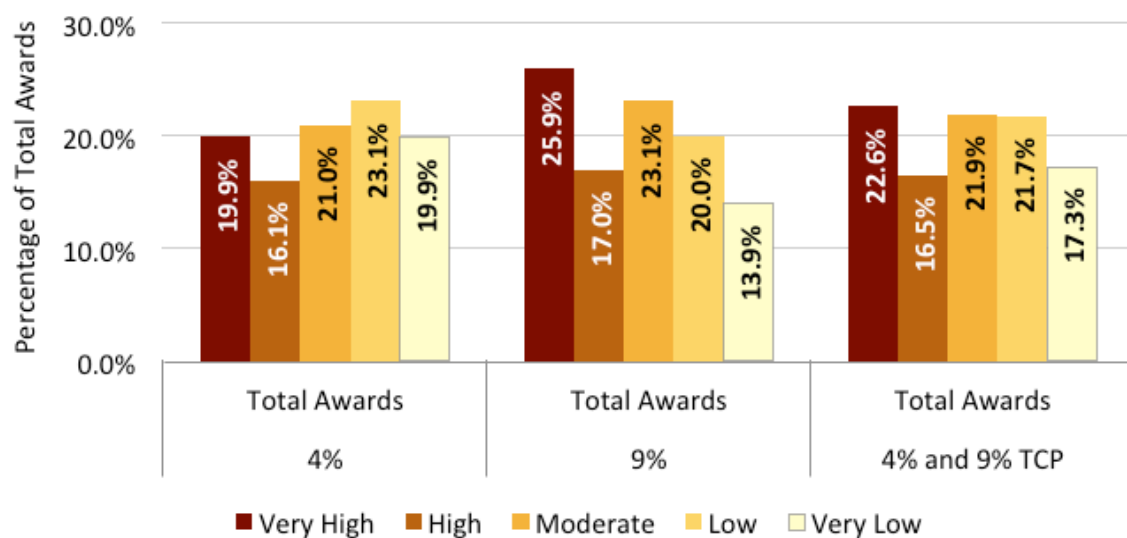
Map 5



**Chart 1b: Opportunity Analysis of LIHTC units**

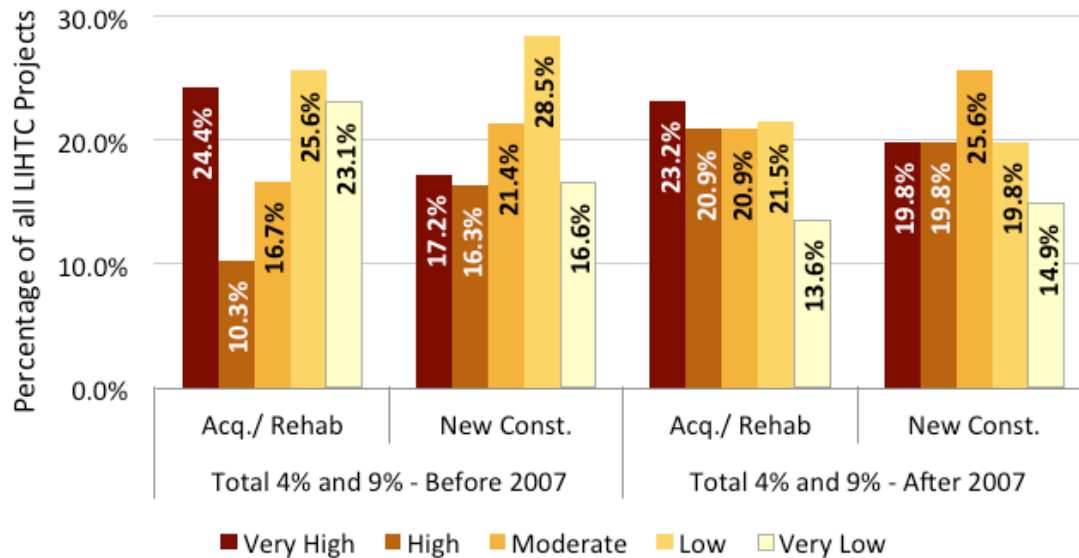


**Chart 1c: Opportunity Analysis of total awards**

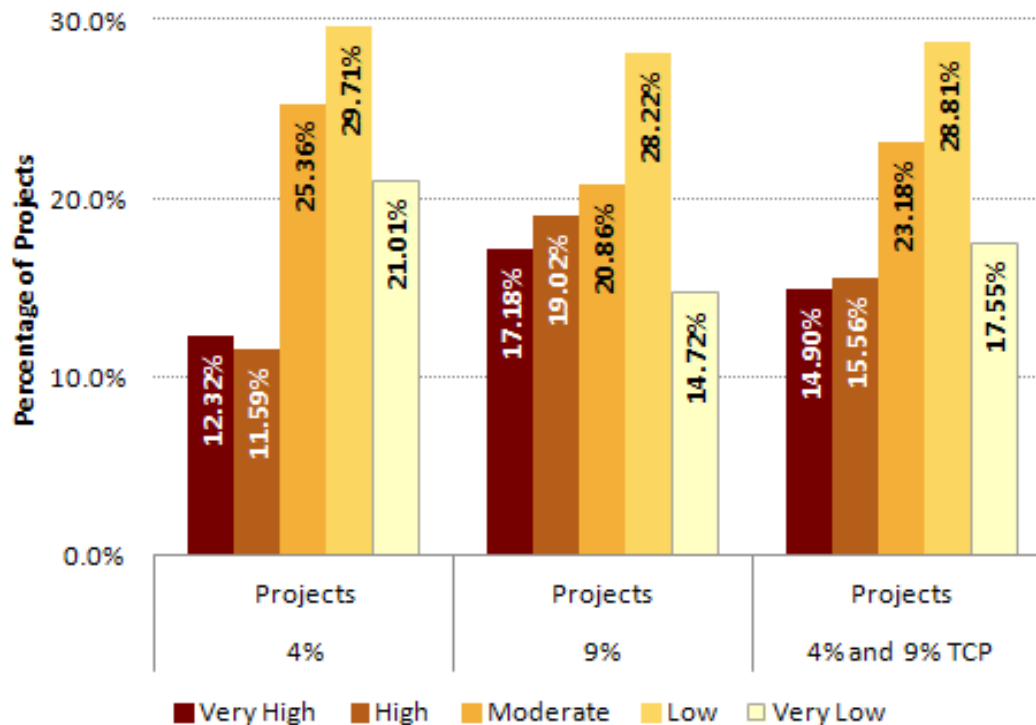




**Chart 2a: Percentage of all LIHTC projects before and after 2007 by Opportunity**



**Chart 3b: Opportunity Analysis of Large Family New Construction Projects**



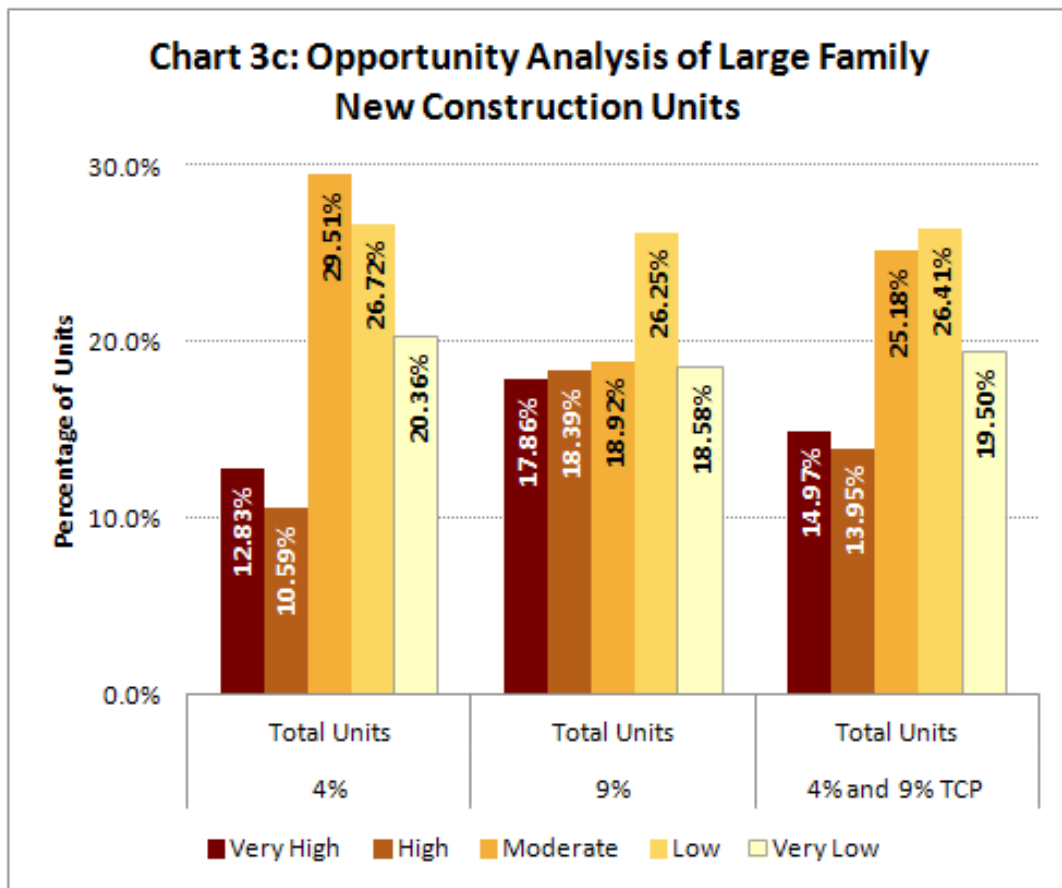
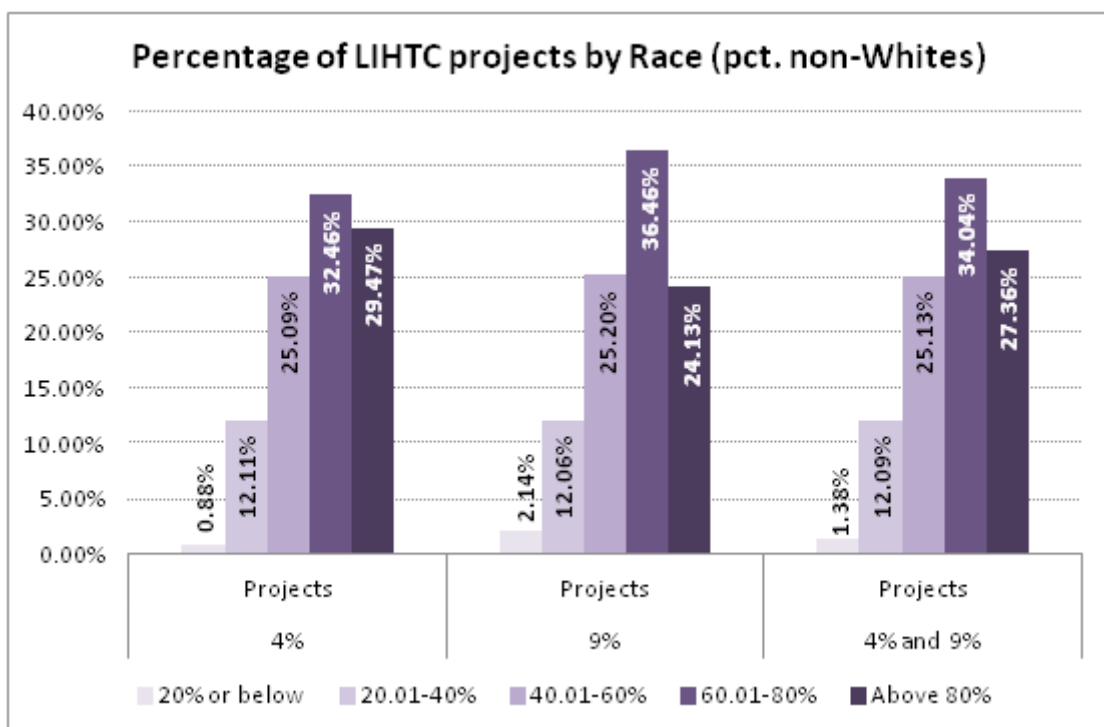
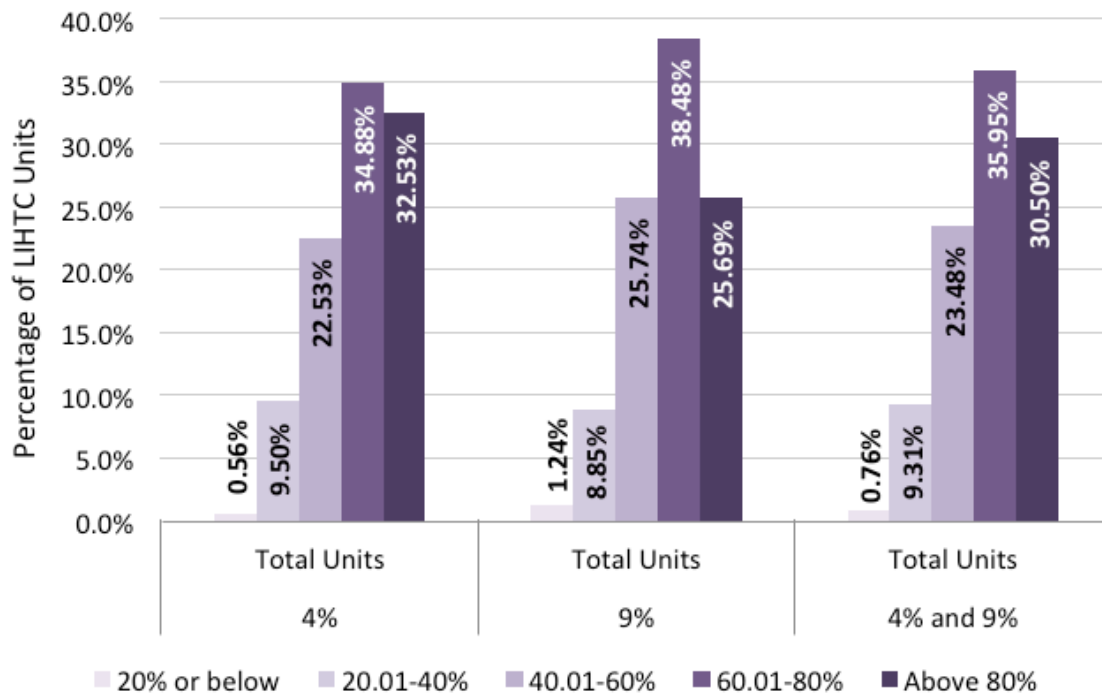


Chart 4a: Percentage of LIHTC projects by Race



**Chart 4b: Demographic Analysis of LIHTC units**



**Chart 4c: Demographic Analysis of LIHTC total awards**

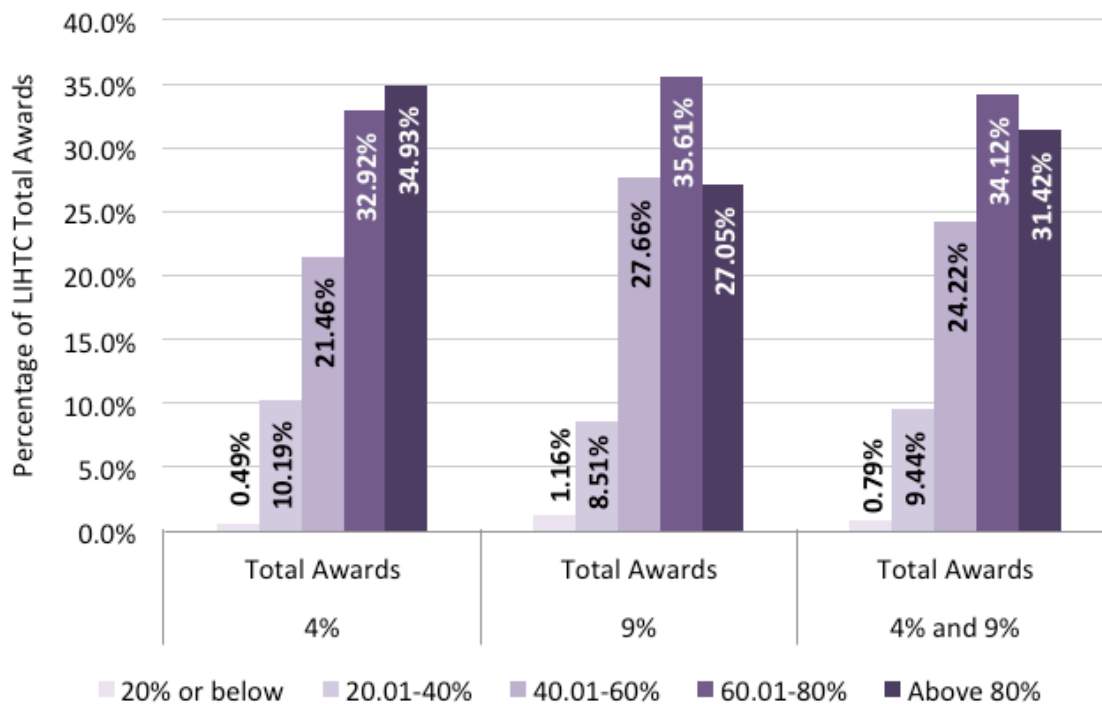


Table 2a: Housing Types by Opportunity

		Opportunity					Total
		Very High	High	Moderate	Low	Very Low	
4%	Large Family	25	33	58	62	45	223
	Other	75	67	62	80	62	346
9%	Large Family	30	37	39	57	32	195
	Other	66	26	39	28	19	178
All Projects	Large Family	55	70	97	119	77	418
	Other	141	93	101	108	81	524

For these figures in percentages, refer to Charts 2b and 3.

Table 5: LIHTC Developments by Population of non-whites  
(People of Color)

		Population of non-whites (People of Color)		Total
		Less than 50%	50% and above	
4%	Number of Projects	144	426	570
		59.50%	60.77%	60.45%
	Total Units	12,369	48,643	61,012
		68.08%	70.92%	70.33%
	Total Awards	\$825 m	\$3,228 m	\$4,053 m
		52.92%	56.12%	55.44%
9%	Number of Projects	98	275	373
		40.50%	39.23%	39.55%
	Total Units	5,798	19,941	25,739
		31.91%	29.08%	29.67%
	Total Awards	\$734 m	\$2,524 m	\$3,258 m
		47.08%	43.88%	44.56%
All Projects	Number of Projects	242	701	943
		25.66%	74.34%	
	Total Units	18,167	68,584	86,751
		20.94%	79.06%	
	Total Awards	\$1,559 m	\$5,752 m	\$7,311 m
		21.32%	78.68%	
	Number of Tracts	648	934	1,582
		40.96%	59.04%	

Note: The letter "m" in total awards refers to millions



Table 6: Racial and Ethnic Composition by Opportunity Categories

Opportunity Categories	Race Categories					Total
	Non-Hispanic whites	Hispanics or Latinos/a/x	Blacks or African Americans	Asians	Mixed Race/Pacific Islanders/Native Americans/ Others	
Very High	22.32%	8.69%	11.02%	15.33%	16.12%	1,209,152
High	27.74%	17.04%	13.77%	23.07%	22.28%	1,690,007
Moderate	20.56%	19.89%	19.07%	20.36%	21.19%	1,493,337
Low	17.95%	30.10%	28.54%	19.68%	22.83%	1,628,961
Very Low	11.43%	24.27%	27.61%	21.56%	17.58%	1,339,030
Bay Area totals	41.44%	23.69%	6.19%	23.90%	4.78%	7,360,487

Table 7: Racial and Ethnic Composition by Opportunity Categories

Opportunity Categories	Race Categories						Total
	Non-Hispanic whites		Asians		Non-whites without Asians		
	Number	Percentage	Number	Percentage	Number	Percentage	
Very High	680,963	22.32%	269,668	15.33%	258,521	10.13%	1,209,152
High	846,046	27.74%	405,688	23.07%	438,273	17.18%	1,690,007
Moderate	627,036	20.56%	358,018	20.36%	508,283	19.92%	1,493,337
Low	547,480	17.95%	346,139	19.68%	735,342	28.82%	1,628,961
Very Low	348,768	11.43%	379,278	21.56%	610,984	23.95%	1,339,030
Bay Area totals	3,050,293	41.44%	1,758,791	23.90%	2,551,403	34.66%	7,360,487

Table 8: Large Family New Constructions by Opportunity

		Opportunity					Total
Large Family New Construction		Very High	High	Moderate	Low	Very Low	
4%	Number of Projects	17	16	35	41	29	138
	Total Units	1,720	1,420	3,956	3,582	2,729	13,407
9%	Number of Projects	28	31	34	46	24	163
	Total Units	1,863	1,918	1,973	2,738	1,938	10,430
All Projects	Number of Projects	45	47	70	87	53	302
	Total Units	3,583	3,338	6,026	6,320	4,667	23,934

For these figures in percentages, refer to Table 3 and Chart 3a.

Table 9: Place-Based Indicators Used for Opportunity Calculations

Education Opportunity	Description	Source
HS Grad. Rate	Percentage of 9th grade cohort that graduated from high school four years later.	CDE 2011/12 - 2013/14
UC/CSU Eligibility	Percentage of high school graduates who completed UC/CSU a-g course requirements.	CDE 2011/12 - 2013/14
Teacher Experience	Percentage of teachers at the three closest public elementary schools with more than 5 years of teaching experience and at least one year of education beyond a BA.	CDE 2011/12 - 2013/14
HS Discipl. Rate	Percentage of high school students in the school district who were suspended or expelled.	CDE 2011/12 - 2013/14
Economic Opportunity	Description	Source
Job Availability	Number of jobs per 1,000 people, within a 5-mile radius.	LODES 2014, Census 2010
Job Growth	Percentage 1-year change in the number of jobs, within a 5-mile radius.	LODES 2013-14
Job Quality	Percentage of high-paying jobs, within a 5-mile radius.	LODES 2014, Census 2010
Bank Accessibility	Number of banks and credit unions per 1000 people, within a 5-mile radius.	FDIC 2015, NCUA 2014, Census 2010
Housing Opportunity	Description	Source
Housing Adequacy	Percentage of households with no more than 1 occupant per room.	ACS 2010-14
Housing Affordability	Ratio of median income of census tract to median value of dwellings in census tract.	ACS 2010-14
Mobility/Transportation Opportunity: Place Domain	No indicators have been identified at this time.	
Health/Environment Opportunity	Description	Source
Prenatal Care	Percentage of mothers who received prenatal care in first trimester.	CDPH 2010-2012
Distance to Supermarket	Percentage who live within 1/2 mile (urban) or 10 miles (rural) of supermarket.	USDA Food Access Research Atlas, 2010 Census
Health Care Availability	Number of locations providing basic medical services per 1000 population within 5 mile radius.	NETS 2011, Census 2010
Air Quality	Annual mean concentration of PM2.5.	Cal/EPA 2009-2011
Civic Life Opportunity	Description	Source
US Citizenship	Percentage of adults who are U.S. citizens.	ACS 2010-14
Neighborhood Stability	Percentage of citizens, over age 1, who live in the same residence as the previous year.	ACS 2010-14

It is important that any development of a long-term housing plan ensures fair and equitable affordable rental housing to combat systemic segregation and poverty, and that the plan fosters a diverse and balanced living model free from exclusionary barriers where individuals—regardless of their race, background, and status—have access to opportunities.



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