This Technical Appendix documents the methodology used in the California Housing Partnership (Partnership) policy report <u>How Are California's Funding Programs</u>

<u>Progressing on Affirmatively Furthering Fair Housing?</u> It also provides additional findings to supplement those provided in the report.

Siting Pattern Analysis for Family-Serving Affordable Housing

The report's central analysis focuses on the distribution of affordable housing financed through the federal Low-Income Housing Tax Credit (Housing Credit), including both the 9% and 4% programs. Unless otherwise stated, results provided in the report and in this technical appendix focus on family-serving, new construction developments. The data used in this report is sourced from the California Housing Partnership's May 2024 Preservation Database, which includes Housing Credit awards through 2023. To create the database used in this analysis, we made the following additional assumptions:

- Hybrid Housing Credit awards (both 9% and 4%) are classified as only 9%.
- "Family-serving" is defined by properties with a "large family" target population, per the <u>project list</u> hosted on the California Tax Credit Allocation Committee (TCAC) website (current as of February 2024). This includes several projects with multiple target populations.
 - o For historic analyses, family-serving also refers to pre-2021 4% developments where at least 25% of homes are 3+ bedrooms and an additional 25% of homes are 2-bedroom (or at least 75% of homes are 3+ bedrooms). This is used to capture the current definition of "large family" in ICAC Regulations Section 10315(g)(1)(A) and is meant to identify historic properties that would fall under this definition.
- "New construction" is defined by properties with a construction type that references "new construction" or "NC", per the TCAC project list (as of February 2024). This includes several projects with multiple construction types (e.g., new construction/adaptive reuse or new construction/acquisition & rehabilitation).

Our database of new construction, family-serving affordable housing includes 2,017 properties with 143,351 affordable homes (and 150,789 total homes, including manager's and other market-rate homes).

This analysis uses the <u>2024 TCAC/HCD Opportunity Map</u> ("Opportunity Map") to classify neighborhood resource level. At the time of analysis, this was the most recently available version of the map.

Statewide Results

Statewide results are presented in the full report, including overall and broken down by Housing Credit type. Additional context and analysis at the statewide level is provided in this section.

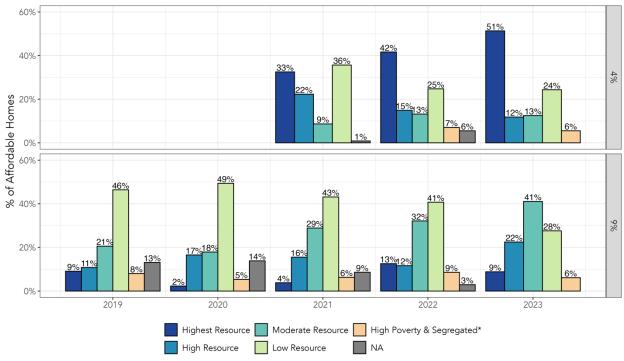
Annual Post-Incentive Award Distribution

To understand post-incentive shifts at a more granular scale, we investigated the annual change in Housing Credit awards.

Awards in the 4% program were allocated to Highest Resource areas at increasingly higher shares – from 33% of homes in 2021 to 51% in 2023. High Resource awards have declined from 22% in 2021 to 12% in 2023, while Low Resource awards declined from 36% in 2021 to 24% in 2023. Concerningly, the share of homes in High Poverty & Segregated areas increased from 0% in 2021 to 6% in 2023. See Figure 1.

The 9% program experienced a different trajectory than the 4% program. While the share of homes in Low Resource areas has been steadily decreasing from 46% in 2019 to 28% in 2023, progress in higher resource areas has been mixed. The largest change appears to be an increase in Moderate Resource areas, from 21% of homes in 2019 to 41% in 2023. It appears that the AFFH point has done little to change development patterns in the 9% program and that the relative decrease in the share of Low Resource development can be attributed to an approximately equivalent increase in the share of Moderate Resource development rather than increases in higher resource development. See Figure 1.

Figure 1: Annual Post-Incentive Housing Credit Siting (Large Family, New Construction)



*Not mutually exclusive with resource categories.

Note: The 4% pre-incentive period is 2015-2018 and the 9% pre-incentive period is 2017-2020, the post-incentive period includes awards through 2023, and historic data includes awards dating back to 1987.

Sources: California Housing Partnership Preservation Database, May 2024; and 2024 TCAC/HCD Opportunity Map.

Proportional Distribution

To determine the number of years it would require to achieve proportional representation of family-serving affordable homes, we modelled three scenarios with differing shares of homes located in High and Highest Resource neighborhoods. We assumed an annual production of 8,173 family-serving, new construction affordable homes based on awards between 2020 and 2023, as well as an annual production of 15,326 all new construction homes. To provide a baseline for the models, we also identified the historic distribution of affordable homes up through 2023 including both new construction and acquisition/rehabilitation developments. Full results are provided in Table 1 below.

Table 1: Years to Achieve Proportional Distribution in Higher Resource Areas

Implementation	All Types - All Credits	All Types - 9% only	All Types - 4%	Large Family Only - All Credits	•	Large Family Only - 4%
46%	76	115	62	65	112	47
50%	46	69	37	39	67	28
60%	23	35	19	20	34	14

Sources: California Housing Partnership Preservation Database, May 2024; and 2024 TCAC/HCD Opportunity Map.

Up to 2020, about 26% of existing affordable homes statewide would have to move to higher resource areas to achieve proportional distribution. Since 2020, the state has awarded funding to 49.5% of family-serving, new construction homes in higher resource areas¹ – resulting in a slight drop in the share of affordable homes that would need to move to achieve proportional distribution, about 23%. Despite the degree of change in siting patterns made after introduction of opportunity area incentives, especially the 4% program, this suggests that the State's actions thus far cannot be considered to have yet meaningfully redressed this historic imbalance. See Figure 2 below for more detail.

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¹ Of the remaining 50.5%, 31.1% of affordable homes were awarded in Low Resource areas, 16.5% of affordable homes were awarded in Moderate Resource areas, and 2.9% were awarded in Not Available areas.

Figure 2: Share of Affordable Homes Needed to Move to Higher Resource Areas to Achieve Proportional Distribution



Sources: California Housing Partnership Preservation Database, May 2024; and 2024 TCAC/HCD Opportunity Map.

The share of existing homes needed to move to higher resource areas to achieve proportional distribution is similar to a dissimilarity index. It is calculated arithmetically as follows:

$$Z = \frac{(H_A * U_t)}{U_o} - \frac{U_h}{U_o}$$

Z= Share of non higher resource homes needed to move to higher resource areas $H_A=$ Share of higher resource areas (constant) $U_t=$ Total homes $U_h=$ Homes in higher resource areas $U_o=$ Homes in non higher resource areas

Regional Results

TCAC/HCD Opportunity Map Regions

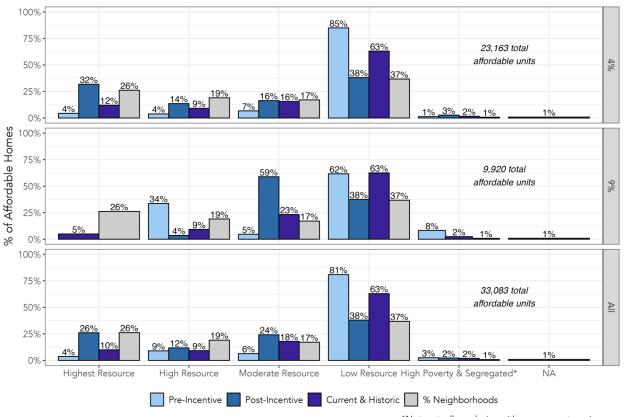
We assessed the distributional impact of the incentive in the regions defined by the TCAC/HCD Opportunity Map. The regions are defined as follows:

- Bay Area Region: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties (non-rural tracts)
- Capital Region: El Dorado, Placer, Sacramento, and Yolo Counties (non-rural tracts)
- Central Coast Region: Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, and Ventura Counties (non-rural tracts)
- Central Valley Region: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties (non-rural tracts)
- Inland Empire Region: Imperial, Riverside, and San Bernardino Counties (non-rural tracts)
- Los Angeles Region: Los Angeles County (non-rural tracts)
- Orange County Region: Orange County (non-rural tracts)
- San Diego Region: San Diego County (non-rural tracts)
- Rural Areas: Non-metropolitan counties, plus Butte, Shasta, Sutter, and Yuba Counties, as well as all other rural tracts and block groups that would be eligible for USDA Section 515 Rural Rental Housing.

There is wide variation in Housing Credit siting patterns by region, both pre- and post-incentive. Some regions – like the Capital Region – experienced pre-incentive shares approaching neighborhood parity in higher resource areas, while other regions – like the Central Valley Region – had disproportionately lower shares of affordable homes in higher resource areas.

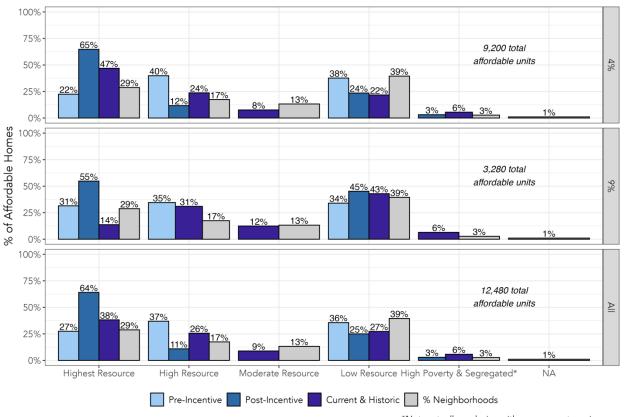
Some regions have made substantial progress in achieving distributional parity in higher resource areas after the introduction of incentives (e.g., San Diego and the Central Coast) while others have not. Taken in the aggregate, it seems that the two largest regions – Los Angeles and the Bay Area – which are among the highest cost and are the economic engines of the state, have not seen much of a shift. While these regions are a drag on statewide progress, smaller regions are seeing more progress. See Figures 3 through 11, as well as Table 2.

FIGURE 3: Bay Area Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



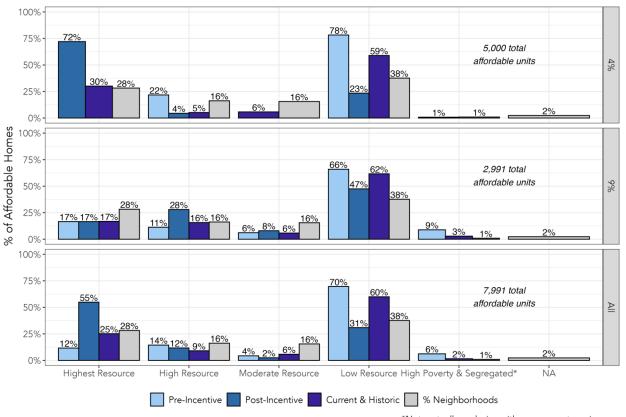
*Not mutually exclusive with resource categories.

FIGURE 4: Capital Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



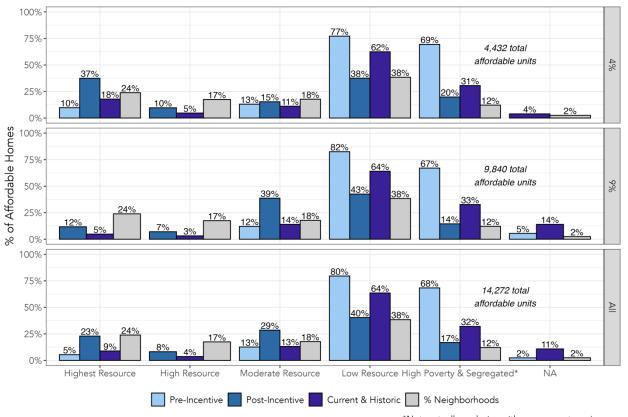
*Not mutually exclusive with resource categories.

FIGURE 5: Central Coast Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



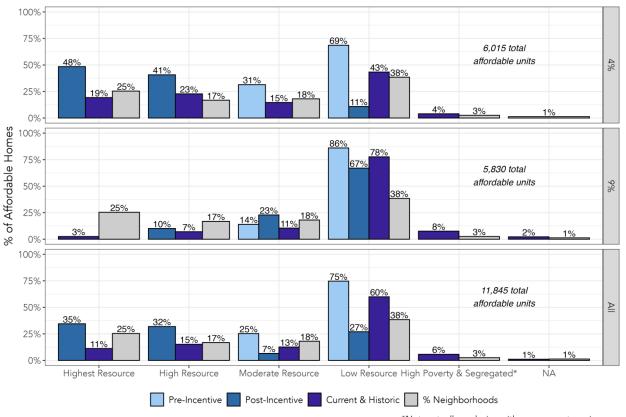
*Not mutually exclusive with resource categories.

FIGURE 6: Central Valley Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



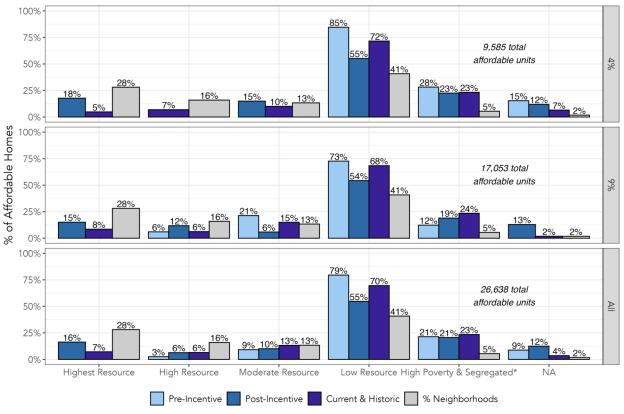
*Not mutually exclusive with resource categories.

FIGURE 7: Inland Empire Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



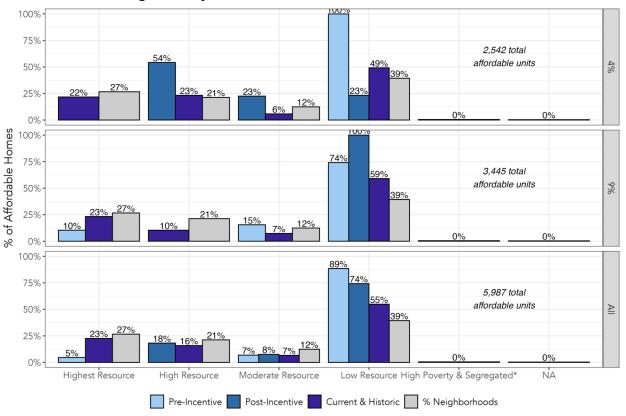
*Not mutually exclusive with resource categories.

FIGURE 8: Los Angeles Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



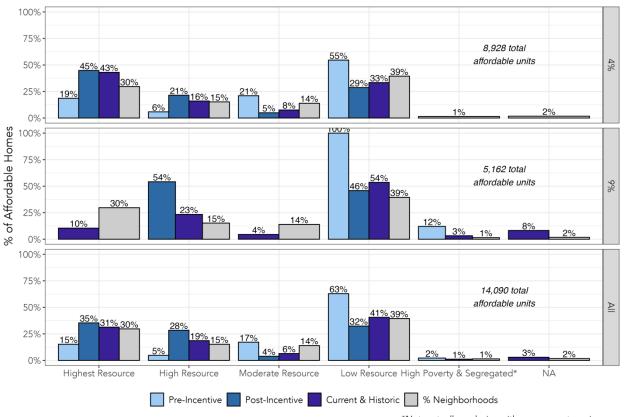
*Not mutually exclusive with resource categories.

FIGURE 9: Orange County Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



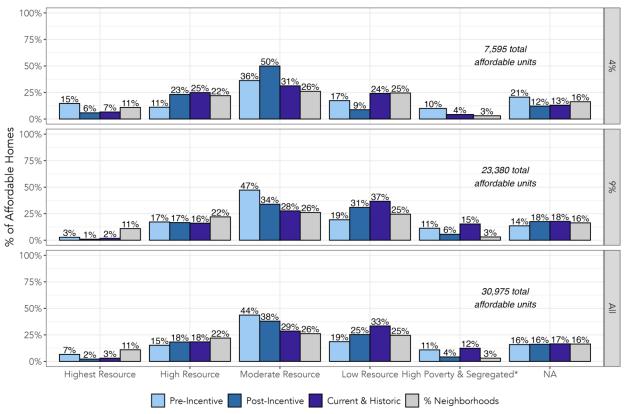
*Not mutually exclusive with resource categories.

FIGURE 10: San Diego Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



*Not mutually exclusive with resource categories.

FIGURE 11: Rural Areas Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



*Not mutually exclusive with resource categories.

Table 2: Regional Housing Credit Pre- and Post-Incentive Distribution (Large Family, New Construction)

Housing	Region	Opportunity	#		# Affordable		% of		% of Affordable		
Credit Type		Category	Devel	opments	Homes		Develo	pments	Homes		
			Pre	Post	Pre	Post	Pre	Post	Pre	Post	
4%	Bay Area	Highest Resource	2	12	182	1,358	6%	35%	4%	32%	
4%	Bay Area	High Resource	2	5	159	581	6%	15%	4%	14%	
4%	Bay Area	Moderate Resource	3	4	279	702	9%	12%	7%	16%	
4%	Bay Area	Low Resource	27	13	3,502	1,627	79%	38%	85%	38%	
4%	Bay Area	High Poverty &									
		Segregated	1	1	54	117	3%	3%	1%	3%	
4%	Capital	Highest Resource	1	14	71	2,379	25%	61%	22%	65%	
4%	Capital	High Resource	2	2	126	429	50%	9%	40%	12%	
4%	Capital	Moderate Resource	0	0	0	0	0%	0%	0%	0%	
4%	Capital	Low Resource	1	7	119	866	25%	30%	38%	24%	
4%	Capital	High Poverty &									
		Segregated	0	1	0	115	0%	4%	0%	3%	
4%	Central Coast	Highest Resource	0	7	0	1,047	0%	70%	0%	72%	
4%	Central Coast	High Resource	1	1	35	65	33%	10%	22%	4%	
4%	Central Coast	Moderate Resource	0	0	0	0	0%	0%	0%	0%	
4%	Central Coast	Low Resource	2	2	126	341	67%	20%	78%	23%	
4%	Central Coast	High Poverty &	0	0	0	0	0%	0%	0%	0%	
		Segregated									
4%	Central Valley	Highest Resource	1	2	65	291	11%	29%	10%	37%	
4%	Central Valley	High Resource	0	1	0	75	0%	14%	0%	10%	
4%	Central Valley	Moderate Resource	1	1	87	119	11%	14%	13%	15%	
4%	Central Valley	Low Resource	7	3	514	292	78%	43%	77%	38%	
4%	Central Valley	High Poverty &									
		Segregated	5	1	462	154	56%	14%	69%	20%	

Housing	Region	Opportunity	#		# Affor		% of		% of Affordable	
Credit Type		Category		opments	Homes			pments	Homes	
	T. 1	F	Pre	Post	Pre	Post	Pre	Post	Pre	Post
4%	Inland Empire	Highest Resource	0	6	0	902	0%	40%	0%	48%
4%	Inland Empire	High Resource	0	7	0	758	0%	47%	0%	41%
4%	Inland Empire	Moderate Resource	3	0	306	0	30%	0%	31%	0%
4%	Inland Empire	Low Resource	7	2	668	202	70%	13%	69%	11%
4%	Inland Empire	High Poverty & Segregated	0	0	0	0	0%	0%	0%	0%
4%	Los Angeles	Highest Resource	0	2	0	270	0%	17%	0%	18%
4%	Los Angeles	High Resource	0	1	0	228	0%	8%	0%	15%
4%	Los Angeles	Moderate Resource	8	7	1,172	840	80%	58%	85%	55%
4%	Los Angeles	Low Resource	6	8	997	1,001	75%	62%	82%	60%
4%	Los Angeles	Not Available	2	2	213	182	20%	17%	15%	12%
4%	Los Angeles	High Poverty &								
		Segregated	4	3	391	343	40%	25%	28%	23%
4%	Orange County	Highest Resource	0	0	0	0	0%	0%	0%	0%
4%	Orange County	High Resource	0	1	0	142	0%	33%	0%	54%
4%	Orange County	Moderate Resource	0	1	0	59	0%	33%	0%	23%
4%	Orange County	Low Resource	3	1	639	61	100%	33%	100%	23%
4%	Orange County	High Poverty &	0	0	0	0	0%	0%	0%	0%
		Segregated								
4%	Rural Areas	Highest Resource	2	2	120	94	12%	9%	15%	6%
4%	Rural Areas	High Resource	2	5	91	373	12%	23%	11%	23%
4%	Rural Areas	Moderate Resource	6	9	297	803	35%	41%	36%	50%
4%	Rural Areas	Low Resource	3	3	142	141	18%	14%	17%	9%
4%	Rural Areas	Not Available	4	3	169	196	24%	14%	21%	12%

Housing	Region	Opportunity	#		# Affordable		% of Developments		% of Affordable Homes	
Credit Type		Category Developments		Home	S					
			Pre	Post	Pre	Post	Pre	Post	Pre	Post
4%	Rural Areas	High Poverty &								
		Segregated	2	0	82	0	12%	0%	10%	0%
4%	San Diego	Highest Resource	4	8	304	1,046	24%	40%	19%	45%
4%	San Diego	High Resource	1	5	95	501	6%	25%	6%	21%
4%	San Diego	Moderate Resource	2	1	343	115	12%	5%	21%	5%
4%	San Diego	Low Resource	10	6	892	671	59%	30%	55%	29%
4%	San Diego	High Poverty &	0	0	0	0	0%	0%	0%	0%
		Segregated								
9%	Bay Area	Highest Resource	0	0	0	0	0%	0%	0%	0%
9%	Bay Area	High Resource	5	1	290	34	29%	8%	34%	4%
9%	Bay Area	Moderate Resource	1	6	40	556	6%	50%	5%	59%
9%	Bay Area	Low Resource	11	5	531	354	65%	42%	62%	38%
9%	Bay Area	High Poverty &								
		Segregated	1	0	71	0	6%	0%	8%	0%
9%	Capital	Highest Resource	2	2	124	143	33%	50%	31%	55%
9%	Capital	High Resource	2	0	136	0	33%	0%	35%	0%
9%	Capital	Moderate Resource	0	0	0	0	0%	0%	0%	0%
9%	Capital	Low Resource	2	2	134	118	33%	50%	34%	45%
9%	Capital	High Poverty &	0	0	0	0	0%	0%	0%	0%
		Segregated								
9%	Central Coast	Highest Resource	1	2	62	108	11%	17%	17%	17%
9%	Central Coast	High Resource	2	4	42	182	22%	33%	11%	28%
9%	Central Coast	Moderate Resource	1	1	23	52	11%	8%	6%	8%
9%	Central Coast	Low Resource	5	5	246	309	56%	42%	66%	47%

Housing	Region	Opportunity	#		# Affordable Homes		% of		% of Affordable	
Credit Type	_	Category	Devel	opments			Developments		Homes	
			Pre	Post	Pre	Post	Pre	Post	Pre	Post
9%	Central Coast	High Poverty &								
		Segregated	1	0	33	0	11%	0%	9%	0%
9%	Central Valley	Highest Resource	0	2	0	118	0%	12%	0%	12%
9%	Central Valley	High Resource	0	1	0	71	0%	6%	0%	7%
9%	Central Valley	Moderate Resource	1	6	64	390	11%	35%	12%	39%
9%	Central Valley	Low Resource	7	8	438	429	78%	47%	82%	43%
9%	Central Valley	Not Available	1	0	29	0	11%	0%	5%	0%
9%	Central Valley	High Poverty &								
		Segregated	5	3	356	146	56%	18%	67%	14%
9%	Inland Empire	Highest Resource	0	0	0	0	0%	0%	0%	0%
9%	Inland Empire	High Resource	0	1	0	76	0%	8%	0%	10%
9%	Inland Empire	Moderate Resource	1	3	74	172	13%	25%	14%	23%
9%	Inland Empire	Low Resource	7	8	455	504	88%	67%	86%	67%
9%	Inland Empire	High Poverty &	0	0	0	0	0%	0%	0%	0%
		Segregated								
9%	Los Angeles	Highest Resource	0	5	0	267	0%	19%	0%	15%
9%	Los Angeles	High Resource	1	4	63	209	5%	15%	6%	12%
9%	Los Angeles	Moderate Resource	4	2	223	104	20%	8%	21%	6%
9%	Los Angeles	Low Resource	15	12	761	962	75%	46%	73%	54%
9%	Los Angeles	Not Available	0	3	0	229	0%	12%	0%	13%
9%	Los Angeles	High Poverty &								
		Segregated	2	5	129	336	10%	19%	12%	19%
9%	Orange County	Highest Resource	1	0	53	0	11%	0%	10%	0%
9%	Orange County	High Resource	0	0	0	0	0%	0%	0%	0%
9%	Orange County	Moderate Resource	1	0	79	0	11%	0%	15%	0%
9%	Orange County	Low Resource	7	7	378	518	78%	100%	74%	100%

Housing Region		on Opportunity			# Affordable		% of		% of Affordable	
Credit Type		Category	Develo	opments	Homes	i	Develo	pments	Homes	
			Pre	Post	Pre	Post	Pre	Post	Pre	Post
9%	Orange County	High Poverty &	0	0	0	0	0%	0%	0%	0%
		Segregated								
9%	Rural Areas	Highest Resource	2	1	46	47	6%	1%	3%	1%
9%	Rural Areas	High Resource	6	13	290	794	18%	16%	17%	17%
9%	Rural Areas	Moderate Resource	16	29	797	1,618	47%	37%	47%	34%
9%	Rural Areas	Low Resource	7	24	325	1,475	21%	30%	19%	31%
9%	Rural Areas	Not Available	3	12	229	837	9%	15%	14%	18%
9%	Rural Areas	High Poverty &								
		Segregated	3	5	190	268	9%	6%	11%	6%
9%	San Diego	Highest Resource	0	0	0	0	0%	0%	0%	0%
9%	San Diego	High Resource	0	4	0	339	0%	50%	0%	54%
9%	San Diego	Moderate Resource	0	0	0	0	0%	0%	0%	0%
9%	San Diego	Low Resource	6	4	365	287	100%	50%	100%	46%
9%	San Diego	High Poverty &								
	_	Segregated	1	0	44	0	17%	0%	12%	0%

Note: The 4% pre-incentive period is 2015-2018 and the 9% pre-incentive period is 2017-2020, the post-incentive period includes awards through 2023, and historic data includes awards dating back to 1987.

Sources: California Housing Partnership Preservation Database, May 2024; and 2024 TCAC/HCD Opportunity Map.

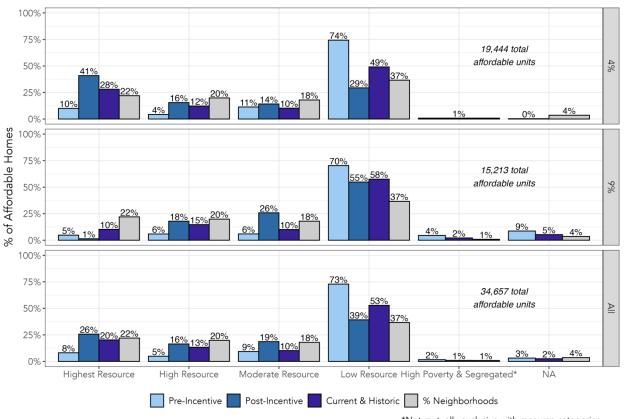
CDLAC Regions

In addition to the TCAC region analysis provided above, we also assessed the distributional impact of the incentives in the regions defined by the California Debt Limit Allocation Committee (CDLAC). The CDLAC regions are defined as follows:

- Coastal Region: Monterey, Napa, Orange, San Benito, San Diego, San Luis Obispo, Santa Barbara, Sonoma, and Ventura Counties
- City of Los Angeles
- Balance of Los Angeles County
- Bay Area Region: Alameda, Contra Costa, Marin, San Francisco, San Mateo,
 Santa Clara, and Santa Cruz Counties
- Inland Region: Fresno, Imperial, Kern, Kings, Madera, Merced, Riverside, San Bernardino, Stanislaus, and Tulare Counties
- Northern Region: Butte, El Dorado, Placer, Sacramento, San Joaquin, Shasta, Solano, Sutter, Yuba, and Yolo Counties

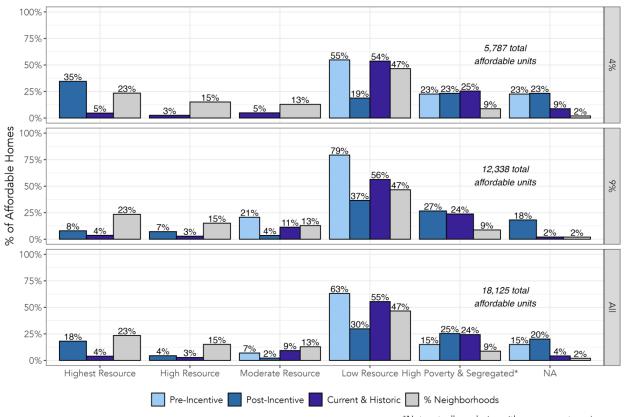
Results are similar to the TCAC region analysis above, where progress in the 4% program has been markedly increased compared to the 9% program. Some regions – like the Northern Region – are close to reaching distributional parity within High and Highest Resource neighborhoods, while others – like the Bay Area Region – still have a significant gap. See Figures 12 through 18.

FIGURE 12: CDLAC Coastal Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



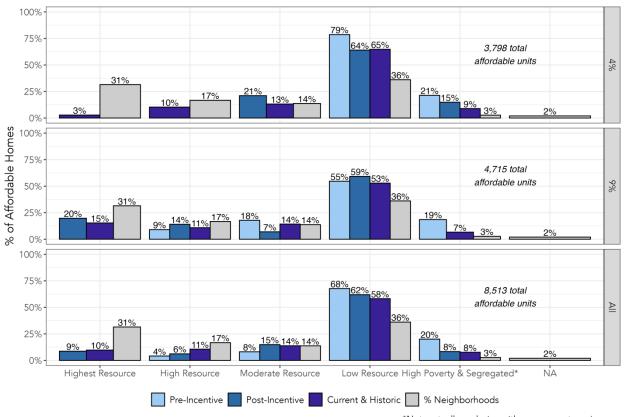
*Not mutually exclusive with resource categories.

FIGURE 13: CDLAC City of Los Angeles Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



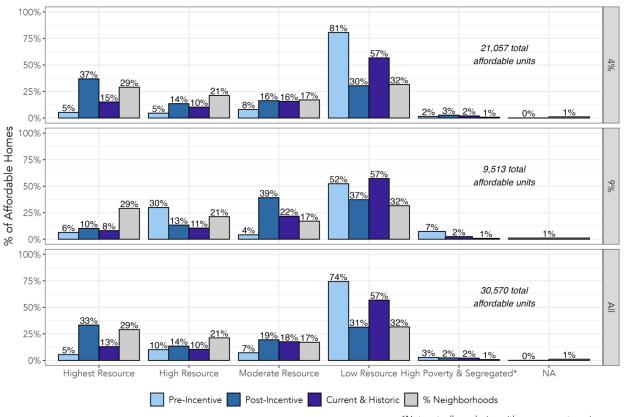
*Not mutually exclusive with resource categories.

FIGURE 14: CDLAC Balance of Los Angeles County Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



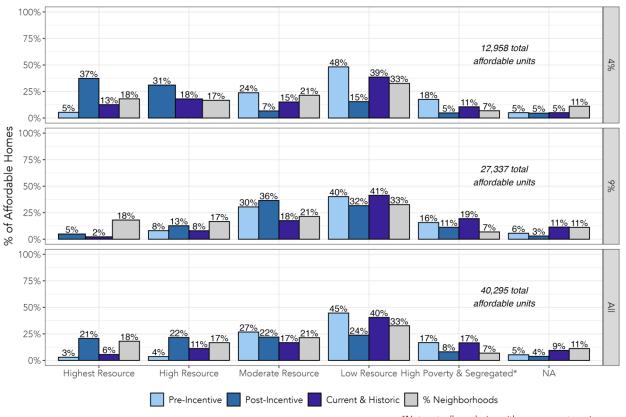
*Not mutually exclusive with resource categories.

FIGURE 15: CDLAC Bay Area Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



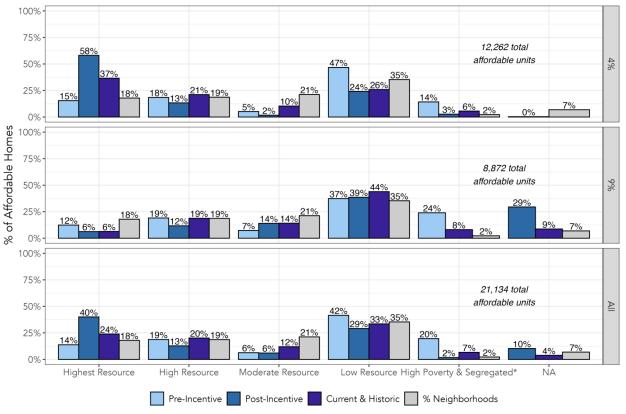
*Not mutually exclusive with resource categories.

FIGURE 16: CDLAC Inland Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



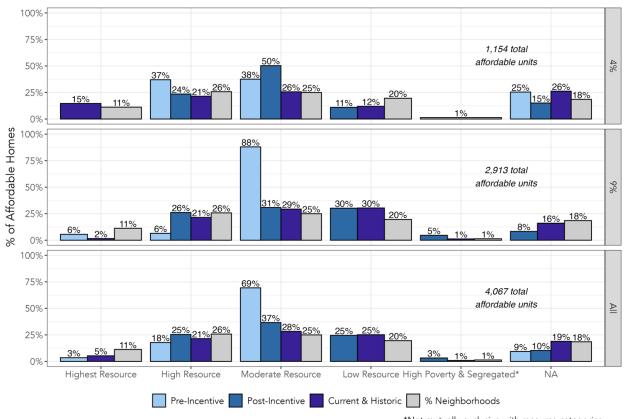
*Not mutually exclusive with resource categories.

FIGURE 17: CDLAC Northern Region Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



*Not mutually exclusive with resource categories.

FIGURE 18: CDLAC Non-Metropolitan Counties Housing Credits Siting Pre- and Post-Incentive by Resource Area (Large Family, New Construction)



*Not mutually exclusive with resource categories.

Note: The 4% pre-incentive period is 2015-2018 and the 9% pre-incentive period is 2017-2020, the post-incentive period includes awards through 2023, and historic data includes awards dating back to 1987. Sources: California Housing Partnership Preservation Database, May 2024; CDLAC Regulations Section 5022, August 2024; and 2024 TCAC/HCD Opportunity Map.

City Type Results

This analysis classifies jurisdictions across California as Low Resource (LR), Moderate Resource (MR), Higher Resource (HR), and Mixed based on how their land area is categorized by the 2024 TCAC/HCD Opportunity Map. It seeks to assess the claim that cities which are predominantly or wholly low resource on the Map have been "shut out" from Housing Credit development by the introduction of the AFFH siting incentives. It also seeks to understand whether the uptick in High and Highest Resource development has been caused by a shift to development in higher resource jurisdictions, or whether award patterns have shifted within mixed cities.

"Cities" includes both incorporated cities and Census-Designated Places in unincorporated areas. To classify those cities, we identify all neighborhoods (defined as

urban tracts and/or rural block groups) located within the city. We use the population-weighted centroid of the neighborhood to assign it to a city. We then determine the share of resource category by neighborhood within a city – combining High and Highest Resource areas into a single option. To determine neighborhood share, we downloaded the U.S. Census' 2024 TIGER shapefiles on all places in California, removing all bodies of water as provided by TIGER. We also removed all bodies of water from the 2025 TCAC/HCD Opportunity Map. We then combined the places geography with the Opportunity Map geography, and classified neighborhood share based on land area.

We then join family-serving, new construction Housing Credit awards to the appropriate city. City types are defined as follows:

- Low Resource (LR) city: at least 2/3 of neighborhoods are Low Resource
- Moderate Resource (MR) city: at least 2/3 of neighborhoods are Moderate Resource
- Higher Resource (HR) city: at least 2/3 of neighborhoods are High or Highest Resource
- Mixed city: no single resource category comprises at least 2/3 of all neighborhoods

See Figure 19 for the distribution of resource by city type. Even with the 2/3 threshold, HR cities are over 90% higher resource, LR cities are over 90% Low Resource, and MR cities are over 90% Moderate Resource. Major cities in California – including Los Angeles, San Francisco, San Jose, Fresno, San Diego, and Oakland – are classified as Mixed cities. Mixed cities include several of the largest cities in the state – including Los Angeles, San Jose, San Francisco, San Diego, Oakland, and Fresno – and comprise about 52% of the statewide population as of 2022. HR cities include about 25% of the state's population, while LR cities include about 21% and MR cities include about 2%.

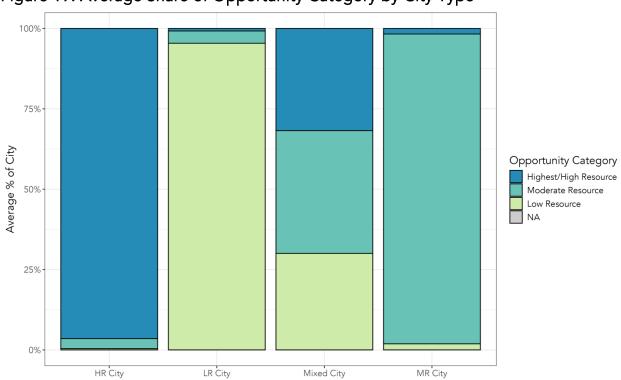


Figure 19: Average Share of Opportunity Category by City Type

Sources: U.S. Census Bureau, 2024 TIGER/Line Shapefiles; and 2024 TCAC/HCD Opportunity Map.

Unsurprisingly, Mixed cities tend to have the most family-serving, new construction Housing Credit affordable homes, see Figure 20. This trend is consistent over the life of the Housing Credit program. However, there has been a noticeable uptick in the number of affordable homes located in HR cities since around 2018. Affordable homes in LR cities increased from the beginning of the Housing Credit program but have somewhat plateaued since around 2007, around the same time Mixed cities saw a marked decrease in funded homes – both presumably a result of the 2008 financial crisis. While the number of developments in LR cities have plateaued, the number of affordable homes has continued to increase – suggesting a turn towards higher density development.

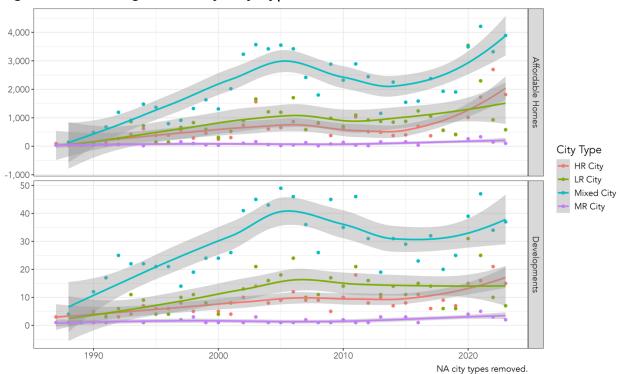
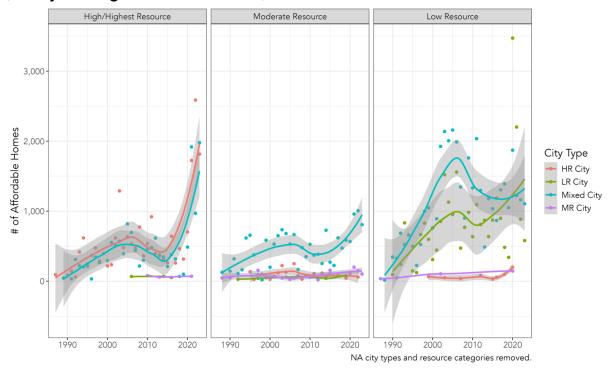


Figure 20: Housing Credits by City Type, 1987-2023

Sources: U.S. Census Bureau, 2024 TIGER/Line Shapefiles; California Housing Partnership Preservation Database, May 2024; and 2024 TCAC/HCD Opportunity Map.

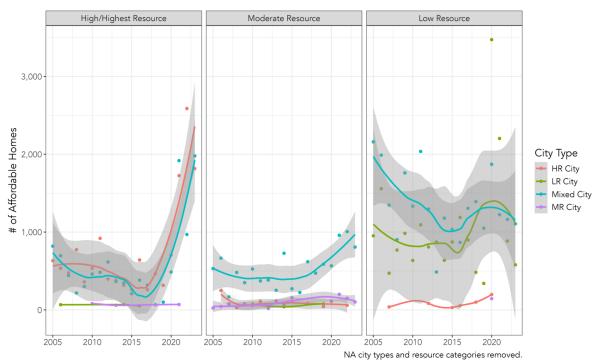
We also explored whether the incentive-induced increase in higher resource development occurred primarily in HR cities or as a result of redistribution in larger Mixed cities. Per the charts below, the most pronounced increase was seen in Highest Resource neighborhoods in both HR cities and Mixed cities. Low Resource development has continued in both LR cities and Mixed cities. This pattern generally holds when looking at both the full life of the Housing Credit program and more recent years – see Figures 21 and 22.

Figure 21: Housing Credits by Resource Category and City Type, 1987-2023 (Family-Serving, New Construction)



Sources: California Housing Partnership Preservation Database, May 2024; and 2024 TCAC/HCD Opportunity Map.

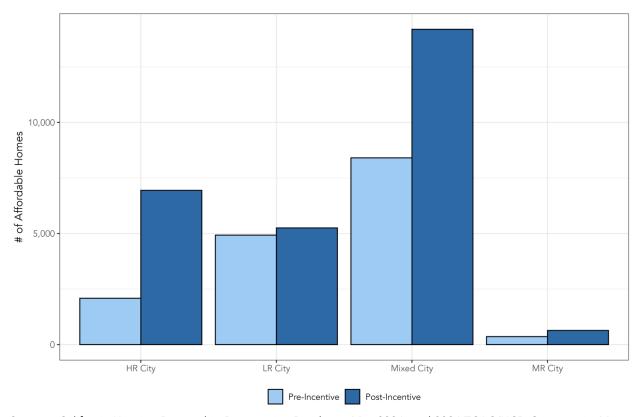
Figure 22: Housing Credits by Resource Category and City Type, 2005-2023 (Family-Serving, New Construction)



Sources: California Housing Partnership Preservation Database, May 2024; and 2024 TCAC/HCD Opportunity Map.

Comparing the pre- and post-incentive period, it appears that HR cities and Mixed cities benefitted most from the higher resource incentives. This is unsurprising, given that LR and MR cities are unlikely to have many higher resource neighborhoods. However, LR cities still saw an increase in affordable homes – showing that these cities remain attractive options for Housing Credit development. See Figure 23.

Figure 23: Housing Credits Siting Pre- and Post-Incentive By City Type (Family-Serving, New Construction)



Sources: California Housing Partnership Preservation Database, May 2024; and 2024 TCAC/HCD Opportunity Map.

Rent Savings Analysis

To better understand the immediate benefits to families living in affordable housing, we calculated average rent savings relative to surrounding area rents. This methodology, as described below, is adapted from the Partnernership's <u>Affordable Housing Map and Benefits Calculator</u> household rent savings methodology.

Rent Savings Methodology

STEP 1: Estimate the total rent paid by each home

For Housing Credit properties, we use 2023 county rent limits posted by the Tax Credit Allocation Committee (TCAC) to determine the total rent paid by each home annually, by bedroom size and AMI targeting. Because TCAC's property-level data only indicates how many homes are targeted for each AMI level—not how many homes of each bedroom size—we calculate a weighted average AMI level for the entire property and estimate the total rent paid by each home with this figure.

For six-bedroom homes, which are excluded from TCAC's rent limits, we use HUD's FMR +15% adjustment. HUD does not calculate FMRs or SAFMRs for five- and six-bedroom homes and, instead, adjusts rents for larger homes by 15%. Accordingly, the FMR for a five-bedroom home is 1.15 times the four-bedroom FMR and the FMR for a six-bedroom home is 1.30 times the four-bedroom FMR. Thus, we multiply the four-bedroom rent limit by 1.30 to calculate the rent limit for a six-bedroom home.

STEP 2: Estimate the total annual rent collected by property

Multiply the number of homes for each home size (studio, one-bedroom, two-bedroom, etc.) by the total rent paid estimate calculated in Step 1 to calculate the rent paid by tenants on a monthly basis across the entire property. Then multiply this value by 12 to calculate the annual rent collected by the property.

STEP 3: Estimate the counterfactual—or the amount of rent a household would pay in the same community in a non-subsidized home annually

We use 2023 Small Area Fair Market Rents (SAFMR) as a proxy for market rents, which are available by zip code and bedroom size.

For properties with five- and six-bedroom homes, we again use HUD's FMR standard for adjusting rents for larger homes (+15%). For properties in rural areas without SAFMRs, we use 2023 Fair Market Rents for the appropriate county.

Then, we multiply the number of homes for each home size (studio, one-bedroom, two-bedroom, etc.) by the total counterfactual—or market rent—to determine total monthly rent collected if there were no affordability restrictions on the property. We then multiply this value by 12 to calculate the hypothesized annual rent collected by the property.

STEP 4: Calculate the difference between market rents and affordable rents Subtract the value generated in Step 3 by the value generated in Step 2 to determine the total rent savings generated by each property in a single year.

STEP 5: Estimate the total nominal rent savings

We use the sum of geometric sequences formula to calculate the property-wide rent savings generated over a property's entire affordability term.

$$s_1 = a_1 \left(\frac{1 - r^n}{1 - r} \right)$$

s₁: the total nominal rent savings calculated over a property's entire affordability term

a1: the difference between market rents and affordable rents (calculated in Step 4)

r: annual rate of increase or inflation—we assume a 3% annual inflation rate

n: the affordability term for the property

To estimate the average annual rent savings, we divide S1 by the property's affordability term.

To estimate the value of this benefit in present dollars, we use the following formula.

$$PV = \left(\frac{FV}{(1+r)^n}\right)$$

PV: the present value of the benefit, or its worth in today's dollars

FV: the future value of the benefit

r: the discount rate—we assume a 3% annual discount rate

n: length of time between the present year and the end of a property's affordability term

STEP 6: Inflate estimates to 2024 \$

Since the estimates generated in Steps 1 through 5 are provided in 2023 \$, we then inflate the value of relative rent savings from 2023 \$ to 2024 \$ using the California Consumer Price Index – for Urban Consumers (CCPI-U).

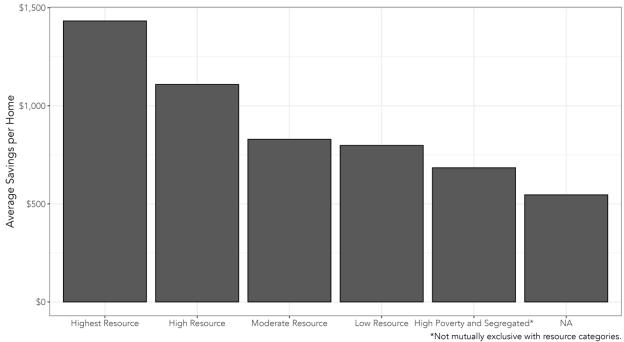
Rent Savings Results

One way to measure the value that affordable housing's location provides to families is to compare rents charged in these developments to rents they might otherwise pay in the same area. Rents in affordable housing receiving State awards are capped at the same levels across entire counties, making it possible to capture geographic variation in rent "savings" based on neighborhood-level market dynamics. The magnitude of savings could be interpreted as reflecting the value of the location, as measured by its desirability in the market.

Figures 24 and 25 shows statewide average monthly savings in rent for residents of Housing Credit-financed family-serving affordable housing according to neighborhood typologies in the 2024 TCAC/HCD Opportunity Map, as measured by the difference between the maximum rents allowed by the State and modest rents in the surrounding zip code, as defined by HUD's Small Area Fair Market Rents. The magnitude of savings

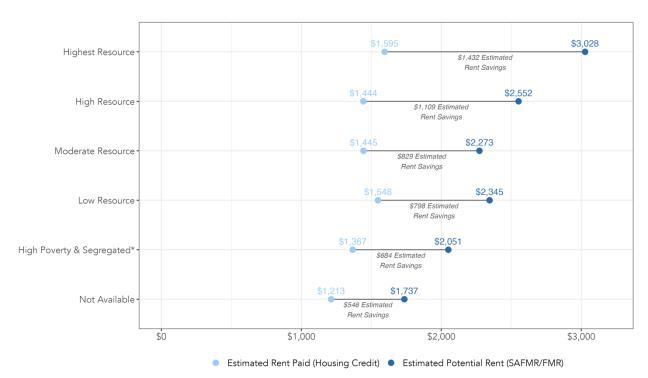
increases from lowest to highest resource areas, with average monthly rent savings in Highest Resource (\$1,432) areas substantially larger than in Low Resource areas (\$798) and High-Poverty & Segregation areas (\$684).

Figure 24: Statewide Estimated Rent Savings per Household (2024 \$, Family-Serving, New Construction)



Sources: California Housing Partnership Affordable Housing Map and Benefits Calculator, 2024 Update; California Department of Industrial Relations, 2024 California Consumer Price Index - for Urban Consumers (CCPI-U); and 2024 TCAC/HCD Opportunity Map.

Figure 25: Statewide Affordable and Market Rent Comparison (2024 \$, Family-Serving, New Construction)



Sources: California Housing Partnership Affordable Housing Map and Benefits Calculator, 2024 Update; California Department of Industrial Relations, 2024 California Consumer Price Index - for Urban Consumers (CCPI-U); and 2024 TCAC/HCD Opportunity Map.

Since bedroom size composition in large-family new construction affordable developments is similar across the TCAC/HCD Opportunity Map resource categories, this factor is not responsible for large differences in rent savings across these categories. In fact, it is possible that small differences in bedroom size composition across the resource categories (larger bedroom sizes being slightly more common in lower resource areas) may contribute to our analysis understating the magnitude of difference in rent savings between higher and lower resource areas. See Table 3 for this breakdown.

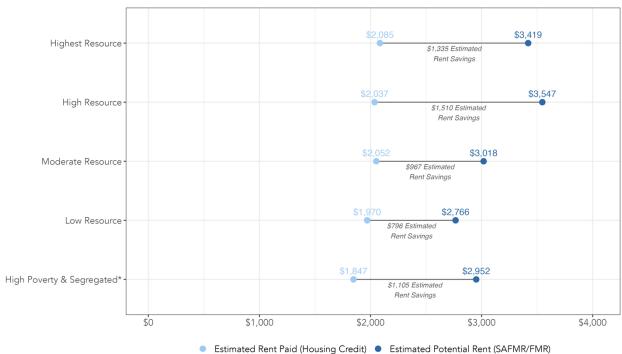
Table 3: Statewide Average Bedroom Unit Share by Opportunity Category (Family-Serving, New Construction)

Opportunity Category	Number of Bedrooms						
Opportunity Category	SRO	1	2	3	4	5	
Highest Resource	2%	21%	41%	35%	2%	0%	
High Resource	2%	16%	39%	37%	4%	0%	
Moderate Resource	2%	17%	36%	37%	7%	0%	
Low Resource	1%	15%	35%	39%	8%	0%	
Not Available	0%	9%	37%	43%	10%	0%	

Sources: California Housing Partnership Preservation Database, May 2024; and 2024 TCAC/HCD Opportunity Map.

The magnitude of savings varies by region due to wide differences in incomes and housing market prices, but in nearly every part of the state families in affordable developments in Highest Resource and High Resource areas experience much larger savings relative to surrounding area rents than those in Low Resource areas and High-Poverty & Segregated areas. In other words, families in affordable housing in higher resource areas pay the same capped rents as those in lower resource areas but do so in areas that have considerably greater value in the open market. It is unlikely that lower-income families would be able to move into these higher resource neighborhoods without the benefit of LIHTC-financed affordable housing. See Figures 26 through 34 below for this regional variation, as well as Tables 4 through 12 for the unit composition.

Figure 26: Bay Area Region Affordable and Market Rent Comparison (Large Family, New Construction)

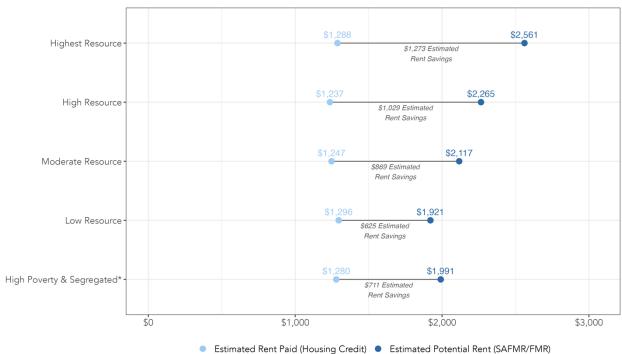


Sources: California Housing Partnership Affordable Housing Map and Benefits Calculator, 2024 Update; California Department of Industrial Relations, 2024 California Consumer Price Index - for Urban Consumers (CCPI-U); and 2024 TCAC/HCD Opportunity Map.

Table 4: Bay Area Region Average Bedroom Unit Share by Opportunity Category (Family-Serving, New Construction)

Opportunity Category	Number of Bedrooms					
Opportunity Category	SRO	1	2	3	4	5
Highest Resource	11%	22%	43%	33%	1%	0%
High Resource	4%	23%	41%	30%	2%	0%
Moderate Resource	4%	24%	36%	29%	3%	0%
Low Resource	2%	21%	37%	32%	4%	0%
Not Available	-	-	-	-	-	-

Figure 27: Capital Region Affordable and Market Rent Comparison (Large Family, New Construction)

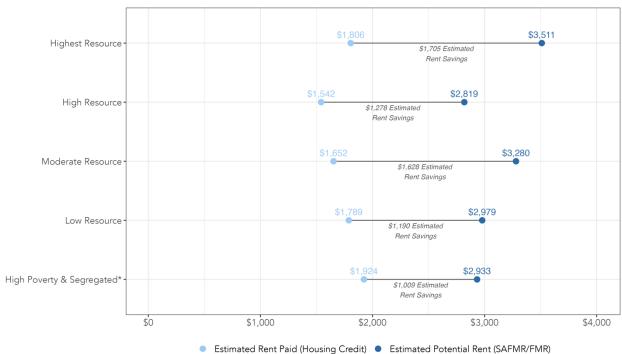


Sources: California Housing Partnership Affordable Housing Map and Benefits Calculator, 2024 Update; California Department of Industrial Relations, 2024 California Consumer Price Index - for Urban Consumers (CCPI-U); and 2024 TCAC/HCD Opportunity Map.

Table 5: Capital Region Average Bedroom Unit Share by Opportunity Category (Family-Serving, New Construction)

Opportunity Category	Number of Bedrooms						
Оррогиппу Сатедогу	SRO	1	2	3	4	5	
Highest Resource	1%	26%	41%	33%	1%	0%	
High Resource	2%	22%	41%	32%	2%	0%	
Moderate Resource	10%	22%	42%	28%	2%	0%	
Low Resource	1%	17%	44%	35%	5%	0%	
Not Available	-	-	-	-	-	-	

Figure 28: Central Coast Region Affordable and Market Rent Comparison (Large Family, New Construction)

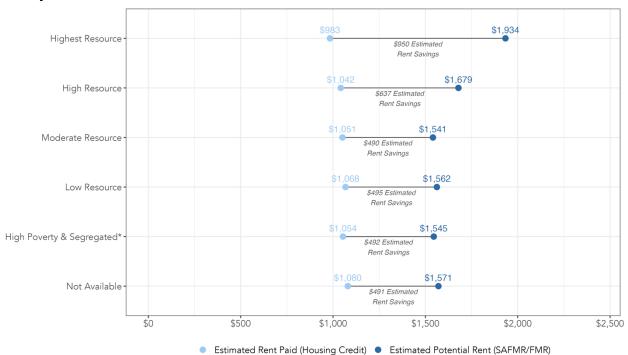


Sources: California Housing Partnership Affordable Housing Map and Benefits Calculator, 2024 Update; California Department of Industrial Relations, 2024 California Consumer Price Index - for Urban Consumers (CCPI-U); and 2024 TCAC/HCD Opportunity Map.

Table 6: Central Coast Region Average Bedroom Unit Share by Opportunity Category (Family-Serving, New Construction)

Opportunity Category	Number of Bedrooms						
Opportunity Category	SRO	1	2	3	4	5	
Highest Resource	2%	20%	36%	33%	4%	0%	
High Resource	2%	21%	41%	37%	1%	0%	
Moderate Resource	0%	15%	40%	45%	2%	0%	
Low Resource	0%	11%	35%	47%	7%	0%	
Not Available	-	-	-	-	-	-	

Figure 29: Central Valley Region Affordable and Market Rent Comparison (Large Family, New Construction)

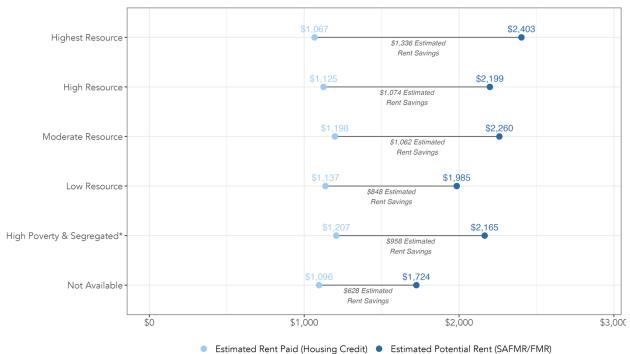


Sources: California Housing Partnership Affordable Housing Map and Benefits Calculator, 2024 Update; California Department of Industrial Relations, 2024 California Consumer Price Index - for Urban Consumers (CCPI-U); and 2024 TCAC/HCD Opportunity Map.

Table 7: Central Valley Region Average Bedroom Unit Share by Opportunity Category (Family-Serving, New Construction)

Opportunity Category	Number of Bedrooms						
Opportunity Category	SRO	1	2	3	4	5	
Highest Resource	0%	18%	38%	40%	6%	0%	
High Resource	0%	15%	36%	44%	7%	0%	
Moderate Resource	0%	13%	44%	39%	6%	0%	
Low Resource	0%	10%	33%	45%	11%	0%	
Not Available	0%	6%	25%	52%	14%	0%	

Figure 30: Inland Empire Region Affordable and Market Rent Comparison (Large Family, New Construction)

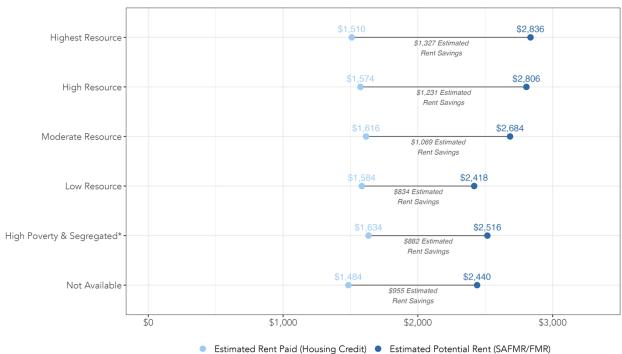


Sources: California Housing Partnership Affordable Housing Map and Benefits Calculator, 2024 Update; California Department of Industrial Relations, 2024 California Consumer Price Index - for Urban Consumers (CCPI-U); and 2024 TCAC/HCD Opportunity Map.

Table 8: Inland Empire Region Average Bedroom Unit Share by Opportunity Category (Family-Serving, New Construction)

Opportunity Category	Number of Bedrooms						
Opportunity Category	SRO	1	2	3	4	5	
Highest Resource	0%	31%	65%	41%	1%	0%	
High Resource	1%	18%	47%	36%	2%	0%	
Moderate Resource	0%	11%	39%	42%	4%	0%	
Low Resource	0%	10%	44%	46%	7%	0%	
Not Available	0%	0%	50%	51%	0%	0%	

Figure 31: Los Angeles Region Affordable and Market Rent Comparison (Large Family, New Construction

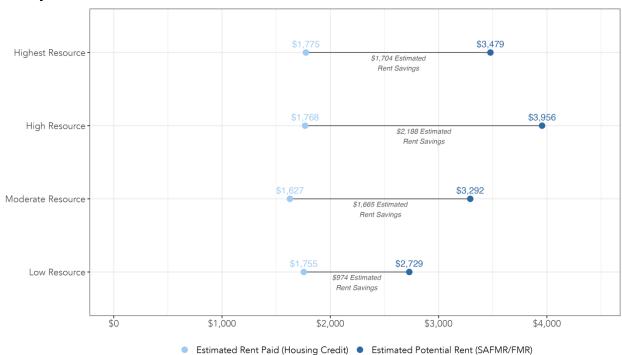


Sources: California Housing Partnership Affordable Housing Map and Benefits Calculator, 2024 Update; California Department of Industrial Relations, 2024 California Consumer Price Index - for Urban Consumers (CCPI-U); and 2024 TCAC/HCD Opportunity Map.

Table 9: Los Angeles Region Average Bedroom Unit Share by Opportunity Category (Family-Serving, New Construction)

Opportunity Category	Number of Bedrooms						
Opportunity Category	SRO	1	2	3	4	5	
Highest Resource	2%	18%	36%	33%	1%	0%	
High Resource	2%	17%	31%	36%	9%	0%	
Moderate Resource	4%	21%	31%	39%	10%	0%	
Low Resource	2%	17%	27%	36%	14%	0%	
Not Available	0%	22%	48%	31%	5%	0%	

Figure 32: Orange County Region Affordable and Market Rent Comparison (Large Family, New Construction)

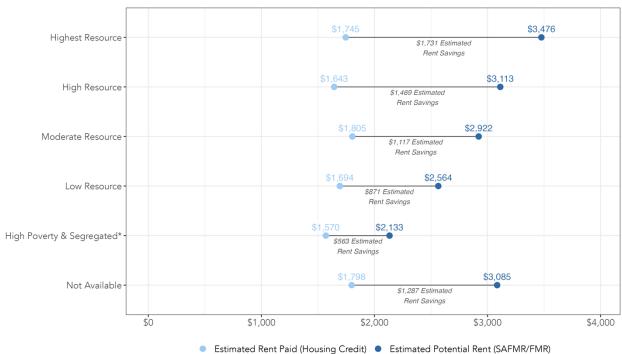


Sources: California Housing Partnership Affordable Housing Map and Benefits Calculator, 2024 Update; California Department of Industrial Relations, 2024 California Consumer Price Index - for Urban Consumers (CCPI-U); and 2024 TCAC/HCD Opportunity Map.

Table 10: Orange County Region Average Bedroom Unit Share by Opportunity Category (Family-Serving, New Construction)

Opportunity Category	Number of Bedrooms						
Оррогиппу Сатедогу	SRO	1	2	3	4	5	
Highest Resource	0%	18%	44%	39%	0%	0%	
High Resource	0%	10%	53%	37%	1%	0%	
Moderate Resource	0%	33%	27%	27%	0%	0%	
Low Resource	0%	18%	38%	40%	4%	0%	
Not Available	-	-	-	-	-	-	

Figure 33: San Diego Region Affordable and Market Rent Comparison (Large Family, New Construction)

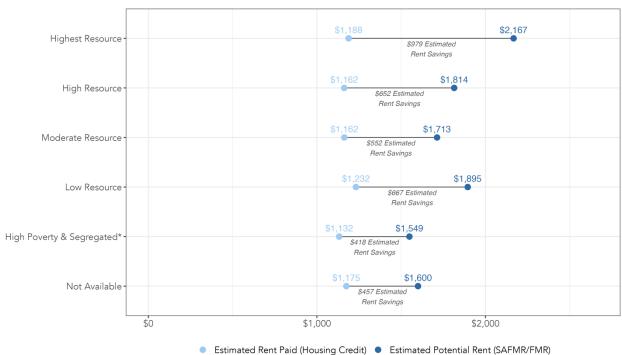


Sources: California Housing Partnership Affordable Housing Map and Benefits Calculator, 2024 Update; California Department of Industrial Relations, 2024 California Consumer Price Index - for Urban Consumers (CCPI-U); and 2024 TCAC/HCD Opportunity Map.

Table 11: San Diego Region Average Bedroom Unit Share by Opportunity Category (Family-Serving, New Construction)

Opportunity Category	Number of Bedrooms						
Opportunity Category	SRO	1	2	3	4	5	
Highest Resource	1%	22%	41%	32%	1%	0%	
High Resource	2%	17%	45%	41%	2%	0%	
Moderate Resource	0%	18%	43%	33%	7%	0%	
Low Resource	3%	19%	37%	37%	3%	0%	
Not Available	0%	6%	41%	51%	4%	0%	

Figure 34: Rural Areas Affordable and Market Rent Comparison (Large Family, New Construction)



Sources: California Housing Partnership Affordable Housing Map and Benefits Calculator, 2024 Update; California Department of Industrial Relations, 2024 California Consumer Price Index - for Urban Consumers (CCPI-U); and 2024 TCAC/HCD Opportunity Map.

Table 12: Rural Areas Average Bedroom Unit Share by Opportunity Category (Family-Serving, New Construction)

Opportunity Category	Number of Bedrooms						
Opportunity Category	SRO	1	2	3	4	5	
Highest Resource	0%	7%	42%	50%	4%	0%	
High Resource	1%	10%	34%	40%	6%	0%	
Moderate Resource	0%	13%	36%	40%	9%	0%	
Low Resource	0%	9%	38%	43%	10%	0%	
Not Available	0%	8%	37%	42%	10%	0%	