

## Final Report

# Analysis of Potential Economic Impacts from Proposition 5

*The Economics of Land Use*



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The California Housing Partnership

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## Executive Summary

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Throughout California's history, infrastructure and housing have been intricately linked to economic growth and the integration of local economies. However, the State Constitutional requirement for two-thirds voter approval of local government General Obligation (GO) bonds, and a succession of other measures that restrict local governments' capacity to raise revenue, have made it increasingly challenging to fund the public infrastructure and affordable housing needed to grow and sustain many communities.

Proposition 5 would provide an easier path for residents to approve GO bonds that fund infrastructure and housing investments critical to advancing local needs and priorities by reducing the two-thirds voter approval requirement to 55 percent, the same level as voters set in 2000 for approving bonds funding educational facilities. This study finds that the economic benefits received from this change would be substantial.

Since the passage of Proposition 5 would authorize local communities to approve new bonds using the 55 percent voter threshold but would not directly generate any funding for specific infrastructure or housing development, the findings from this report are primarily derived from research and analysis on the range of economic impacts generated from the investment categories that individual communities could pursue under the measure. These categories include affordable housing and infrastructure for transportation (e.g., roadways, transit, ports), utilities (e.g., energy, water, and sewer), parks and open space, and climate change adaptation, among others.

EPS quantified the net economic gains arising from a hypothetical **\$100 million GO bond measure** approved under the provisions of Proposition 5, and found the likely benefits to be as follows:

- **Production of 1,500 to 4,600 affordable and moderately priced housing units**, depending on targeted affordability levels and location, by leveraging State and federal programs and/or private investment. A local GO bond could also stimulate emerging public-private affordable housing delivery and financing models.
- **A reduction in the average cost per housing unit produced by roughly \$40,000 for 2,500 new units** if used by communities to defray the costs of public infrastructure necessary to develop new housing (e.g., transportation facilities, electric utilities, water service, and impact fees for schools, parks, and libraries).
- **A reduction of \$6,000 to \$14,000 in annual housing costs per household**, resulting from lower rents, freeing up discretionary spending for those residents on other economic activities. This increased spending will **increase labor income by \$6.3 to \$8.4 million annually and create 90 to 120 permanent jobs**.
- **The creation of 11,300 to 30,500 one-time jobs** in residential construction and from economic ripple effects across a wide range of other sectors. More widespread use of GO bonds for affordable housing could also help rebuild California's construction sector where

employment remains about 18 percent below levels that prevailed prior to the market downturn precipitated by the mortgaged-back security crisis of 2008.

- **The creation of additional housing opportunities in job rich, labor constrained locations** which will enable on-going economic growth in these communities, including:
  - **2,140 to 17,600 permanent jobs**
  - **\$241 million to \$2.0 billion in economic output**
  - **\$138 million to \$1.2 billion in value added** (i.e., gross domestic product)
  - **\$91 million to \$760 million in labor income**
- **A net benefit from reduced greenhouse gas emissions and vehicle miles travelled of \$2.5 million to \$20.2 million per year.** Over a 55-year period (a typical covenant for affordable housing) these annual benefits accumulate to a **total net present value between \$114.6 million to \$587 million**, equivalent to \$76,400 to \$127,600 for a typical multi-family house.

## Introduction

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### Report Purpose and Overview

This report documents the research and analysis completed by Economic & Planning Systems, Inc. (EPS) on the range of potential economic impacts of Proposition 5, a measure on the State of California’s November 2024 ballot. As further described in **Exhibit 1**, Proposition 5 would change the requirements under the State Constitution for a city, county, or special district to issue local general obligation (GO) bonds for public infrastructure and affordable housing, subject to additional accountability, oversight, and transparency requirements. EPS has prepared this analysis under an engagement with the California Housing Partnership (the Partnership), a state-created private nonprofit organization dedicated to helping government and nonprofit housing agencies provide housing that is affordable to working families, homeless, veterans, seniors, and people with disabilities.

#### **Exhibit 1 Summary of Proposition 5 Housing and Infrastructure Provisions**

Proposition 5 is a measure put on the ballot by the State Legislature that will be put to California voters in the November 2024 election. As the California Secretary of State summarized, Proposition 5 “allows approval of local infrastructure and housing bonds for low- and middle-income Californians with 55% vote,” with “Accountability Requirements.” Currently, State law requires two-thirds approval by voters for local bonds. As detailed in the proposition language, the local bonds covered under Proposition 5 could be used to fund “construction, reconstruction, rehabilitation, or replacement of public infrastructure, affordable housing, or the acquisition or lease of real property for those purposes.”

“Affordable housing” includes “Downpayment assistance programs, First-time homebuyer programs, Permanent supportive housing, including, but not limited to, housing for persons at

risk of chronic homelessness, including, but not limited to, persons with mental illness”, and “Associated facilities, if used to serve residents of affordable housing.”

The category of “public infrastructure” includes:

“(I) Facilities or infrastructure for the delivery of public services, including education, police, fire protection, parks, recreation, open space, emergency medical, public health, libraries, flood protection, streets or highways, public transit, railroad, airports, and seaports.

(II) Utility, common carrier or other similar projects, including energy-related, communication-related, water-related, and wastewater-related facilities or infrastructure.

(III) Projects identified by the State or local government for recovery from natural disasters.

(V) Projects that provide protection of property from sea level rise.

(VI) Projects that provide public broadband internet access service expansion in underserved areas.

(VII) Private uses incidental to, or necessary for, the public infrastructure.

(VIII) Grants to homeowners for the purposes of structure hardening of homes and structures, as defined in state law.”

The ballot measure as written would not directly authorize any bond issuances, but rather would change the voter approval requirements needed to authorize such bonds.

As described in this Report, the types of infrastructure and housing investments that could be funded under Proposition 5 have the potential to be far-reaching and diverse. Evaluating the impacts of these investments is complicated by the fact that Proposition 5 does not authorize specific projects or programs, but instead changes the voter approval threshold required for passage of bond measures that local governments might pursue. Actual housing and/or infrastructure investments funded through bonds enabled by the provisions of Proposition 5 will be specific to the individual circumstances of communities that issue them.

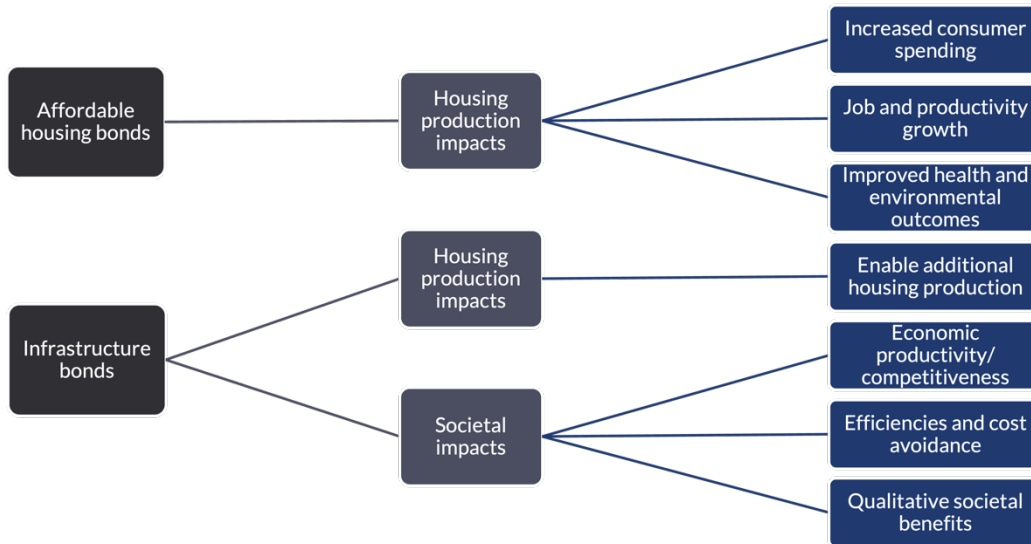
**Exhibit 2** illustrates the framework that EPS has applied to study the range of potential economic impacts from Proposition 5. As shown, EPS has categorized these impacts as those that may result from increased funding for (1) affordable housing and (2) infrastructure investments. While the analysis assumes that approval of Proposition 5 will generate additional funding for housing and infrastructure, it does not seek to estimate the total economic impact that might occur over time given the uncertainty associated with the amount and type of locally approved bond measures. Rather, the analysis primarily focuses on the potential impacts

accruing from a hypothetical \$100 million bond measure (an amount that a mid-size city might approve).<sup>1</sup>

Additionally, EPS acknowledges the following important considerations that will affect the economic impacts of implementing bond measures approved under Proposition 5.

- Local Variation in Bond Funded Projects:** While Proposition 5 includes general provisions related to eligible affordable housing and infrastructure projects as well as oversight provisions, local initiatives will likely vary widely in terms of their effectiveness in addressing local needs. The EPS analysis assumes the local jurisdictions (and the voting public) will “choose wisely” and does not address the possibility of poor project selection and/or implementation.
- Increase in Local Property Taxes:** By definition, GO bonds authorized by Proposition 5 will increase local property taxes and thus redirect income from a broad base of taxpayers to more specific investments (i.e., housing and public infrastructure). Accordingly, the EPS analysis seeks to avoid redistributive economic impacts, focusing instead on fundamental changes in economic outcomes, such as more housing (and associated benefits), increased productivity, and health and welfare benefits. While EPS does not seek to provide a generalized spending equilibrium model of the economy, the analysis does address net changes in output and employment associated with increased property taxes and local government indebtedness, where possible.

**Exhibit 2 Proposition 5 Economic Evaluation Framework**



<sup>1</sup> While the analysis quantifies the potential impacts of a \$100 million GO Bond measure, the results are generally scalable in proportion to the bond amount (e.g., a \$200 million bond would generate roughly two times the impacts).

## Funding and Regulatory Context

Throughout California's history, major state and federal investments in transportation, water, energy, and other infrastructure needed to support development have played a critical role in the state's growth. Additional investment from local jurisdictions – cities, counties, and special districts – bolstered the value of these State funds and provided communities with greater latitude in directing public investment towards their greatest local needs. One tool available to local subdivisions is the GO bond, which is funded by ad valorem taxes on real property within the entity's jurisdiction.

Since the ratification of California's constitution in 1879, local government GO bonds have required two-thirds approval by the jurisdiction's voters. However, with the single exception of the passage of Prop 39 in 2000, which lowered the voter approval requirement for school and community college bonds to 55%, the mechanisms available for local funding of public infrastructure in California have grown increasingly restrictive over the past several decades.

At the same time, local and regional governments today face heightened difficulties in meeting infrastructure needs due to rising construction and borrowing costs, increasing regulatory complexity and requirements<sup>2</sup>, and risks from climate change (e.g., fire or flood protection), among other factors. For example, the Producer Price Index for materials used in roadway, energy, and communications industries surged by over 28 percent from January 2021 to September 2023.<sup>3</sup> These combined factors reduce the overall number of new projects that can be funded solely through State and federal funding sources.

As a result of this changing landscape, local and regional officials are increasingly turning to alternative sources of funding, such as general revenue sources, tax-increment financing, long-term loans, capital leases, and public-private partnerships to meet their infrastructure needs. An increasing burden has also been placed on new development itself to pay for public infrastructure using land secured financing (e.g., Mello-Roos Community Facilities Districts or CFDs which raise revenue with parcel taxes), impact fees, and other project-based exactions and requirements. Developer-based financing tools generally contribute to constraints on infrastructure investment and make real estate projects less feasible, particularly much needed housing development.

Proposition 5 would provide an easier way for communities to raise the revenue needed to address local infrastructure and housing priorities, subject to accountability, oversight, and transparency requirements. As described further in subsequent chapters, GO bonds offer a variety of advantages relative to existing funding tools available to local governments, including access to a larger, more predictable, lower-cost, and more equitable revenue stream.

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<sup>2</sup> Infrastructure investments are regulated by the California Environmental Quality Act (CEQA). While local land use authorities (e.g., cities, counties and special districts) can approve infrastructure projects where potential adverse environmental impacts are identified, such decisions are difficult due to political, legal, and other considerations.

<sup>3</sup> <https://www.brookings.edu/articles/at-its-two-year-anniversary-the-bipartisan-infrastructure-law-continues-to-rebuild-all-of-america/>

## Proposition 5 Affordable Housing Impacts

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Proposition 5 has the potential to increase the amount of public funding available to support income- and rent-restricted affordable housing development as well as provide downpayment and first-time homebuyer assistance. Increasing the supply of affordable housing can have a variety of economic impacts, including growth in jobs and output, additional household consumption from reduced housing costs, and general benefits to public health. Importantly, local affordable housing bonds allow communities to raise funds that can be more efficiently and effectively directed to address specific local housing priorities, such as providing housing for specific income levels, household types, or target populations with the greatest local need.

### Impacts on Affordable Housing Production

Almost all rent-restricted affordable housing relies on a mix of funding sources. By increasing the range of funding resources available to support affordable housing, Proposition 5 has the potential to expedite delivery and expand supply in communities that approve GO bonds for this purpose. This section describes the various ways in which this might occur and provides an estimate for a hypothetical \$100 million GO bond.

#### Existing Affordable Housing Funding in California

The largest federal sources of funding for affordable housing in California are the Low-Income Housing Tax Credit (LIHTC or Housing Credit) program administered by the California Tax Credit Allocation Committee (CTCAC) and the related tax-exempt mortgage revenue bond program administered by the California Debt Limit Allocation Committee (CDLAC). The largest State programs that are typically used in combination with federal Housing Credits to fund construction of new units include the State's own Housing Credit program, the Affordable Housing and Sustainable Communities program (funded by auction revenues from the Greenhouse Gas Reduction Fund), and the Multifamily Housing Program. In recent years, about 70 percent of Housing Credit-funded housing developments (measured by unit count) have been new construction, with the other 30 percent supporting acquisition and rehabilitation investments which preserve high-quality affordable housing options but have less impact in expanding housing supply.<sup>4</sup> The proportion of Housing Credit-supported units that are new construction has been growing, and the availability of new local funds due to Proposition 5 may increase this share further.

Local funds often serve as the catalyst that enables affordable housing to obtain the final pieces of State and federal funding and proceed to construction. Data collected by the Partnership from CTCAC on developments using 4% Housing Credits in 2023 in California shows that local funding represented an average of 10% of total development cost across the State, ranging from less than 1% up to 27% across different regions (see **Exhibit 3**). This aligns with other analysis done by the Partnership as well as a recent study from the Turner Center for Housing

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<sup>4</sup> California Housing Partnership Housing Needs Dashboard, <https://chpc.net/housingneeds/>

Innovation at UC Berkeley illustrating that the local match for new income-restricted projects receiving Housing Credits typically ranges from 10 to 30% of total development costs.<sup>5,6</sup>

Without these local catalyzing funds, affordable housing developments are often unable to qualify for State and federal funding opportunities and access private lending and grant sources. A recent analysis by Enterprise Community Partners revealed that there are approximately 67,000 shovel-ready (new construction) affordable apartments waiting on funding in California.<sup>7</sup> New affordable housing bonds can generate local funding and increase the percentage of Housing Credit funds that go to new construction developments, increasing the overall supply of housing in the State.

#### The Future of 4% LIHTC Availability

Housing industry experts believe there is a strong likelihood that Congress will soon pass legislation significantly expanding the supply of tax-exempt bonds, the lack of which effectively serves as a cap on the availability of 4% Housing Credits in California. A signal of the strong bipartisan federal support for expanding the use of the 4% credit was the December 2020 omnibus spending and tax bill that fixed the percentage of this type of Housing Credit, which had previously floated well below 4%. Prior to that, there was bipartisan support for H.R. 2, the Moving Forward Act of 2020 that contained a similar provision. In 2024, the House of Representatives passed the bipartisan Tax Relief for American Families and Workers Act (H.R. 7024), which would have effectively lifted the cap on tax-exempt bonds and 4% credit access (the bill was not brought up to a vote in the Senate). Currently, the Affordable Housing Tax Credit Improvement Act, which would substantially expand the Housing Credit program, is co-sponsored by 54 percent of Congress

#### “Middle-Income” Housing Production

The availability of additional local government bond funding could also contribute to housing production at “middle-income” levels (i.e. 80 to 150 percent of the countywide area median income (AMI)). Proposition 5 would allow local bonds to be used to fund new housing serving households up to 150 percent of AMI—a level which is still not enough to afford market-rate housing in some of California’s most expensive areas. Except for a limited number of homes for first-time purchasers, new construction of homes serving households at these income levels have been notoriously difficult to fund because they are not eligible to use Housing Credits.

The potential for funding housing targeting middle-income households with the support of local investment could be significant, as the needed subsidy can be significantly less than for projects providing deeper levels of affordability. In California, income-restricted middle-income housing is typically delivered as “for-sale” products while multi-family rental developments of this type are less common. The Coliseum Connections development, adjacent to the Oakland Coliseum

<sup>5</sup> Turner Center for Housing Innovation at UC Berkeley, “The Complexity of Financing Low-Income Housing Tax Credit Housing in the United States,” April 2021.

<sup>6</sup> California Housing Partnership, “Roadmap Home 2030: A Roadmap to Thriving Communities in California,” March 2021.

<sup>7</sup> Enterprise Community Partners, “The California Affordable Housing Pipeline,” April 2024, [https://www.enterprisecommunity.org/sites/default/files/2024-04/State\\_Pipeline%202024\\_FINAL\\_0417.pdf](https://www.enterprisecommunity.org/sites/default/files/2024-04/State_Pipeline%202024_FINAL_0417.pdf)

BART station, presents one example. This 102-unit development, completed in 2019, includes 51 rental units available to household earning 80% to 120% of AMI, and was funded using a variety of public and private sources.

### Illustrative Proposition 5 Affordable Housing Bond Scenarios

To illustrate the potential impact of Proposition 5 on housing production, EPS estimated the number of affordable housing units that could be supported per \$100 million of GO bonds issued. The hypothetical scenarios presented here are intended to show the range of potential outcomes as well as inform the various economic impact estimates provided in subsequent sections of this Report. Of course, the amount of affordable housing supported by GO bond proceeds can vary significantly based on a variety of factors, including the type of units constructed (e.g. size, type of construction, amenities), income levels served, development location, among others.

The first scenario relies on the above-cited CTCAC data from the Partnership, which indicated an average per unit cost of approximately \$669,000, and average local subsidy of \$65,500 per unit (approximately 10% of total project costs). As shown in **Exhibit 3**, assuming a local match of approximately \$65,500 per unit, a **\$100 million affordable housing bond** could support the development of **over 1,500 housing units** leveraging 4% tax credits through the Housing Credit program and therefore affordable to low- and very low-income households. This estimate assumes that 100% of the bond proceeds are used to fund new affordable housing, rather than acquisition and rehab of existing units. While this estimate likely over-estimates net new supply, since recent trends indicate about 30% of Housing Credit-funded units are acquisition / rehabilitation of existing units, it may also over-estimate average cost per unit since rehabilitation is on average less expensive than new construction.

**Exhibit 3 Hypothetical Local Match Scenario with \$100 Million GO Bond**

Region	Average Total Development Cost (TDC) Per Unit	Percent of TDC Represented by Local Subsidy	Average Amount of Local Subsidy Per Unit	Number of Units Supported By \$100 Million Local Housing Bond
Central Valley [1]	\$379,651	7%	\$25,678	3,894
Coastal Region [2]	\$830,662	0.4%	\$3,554	28,137
East Bay	\$903,798	11%	\$102,933	972
Inland Empire	\$558,994	2%	\$12,716	7,864
Los Angeles	\$570,320	7%	\$39,865	2,508
San Diego	\$511,855	5%	\$23,858	4,191
San Francisco	\$925,619	27%	\$249,995	400
<b>Average</b>	<b>\$668,700</b>	<b>10%</b>	<b>\$65,514</b>	<b>1,526</b>

[1] Central Valley includes Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties.

[2] Coastal Region includes Monterey, San Luis Obispo, Santa Barbara, Santa Cruz, and Ventura counties.

Sources: CTCAC; California Housing Partnership; EPS

In addition to leveraging existing tax credit programs, under the provisions of Proposition 5, local communities could use GO bond proceeds to fully subsidize affordable housing. For

example, a jurisdiction could partner with an affordable housing developer / operator by subsidizing the financing gap of housing development with rents affordable to households earning up to 150% of AMI—households that do not qualify for Housing Credits but are still in need of affordable housing.

In the second housing production example, EPS calculates the number of units that could potentially be delivered for households earning 100% - 120%, and 150% of AMI using a \$100 million bond. The assumptions underlying the hypothetical scenario are based on work completed by EPS analyzing the cost of housing in Los Angeles County’s San Gabriel Valley Region. As shown in **Exhibit 4**, given the range of development costs in the region and affordable rents at different income levels, **\$100 million in GO bond revenue could support between 520 and 4,670** housing units affordable to these moderate-income households under the assumptions of the analysis. Again, the magnitude of “middle-income” housing potentially supported through local affordable housing bonds will vary based on unit size, income level served, and development location.

**Exhibit 4 Hypothetical Gap Financing Scenario with \$100M GO Bond for Households at or Above Area Median Income in SCV Region of Los Angeles County**

Item	Income Levels (LA County)		
	100% AMI	120% AMI	150% AMI
Household Income [1]	\$88,400	\$106,050	\$132,600
Affordable Annual Rent	\$26,520	\$31,815	\$39,780
Unit Value [3]	\$380,400	\$436,300	\$595,600
Total Development Cost	\$573,000	\$595,000	\$617,000
Subsidy Needed	(\$192,600)	(\$158,700)	(\$21,400)
<b>Units Supported by \$100 Million Bond</b>	<b>520</b>	<b>630</b>	<b>4,670</b>

*Note: Numbers are rounded.*

[1] Based on 2024 area median income for 3-person household in Los Angeles, per CA HCD.

[2] Assumes 30% of income spent on rent.

[3] Calculated using net operating income (rent minus operating costs) and a capitalization rate of five percent.

Source: EPS

### Expansion of Other Emerging Housing Models

The additional local bond revenues created under Proposition 5 may unlock additional private and institutional financing sources. There has been strong interest from the private sector in recent years in finding ways to contribute to affordable housing production. These private sources include philanthropic grants, investments from social impact funds, loans or hybrid financing products, as well as land donations. Foundations, religious organizations, and private companies have all shown significant interest and / or initiated various types of contributions towards affordable housing developments in recent years.

By way of example, many Bay Area tech firms have invested in affordable housing developments to serve the needs of their workers as well as the communities in which they are located. Examples include Apple’s investment in more than a dozen developments funded by the Housing Trust of Silicon Valley; Facebook/Meta’s investment in developments funded by the Local Initiatives Support Corporation; and the Bay Area Housing Innovation Fund, a \$50M pilot

partnership of Apple, Sobrato Organization, and the San Francisco Housing Accelerator Fund to provide gap financing for 400 affordable housing units. Public investment in these developments increases their attractiveness for private investment, as it demonstrates local commitment to affordable housing production and allows for larger developments to become feasible.

An example of other creative developments that could be funded through affordable housing bonds might include partnering with school districts. Schools and universities in several locations around the state have worked to produce middle- and low-income workforce housing in recent years, particularly to serve their own employees' housing needs. For example, Shirley Chisholm Village in San Francisco will provide 135 affordable homes with priority for educators and employees of the San Francisco Unified School District. While many State and federal sources of funds would not allow for a development to target a specific population such as employees of a school district, local and regional affordable housing bond revenues have more flexibility and could potentially be directed to advancing such developments more quickly or expanding their size and scope.<sup>8</sup>

### **Economic Multiplier Impacts from Housing Construction**

New affordable housing development supported by Proposition 5-enabled bond revenue will create jobs in the construction sector which will have a ripple effect through the broader economy. Using two of the housing production scenarios illustrated above—1,526 units of Housing Credit-supported housing affordable to households earning below 80% AMI, and 4,670 units of gap-financed housing affordable to households earning 150% AMI—EPS estimated the total increase in economic output, employment, value added, and labor income that could result from a \$100 million affordable housing GO bond. The estimates also deduct the potential decline in spending that might result from the increased local property taxes needed to secure the \$100 million GO bond.

As shown in **Exhibit 5**, a \$100 million GO bond would likely generate substantial positive net economic benefits that would ripple through broader regional and State economy. Specifically, the scenarios would generate between **11,300 to 30,500 one-time jobs, \$1.7 to \$2.8 billion in economic output, \$1.3 to \$2.1 billion in value added and \$870 million to \$1.3 billion in labor income in California** over a typical construction period (e.g., 2 – 3 years).

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<sup>8</sup> In 2016 and 2017 California legislature passed (and the Governor signed) laws to facilitate school district housing (SB 1413 and AB 3308) that focused on exemptions to the “fair housing act”. The policy has led to numerous successful school housing projects in the State.

On a per housing unit basis this impact equates to about six to seven jobs, \$1.0 to \$1.1 million in economic output, \$450,000 to \$830,000 in value added, and \$280,000 to \$570,00 in labor income. The high-end of the estimated range assumes the GO bonds are used to subsidize the financing gap of an affordable development that targets households making 150% percent of AMI or less (most feasible where market rents are well above 150%). The lower end of the range, where GO bond leverages the Housing Credit program supporting units at lower income levels, generates fewer housing units overall due to the higher subsidy needed per unit.

### Illustrative Housing Scenarios

The two scenarios modeled in this and subsequent sections were selected to represent the range of likely economic impacts from housing produced through a Proposition 5-enabled affordable housing bond:

- 1,526 units of Housing Credit-supported housing would be available to households earning 80% of AMI or less—for example, less than \$70,720 per year in Los Angeles County.
- 4,670 units of gap-financed housing would be available to households earning up to 150% of AMI—for example, up to \$132,600 per year in Los Angeles County.

Numerous other scenarios are possible and jurisdictions issuing bonds would have the opportunity to target the type of housing production most beneficial to their needs and community preferences.

The calculations in **Exhibit 5** have been simplified to facilitate an apples-to-apples comparison of the one-time economic impacts associated with a transfer of spending from property taxpayers to the construction sector as part of a GO bond issuance. But the results demonstrate how a direct investment in the labor-intensive construction sector stimulates more economic activity than would occur if it remained in hands of property taxpayers where only a portion of income is spent in the local and state economy (the other portion is saved and/or spent out of state). It also demonstrates the benefits of leveraging GO Bond financing with State funding programs including 4% Housing Credits to build more affordable housing. A more detailed analysis of the economic implications of increased property taxes, and the benefits from GO bond financing more generally, is provided in subsequent sections.

**Exhibit 5 One-Time Economic Impact from Affordable Housing Construction**

Economic Impact Category	Assumption / Factor	Estimated Annual Economic Impact			
<b>Scenario #1: 4% Tax Credit Affordable Housing</b>					
Housing Units Created (@ 50% AMI)	1,526				
Total Construction Costs	\$1,020,695,422				
		<b>Output</b>	<b>Value Added</b>	<b>Labor Income</b>	<b>Jobs</b>
<b>One-Time Economic Impact from Construction Activity<sup>1</sup></b>					
Direct impact		\$1,020,695,422	\$833,517,468	\$631,022,143	8,023
Indirect Impact		\$212,126,353	\$120,786,585	\$65,074,773	827
Induced Impact		\$637,186,102	\$395,234,080	\$215,025,556	3,021
<b>Total</b>		<b>\$1,870,007,877</b>	<b>\$1,349,538,133</b>	<b>\$911,122,472</b>	<b>11,871</b>
		\$126,821,073	\$78,864,179	\$43,038,044	602
<b>Temporary Reduction in Spending from Increased Property Tax<sup>2</sup></b>					
<b>Net Economic Impact</b>		<b>\$1,743,186,804</b>	<b>\$1,270,673,955</b>	<b>\$868,084,428</b>	<b>11,269</b>
Per housing Unit		\$1,142,034	\$832,471	\$568,718	7.4
<b>Scenario #2: Financing for Moderate Priced Housing</b>					
Housing Units Created (@ 150% AMI)	4,670				
Total Construction Costs	\$2,675,910,000				
		<b>Output</b>	<b>Value Added</b>	<b>Labor Income</b>	<b>Jobs</b>
<b>One-Time Economic Impact from Construction Activity<sup>1</sup></b>					
Direct impact		\$2,675,910,000	\$833,517,468	\$631,022,143	21,033
Indirect Impact		\$556,121,852	\$316,660,607	\$170,603,525	2,167
Induced Impact		\$1,670,481,345	\$1,036,166,914	\$563,722,560	7,921
<b>Total</b>		<b>\$4,902,513,197</b>	<b>\$2,186,344,989</b>	<b>\$1,365,348,228</b>	<b>31,121</b>
<b>Property Tax<sup>2</sup></b>		<b>\$126,821,073</b>	<b>\$78,864,179</b>	<b>\$43,038,044</b>	<b>602</b>
<b>Net Economic Impact</b>		<b>\$4,775,692,124</b>	<b>\$2,107,480,810</b>	<b>\$1,322,310,183</b>	<b>30,519</b>
Per housing Unit		\$1,022,632	\$451,281	\$283,150	6.5

[1] Based on economic impact multipliers reported by Implan for residential construction sector in California. Note that multipliers vary by location and impacts will be disproportionately concentrated in the jurisdiction / community where the housing is developed.

[2] Based on California-wide consumer expenditure multipliers reported by Implan for households with incomes ranging from \$70K - \$100K. Note that multipliers vary by location and economic impacts will be disproportionately concentrated in the jurisdiction where bond is issued.

## Impacts on Economic Productivity

A disproportionate share of the housing need in California is in dense employment centers where tight, high-wage labor markets have led to extreme housing shortages. This dynamic has created a “spatial mismatch”, where areas with high economic output cannot attract the labor force needed for continued growth, as that labor force is unable to afford to live in those areas. Based on US Census data, California averages slightly more than 1.4 workers per household, and many housing-constrained markets have even higher ratios (e.g., 1.46 in Los Angeles MSA, 1.54 in San Jose MSA, 1.49 in Oxnard MSA). Therefore, for each housing unit built in these locations, there is the potential to staff 1.4 new jobs on average; conversely, housing units not built can constrain job growth by a similar amount.

A 2019 study on this topic identified San Francisco and San Jose as the most extreme examples of the impacts of spatial mismatch. Within these two regions, taken together with the New York region (the next most extreme example), the study estimated that, between 1964 and 2009,

cumulative GDP growth was limited by 36.3 percent.<sup>9</sup> This is equivalent to a 3.7 percent curtailment in U.S. national GDP growth in the same period. That is, if these cities had kept up their pace of housing growth (relative to the growth in number of workers) at the median rate for the U.S. overall, national GDP would have been measurably higher.

Affordable housing bonds that facilitate new housing production within high-productivity and housing-constrained areas have the potential to generate significant long-run benefits to economic output and productivity, with benefits accruing to regions outside of those areas as well. The shortage of homes in California is substantial enough that this effect is likely to persist even with significant new production--California's 2022 Statewide Housing Plan estimated that the State needs to add 2.5 million homes to match the U.S. average ratio of homes-to-people, due to severe underproduction of housing stretching back to the 1970s.<sup>10</sup>

To the extent that affordable housing bonds are issued in the regions most impacted by this spatial mismatch, they could have an outsized impact in terms of enabling workers to live near the State's economic centers currently burdened by tight labor markets. Improving access to labor through affordable housing will directly contribute to the State's overall economic growth. Increased housing opportunities in major job centers will also reduce the economic and environmental costs associated with long work commutes, as discussed further in the infrastructure section of this report.

### **Economic Multiplier Effects of Providing Workforce Housing**

As illustrated in **Exhibit 6**, additional housing opportunities in jobs-rich, labor-constrained locations can be expected to have a significantly positive economic multiplier benefits throughout the State. Under the scenarios evaluated, the total economic impact of a \$100 million GO bond equates to **between 2,140 to 17,570 permanent jobs, \$241 million to \$2.0 billion in economic output, \$138 million to \$1.2 billion in value added and \$91 million to \$760 million in labor income in California on an on-going basis.** On a per housing unit basis this equates to about an ongoing 1 to 4 jobs, \$158,000 to \$430,000 in economic output, \$91,000 to \$250,000 in value added, and \$60,000 to \$162,660 in labor income.

Again, this level of impact is most likely to occur in growing economies located in highly constrained housing markets, a condition that is most typical in California's urban centers such as the San Diego, Anaheim, Los Angeles, San Francisco, and Sacramento MSAs. The analysis also estimates how the increase in jobs, income, and economic output will be mitigated due to the reduced spending associated with the property taxes needed to service the GO bond. However, in this case the impacts are assumed to be ongoing, not one-time, which requires a more detailed analysis of ongoing tax implications from debt service.

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<sup>9</sup> Hsieh and Moretti, "Housing Constraints and Spatial Misallocation," American Economic Journal: Macroeconomics, 2019.

<https://www.aeaweb.org/articles?id=10.1257/mac.20170388>

<sup>10</sup> California Department of Housing and Community Development, "A Home for Every Californian: 2022 Statewide Housing Plan", March 2022, <https://www.hcd.ca.gov/docs/statewide-housing-plan.pdf>.

**Exhibit 6 Economic Impacts from Addressing Housing Shortages**

Economic Impact Category	Assumption / Factor	Estimated Annual Economic Impact			
<b>Scenario #1: 4% Tax Credit Affordable Housing</b>					
Housing Units Created (@ 50% AMI)	1,526				
Avg. Income / Household <sup>1</sup>	\$50,100				
Total Labor Income	\$76,472,038				
On-Going Impact from Providing Affordable Housing <sup>2</sup>		<u>Output</u>	<u>Value Added</u>	<u>Labor Income</u>	<u>Jobs</u>
Direct Impact		\$208,789,424	\$127,612,218	\$76,472,038	879
Indirect Impact		\$6,990,400	\$2,598,705	\$5,446,219	255
Induced Impact		\$33,375,328	\$13,136,638	\$12,224,179	1,040
Total		\$249,155,152	\$143,347,560	\$94,142,436	2,174
Tax <sup>3</sup>	\$6,309,055	\$8,071,901	\$4,975,585	\$2,715,294	34
Net Economic Impact		\$241,083,251	\$138,371,976	\$91,427,142	2,139
Per housing Unit		\$157,944	\$90,653	\$59,898	1.4
<b>Scenario #2: Financing for Moderate Priced Housing</b>					
Housing Units Created (@ 150% AMI)	4,670				
Avg. Income / Household <sup>4</sup>	\$132,600				
Total Labor Income	\$619,242,000				
On-Going Impact from Providing Workforce Housing <sup>2</sup>		<u>Output</u>	<u>Value Added</u>	<u>Labor Income</u>	<u>Jobs</u>
Direct Impact		\$1,690,698,777	\$1,033,356,077	\$619,242,000	7,116
Indirect Impact		\$56,605,647	\$21,043,342	\$44,101,446	2,066
Induced Impact		\$270,260,940	\$106,375,586	\$98,986,838	8,420
Total		\$2,017,565,365	\$1,160,775,005	\$762,330,284	17,602
Tax <sup>3</sup>	\$6,310,000	\$8,073,109	\$4,976,330	\$2,715,701	34
Net Economic Impact		\$2,009,492,255	\$1,155,798,676	\$759,614,583	17,568
Per housing Unit		\$430,298	\$247,494	\$162,658	3.8

[1] Based on average income equal to 50% of State AMI for a three (3) person household, as report by HUD.

[2] Based on general economic impact multipliers reported by Implan for California. Note that multipliers vary by location and impacts will be disproportionately concentrated in the jurisdiction / community where the housing is developed.

[3] Represents increase in annual property tax from GO bond, calculated based on an 4.5% interest rate, 30 term, bond issuance cost equal to 3% of the principal, 10% and 1.5% underwriter's discounting.

[4] Based on 2024 area median income for 3-person household in Los Angeles, per CA HCD.

## Impacts on Consumer Spending

At least 52 percent of households in California are considered cost-burdened, meaning they pay more than 30 percent of their household income on housing costs.<sup>11</sup> An Apartment List analysis of Census data by state and metropolitan area found that three of the five most cost-burdened metropolitan regions in the U.S. are located in California: the Riverside-San Bernardino-Ontario metro area, the San Diego-Chula Vista-Carlsbad metro area and the Los Angeles-Long Beach-Anaheim metro area.<sup>12</sup> According to the Bureau of Labor Statistics Consumer Expenditure Survey, the average California households spends 29 percent of their income on housing (exceeding the U.S. average of 26 percent).

<sup>11</sup> Housing costs are typically defined to include rent payments and utility costs for rental housing, or mortgage principal and interest as well as insurance and property taxes (plus often utility costs) for ownership housing. Percent of California households paying more than 30 percent of household income on housing costs is based on 2022 American Community Survey data from the U.S. Census Bureau (table B25074).

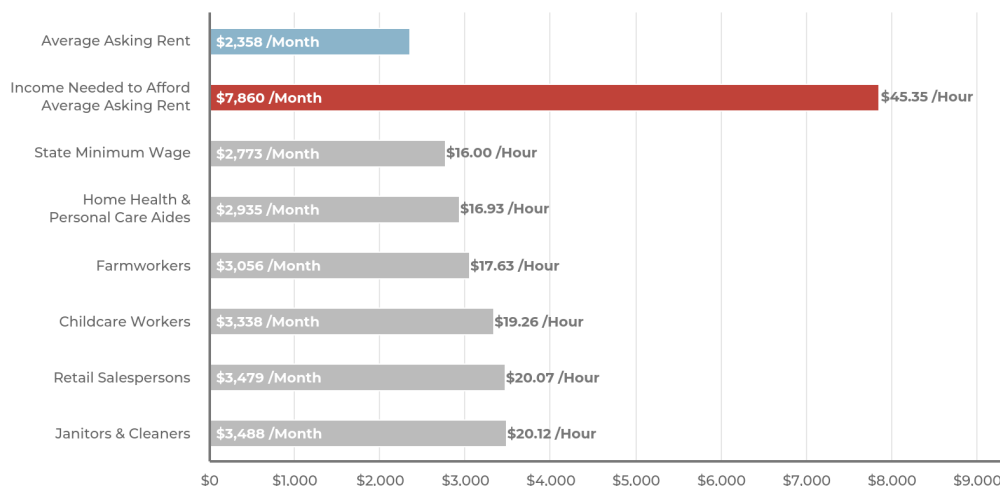
<sup>12</sup> Salvati and Warnock, 2023. <https://www.apartmentlist.com/research/more-than-half-of-all-renters-are-cost-burdened>

The chart in **Exhibit 7** below from the Partnership’s Housing Needs Dashboard illustrates the gap between income needed to afford the average asking rent for a unit in California (usually higher than actual rents) and income earned by workers in several lower-wage industries.<sup>13</sup>

**Exhibit 7 Lower-Wage Incomes Versus Income Needed to Rent Average Unit**

WHO CAN AFFORD TO RENT (2024)

| Renters need to earn **2.8 times** the minimum wage to afford the average asking rent in California.



California Housing Partnership | [chpc.net/housingneeds](https://chpc.net/housingneeds)

This high cost burden can push many households, especially lower-income and renters, into material hardships that include food insecurity, difficulty paying bills, and forgoing needed medical care.<sup>14</sup> Meanwhile, income-restricted housing is priced such that households at the upper limits of income categories pay the “affordable” level of 30 percent of household income in combined rent and estimated utility costs, resulting in significant savings compared to households not living in subsidized affordable housing. These savings can be spent on other items such as food, health care, child enrichment, and transportation. **Exhibit 8** from the Partnership’s Housing Needs Dashboard utilizes data from the United Way to illustrate the cost of living for a family of three in Los Angeles County, and what categories of items need to be sacrificed when housing costs represent 35 percent or more of household income.<sup>15</sup>

<sup>13</sup> <https://chpc.net/housingneeds>

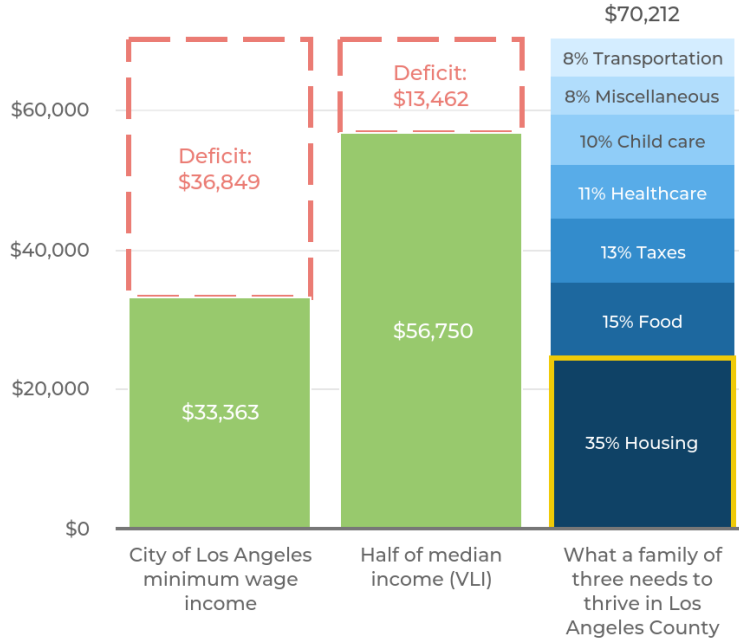
<sup>14</sup> Lochhead and Shamsuddin, 2020. <https://econofact.org/the-growing-burden-of-housing-for-low-income-renters>

<sup>15</sup> <https://chpc.net/housingneeds>

**Exhibit 8 Cost of Living Breakdown for Three-Person Household in Los Angeles County (2023)**

**COST OF LIVING (2023)**

After paying the high cost of housing, very low-income households in Los Angeles County are **short \$13,462** annually for basic needs.



California Housing Partnership | [chpc.net/housingneeds](http://chpc.net/housingneeds)

Economic studies have shown that higher-income households spend less and save more of their income than do lower-income households.<sup>16</sup> Conversely, housing cost savings for households in income-restricted affordable housing are more likely to have a net positive impact on overall economic output (GDP), as these households have higher marginal spending/consumption than higher-income households. Therefore, for every new unit of income-restricted housing built, there will be increased consumer spending in the economy on other items. Based on spending estimates developed by McKinsey, every dollar of rent saved for a low-income household could lead to an additional 79 cents in economic activity. The same analysis estimated that consumption multipliers are 2.5 for low-income household versus 1.4 for high-income households.<sup>17</sup>

While the magnitude of this shifted spending will be proportional to the amount of new affordable housing built, the opportunity is large. The Partnership estimated that, for the over

<sup>16</sup> Fisher, Johnson, et al., "Estimating the marginal propensity to consume using the distributions of income, consumption, and wealth," *Journal of Macroeconomics*, September 2020, <https://www.sciencedirect.com/science/article/abs/pii/S0164070420301440>

<sup>17</sup> McKinsey Global Institute, "A Tool Kit to Close California's Housing Gap," October 2016.

455,000 affordable housing units already built in California, each household saves on average \$530 per month compared to market-rate units, which can be spent on other items.<sup>18</sup> That equates to \$2.4 billion in savings each year that can be spent on other goods in the economy.

There may also be a broader benefit of consumer spending across all households in the State as new homes are produced, due to the impact of slowing the overall growth in housing prices/rents. It has been documented that each new unit of housing can be expected to produce a small marginal reduction in overall housing cost growth, with short-term measurable benefits for households across the income spectrum regardless of the cost of the new housing units.<sup>19</sup>

### Economic Multiplier Effects from Increased Discretionary Spending

EPS has estimated the potential economic multiplier impacts from the increased discretionary spending of affordable housing residents under the two hypothetical \$100 million bond scenarios. The analysis estimates an average **rent reduction of between \$6,120 to \$13,950 per year** for housing at middle-income and lower-income, respectively--savings that residents spend on goods and services in the local economy. EPS also deducted overall reduced household spending due to increased property taxes from the estimated impacts.

As shown in **Exhibit 9**, the total net economic impact of the \$100 million GO bond equates to **90 to 120 permanent jobs, \$19 to \$26 million in economic output, \$12 to \$16 million in value added and \$6.4 to \$8.4 million in labor income in California** on an on-going basis.

**Exhibit 9 Economic Impact from Increase Discretionary Spending**

Economic Impact Category	Assumption / Factor	Estimated Annual Economic Impact			
<b>Scenario #1: 4% Tax Credit Affordable Housing</b>					
Housing Units Created (@ 50% AMI)	1,526				
Avg. Rent Saving / Household <sup>1</sup>	\$13,949				
Total Annual Rent Savings	\$21,291,312				
		<i>Output</i>	<i>Value Added</i>	<i>Labor Income</i>	<i>Jobs</i>
On-Going Impact from Increased Discretionary Spending <sup>2</sup>		\$27,240,426	\$16,947,514	\$9,078,585	125
Reduced Spending from Increased Property Tax <sup>3</sup>	\$6,310,000	\$8,073,109	\$4,976,330	\$2,715,701	34
<b>Net Economic Impact</b>		<b>\$19,167,317</b>	<b>\$11,971,184</b>	<b>\$6,362,885</b>	<b>91</b>
Per housing Unit		\$12,557	\$7,843	\$4,169	0.06

<sup>18</sup> California Housing Partnership Affordable Housing Map and Benefits Calculator data tool: <https://affordablehomes.chpc.net/?view=37.421476,-123.44521,6&tract=foz&rural=1,0&funding=hud,usda,lihtc,hcd,calhfa>

<sup>19</sup> Been, Ellen, and O'Regan, "Supply Skepticism Revisited," November 2023, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4629628](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4629628)

Economic Impact Category	Assumption / Factor	Estimated Annual Economic Impact			
<b>Scenario #2: Financing for Moderate Priced Housing</b>					
Housing Units Created (@ 150% AMI)	4,670				
Avg. Annual Rent Saving / Household <sup>4</sup>	\$6,120				
Total Annual Rent Savings	\$28,580,400				
		<i>Output</i>	<i>Value Added</i>	<i>Labor Income</i>	<i>Jobs</i>
On-Going Impact from Increased Discretionary Spending <sup>2</sup>		\$33,625,576	\$20,800,614	\$11,133,517	155
Reduced Spending from Increased Property Tax <sup>3</sup>	\$6,310,000	\$8,073,109	\$4,976,330	\$2,715,701	34
<b>Net Economic Impact</b>		<b>\$25,552,467</b>	<b>\$15,824,284</b>	<b>\$8,417,817</b>	<b>121</b>
Per housing Unit		\$5,472	\$3,388	\$1,803	0.03

[1] Calculated based on 30% of income for households earning 50% of the State AMI for a three (3) person household, as reported by HUD. The rent savings are based on HUD's "Fair Market Rent" for a two (2) bedroom unit.

[2] Based on California-wide consumer expenditure multipliers reported by Implan for households with incomes ranging from \$50K - \$700K. Note that multipliers vary by location and economic impacts will be disproportionately concentrated in the jurisdiction where bond is issued.

[3] Represents increase in annual property tax from GO bond, calculated based on an 4.5% interest rate, 30 term, bond issuance cost equal to 3% of the principal, 10% and 1.5% underwriter's discount.

[4] Based on 2024 area median income for 3-person household in Los Angeles, per CAHCD.

## Impacts on Market-Rate Housing

Additional affordable housing bond proceeds enabled through Proposition 5 may both facilitate and hinder the production of market-rate housing. Increased spending on affordable housing development could restore the productive capacity of California's home building sector to levels consistently achieved prior to the Great Financial Crisis (GFC) commencing in 2008, facilitating the production of market-rate housing. On the other hand, in the absence of increased capacity, greater competition between affordable and market-rate developers for land and labor could drive up costs.

It has been widely reported that California faces a severe shortage of construction labor.<sup>20</sup> This shortage is in part a holdover effect from the GFC, which resulted in a severe contraction of new housing development and associated layoffs of workers associated with that development. While in theory affordable housing projects compete with market rate projects for construction labor, actual impacts are likely to be more complex. For example, affordable housing projects can also have a counter-cyclical effect that helps maintain the construction labor market. Real estate development is highly cyclical, and major downturns can have a pernicious effect on construction labor, forcing many workers to leave the industry, as seen during the GFC. A greater volume of affordable housing can provide a steady source of work through these economic downturns (due to reliance on government funding rather than private financing) and help retain workers in the sector. Additionally, some construction workers have left California

<sup>20</sup> Examples include: <https://faircontracting.org/wp-content/uploads/2019/01/Rebuilding-California-The-Golden-States-Housing-Workforce-Reckoning.pdf>, <https://www.sbc.com/the-california-labor-shortage-explained/>, <https://creedla.com/california-construction-suffers-widespread-labor-shortage/>, <https://calmatters.org/commentary/2024/01/worker-shortage-existential-issue-california/>, <https://www.valleyvision.org/study-finds-workforce-shortage-in-construction-sector-impedes-projects-puts-upward-pressure-on-housing-prices-jan-2018/>

due to high housing costs.<sup>21</sup> The presence of more affordable housing, especially middle-income housing, may help them remain in California, stabilizing the construction labor market.

Historical data on housing labor and construction activity supports the broader conclusion that over the long term, California can support higher levels of housing production than the average that has occurred since the GFC. As shown in **Exhibit 10**, average annual housing starts have declined by more than 40 percent since 2009 relative to the eight-year period preceding the GFC (2000 – 2008), while average annual construction jobs fell by almost 18%. In other words, prior to the GFC, California’s economy could sustain a level of residential construction significantly higher than has existed since. This data suggests that increased affordable housing will not “crowd out” market-rate housing over time, but rather can help catalyze a return to the State’s full housing production potential.

**Exhibit 10 Production and Job Trends in California’s Housing Sector**

Category	2000 - 2008	2009 - 2023	Percent Change
<b>Avg. Annual Housing Starts</b>	150,760	88,180	-41.5%
<b>Avg. Annual CA Residential Construction Jobs</b>	124,030	102,290	-17.5%

*Source: St. Louis FRED Series CABPPRIV and SMU06000002023610001, Not Seasonally Adjusted*

Another area where affordable and market-rate housing developers “compete” is in the availability of land zoned to accommodate new housing projects. As with construction labor, affordable and market-rate housing developers typically bid on the same limited supply of sites. However, a variety of recent State legislation has greatly expanded the availability of sites for affordable housing specifically, by allowing greater flexibility in bypassing local zoning restrictions and offering public- and religious-owned land on a priority basis for affordable housing.<sup>22</sup> The increased supply of sites available for affordable housing specifically has the potential to reduce the volume of affordable housing developers acquiring sites sought by market-rate developers, though some competition will likely remain.

## Impacts on the Environment and Public Health

### Public Health Impacts

There has been significant interest in recent years in the public benefits of access to safe, stable, and high-quality housing, especially benefits to health. Those without stable access to housing can suffer negative impacts on physical and mental health, and even increased mortality. Homeless individuals that lack stable housing access emergency services at a greater rate, which

<sup>21</sup> See for example, “Impact of California’s Housing Prices on Construction Workers,” by John Husing, February 22, 2019.

<sup>22</sup> Examples include SB 35 (streamlined approval for affordable housing projects); the Housing Accountability Act (SB 330, 8, 167; AB 1515, 3194); Affordable Housing on Faith Lands Act (SB 4); State Density Bonus Law; and AB 2011 (housing on commercial corridors).

often results in higher health care expenditures, and indeed, housing the homeless has generally been shown to improve health outcomes.<sup>23</sup>

The production of new affordable housing may reduce the negative impacts and improve health outcomes for households that are able to access them. The Partnership has estimated several public health and other general benefits associated with the over 455,000 existing affordable housing units already built in California. Looking at the location of these new homes, the Partnership estimated that annual pediatric health savings for children living in low-poverty areas is \$363 million, while annual health savings for reduction in severe obesity and diabetes due to living in low-poverty areas is an estimated \$109 million.<sup>24</sup>

### Environmental Impacts

In California, light-duty (passenger) vehicles alone are the largest source for of all greenhouse gas (GHG) emissions.<sup>25</sup> In addition, vehicle exhausts produce particulate matter (PM) air pollution that leads to over 3,100 premature deaths per year due to cardiovascular disease, heart attacks, and other illnesses.<sup>26</sup> The economic damages caused by exposure to air pollution are considered an externality, since they are borne by society, rather than by the travelers and operators whose activities generate those emissions.

A growing body of literature indicates that affordable homes near transit, jobs, and community amenities help reduce reliance on cars, thereby reducing greenhouse gas emissions. For example, the Partnership study referenced above estimated that each affordable household would contribute 1.76 fewer metric tons of CO<sub>2</sub> per year due to combined closer proximity to jobs and transit.<sup>27</sup> Additionally, the California Air Control Pollution Control Officers Association (CAPCOA) estimates that a higher density of housing units compared to the average residential density in the U.S can potentially mitigate up to 30% of GHG emissions from project vehicle miles traveled (VMT), and that units sited in a transit-oriented development (TOD) location can potentially mitigate up to 31% of GHG emissions (relative to the same units sited in a non-TOD location) and developments that integrate affordable and below market-rate housing units can potentially mitigate up to 28.6% of GHG emissions.<sup>28</sup>

The CAPCOA handbook identifies 15 quantified measures at the project/site scale that can be combined with each other to calculate potential aggregate reductions. The report evaluates the economic benefits from two of these measures, namely increasing residential density, and providing transit-oriented development. For example, reducing VMT can lead to lower fuel costs, reduced wear and tear on vehicles, and decreased infrastructure maintenance expenses.

<sup>23</sup> Taylor, Lauren. Housing and Health: An Overview of the Literature. 2018.

<https://www.healthaffairs.org/content/briefs/housing-and-health-overview-literature>

<sup>24</sup> [California Affordable Housing Map \(chpc.net\)](#)

<sup>25</sup> [Assessing California's Climate Policies—Transportation](#)

<sup>26</sup> [Life cycle air quality impacts of conventional and alternative light-duty transportation in the United States — Experts@Minnesota \(umn.edu\)](#)

<sup>27</sup> [California Affordable Housing Map \(chpc.net\)](#)

<sup>28</sup> See The California Air Control Pollution Control Officers Association's Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Safety

Similarly, reducing GHG emissions can result in health cost savings, and reduced costs for heating / air conditioning among other benefits.<sup>29,30</sup>

In recognition of this reality, many State funding programs for affordable housing are promoting location choices that prioritize transit access as well as the use of net zero carbon emission building approaches. As such developments become more common, the GHG reduction benefits are expected to increase over time.

A key example of this approach is the Affordable Housing and Sustainable Communities (AHSC) funding program, managed by the Strategic Growth Council and financed by the state's Greenhouse Gas Reduction Fund, which derives revenue from California's Cap-and-Trade program. The AHSC program specifically prioritizes housing developments located near transit, and the California Air Resources Board (CARB) has developed a Benefits Calculator Tool to estimate the GHG emissions reductions from funded developments. As of April 2024, the AHSC program has resulted in the creation of 17,878 units of affordable housing, and over the course of the life of the affordable housing built by the AHSC program California will achieve an estimated reduction of 4.4 million metric tons in GHG emissions.<sup>31</sup>

Other affordable housing programs are also beginning to mirror this approach as the State continues to work towards implementation of the State's Sustainable Communities and Climate Protection Act of 2008 (SB 375). This includes efforts to achieve state and regional emissions reduction targets established and regularly updated by CARB. For instance, the Green Means Go is a multi-year pilot that aims to lower greenhouse gas emissions in the six-county Sacramento region by accelerating infill development and reducing and electrifying vehicle trips.

With the passage of Proposition 5 and the support of local GO bonds, new affordable housing developments can lead to significant savings through reduced GHG emissions and vehicle miles traveled (VMT). However, the extent of these reductions will vary based on factors such as location, employment density, proximity to transit and shared mobility infrastructure, methodology of calculation, and adjustment factor assumptions.<sup>32</sup>

### ***Estimated Environmental Benefits of a \$100 Million GO Bond***

Based on standard methodologies and valuation techniques utilized by the EPA, DOT, and other federal and state agencies, EPS estimated the benefits generated if local GO bonds aid the development of 1,500 lower-income units or 4,600 middle-income units in infill locations (the same scenarios modeled above). The primary economic benefits are derived from reduced VMT

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<sup>29</sup> The United States Environmental Protection Agency (EPA), Department of Transportation (DOT) and other federal agencies use estimates of the social cost of carbon (SC-CO<sub>2</sub>), a measure, in dollars, of the long-term damage done by a ton of carbon dioxide (CO<sub>2</sub>) emissions each year. This dollar figure also represents the value of damages avoided for a small emission reduction (i.e. the benefit of a CO<sub>2</sub> reduction) and is meant to be meant to be a comprehensive estimate of climate change damages and includes, among other things, human health, and changes in energy system costs, such as reduced costs for heating and increased costs for air conditioning.

<sup>30</sup> [Microsoft Word - Fact Sheet SCC \(epa.gov\)](#)

<sup>31</sup> [California's Affordable Housing and Sustainable Communities \(AHSC\) Program: Six Years of Investments | Impact Report: Rounds 1 - 6 - California Housing Partnership \(chpc.net\)](#)

<sup>32</sup> Various programs and local governments are employing different models available as macro-enabled excel tools for estimating VMT and greenhouse gas (GHG) reductions associated with a development. These models rely on different underlying assumptions, which can lead to varying outcomes.

and GHG associated with housing developed at higher density and in transit accessible locations, as described below.

- **Benefits of Increased Residential Density:** If a portion of the high-density multi-family units are permanently dedicated to affordable housing units, this can provide greater opportunities for lower-income families to live closer to job centers, reducing commute times. It also addresses the limited availability of affordable housing that might force residents to live far from jobs or schools, requiring longer commutes.
- **Benefits of Transit-Oriented Development (TOD):** TOD projects are built in compact, walkable areas with easy access to public transit, ideally in mixed-use locations, encouraging transit ridership and reducing single-occupancy vehicle trips and associated GHG emissions. By minimizing car reliance and ownership, TOD can lead to cost savings for residents, enhance property values, and increase public transit ridership. This uptick in transit use may generate additional revenue for municipalities and open new opportunities for business growth.

**Exhibit 11** provides separate estimates for increased density and transit accessibility. The estimates assume that all new GO bond-supported affordable housing developments are high-density, with an average density of 80 units/acre (by way of example, new multi-family housing in the L.A. is estimated to range in density from 60 units/acre to 200 units/acre).<sup>33,34</sup> EPS also assumes that 50% of the new units will be in TOD areas, and the remaining 50% in non-TOD areas.<sup>35</sup>

As illustrated in **Exhibit 11**, housing supported through a \$100 million GO bond is estimated to generate benefits ranging from **\$2.5 million to \$20.2 million per year**, after deducting the impact of increased property taxes needed to secure bond funding. Over the typical 55-year duration of an affordable housing covenant, the annual savings can accumulate to a **total net present value of between \$114.6 million and \$587 million**. On a per unit basis, this translates to a net present value economic benefit of \$76,400 to \$127,600 over the 55-year span.

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<sup>33</sup> CAPCOA recommends capping GHG emissions reductions at 30% to limit the influence of any single built environment factor. However, EPS's analysis indicates that newer developments in the region exhibit significantly higher densities compared to the average densities of the existing housing stock. Consequently, EPS posits a potential GHG emissions reduction of 68%, to highlight the impact that increased density can have on emissions reduction strategies.

<sup>34</sup> [Based on Historical and proposed zoning data analyzed by the Center of Pacific Urbanism](#)

<sup>35</sup> LA County's Transit Oriented Communities (TOC) Incentive Program encourages the construction of affordable housing near bus and train stations through development incentives such as density bonus.

**Exhibit 11 Hypothetical Scenario Valuation of GHG and VMT Reductions**

Environmental Impact Category	Scenario #1 4% Tax Credit Affordable Housing	Scenario #2 Market-Rate Housing
<b>Baseline Assumption</b>		
Number of Units	1,500	4,600
Average Units/Acre	80	80
Annual Vehicle Trips	1,782,113	5,465,145
Anticipated Annual VMT	12,474,788 VMT	38,256,015 VMT
Anticipated annual GHG emissions	5,277 MtCO <sub>2e</sub>	16,182 MtCO <sub>2e</sub>
<b>High-Density Residential in Non-TOD locations (50% of units)</b>		
	<i>750 units</i>	<i>2,300 units</i>
Potential VMT Reduction	8,233,360 VMT	25,248,970 VMT
Potential GHG Reduction (in MtCo <sub>2e</sub> )	3,483 MtCO <sub>2e</sub>	10,680 MtCO <sub>2e</sub>
Monetized Value of Travel Time Saved*	\$3,586,100	\$10,997,300
Monetized Value of GhG Reduction*	\$160,200	\$382,800
<b>Total Monetized Value</b>	<b>\$3,746,300</b>	<b>\$11,380,100</b>
<b>High-Density Residential in TOD locations (50% of units)</b>		
	<i>750 units</i>	<i>2,300 units</i>
Potential VMT Reduction	10,978,502 VMT	33,606,813 VMT
Potential GHG Reduction	8,127 MtCO <sub>2e</sub>	24,896 MtCO <sub>2e</sub>
Monetized Value of Travel Time Saved*	\$4,781,700	\$14,637,600
Monetized Value of GhG Reduction*	\$373,800	\$529,000
<b>Total Monetized Value</b>	<b>\$5,155,500</b>	<b>\$15,166,600</b>
<b>Aggregate Value</b>	<b>\$8,901,800</b>	<b>\$26,546,700</b>
<b>less Debt Service (Spending from Increased Property Tax)<sup>1</sup></b>	<b>\$6,310,000</b>	<b>\$6,310,000</b>
<b>Net Societal Benefits*</b>	<b>\$2,591,800</b>	<b>\$20,236,700</b>
<b>NPV over 55 years @3% discount rate*</b>	<b>\$114,661,800</b>	<b>\$587,093,900</b>
<b>NPV Per Unit*</b>	<b>\$76,400</b>	<b>\$127,600</b>

[1] Represents increase in annual property tax from GO bond, calculated based on an 4.5% interest rate, 30-year term, bond issuance cost equal to 3% of the principal, 1.5% underwriter's discount.

\* Values Rounded

## Proposition 5 Infrastructure Investment Impacts

This chapter addresses the impacts of infrastructure improvements on new housing production specifically, and on local communities in general. Investment in physical infrastructure is crucial for economic and social development. Enhancing transportation, utilities, and communication networks can facilitate new housing construction by improving access to underdeveloped areas and reducing logistical barriers. Improved infrastructure supports economic development by increasing productivity, enhancing local government capabilities, and contributing to better health outcomes.

### California's Infrastructure Funding Deficit

Based on a variety of studies and metrics, California has under-invested in public infrastructure. In 2021, the American Society of Civil Engineers (ASCE) Report Card assigned the California's infrastructure a cumulative grade of "C-," indicating a critical need for improvement. A more recent study focused on Southern California estimated that about 85,000 residents live with

failing infrastructure, while 25 percent of systems are deemed “at risk” or “potentially at-risk,” affecting approximately 1.3 million people.<sup>36</sup>

The implications of these challenges are far-reaching, affecting everything from individual well-being to broader economic productivity. The ASCE's 2021 "Failure to Act" study warns that inadequate infrastructure could cost American families an average of \$3,300 annually, with potential losses rising to \$5,100 per year from 2026 to 2040.<sup>37</sup> The U.S. economy could suffer nearly \$4 trillion in GDP losses by 2025 and up to \$18 trillion over the 25-year period from 2016 to 2040. Furthermore, households could face a cumulative loss of \$76,000 in discretionary income during this time. The broader economic impact, including lost business sales and GDP, is expected to be even more severe than the job losses due to insufficient infrastructure investment.

California's infrastructure challenges span transportation (roads, bridges, and rails), wastewater and drinking water systems, and broadband infrastructure. However, despite recent federal and State funding programs targeted towards infrastructure projects, local and regional agencies lack a stable, predictable, and adequate revenue source to fund infrastructure needs.<sup>38,39</sup> This constrains their ability to address maintenance backlogs, regional inequities, and challenges related to climate change, much less to provide adequate infrastructure to accommodate new population and employment growth.<sup>40</sup>

At the local level, a lack of infrastructure funding can also be a critical impediment to tapping into many State and federal resources. For example, a review of the Mega program's grants awarded in FY 2022-23 to local governments in California reveals that out of 19 local government applications, 13 did not meet the local match criteria, which stipulates the need for "stable and dependable funding sources to (i) construct, operate, and maintain the project, and (ii) cover any potential cost increases."<sup>41</sup>

While California communities frequently pursue regional funding initiatives to address their infrastructure needs, they are very difficult to approve given the two-thirds voter approval threshold for new taxes. Locally approved GO bonds allow jurisdictions to prioritize projects that meet their unique needs, whether it's improving road safety, enhancing public safety, or expanding emergency services, rather than conforming to criteria set by federal or State programs. This flexibility also allows local governments to address multiple community-specific needs simultaneously, rather than being restricted to projects that generate direct revenues or meet specific grant requirements, or to waiting for new notices of funding availability, allowing pressing challenges to be addressed promptly without waiting for future budget cycles.

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<sup>36</sup> [Rebuild SoCal | 2024 Report](#)

<sup>37</sup> [Infrastructure Failure to Act Report | ASCE 2021 \(infrastructurereportcard.org\)](#)

<sup>38</sup> [Governor Newsom Signs Infrastructure & Budget Legislation to Build More, Faster | Governor of California](#)

<sup>39</sup> Released in December 2016, “40 Proposed U.S. Transportation and Water Infrastructure Projects of Major Economic Significance” explores some of the challenges of completing the work. The report found that a lack of public funding was “by far the most common factor hindering the completion” of the projects.

<sup>40</sup> [https://www.urban.org/sites/default/files/publication/102585/californias-infrastructure-challenges\\_1.pdf](https://www.urban.org/sites/default/files/publication/102585/californias-infrastructure-challenges_1.pdf)

<sup>41</sup> The Mega Program (the National Infrastructure Project Assistance program) supports large, complex projects that are difficult to fund by other means and likely to generate national or regional economic, mobility, or safety benefits. Eligible projects include highway, bridge, freight, port, passenger rail, and public transportation projects that are a part of one of the other project types.

The following select local infrastructure bonds demonstrate how local governments are presently bundling the uses of funds to finance local priorities, programs, and needs:

- **City of San Jose (2021):** \$200 million GO Bond issued for disaster preparedness, public safety, and infrastructure.
- **City San Francisco (2021):** \$49.67 million GO Bond issued for Embarcadero Seawall earthquake safety.
- **City of Selma (2017):** \$4 million GO bond issued for Police Station Construction.
- **City of La Mesa (2016):** \$21.82 million Fire, Police and Emergency Services Measure.

## Infrastructure and Housing Production

The availability and quality of public infrastructure plays a critical role in the feasibility of new housing development. The costs of building new housing, including affordable housing, typically include costs for infrastructure improvements to address the needs of new residents living in these units. Public investment in infrastructure, funded by GO bonds, has the potential to reduce these costs and therefore the overall costs for developing new housing units.

EPS research and professional experience has found that a lack of funding for public infrastructure is a critical deterrent to the success of many housing developments in California. While comprehensive data on housing developments in California that have stalled, downsized, or do not move forward at all due to inadequate infrastructure is not readily available, case studies and EPS's professional experience suggests the number is large. The case studies provided in this section illustrate how public infrastructure can serve as either a catalyst that spurs (**Exhibit 12**) or a bottleneck that prevents large scale housing production (**Exhibit 14**).

Local demand for the State's Infill Infrastructure Grant (IIG) program administered through the California Department of Housing and Community Development (HCD), provides a good indicator of the financing deficit for infrastructure that enables new housing. This program requires local governments to partner with housing developers in applying and provides infrastructure grants to a mix of large-scale catalytic development projects and smaller stand-alone multifamily housing developments. The need for infrastructure funding is demonstrated in part by the fact that demand for IIG grants in the most recent funding round exceeded supply by a factor of 3.35 to 1.<sup>42</sup>

While infill development can more easily "plug in" to existing streets, transit, utilities, and other urban services and systems, in many cases this infrastructure is aging and / or not originally designed to accommodate significant increases in development intensity. Additionally, retrofitting existing infrastructure often involves demolition (e.g., tearing up roads, replacing sewer and water lines, etc.), expensive right of way acquisition, more complex staging and

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<sup>42</sup> HCD received \$563,051,445 in funding requests for IIG during the Round 2 Multifamily Finance SuperNOFA of May 2023, \$139,972,246 of those requested funds were successfully awarded. HCD, "Round 2 Award and Applicant List", <https://www.hcd.ca.gov/sites/default/files/docs/grants-and-funding/supernofa/mfsn-r2-award-and-applicant-list.xlsx>

mobilization, economic disruption (e.g., business closure and relocation), and other measures that can increase costs and delay project implementation.

**Exhibit 12 Case Studies – Infrastructure as a Catalyst to Housing**

**LA METRO TRANSIT ORIENTED DEVELOPMENT**

Over the past two decades, the residents of Los Angeles County (including all 88 cities) have approved several regional sales tax measures that authorized billions of dollars for LA Metro to expand public transportation infrastructure in the County. The County’s transit service has expanded rapidly during this period and currently includes 108 rail stations with 109 miles of service and connections with the Metro Busway bus rapid transit (BRT) system and the regional Metrolink commuter rail system.

The expansion of LA Metro station investments has helped catalyze higher density residential development in nearby neighborhoods. While the exact number of new housing units developed in anticipation of or upon completion of the new commuter rail stations has not been systematically cataloged, several studies have documented broader economic outcomes. For example, the UCLA Lewis Center for Regional Policy Studies found residential density within a quarter mile of Metro stations in LA increased by about 40 percent between 2010 – 2020, compared to a 2.5 percent increase Citywide. This process has been supported by the LA Metro Transit Oriented Communities program.

Anecdotal evidence suggests that the more suburban communities in LA County served by Metro stations, including the cities of Pasadena, Culver City, Santa Monica, Claremont, Azusa, Duarte, and Long Beach, have also experienced robust transit-oriented development (TOD) with an emphasis on housing production.

**SAN FRANCISCO’S MISSION BAY NEIGHBORHOOD**

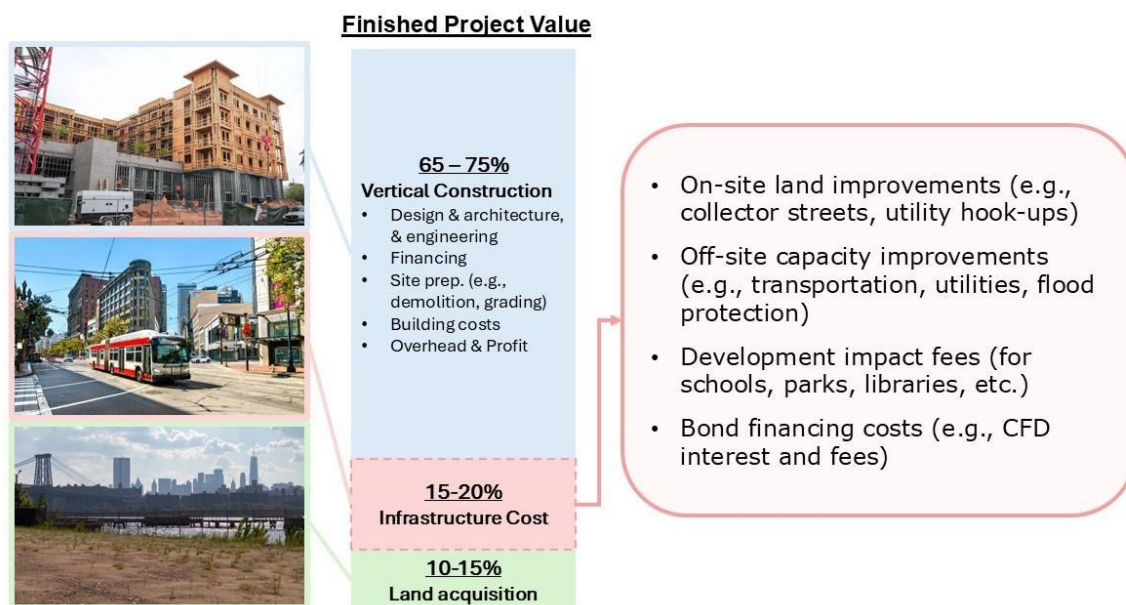
San Francisco’s Mission Bay neighborhood represents the successful transition of a former industrial area into a vibrant, dense, urban environment, catalyzed in part with local, state, and federal funding for public infrastructure. Once a 303-acre rail yard and warehouse industrial area, the Mission Bay neighborhood is now a thriving mixed-use community with over 6,000 housing units (a significant portion deed restricted affordable), 3.4 million square feet of commercial space, and numerous entertainment and recreation venues (including the Chase Center Arena and 49 acres of public parks). The transformation was initiated by a public-private partnership between the City of San Francisco master developer Catellus, and the University of California San Francisco (UCSF) to create a satellite campus for its premier medical school and world-class life sciences research programs. The rapid redevelopment began with extensive land and infrastructure improvements funded through this public-private partnership and Mello-Roos Community Facilities District parcel tax financing that included state and federal funding as well as use of tax increment financing. The level of private investment that followed created ongoing economic activity, tax revenues, and other community benefits far exceeding the initial public investment.

**Infrastructure Cost Burdens and Housing Development Feasibility**

**Exhibit 13** illustrates the typical cost breakdown for the key items in a development budget that need to be financed, in one way or another, in the delivery of large-scale housing developments. As shown, the infrastructure costs and obligations of a development typically include on-site land improvements (e.g., collector streets, utility hook-ups), enhancements to off-site infrastructure (e.g., transportation, water and wastewater treatment and conveyance, flood

protection), development impact fees (e.g., for schools, parks, libraries), and infrastructure financing costs (e.g., CFD interest and fees).

**Exhibit 13 Infrastructure Cost Burden on Housing Development**



A typical rule of thumb in public finance underwriting is that infrastructure cost burdens below 15% of total development value are generally financially feasible. Meanwhile, burdens between 15 and 20% of development value may be feasible, depending on the development’s specific circumstances. Burdens above 20% of development value are usually not considered to be financially feasible unless other components of the development economics are particularly advantageous to the developer and would allow the development to bear unusually high backbone infrastructure and public facilities costs.<sup>43</sup>

**Exhibit 14** illustrates how various hypothetical GO bond issuance scenarios might support housing developments where the infrastructure burden is near or above a level that is likely to be financially infeasible, potentially tipping the scales in favor of more production. Specifically, the calculations illustrate how a hypothetical \$100 million bond issuance might reduce the infrastructure burden on housing developments in a particular community, thus reducing the development cost per unit for a typical unit. In other words, infrastructure bonds could be used to significantly reduce the cost of developing new housing which, in turn, can lead to an increase in housing supply, lower housing costs, or a combination of the two.

As shown, in the scenario where the average infrastructure cost burden per unit is reduced from 15% to 10% of home value (a 33 percent decline), the bond could reduce the average cost per door by about \$40,000 for about 2,500 new units (assuming an average value \$800,000 per

<sup>43</sup>Other factors may include extraordinarily low land basis, exceedingly strong market conditions (e.g., price appreciation, early project absorption, potentially in advance of infrastructure needs), or below average costs for other project components (e.g., financing or vertical construction).

unit). If the average value per unit was \$600,000, the cost per door could decrease by \$30,000 for about 3,333 new units.

**Exhibit 14 Illustration of Potential Impact of GO Infrastructure Bond on Housing Cost**

Reduction in Avg. Infrastructure Burden / Unit	Avg. Housing Value / Unit		
	\$600,000	\$800,000	\$1,000,000
	<i>Cost per door reduction for every \$100M in bond proceeds</i>		
15% to 10% (a 33% reduction)	3,333 units receive a \$30,000 / door cost reduction	2,500 units receive a \$40,000 / door cost reduction	2,000 units receive a \$50,000 / door cost reduction
20% to 10% (a 50% reduction)	1,667 units receive a \$60,000 / door cost reduction	1,250 units receive a \$80,000 / door cost reduction	1,000 units receive a \$100,000 / door cost reduction
25% to 10% (a 60% reduction)	1,111 units receive a \$90,000 / door cost reduction	833 units receive a \$120,000 / door cost reduction	667 units receive a \$150,000 / door cost reduction

While the above calculations demonstrate the significant benefits that GO bonds can provide housing projects, it is important to note that there is no guarantee that the proceeds will be used to directly reduce infrastructure cost burdens on new development, as Proposition 5 doesn't not require this outcome. It is possible that communities will instead seek to approve bond measures that focus on infrastructure that primarily benefit existing residents (e.g., cultural amenities, parks and open space, and facility maintenance). At the same time, bond measures that improve existing infrastructure networks and facilities (e.g., transportation networks, water and sewer systems) can both serve the needs of existing residents and unlock opportunities to feasibly build new residential units, providing broad benefits to the community.

**Exhibit 15 Case Study - Infrastructure as a Bottleneck to Housing**

**FRESNO DOWNTOWN SPECIFIC PLAN**

Located in California’s fifth largest city, Downtown Fresno is well positioned for mixed-use development, including a substantial amount of new housing, after decades of decline attributable in part to car-centric growth patterns in the broader region. The transformation of this historic neighborhood will be further bolstered by a planned High Speed Rail station in the downtown core. While the City approved two planning documents in 2016 that allow about 12,000 new housing units (almost 30,000 new residents), only a small portion of this potential growth has materialized to date. The condition and capacity of existing infrastructure, such as sewer, water, and flood protection, and the cost of making the necessary improvements to them, remain key barriers to realizing this potential.

While the City of Fresno has been making small steps to reinvigorate its downtown with infrastructure investments, using revenue from a regional sales tax measure and \$43 million from the California’s Infill Infrastructure Grant Program, among other sources, obtaining the additional funding needed for the full suite of investments has proven elusive. A \$200 million funding pledge from the Newsom administration in 2023 is on hold due to state budget deficits. Meanwhile, a 2022 measure to renew a half-cent sales tax that helped fund early downtown infrastructure failed to win the two-thirds voter support necessary for passage (it

received 58 percent).

The slow progress for successful redevelopment of Downtown Fresno, despite broad based support, illustrates how the financing mechanisms and funding for in-fill infrastructure are, respectively, often more complex and costly than for conventional residential subdivisions. The downtown grid dates to the City's origins in late the 1800s and the infrastructure has developed gradually over more than 100 years. Much of the existing sewer conveyance, for example, consists of "dirt pipe" (built out of wood that has since decomposed and hardened) that cannot accommodate increased residential density.

Because of the high price tag and "front loaded" nature of the infrastructure needed to enable higher density housing in the Downtown, land secured financing techniques and development impact fees have proven insufficient and/or difficult to establish. Both impose cost burdens on developers/property owners before the value creation from vertical development can occur, producing the "chicken or the egg" problem that frequently plagues in-fill redevelopment efforts. A voter approved bond measure covering a larger jurisdiction could provide a broader-based and lower cost funding source with the scale and timing needed to resolve Downtown Fresno's infrastructure bottleneck.

## **GO Bonds versus Developer-Paid Funding Tools**

Over the last 30 plus years, local and regional governments have increasingly turned to development impact fees and Mello-Roos Community Facilities Districts (CFDs) to fund public infrastructure, tools that place the cost burden of infrastructure primarily on new development. These tools differ in terms of their incentives and outcomes for the location of new housing production, and in the types of infrastructure projects they are best suited to fund. In general, EPS research and professional experience has found that California's heavy reliance on land secured financing (i.e., financing secured against applicable properties, such as a CFDs), impact fees, and other project exactions has greatly increased the cost and reduced the supply of housing. Relying heavily on new development for infrastructure funding has many limitations, and diversification through the issuance of infrastructure bonds, such as those that would be authorized by Proposition 5, can help overcome some of these challenges to facilitate needed investments.

### ***Development Impact Fees***

Authorized under the Mitigation Fee Act of 1987, development impact fees allow local governments to levy a one-time charge on new development to mitigate the impact of growth on the need for public infrastructure. While the amount and structure of impact fees are subject to various statutory requirements, they offer local governments a relatively straightforward "pay as you go", easy-to-implement approach to transferring infrastructure cost burdens to new development without the need for a public vote or landowner approval. While impact fee levels vary significantly by municipality, various studies have found that their use and financial burden on housing production has increased substantially:

- A March 2018 study by the Turner Center found that between 2008 and 2015, California impact and planning related fees rose 2.5 percent, while the national average decreased by 1.2 percent during that same period. The study found these fees can amount to 18 percent

of the median home price in some cities (or about \$90,000 for a \$500,000 home and \$270,000 for a \$1,500,000 home), depending on location and housing type.<sup>44</sup>

- An April 2024 report by the California YIMBY Education Fund found that the average impact fee on a multifamily unit in California is \$21,703, nearly triple the national average of \$8,034. Similarly, California’s average single-family unit fee of \$37,471 is triple the national average of \$13,627. Moreover, while total impact fees are higher for single-family units than for multi-family units, this relationship is reversed on a per square foot basis, with smaller units bearing a higher per square foot cost for impact fees. This dynamic has the potential to disincentivize the development of smaller-format and multifamily units.<sup>45</sup>

In addition to their financial burden on new development, impact fees are not well suited to fund large-scale, bulky, or “up-front” infrastructure that is needed before development can occur, such as major transportation projects and utility capacity expansion. This is because the fees are typically collected upon issuance of a building permit or certificate of occupancy and are not a stable revenue stream that can be used to secure debt. Instead, cities use impact fees as an incremental funding source to ensure developers pay their “fair share” for longer-term planning level capital needs such as parks, libraries, community facilities, and traffic mitigation projects. Unlike GO bonds, impact fees rarely resolve major infrastructure bottlenecks that enable or catalyze large-scale residential development.

#### ***Mello-Roos Community Facilities Districts (CFDs)***

In contrast to development impact fees, CFDs can be used to issue debt through tax exempt municipal bonds that can pay the up-front cost of major public infrastructure projects. Authorized under Mello-Roos Community Facilities Act of 1982, CFDs require two-thirds voter approval or property owner vote by acreage if there are less than 12 registered voters in the area subject to the special tax. Because of the two-thirds voter approval threshold, CFDs are not well suited for infill development locations that contain multiple property owners with differing development objectives, time horizons, financial capacities, or capital needs. Rather they are more commonly used in greenfield locations where one or a handful of developers with mutual interest in pursuing a larger scale development that requires clearly defined, up-front infrastructure and land improvement propose them to move forward.

While CFDs offer sophisticated developers a mechanism to finance land improvements needed for larger scale developments, they provide little incentive to build public infrastructure that serves properties outside its development area boundaries (unless this is a condition of approval imposed by the authorizing jurisdiction). Rather there is a strong incentive to carefully size and phase infrastructure to limit the special tax and debt obligations of participating property owners. This is reinforced by the fact that, while tax exempt, CFDs still present a higher level of default risk, and as a result incur much higher interest rates and carry cost, relative to GO bonds.

<sup>44</sup> Turner Center for Housing Innovation at UC Berkeley, “The Cost of Housing Development Fees in Seven California Cities,” March 2018, [https://turnercenter.berkeley.edu/wp-content/uploads/pdfs/Development\\_Fees\\_Report\\_Final\\_2.pdf](https://turnercenter.berkeley.edu/wp-content/uploads/pdfs/Development_Fees_Report_Final_2.pdf). Impact fee range noted is based on EPS professional experience. However, fees are not dependent on home sales price.

<sup>45</sup> California YIMBY Education Fund, “The Impact of Fees: Rethinking Local Revenues for More Multifamily Housing,” April 2024, <https://cayimby.org/reports/the-impact-of-fees/>

CFDs have traditionally been used for financing land improvements needed to accommodate master-planned subdivisions, primarily for single-family ownership. They are less common and not well suited to address community-wide long-term public infrastructure needs that provide diffuse benefits to a broad swath of properties with diverse ownership patterns, as is common in infill locations.

## Infrastructure's Economic and Societal Impacts

While the previous section focused on how public infrastructure can enable housing production, this section focuses on the impacts of these investments more broadly. The section focuses on investment in transportation (including transit) and water and wastewater infrastructure, both critical and aging systems that can require costly upgrades to meet increasingly high standards and infrastructure safety. The findings draw from a well-developed body of research on the relationship between infrastructure investment, economic development, and community well-being. These studies align on the finding that well-designed infrastructure investment can help connect people with opportunities, promote economic productivity, and improve livelihoods and quality of life.

### Transportation and Transit Infrastructure

Transportation infrastructure projects have broad economic impacts, stimulating business activity and enhancing overall local and regional economic performance. Enhanced connectivity allows businesses to tap into a larger labor pool, increasing productivity, enhancing their ability to attract and retain talent, and driving economic growth. Additionally, reduced congestion leads to reduced delays and improved logistics, which enhance business operations and market reach. While there has been limited quantitative research on this topic, a 2007 National Surface Transportation Policy and Revenue Study Commission's reported that these benefits yielded a conservative return of about 10% annually on transportation investments.<sup>46</sup>

On the State level, a CalCities report reveals that spending on transportation infrastructure at the federal, state, and local levels generates significant **savings of \$43.6 billion each year** for transit riders and drivers from system improvements and generates **\$101.5 billion annually in increased business sales and output**.<sup>47,48</sup> Among the benefits, better transportation infrastructure can reduce long commutes, making it easier for people to reach higher-paying jobs more easily and decreasing the economic burden long commutes impose. A 2023 analysis by the Chamber of Commerce found that five California cities ranked among the nationwide top

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<sup>46</sup> [Report of the National Surface Transportation Policy and Revenue Study Commission : transportation for tomorrow. \(bts.gov\)](https://www.bts.gov/research/transportation-for-tomorrow)

<sup>47</sup> Drivers, shippers, and transit riders save money through lower operating costs and travel times, improved safety, and greater network access. Business sales & output occurs when transportation agencies/construction firms/supplier industries purchase goods & services and hire employees to operate, maintain, and improve local infrastructure

<sup>48</sup> [Federal, state, and local transportation infrastructure spending creates \\$200 billion in economic benefits in California annually | Cal Cities](#)

ten for the most expensive commutes, with costs nearly double the nationwide average of \$5,748 per year.<sup>49</sup>

Moreover, investments in transportation infrastructure yield significant environmental benefits, notably through GHG and VMT reduction. Coordinating land use and transportation planning, such as locating housing near transit, has been widely identified as a strategy for reducing reliance on personal vehicles, resulting in lower emissions and a smaller carbon footprint for communities (as detailed previously). This not only contributes to climate resilience but also enhances air quality, benefiting public health and community livability. By reducing GHG emissions and VMT, these projects create a more sustainable environment, positively impacting residents' quality of life and the surrounding communities.

To underscore the economic significance of investment in efficient transportation, the DOT estimates that each hour saved in business travel time equates to a value of \$32.30 per person. Similarly, the value of travel time saved for personal trips is \$17.90 per person per hour, while the figure for other purposes stands at \$19.60.<sup>50</sup>

The case study provided in **Exhibit 16** below from the City of Santa Ana illustrates how investment in transportation infrastructure can generate significant and quantifiable economic and communitywide gains across various metrics such as time travel savings, reduced collisions, and reduced greenhouse gas emissions.

**Exhibit 16 Case Study - City of Santa Ana Grade Separation Project**

The Santa Ana Grade Separation Project proposed constructing a new six-lane underpass to replace an existing at-grade crossing adjacent to the Santa Ana Regional Transportation Center (SARTC). The Project includes a pedestrian bridge to improve connectivity, along with enhancements to Santa Ana Boulevard such as a raised median, sidewalks, and space for a transportation opportunity zone and a pedestrian plaza. The total anticipated cost is \$80.7M, while the projected benefits are quantified at \$62M in discounted dollars. Notably, the project is expected to promote a shift toward walking and cycling, which will reduce disease burdens and healthcare costs, while enhancing community well-being through lower greenhouse gas emissions, as detailed in the following table:

OUTCOMES/ IMPACT	METRIC	POPULATION AFFECTED	TOTAL BENEFIT OVER 30 YEARS (7% DISCOUNT)*
<b>Economic Productivity</b>	Travel Time Savings	Existing Users/ Households	\$21,431,468
	Residual Land Value	Existing and Future Property Owners	\$6,351,064
<b>Safety</b>	Reduced Collision benefits	Existing Users/ Households	\$7,283,346
	Reduced EMS Time Benefits	City Residents	\$20,096,879
<b>Environmental Sustainability</b>	Reduced GhG Emissions	County Residents	\$898,276
<b>State of Good Repair</b>	Avoided Rehabilitation Costs	Local Government	\$398,286

\* EPS applied a seven (7) percent discount rate based on guidance from the federal Office of Management and Budget (OMB). Federal guidance for these calculations has been updated to use a three (3) percent discount rate, which if applied, would improve the benefits shown here. *Source: EPS*

<sup>49</sup> The study considered factors such as lost wages, gas and maintenance costs, parking fees, and transit fares. Commute times in these cities averaged between 39.6 and 58.4 minutes.

<sup>50</sup> All savings values are in 2022\$.

## Water and Wastewater Infrastructure

A 2020 ASCE study finds that water and wastewater infrastructure failures cost U.S. households \$2 billion in 2019. As infrastructure ages and the rate of infrastructure failures increases, household costs may more than double in ten years to \$4.3 billion, climbing to almost \$14 billion by 2039. By 2039, the cumulative impact on the gross domestic product (GDP) is estimated to be a decline of 1.2%, translating to a loss of \$2.9 trillion. Moreover, more than \$732 billion in business sales (output) would be lost over the next 10 years. By 2039, that number will exceed \$4.5 trillion.<sup>51</sup>

By improving water systems, U.S. businesses could avoid approximately \$94 billion in annual costs over the next decade and potentially save up to \$402 billion annually from 2027 to 2040. This investment could also generate over \$220 billion in annual economic activity for the U.S. economy.<sup>52</sup> Moreover, addressing outdated water infrastructure, such as replacing lead pipes, offers significant health benefits. In California specifically, replacing lead pipes could save up to \$6 billion over 35 years by preventing health issues linked to lead exposure, particularly cardiovascular disease. This is estimated to represent nearly 90% of the potential savings in public health costs.<sup>53</sup>

The following case study from the City of Madera detailed in **Exhibit 17** illustrates the critical need for investment in water and wastewater infrastructure, particularly in the face of unexpected and unprecedented climate-related events.

### **Exhibit 17 Case Study - City of Madera's Sewage Pipeline**

In 2022, a section of the City of Madera's main sewage pipeline, the sole interceptor responsible for channeling wastewater from the City's broader region to its treatment facility, exhibited severe corrosion. This pipeline was not just a piece of infrastructure; it was a lifeline for the community. To address this urgency, the City of Madera was allocated \$5 million by the State to commence a much-needed upgrade of the pipeline.

In early 2023, significant storm events exacerbated the already precarious condition of the pipeline, resulting in catastrophic failure of the trunk sewer line due to a substantial breach 20 feet underground, followed by a sinkhole. The immediate response required bypass pumps to manage the flow of sewage while crews worked to replace the damaged section of the pipeline. This emergency fix came at a preliminary cost of \$260,000 and resulted in residents reducing water usage until the system was stabilized. The temporary repair was a stopgap measure, and it was projected that a full rehabilitation of the pipeline — responsible for handling five tons of sewage daily — could extend into the following year.

The City recently received an additional \$2 million in federal aid to bolster its storm drainage and sewage system. However, the total budget for the project has been estimated to be \$11 million, well over the \$7 million in allocated state and federal funding. This case illustrates that even with state and federal support, unforeseen events like extreme weather can rapidly escalate costs and complicate project timelines, and that the financial resources allocated may only sometimes suffice to cover the full scope of emergent needs or unexpected complications. The availability of local and regional funding mechanisms can make the difference in completing critical projects.

<sup>51</sup> [Failure-to-Act-Water-Wastewater-2020-Final.pdf \(infrastructurereportcard.org\)](#)

<sup>52</sup> [Economic-Impact-of-Investing-in-Water-Infrastructure VOW FINAL pages 0.pdf \(uswateralliance.org\)](#)

<sup>53</sup> [Getting the Lead Out: Removing Lead Pipes Would Yield Hundreds of Billions of Dollars in Health Benefits \(nrhc.org\)](#)

## Concluding Comments

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This Report has relied on a variety of sources and analysis to demonstrate the wide-ranging benefits that affordable housing and public infrastructure provide by supporting existing communities and enabling growth. A strong case has been made that California is currently under-investing in both. While the reasons for this lack of investment are complex, the inadequacy of existing public financing resources and mechanisms is a central cause.

Proposition 5 would provide an easier path for residents to approve GO bonds that fund the infrastructure and housing investments critical to advancing local needs and priorities. GO bonds offer a variety of advantages relative to most of the existing funding tools available to local government for these purposes. These interrelated advantages include, without limitation:

- **Scale:** Because GO bonds are secured against a broad and growing revenue stream (i.e., property assessed values), they can be effectively used to tackle large scale infrastructure and housing challenges with minimal impact on any single sector. There are very few times or locations in California where property assessed values in California have declined, and the State’s property tax rates are relatively low compared to national averages. Thus, small and supportable increases can create substantial funding for affordable housing and infrastructure.
- **Timing and predictability:** Unlike other funding sources that tend to be linked to business cycles, budget conditions, and / or political trends, GO bonds provide a stable and safe funding stream. Additionally, compared to many “pay-as-you-go” sources such as developer impact fees and exactions, GO bonds can be effectively used to secure debt and thus pay for more large-scale, impactful, “up-front” investments. Meanwhile, sales tax measures, currently the most common regionally approved funding tool in California, are sensitive to economic downturns and location-specific consumer spending patterns.
- **Costs:** Because of their scale, security, and tax-exempt status, the interest rates, administrative fees, and issuance cost of GO bonds are far superior to other public or private debt instruments. Furthermore, local governments with high credit ratings can issue GO bonds at even lower interest rates, allowing local agencies to unlock taxpayer savings by driving down overall financing costs.<sup>54</sup> GO bond issuance can also benefit from opportunities for refinancing. The State of California, for example, saved \$4.2 billion from refinancings between 2015 and 2016.<sup>55</sup>
- **Incidence:** Because GO bonds are supported by a broad tax base, they create a lower tax burden on specific constituencies or sectors. By comparison, CFDs rely on special taxes within a specific geographic area, impact fees are charged directly to developers, and revenue bonds rely on direct revenues from the sale or use of commodities (such as water and power), all of which create financial burdens and potential disincentives. While

<sup>54</sup> S&P Global Ratings in 2021 reported that nearly 90% of California Counties and municipalities had a AAA or AA rating (considered a high grade) with a stable outlook. [U.S. Local Governments Credit Brief: California Counties and Municipalities | S&P Global Ratings \(spglobal.com\)](#)

<sup>55</sup> <https://www.treasurer.ca.gov/publications/bonds101.pdf>

privately-owned residential property represents the largest source of assessed value in the California (at about 40 percent), residential investment property (e.g. multi-family rental) at slightly below 35 percent, and commercial property at slightly above 25 percent, are not far behind, and all these properties would contribute towards funding a bond measure.

Proposition 5 allows local jurisdictions to more effectively secure the necessary funding to meet local housing demands and mitigate infrastructure barriers that have often stalled or increased the cost of housing production. In addition to helping address the housing crisis, it empowers local governments to more effectively address infrastructure challenges that impact a community's quality of life. The potential benefits of more money for housing and infrastructure are broad, including but not limited to job creation, increased consumer spending, environmental improvements, and enhanced public health outcomes.

While Proposition 5 is not a guaranteed solution to all housing and infrastructure challenges communities may face, it would provide local governments with a crucial tool to make significant strides in addressing these issues. The success of Proposition 5 will ultimately depend on how well local jurisdictions prioritize and manage these investments to meet the needs of their residents with a balancing the broader economic, social, and environmental priorities facing their communities.