

BUILDING CALIFORNIA'S FUTURE

An Economic and Fiscal Analysis
of Housing Construction
in the Golden State



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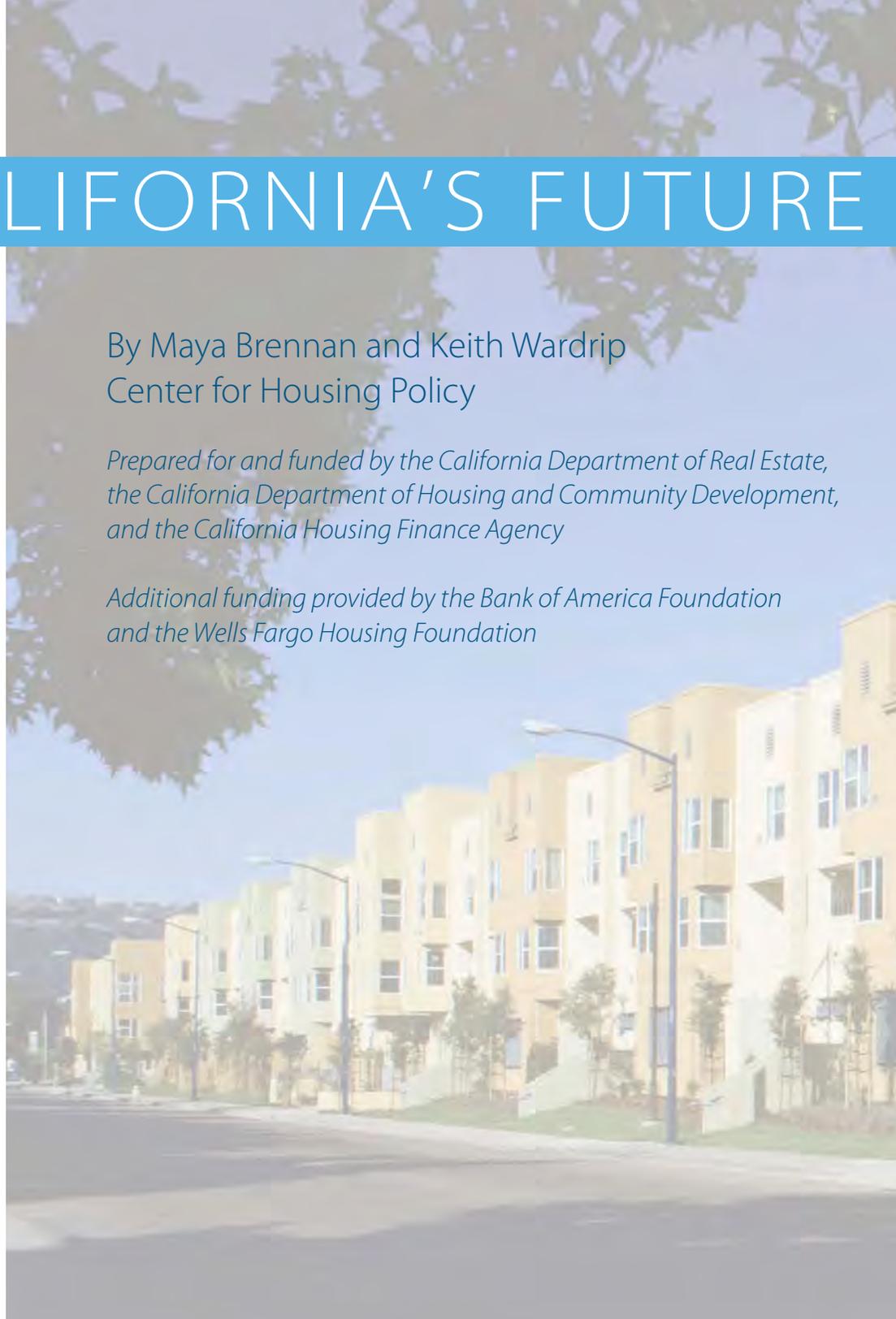
An Economic and Fiscal Analysis of Housing Construction in the Golden State



By Maya Brennan and Keith Wardrip
Center for Housing Policy

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the California Department of Housing and Community Development,
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EXECUTIVE SUMMARY

Before the current economic recession, the housing industry was widely understood to play an integral role in California's economy. Employment in housing construction and related industries was robust, and state and local budgets benefited not only from the economic activity that the industry generated but also from the taxes paid by builders and homebuyers alike — all while increasing the supply of housing to keep pace with rising demand. The high prices of many of the homes built in the last decade produced significant tax revenues for state and local governments, and both the new residents and those who earned a living in the construction industry helped keep the economy humming.

But times have changed. A combination of risky lending, rising unemployment, and protracted foreclosure and credit crises has contributed to declining home values — by roughly 26 percent for new homes statewide since 2005.¹ The pace of housing construction has also slowed considerably, with the number of permits issued in 2009 at less than 20 percent of peak levels and only one-third of the annual volume experienced through the 1990s.² Unemployment has eclipsed 12 percent, and even after several years of post-bubble contraction, the

state continues to lose jobs in the construction sector.³ Given current conditions, it is wise to ask if new housing construction continues to act as an economic driver. Similarly, do new units pay for themselves and more, or do they require more of government resources than they give back?

This report finds that, despite the downturn, new housing construction still has positive economic and fiscal effects in California.

► **Economic Effects.** For fiscal year 2009–10, the construction of a median-priced home in the state of California produces an estimated \$375,699 in new economic activity. This economic activity, which can range from the purchase and installation of materials by a builder to the production of windows by a supplier to the purchase of groceries by a roofer, is enough to support the creation of 2.1 jobs per new unit built, on average.

► **Fiscal Effects for the State of California.** The construction of a median-priced home has a positive estimated one-time fiscal impact for the state of \$10,479 as it is being built and an ongoing annual fiscal impact of \$1,869 after it is occupied, as average revenues generated by the residents outweigh the costs of providing state services.

► **Fiscal Effects for Cities and Counties.** Permitting and building a median-priced home is estimated to have a positive, substantial one-time fiscal impact for the average city (\$759) and

the average county (\$1,442). Ongoing annual fiscal effects of new housing construction are also positive in the average city (\$262) and county (\$45). Fiscal effects for counties typically exceed these averages when a home is built in an incorporated area, as the vast majority are, but are lower for units built in unincorporated areas.

The estimates provided in this report suggest that in most places and by most measures, housing development is both economically and fiscally beneficial for communities in California, despite the housing downturn. On average, revenues for cities and counties continue to more than cover ongoing expenditures associated with development. But in places where values have fallen the farthest in recent years, property and sales taxes have diminished, and construction activity has stalled, ongoing fiscal effects can be more modest or negative. In these communities, revenues may improve in sync with the housing market, or governments may need to make hard choices to better align their expenditures with the reality of their current revenues.

While this report focuses principally on the impact of constructing a median-priced home, a sensitivity analysis shows that even the construction of lower-cost housing has a positive fiscal effect on the budgets of the state and typical locality. This suggests that the development of lower-cost homes for Californians who cannot afford today's prices is not only an important strategy for attracting and retaining an essential workforce but also a sound financial move for local government.

California's Economy Benefits from New Housing Construction — Even in a Downturn

Housing construction has long been recognized as a major driver of California's economy, and the sector still employs thousands of Californians and generates billions of dollars in economic activity, even in troubled economic times. Although the total economic impact of home construction in the state has declined as the volume of home building has dropped, the next new home built still provides a strong boost to the state's economy.

Estimates for fiscal year 2009–10 show that a newly built, median-priced home adds more than \$375,000 in economic output for the state and creates 2.1 new jobs. These projections are based on residential building permit issuance and construction costs through October 2009.

Since the downturn in the housing market in 2006, household growth has outstripped growth in the number of new housing units.⁴ In addition, the inventory of existing homes on the market has fallen significantly from levels observed in late 2008 and early 2009, providing a further indication that the state's housing market is not characterized by oversupply. As long as household growth outpaces new construction, economic theory would predict rising prices and reduced affordability.

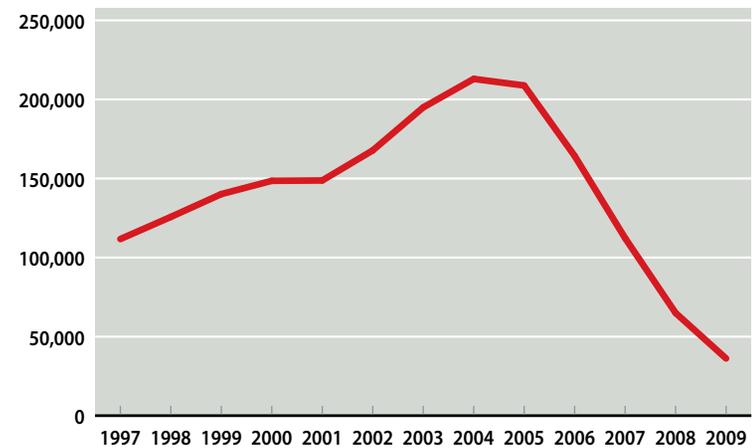


**\$375,699
in Economic
Activity**

2.1 New Jobs

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Residential Permits Issued Annually, 1997–2009*

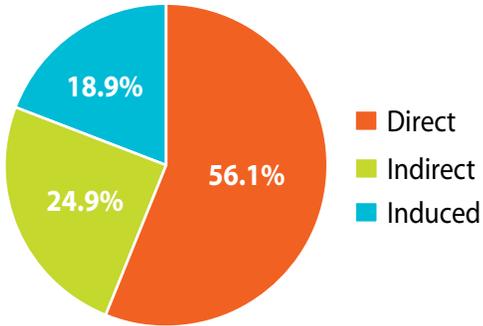


*Residential permit data are from the California Building Industry Association.



Direct effects account for the majority of the economic output generated from new home construction.

Economic Output from Each New Home Built in Fiscal Year 2009–10, by Type



Type of Economic Effect	Economic Output Generated for California, FY 2009–10
Direct	\$210,942
Indirect	\$93,595
Induced	\$71,162
Total	\$375,699

Percentages in the pie chart do not add to 100 percent due to rounding.

Home Construction’s Direct Effects Account for More Than Half of Economic Output

The projected \$375,699 in economic output generated for California by each new home built in fiscal year 2009–10 comes from three sources of economic activity: direct, indirect, and induced effects of home construction.

Direct effects are the impacts of spending by the construction firm on construction materials and wages for construction workers. As shown in the pie chart and table, direct effects account for the majority (56.1% or \$210,942) of the economic output generated from new home construction.

Indirect effects are the impacts of spending by suppliers of goods and services, such as the price of raw materials to make windows or the wages paid by a supplier to its employees. Indirect effects are responsible for the next-largest portion of economic output at 24.9% or \$93,595.

Induced effects are the impacts of the additional demand for goods and services created when employees of the construction firms or their suppliers spend their paychecks on things like food, clothing, housing, and entertainment. Induced effects account for \$71,162, or 18.9%, of the economic output from new home construction.

Construction of a New Home Generates 2.1 Jobs on Average

Home construction boosts employment in the state, both in the construction industry and in linked industries. For each new job created as a direct result of building a new home, the state gains more than one additional job through the indirect and induced effects of home construction.



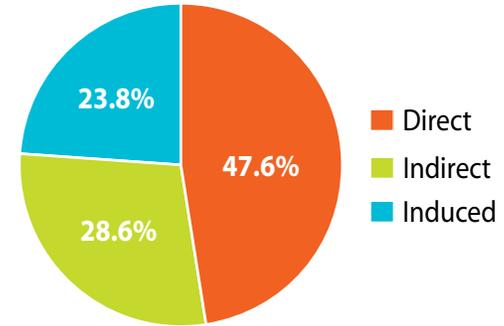
HILL STREET STUDIOS/GETTY IMAGES

Each new median-priced home built in California in fiscal year 2009–10 creates an estimated 2.1 jobs based on average economic output per employee in the residential construction industry, linked suppliers of goods and services, and

industries that benefit from induced effects of new home construction.

When a new home is built in California, one new job (or 47.6% of the 2.1 jobs in all) is created as a direct effect of home construction. The indirect effects of home construction, such as increased demand on manufacturers of windows and doors, are responsible for the next-largest share of jobs created at 28.6% (0.6 jobs). Induced effects, such as spending by construction or supplier employees on groceries and healthcare, account for 23.8% of jobs created (0.5 jobs).

Jobs Created with Each New Home Built in Fiscal Year 2009–10, by Type



Type of Economic Effect	Jobs Created FY 2009–10
Direct	1.0
Indirect	0.6
Induced	0.5
Total	2.1

The indirect effects of home construction are responsible for 28.6% of jobs created.



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Benefits of New Home Construction Extend to Many Industry Sectors

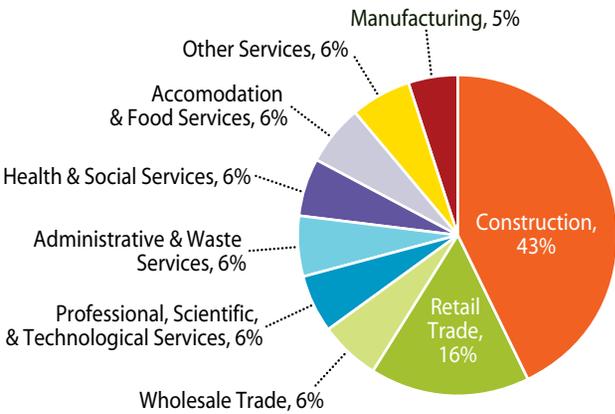
Some 43 percent of the new jobs created when a home is built are within the construction sector, but many other industry sectors benefit as well through indirect and induced activity. Retail trade receives the next-largest portion (16%) of new jobs linked with home construction due to the induced effects of employee spending as well as retail purchases by construction firms and suppliers. Manufacturing (5% of new jobs), wholesale trade (6%), professional services (6%), accommodation and food services (6%), and other sectors benefit from new home construction as well.

INDIRECT AND INDUCED EFFECTS STRONGLY FELT BY A FEW MAJOR SECTORS

Manufacturing, professional services, and retail trade account for nearly 67 percent of all *indirect* employment effects. Indirect economic activity in these sectors stems from purchases of supplies and services (such as architectural and legal reviews) needed for home construction.

Seventy-five percent of all *induced* employment from new home construction occurs in the retail trade, health and social services, and accommodation and food services sectors.

Share of New Jobs Created by Employment Sector



Economic Impacts Are Higher in Regions with More Construction-Related Businesses

The economic impact of new home construction varies across the state, as shown in the table. Among the six regions examined in this study, the estimated economic output per new home ranges from \$331,295 in the Inland Empire (which consists of Riverside and San Bernardino counties) to \$433,355 in Orange County. Despite variations in economic output per new home, each of the six regions experiences strong positive economic impacts when a new home is built.

Variation between regions mainly reflects differences in home construction costs and in the extent of economic activity that is captured within a region's boundaries. In a region that is home to large numbers of construction firms and suppliers, the economic output and job creation per dollar of construction costs will be maximized because related spending is more likely to be captured by local establishments and less likely to "leak" to firms outside the region.

Economic Impacts by Region, FY 2009–10			
Region	Economic Output Per New Home	Jobs Created Per New Home	Average Construction Costs per Unit
Orange County	\$433,355	2.4	\$259,488
San Francisco Bay Area	\$421,696	1.7	\$258,322
San Diego County	\$418,946	2.4	\$261,054
Los Angeles County	\$375,280	2.1	\$217,521
Sacramento Area	\$351,680	2.1	\$214,958
Inland Empire	\$331,295	2.0	\$203,376



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FISCAL EFFECTS OF NEW HOUSING CONSTRUCTION IN CALIFORNIA

New Housing Construction Improves the State's Fiscal Health from Day One

At the time of its construction, a median-priced home in California has a substantial positive impact on the state's budget. On average, the one-time fiscal effect on the state is \$10,479.

The primary one-time state revenues associated with the construction of a home are corporate taxes on builders' profits and sales taxes from the purchase of construction materials. Despite the recent decline in home prices, the cost of building the median-priced home has actually increased somewhat due to higher construction costs and shifts in the types of housing being built, which generates a premium in the taxes paid on construction materials.

One-Time Fiscal Effect of a Median-Priced Home on the State Budget (Fiscal Year 2009–10)



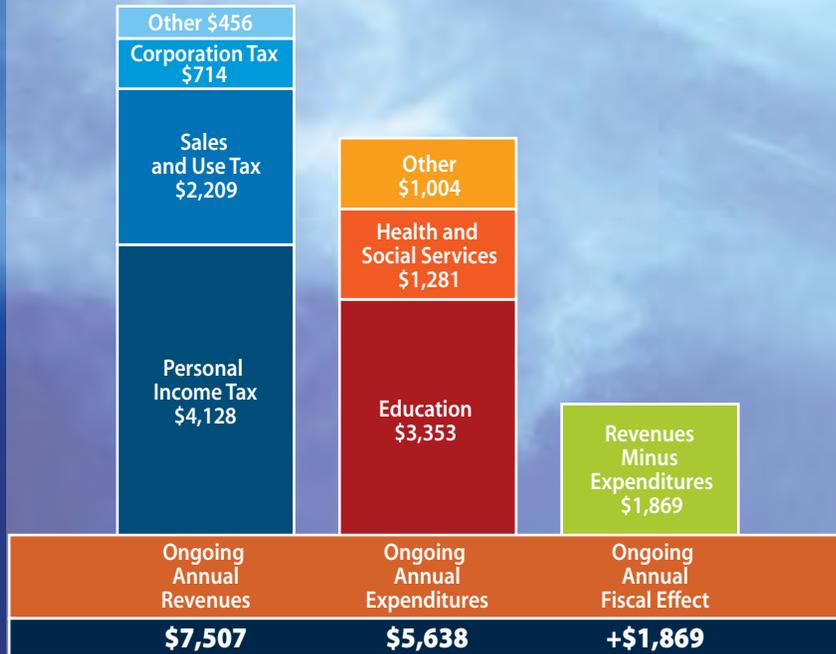
$$\text{Sales tax on construction materials} + \text{Tax on builders' profits} = \$10,479$$

Covering the Costs of Infrastructure

This analysis considers the development-related fees paid to general purpose local governments (i.e., cities and counties), as well as the outlays for infrastructure made by these entities. However, due to data limitations, this analysis does not cover the sizable cash payments and in-kind contributions (i.e. construction of roads or parks) required of some developers on a case-by-case basis, nor does it include charges made by special-purpose local entities such as sewer districts or schools. These additional charges can be substantial (even exceeding \$100,000 per unit in some cases). For the same reason, this analysis does not include the infrastructure costs that such revenues are intended to cover. Further research is needed to examine the relationship between (a) the total fees and in-kind contributions required of developers of new housing units and (b) the total costs to local government and special districts of providing the infrastructure needed to serve the new residents.



SKIP BROWN/NATIONAL GEOGRAPHIC IMAGE COLLECTION/GETTY IMAGES



New Housing Continues to Have a Positive Effect on the State Budget After It Is Built

In most cases, a home is occupied after it is built. At that point, the state must begin providing services (such as education) to the home's residents, and in order to cover the cost of those services, the residents must in turn pay income and other state taxes. If revenues from the household are greater than expenditures by the state, the construction of the home can be said to have a positive ongoing fiscal effect on the state's budget.

The construction of a median-priced home in California in fiscal year 2009–10 is projected to have a substantial positive annual impact on the state budget. On average, the residents expected to occupy a new, median-priced home built in California are expected to generate \$7,507 in annual revenue for the state and consume only \$5,638 in services, for a net annual fiscal impact of \$1,869. More than half of all state revenue can be attributed to personal income taxes paid by the occupants of the new housing, and about 60 percent of all expenditures can be traced to the expected costs of K-12 and higher education for the occupants of the new units.

The ongoing fiscal effect of a home priced both 25 percent below and 25 percent above the median is also positive, at \$928 and \$2,801 respectively. Should prices fall or rise marginally, housing construction would continue to have a positive impact on California's state budget.

Local Budgets Benefit Immediately from New Housing Construction

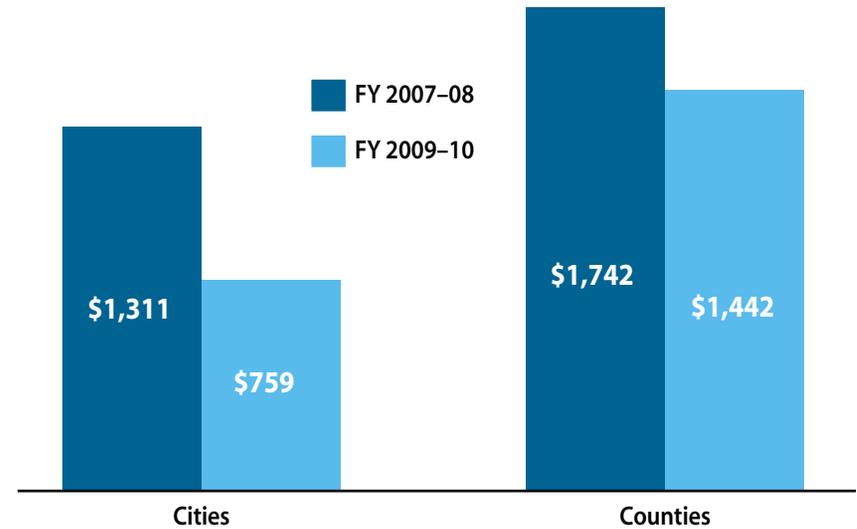
Like the state of California, cities and counties also stand to gain fiscally when a new home is built within their borders. For this to happen, revenues associated with new construction — such as the sales tax on building materials, property transfer taxes, and revenues from permits and licenses — must outweigh the costs that local governments incur to support this development (e.g., issuing permits, inspecting homes, zoning, etc.).

A newly constructed median-priced unit provides a positive one-time fiscal impact of \$759 in the average city and \$1,442 in the average county.

Though still significant, the average one-time fiscal effect for cities and counties is not as substantial as in recent years. This can in part be linked to higher per-unit costs for local governments, because the expenses associated with overseeing the home construction process, such as approving and permitting new housing construction, must be spread across fewer units than in years past.

It is also worth noting that the average one-time fiscal effect of a newly constructed unit is partially dependent on where in the county it is constructed. As the table shows, a median-priced unit built in an incorporated part of a county has a slightly higher one-time fiscal impact, on average, than does a unit built in an unincorporated area.

One-Time Fiscal Effect of a Median-Priced Home



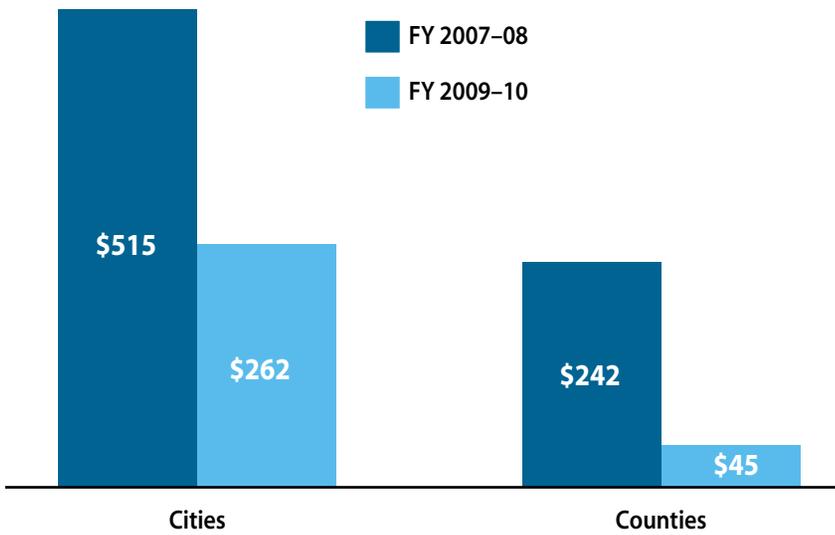
Average One-Time Fiscal Effects Are Significant in Both Incorporated and Unincorporated Areas (Fiscal Year 2009-10)

	Share of Construction Activity	One-Time Annual Fiscal Effect
Countywide Average	100%	\$1,442
Incorporated Area	81%	\$1,530
Unincorporated Area	19%	\$1,095



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Ongoing Fiscal Effect of a Median-Priced Home



Average Ongoing Fiscal Effects Are Positive in Most Areas (Fiscal Year 2009-10)

	Share of Construction Activity	Ongoing Annual Fiscal Effect
Countywide Average	100%	\$45
Incorporated Area	81%	\$203
Unincorporated Area	19%	-\$586

New Housing Construction Has a Positive Ongoing Impact on Most Jurisdictions' Budgets

The construction of a new housing unit generates a variety of revenues for city and county governments, year after year, the most significant sources of which are property and sales taxes. When these and other revenues exceed the costs of providing police and fire protection, health and sanitation, and other services to the occupants of a new home, the ongoing fiscal impact of the new unit is positive.

In general, California cities and counties can expect the occupants of a home constructed in fiscal year 2009-10 to contribute more in annual revenue than they will require in annual expenditures. As the chart shows, housing's ongoing annual fiscal impact is not as robust as it was two years prior, primarily because falling prices have decreased expected property and sales taxes, and falling construction activity has increased the per-household cost of providing some government services. Despite these recent trends, the median-priced home continues to pay its own way in the average city and county.

As the table shows, the generally positive ongoing fiscal effect of a median-priced home on a county's budget depends on where within the county it is constructed. When construction occurs in an incorporated part of the county, as is typical, the net impact is \$203 and rivals the estimate for the average city. But for the fewer than one-fifth of homes built in the unincorporated portion of counties, the average ongoing fiscal impact is negative, largely because providing services such as law enforcement across a lower density area can be expensive on a per-household basis.⁵

Fiscal Effects Vary Based on Recent Changes in Home Prices and Construction Levels

Every community makes decisions about the taxes and fees that households are obliged to pay and the services that residents can expect to receive. Over the long term, revenues and expenditures must be equivalent in order to balance the budget.

Recent rapid declines in home prices and building activity have reduced many governments' revenues by simultaneously limiting new construction activity and lowering the property and sales taxes that can be expected from new households.

The tables show that the fiscal impact of a newly constructed home is lowest in cities that have experienced the largest declines in prices and construction activity. But where prices and development levels have been more stable, fiscal impacts are significantly higher than average.

In jurisdictions where new construction currently has a negative fiscal impact, a rebound in home prices would lead to greater revenue from construction activity, thus reducing or reversing the negative effect.



Fiscal Effects Are Higher in Cities Where Prices and Permitting Have Remained Relatively Stable

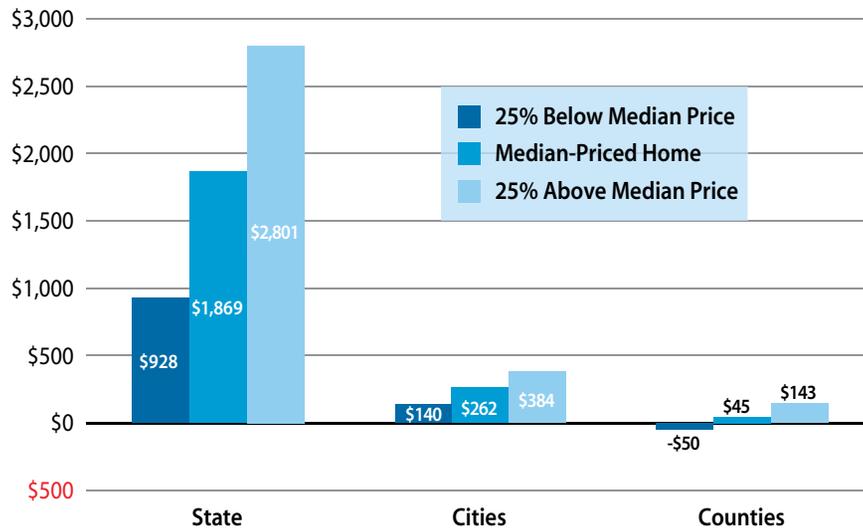
% Decline in a City's Median Home Price Compared to FY 2007–08*	Ongoing Fiscal Effect (FY 2009–10)
More than 23%	-\$204
16–23%	\$155
6–16%	\$340
Less than 6%	\$524
Average City in CA	\$262

% Decline in a City's Permits Issued Compared to FY 2007–08*	Ongoing Fiscal Effect (FY 2009–10)
More than 82%	-\$594
57–82%	\$237
11–57%	\$331
Less than 11%	\$321
Average City in CA	\$262

* Categories are based on quartiles, such that one-fourth of the cities fall into each category.

Ongoing Fiscal Effect of Housing Units at Various Price-Points

Sensitivity Analysis, FY 2009–10



Additional Benefits of Lower-Cost Housing Development

In addition to the fiscal benefits of lower-cost housing, there is evidence to suggest that areas with high housing costs are more likely to experience population loss because existing and prospective residents opt for more affordable locales. Business leaders also report that a lack of affordable housing has negative repercussions on their efforts to attract and retain a talented workforce.⁶

Areas that have a shortage of housing affordable to the local workforce may be faced with congested roads as workers are forced to commute in from long distances. Unintended effects can include a decreased ability to attract customers to local establishments, difficulty luring business investment, substantial increases in infrastructure spending to support ever more remote and sprawling development, and environmental degradation associated with increased auto use.⁷

Home Prices Have an Impact on Fiscal Effects

This report focuses principally on the economic and fiscal benefits of constructing a median-priced home in California. But many communities recognize the importance of also building homes at lower price points to accommodate low- and moderate-income households. What is the impact of this activity on city and county budgets?

A sensitivity analysis shows that, even in fiscal year 2009–10, the estimated ongoing fiscal effect of a housing unit priced 25 percent below the median — while lower than for a median-priced unit — remains positive for California and the average city, with a slightly negative countywide estimate.

The chart also provides estimates for the ongoing fiscal effect of building a home priced 25 percent above the current median value. As would be expected, higher-cost housing has a greater fiscal effect and suggests that, if prices rebound from current levels, the impact of construction activity on city and county budgets should increase as well.



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TECHNICAL APPENDIX

The data in this report are drawn from *Analysis of the Fiscal and Economic Effects of New Housing Construction in California* — a report prepared for the California Department of Real Estate, the California Department of Housing and Community Development, and the California Housing Finance Agency by the Blue Sky Consulting Group and the Center for Housing Policy.

Economic Effects of Housing Construction

Pages two through six discuss the economic effects of housing construction for the state of California and for six regions in the state chosen by the report sponsors. These estimates are derived from an input-output model called IMPLAN, which calculates the full range of economic impacts and job growth associated with the construction of a home based on the cost of materials and labor to construct it. In this report, estimates are produced for the next unit built at the median price.

Data are presented for fiscal year 2009–2010, which is based on a 12-month moving average ending in October 2009.

Fiscal Effects of Housing Construction

Pages seven through 13 discuss the effects of the next unit built at the median price on state, city, and county budgets. Fiscal effects are estimated both on a one-time basis, which looks at government revenues and expenses associated with construction, and on an ongoing basis, which estimates the net fiscal impact of a new housing unit in the years following its construction. Sources of revenues and costs are different for states, cities, and counties but can be generalized as follows:

One-time fiscal effects: One-time revenues can include taxes paid on homebuilder profits, construction materials, and related sales associated with construction; property transfer taxes; and construction-related fees (e.g., permitting, zoning, inspection) collected by community development offices. Expenses can include paying for community development staff to provide these services.

Ongoing fiscal effects: Ongoing revenues associated with the construction of new housing are principally derived from income, property, corporate, and sales taxes paid directly

by the occupants and by the economic activity they generate. Ongoing expenses are primarily associated with providing the level of services expected of state and local governments, including public safety, education, health, community development, and public assistance.

This report uses a “per-capita average cost method,” which means that the revenues and expenses for the occupants of a new household approximate the average levels for existing households. In order to more accurately estimate the revenues and expenses associated with a new housing unit, the income of the household expected to occupy the median-priced home in a given jurisdiction is calculated. Taxes paid and services used are partially derived from the household income and other assumed characteristics of the unit’s occupants.

Unlike the exploration of the economic effects of new construction in which estimates are calculated by categorizing cities into six regions, the fiscal impact methodology uses housing market indicators to develop analytical categories. We employed this methodology because the extent to which home prices and production levels have fallen in recent years is a better indicator of fiscal performance than is regional affiliation. As such, estimates are provided for categories that are defined by a city’s year-over-year change in median home price and permit volume. Data are presented for two time periods: fiscal year 2007–08 and fiscal year 2009–10. For the latter, estimates are based on budget data collected from a sample of large jurisdictions in California and provide a good indication of how local revenues and spending have been affected in the most recent budget cycle.

For a more thorough discussion of the methodologies used in this publication, please refer to the full report.



PHOTO: FRANK DOMIN, COURTESY OF THE OAKLAND HOUSING AUTHORITY

ENDNOTES

¹Data provided by MDA DataQuick Information Systems.

²Data from the California Building Industry Association.

³State of California Employment Development Department. 2010, March. *March 2010 California Employment Highlights*. Sacramento, CA: Author.

⁴Household growth estimates are based on data from the California Department of Finance, Demographic Research Unit. Residential permit data are from the California Building Industry Association.

⁵One factor at play in the negative average ongoing fiscal effects for the unincorporated portion of counties is the allocation of law enforcement (i.e., sheriff’s department) costs. Available data may overstate the per-household costs or understate associated revenues of law enforcement costs in these unincorporated areas, which would inadvertently lower the ongoing fiscal impact of new housing construction in these areas. It is also possible that per-household costs are lower in unincorporated areas that are more urbanized, but the data did not allow this possibility to be explored.

⁶See Bluestone, Barry, Mary Huff Stevenson, and Russell Williams. 2009. “Are the High Fliers Pricing Themselves Out of the Market? The Impact of Housing Cost on Domestic Migration Rates in U.S. Metropolitan Areas.” Paper prepared for the Urban Affairs Association Annual Meeting, Chicago, IL, March 4-7; Center for Continuing Study of the California Economy. 2009, July. “Are Businesses and High-Income Residents Fleeing California?” *Numbers in the News*. Palo, Alto, CA: Author; and Urban Land Institute. 2007, June 4. “Lack of Affordable Housing Near Jobs: A Problem for Employers and Employees.” Press Release.

⁷See Cambridge Systematics, Inc., with Texas Transportation Institute. 2005, Sept. 1. *Traffic Congestion and Reliability: Trends and Advanced Strategies for Congestion Mitigation*. Cambridge, MA: Author; Weisbrod, Glen, Donald Vary, and George Treyz. 2001. *Economic Implications of Congestion*, NCHRP Report 463. Washington, DC: Transportation Research Board; Hartgen, David T., and M. Gregory Fields. 2006, August. *Building Roads to Reduce Traffic Congestion in America’s Cities: How Much and at What Cost?* Los Angeles, CA: Reason Foundation; and Ewing, Reid, Keith Bartholomew, Steve Winkelman, Jerry Walters, and Don Chen. 2008. *Growing Cooler: The Evidence on Urban Development and Climate Change*. Washington, DC: Urban Land Institute.

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