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**The Mixed-Income Conundrum:
Problems and Possibilities for Mixed-Income
As a Strategy for Producing Affordable Housing**

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California faces a serious shortage of affordable housing, a problem that will require a multi-pronged strategy if it is to be overcome. Some have highlighted mixed-income developments as a possible piece to this strategy. Mixed-income developments have some clear advantages over other approaches from economic and jurisdictional perspectives, yet the mixed-income approach remains relatively little used in most California communities. Why has mixed-income not taken hold in California as a significant vehicle for producing affordable housing? What are the barriers to using this strategy more intensively? How might policy approaches and philosophies need to change to accommodate more production of mixed-income communities? This essay explores these and other questions to assess the efficacy of mixed-income development and raise issues to form the basis of a conversation and debate as to whether this approach has a meaningful future in California.

Introduction – The Hollowing of California

In recent years, California has begun to experience a “hollowing out” of its social fabric. A primary cause of this dynamic has been the tremendous increase in the cost of housing in the state. Between 2000 and 2006, the cost of ownership properties more than doubled (figure 1). This rapid increase was driven by multiple factors, including job growth in the early years and the rise of aggressive lending products such as subprime and alt-A lending.¹ Importantly, the large appreciation in home prices was observed in nearly all of the population centers across the state. While there has been much attention

¹ Subprime loans are loans targeted to borrowers with relatively high risk. Alt-A loans are loans to low risk borrowers that have other characteristics which make them risky, such as low or no income documentation or very low downpayment requirements.

placed on the large urban centers and their fringe suburbs, trends in smaller cities across the state have been extreme as well (figures 2 and 3).

Table 1 reports on the annual income required to purchase the median priced home in 1990, 2000, and 2008. Across the board, the income required was comparable between 1990 and 2000 (average of 99.2 percent across the selected metropolitan areas), with some changes in housing price levels producing actual *reductions* in the income needed. Moreover, median income levels in 2000 were largely comparable to the income required to purchase the median home in that year. This stands in stark contrast to the trend between 2000 and 2008, where a purchase of the median home would require about 46.3 percent more income at the end of the period as compared to the beginning. By comparison, the general level of prices in Los Angeles increased by 33 percent over the same period. So income would have needed to grow by 40 percent more than prices in order for affordability to be maintained. This is pattern is observed across the state. Table 1 also reports the required income levels converted into wages. With the exception of a few Central Valley communities, ownership in most communities required a family to earn multiples of prevailing minimum wage levels. Thus, for many lower- and middle-income families, ownership is associated with significant income –based barriers.

Given the high price of ownership housing, one might expect many families to forego purchasing a home and instead rent. However, ownership and rental property values are necessarily linked, as the assets underlying both offer the same consumption benefits.² Given this use value link, it is no surprise that rent levels in California

² Edgar O. Olsen (1998), The Demand and Supply of Housing Service: A Critical Survey of the Empirical Literature,” in Handbook of Regional and Urban Economics, Volume 2, Edwin S. Mills (Ed.), North-Holland: New York, pp. 989-1022.

increased considerably during this period as well. In both the Bay Area and Los Angeles metropolitan area, rents are considerably higher than they were in the mid-1990s (figure 4). Explosive rent appreciation in the Bay Area preceded that in the Southland owing to economic pressure on housing caused by the growth of technology industries in the north, but rent levels in the two regions are now comparable.

Notably, with the recent collapse of the ownership market in California and more broadly, the appreciation in rents now approaches the net appreciation in ownership properties since 1990. The broad convergence in rents and ownership prices suggests that rents are equally challenging for California families.

The data suggest that the high and increasing cost of California housing has had a direct impact on migration patterns in the state. Figure 5 reports the migration trends for California from 1990 through 2008, with figures separately shown for national immigration (i.e., from non-United States locations) and domestic migration. The data show a relatively consistent migration flow from other countries, with annual numbers falling in a narrow band between 175,000 and 270,000. In addition, trends are relatively invariant to economic conditions. California's economy experienced a deep recession in the early 1990s, a large boom from the mid-1990s through 2001, a recession in 2001 that extended into 2003, growth from 2003 to 2006, and then a contraction from 2006 to the present. Yet international immigration trends vary only slightly across these five different economic regimes.

Net domestic migration, on the other hand, is highly variable over this period. There was a significant out-migration in the early 1990s, continuing increases in in-migration between 1994 and 2001, and a continual decline post-2000, with actual out-

migration occurring from 2004 to the present. These patterns and the regular incidence of net domestic out-migration are consistent features of nearly all population centers in California and were even more prevalent in particular markets. As shown in figure 6, between 1991 and 2008, while California saw domestic out-migration in 11 of the 18 years, Santa Clara County (SJ) saw it in every year, Los Angeles County in all but one, and San Francisco and Orange Counties in all but a few. Riverside County is a notable outlier in this regard, due in part to its position as a hub of the logistics industry associated with the large Los Angeles/Long Beach port complex.

Up until 2003, these trends closely track the state’s economic performance, with improvements during times of growth and weakening during times of weakness. However, the growth period beginning in 2003 was not accompanied by an improvement in domestic net migration. Rather, the pace of domestic out-migration actually accelerated from this point, culminating in net out-migration in 2005 which has continued to the present. While identifying a causal relationship between high housing costs and domestic net migration is beyond the scope of the current essay, it is worth noting that 2003 marked the point when the price of housing began and significant appreciation acceleration. In fact, many have suggested that the current out-flow pattern began as housing became more and more expensive (Pierson, 2008).³

Moreover, the recent foreclosure crisis has shed another light on the out-migration phenomenon. An increasing number of homeowners caught in the foreclosure process either are planning to move or seriously considering moving out of California once the

³ David Pierson (2008), “More are moving out of California than in,” *Los Angeles Times*, December 18, available at <http://www.latimes.com/news/local/la-fi-leaving-california18-2008dec18,0,2777902.story>.

process is completed.⁴ This suggests that either the weak economic prospects make other regions more attractive, that the cost of living, including housing, is too high, or perhaps a combination of the two. In either case, they suggest a California that is becoming less and less competitive.

Despite the significant net domestic out-migration, the state has continued to increase in population overall. In part, this is because of continued high rate of immigration from countries whose citizens seek more prosperity and opportunity than is available in their homelands. Many of these immigrants arrive with few assets and even less income, and thus there has been an increase in the lower-income and impoverished population in many parts of the state. That noted, data suggest that the state is becoming a “top heavy” society, with increasing percentages of the population having very high incomes and declines in representation at the middle and lower ends of the income distribution (figure 7).

An underlying issue associated with these trends is production of housing units. Market rate rental housing production in California has been strong in recent years. The extent of the strength of recent construction trends is reflected in permit issuance statewide. Conservative estimates using Census data suggest that approximately 213,000 rental units needed to be produced between 2000 and 2007 to accommodate the population growth that occurred over that period. Census data on permits issued during this period show that permits were issued for 17,969 large structures totaling over 325,000 units (table 2). This suggests a possible surplus in production relative to demand growth.

⁴ Author conversation with Los Angeles Neighborhood Housing Services.

This strength can also be seen by comparing the rate of permit issuance for larger projects from the 1990s with those from the 2000s. In the 1990s, permits for a total of just over 222,000 units, or about 22,200 per year, were issued. By contrast, between 2000 and 2007, nearly 50 percent more permits – 325,342, roughly 40,668 per year – were issued. The average annual rate of permit issuance for the 2000s stands at nearly twice times the average in the 1990s. Thus, by this comparative measure, production trends are quite positive.

However, other measures provide a different picture. Current production trends significantly lag those that were seen in the 1980s, when permit issuance approaching or in excess of 60,000 units per year was relatively common (figure 8).⁵ In addition, while there might be a surplus for current population growth, population trends through the 1990s suggested that the region needed to produce approximately 570,000 new units during the decade. Actual permit issuance during the 1990s fell short by about 350,000 total units. So the surplus is only helping to offset this significant production shortcoming. On net, the state remains about 30,000 units short (assuming, optimistically, that permits translate into units).

Similarly, the record of producing affordable housing in California is decidedly mixed. For example, a recent study of affordable housing production in Los Angeles between 1998 and 2005 found that 20,150 units were produced under the menu of city, state, and federal subsidy programs.⁶ While a significant number, a key issue is how this production has aligned with the need for housing. The Southern California Association of Governments in 2000 estimated through the regional housing needs assessment

⁵ U.S. Census.

⁶ Unpublished Livable Places report, Jackie Koenig, Tomohiro Kamiya, and Quinn Ryan.

(RHNA) that Los Angeles needed to produce 60,280 new units between 1998 and 2005, with 28,406 needing to be affordable to people with low or very low incomes (i.e., incomes less than 80 percent of the metropolitan area median income). Thus, by this measure, Los Angeles housing production for low and very low income residents lags estimated need by about 8,000 units.

In summary, the housing production record for California is mixed. Production through the 2000s has been strong and a marked improvement over the production seen in the 1990s. However, for both market rate and affordable housing, evidence suggests that production in the city has not kept pace with the needs associated with the city and region’s growing population. These significant supply shortages will continue to limit the likelihood that housing will be affordable for those with the lowest incomes.

Coupling this with the stress placed on affordability via the ownership market, the data suggest that there is an acute need to produce additional units to relieve the upward pressure on prices and improve the state of affordable housing in the state.

The Promise of Mixed-Income

Many believe that societies with extreme income distributions are not stable or sustainable. The trouble is two-fold. First, the absence of a middle class implies an absence of key building blocks to productive economies and societies. This is discussed more below. Second, the large lower-income population places inordinate strain on the public sector’s ability to provide services. Consequently, the quality of life for many lower-income families is not good either. In short, finding ways to reverse this trend is of utmost importance for the continued health and prosperity of the state.

An important element of such a reversal will be identifying ways to improve the attractiveness of California to both middle- and lower-income families, which will involve increasing access to jobs, amenities, and services for these groups. This section highlights the appeal of mixed-income communities from a community perspective. The next section reviews the basic challenge that developers face in trying to produce mixed-income communities. Finally, we examine a sample of successful mixed-income projects to identify the parameters for assessing the viability of mixed-income as a strategy and follow this with a discussion of the implications of this research for the future application of this approach as a general strategy.

In the context of housing policy, the issue of family income mix first arose with the failure of the large public housing projects built during the 1950s. Large-scale federal housing policy in the United States began at the close of World War II, with the passage of the benchmark Housing Act of 1949. Prior to this, the production of housing and other real estate was effectively left to the private sector. Any housing policy, such as it was, was largely the purview of social and public health advocates, who saw the substandard housing that filled urban slums as facilitating both the spread of infectious and other diseases as well as behavior deemed as inappropriate, such as prostitution and gang membership.⁷

The Housing Act of 1949 represented a new phase, in which the federal government took an active role in housing. The overarching stated goal of the Act was to ensure “a decent home and suitable living environment for all,” (Housing Act of 1949,

⁷ Jared N. Day (1999), *Urban Castles: Tenement Housing and Landlord Activism in New York City, 1980-1943*, Columbia University Press: New York, NY; Alexander von Hoffman, “High Ambitions: The Past and Future of American Low-Income Housing Policy,” *Housing Policy Debate*, 7 (3), pp. 423-446.

preamble) the Act had 5 main provisions. Of these, two were focused on production. Title I provided resources to clear slums and other blighted areas in order for new public and private development to take their place. This title became the basis for a series of urban renewal initiatives, including the Urban Development Action Grant and Community Development Block Grant programs, which have reshaped the physical layout and amenities in cities across the nation.

Title III of the Act created a new public housing program that was to build 810,000 new affordable units within 6 years. The program was intended to offset losses to the housing stock associated with urban renewal redevelopment, but was not to be competition for the private sector. Thus, income ceilings were placed on tenants and cost ceilings were placed on construction to ensure that the amenity mix was modest. A linchpin of the new production approach would be the creation of new urban communities completely enclosed within a single structure. These innovative buildings would feature all the amenities of an open air community, but these would be arranged vertically in space rather than horizontally. The result was the creation of a series of massive developments in urban areas across the nation.

Ultimately, for various reasons, these projects did not produce new vital neighborhoods. Rather, they became magnets for crime, gangs, familial hardship, and concentrated poverty. The case of Pruitt-Igoe, a project of 33 11-story buildings, was indicative of the general experience of the large urban project.⁸ Built in 1956, after initial lease up, the project saw a continual exodus of its most affluent residents (i.e., those with

⁸ Alexander von Hoffman (2000), “Why They Built Pruitt-Igoe,” in From Tenements to the Taylor Homes: In Search of an Urban Housing Policy in Twentieth-Century America, John F. Bauman, Roger Biles, and Kristin M. Szylvian (Eds.), Pennsylvania State University Press: University Park, PA, pp. 180-205.

relatively lower-paying jobs), such that vacancy rates soared. The remaining residents were disproportionately disadvantaged, with more than 60 percent of families on welfare and more than 60 percent headed by females by the mid-1960s. Gangs eventually captured the public spaces within and around the buildings, such that safety became a serious issue. Ultimately, the problems were too much for the public housing agency and the federal authorities to handle. The project was razed in 1972, a scant 16 years after it was constructed.

In diagnosing the failure of public housing projects such as Pruitt-Igoe, some pointed to the loss of more affluent members of the community, who departed these developments in droves at the first opportunity. For example, William Julius Wilson argued that a key cause was the loss of the middle class.⁹ By this thesis, these hollowed out communities had lost the portions of their base that engaged and believed in the economic and social system, with the result being the emergence of an underclass and a behavioral norm of pathology. Solutions, in this view, would involve diluting the poverty concentration.

In practice, there are two approaches to dilute such poverty. One approach is to take families out of neighborhoods with concentrated poverty and give them an opportunity to live in more mixed communities. The Housing Choice Voucher program, which provides families with a voucher and then has them find housing in the neighborhood of their choice, is one such program that can facilitate mobility-based poverty deconcentration. This has met with only mixed success, as many voucher holders choose to live in the neighborhoods quite similar to those in which previously

⁹ William Julius Wilson (1987), The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy, University of Chicago Press: Chicago, IL.

resided.¹⁰ A second program targeted at reducing concentrations of poverty was the Moving to Opportunity (MTO) program. Unlike HOPE VI, which sought to change the existing neighborhood in which the project was located, MTO was designed to allow public housing residents to change their local circumstances by leaving the existing neighborhood and moving to one with fewer social ills. Much research has been conducted on the success of MTO and, as with the voucher program, the results on the effectiveness of the program in reducing concentrations of poverty have been mixed.¹¹

A different approach is to change the nature of the existing community by encouraging families not in poverty to enter and join the community. The most significant program in this regard was HOPE VI. HOPE VI was a program designed to reclaim the nation's most severely distressed public housing projects, places that had suffered the most from the concentrated poverty and disinvestment. As such, it combines elements of Titles I and III from the National Housing Act of 1949. The program provided funds for demolition of these projects and replacing them with (sometimes homeownership) projects that involve income mixing to prevent a reprise of the concentration that was believed to be at the root of the prior troubles. These new projects generally have a lower density than the public housing it replaces, and thus there is

¹⁰ Rolf Pendall (2000), "Why Voucher and Certificate Users Live in Distressed Neighborhoods," *Housing Policy Debate*, 11 (4), pp. 881-910. Some research has shown that families with vouchers who moved were more likely to reside in neighborhoods higher socioeconomic characteristics. As one example, see David P. Varady and Carole C. Walker (2003), "Using Housing Vouchers to Move to the Suburbs: How Do Families Fare?" *Housing Policy Debate*, 14 (3), pp. 347-382.

¹¹ See, for example, Lawrence F. Katz, Jeffrey R. Kling, and Jeffrey B. Liebman (2001), "Moving to Opportunity in Boston: Early Results of a Randomized Mobility Experiment," *Quarterly Journal of Economics* 116 (May), pp. 607-54; and Jens Ludwig, Jeffrey B. Liebman, Jeffrey R. Kling, Greg J. Duncan, Lawrence F. Katz, Ronald C. Kessler, and Lisa Sanbonmatsu (2008), "What Can We Learn about Neighborhood Effects from the Moving to Opportunity Experiment?" *American Journal of Sociology* 114 (July), pp.144-88; and William A. V. Clark (2008), "Reexamining the Moving to Opportunity Study and its Contribution to Changing the Distribution of Poverty and Ethnic Concentration," *Demography* 45 (3), pp. 515-535.

usually a net loss of on-site units through the program. Given this reality, some have highlighted approaches to minimize unit loss.¹² HOPE VI is a model of income mixing that will be explored below.

These broader social policy concerns aside, there is another reality that makes comprehensive mixed-income communities attractive and, some would say, necessary. Nearly all organizations, whether government or business, for-profit or non-profit, manufacturing or service oriented, draw labor from all wage and income strata. Businesses that are unable to find labor that matches their needs will ultimately move to those places where such labor pools are available. The hollowing of California increases the likelihood that firms will be unable to find the labor they need and poses a risk to the state's on-going competitiveness.

In this context, solutions that reduce the burdens of lower- and middle-income families and round out the labor force have direct competitive benefits. In principle, mixed-income communities can help reduce these burdens by providing housing at affordable levels and limiting transportation costs. A balance between housing and jobs, not just in terms of numbers but also in terms of skill-mix, can help California retain its place as an economically vibrant and competitive leader.

The Challenge of Mixed-Income Communities

Given its potential importance, a key question is why mixed-income communities do not organically emerge from the market. The answer lies in the basic economics of

¹² For example, see Margery Austin Turner and Susan J. Popkin (2007), "Affordable Housing in Healthy Neighborhoods: Critical Policy Challenges Facing the Greater New Orleans Region," statement Before the U.S. House Committee on Financial Services, Feb. 6, accessed via the Urban Institute <http://www.urban.org/publications/901042.html>.

real estate development. At a very basic level, the pricing of rental housing units is a simple function of development costs. Developers require a certain return above costs (which we will refer to as a “hurdle rate”), in order for their investment to be worth pursuing. If returns exceed this hurdle rate threshold, development will occur; otherwise, it will not. The return for a project is simply the difference between development costs and project revenues, which are essentially all rents received.¹³

To demonstrate this, consider the following example. Suppose that the estimated all-in annual costs (including debt service and operations) for a proposed 100-unit market rate apartment complex totaled \$1,000,000. If a developer required a 20 percent return in order to pursue the project, the project would only be attractive if total rent revenue were in excess of \$1,200,000. Given this, the minimum rent that a developer would be willing to charge would be \$12,000 annually or \$1,200 per month. While stylized and highly simplified, this example highlights an important basic reality: rents are an economic concept driven by simple rules of business and economics.

Importantly, this minimum rent requirement is independent of the incomes of the prospective residents. If the affordable rent for a market was \$2,000 per unit, then this market rate project would also satisfy the general need for affordable housing. By contrast, if the affordable rent level was \$1,000 per unit, then this market rate project would be out of reach for lower-income families. The additional supply would have at best a limited impact on their prospect for finding affordable housing.

So when considering the question of whether the building of new multifamily projects can offset the deficit in supply, particularly at lower rents, a central issue is

¹³ This abstracts from other revenue sources, such as parking, laundry services, and other amenity charges.

whether the costs of construction are such that affordable rents are supportable. Unfortunately, in high cost markets like most California markets, the answer for unsubsidized developments in nearly all circumstances is no. The high cost of land coupled with basic costs of construction labor and materials add up to a cost structure such that market-rate rents will greatly exceed a rent level that would be affordable for many families. This explains why so many families are severely burdened as measured by rent-to-income ratios.¹⁴

Moreover, in recent years, this reality has become even more stark, as the costs of building new multifamily housing have grown. Over the past decade, construction has become increasingly expensive. This is driven mainly by significant increases in the costs of land, materials, and labor, which together are the main inputs to the construction process. In these markets, the dynamics have driven prices to ever-rising levels, which has placed tremendous upward pressure on the rents required to make development projects feasible.

Regarding land, developments in capital markets and the recent housing market surge have both resulted in escalating land prices. In part to diversify their portfolios and ensure more stable cash flows, large investment institutions have increased the proportion of their funds to be devoted to real estate markets. For example, about 5 percent of CalPERS investment capital was placed in real estate in the early 1990s. As of April 1, 2008, the CalPERS real estate holdings, valued at \$20.6 billion, represented 8.5 percent

¹⁴ Cynthia A. Kroll and Jenny Wyant, “Housing Affordability in California – Are We Making Progress?”, California Affordable Housing Policy Forum working paper.

of the organization’s total investment portfolio.¹⁵ Moreover, the organization has a stated target real estate investment share of 10 percent, which translates into more than \$3 billion new dollars looking to be placed in real estate.

This institutional pattern has been replicated across the nation, with the net result that billions and billions of additional investment fund dollars have been available for real estate purchase and development deals. The result has been increased competition for real estate deals and opportunities to develop, and a resultant reduction in capitalization rates (the ratio between the stabilized cash flow produced by a real estate asset and the value or transaction price of the asset - “cap rates” for short), which have fallen for all property types in recent years and stand at historic lows.¹⁶ For apartments, cap rates have fallen from more than 8.5 percent in 2001 to close to 6 percent in 2006, and have remained near this level until relatively recently. Because cap rates are an inverse measure of value, falling cap rates mean that values are rising. Many owners who have assumed mortgages for rental properties during this decade have found that the debt service associated with their property has consumed a larger share of their cash flows than was the case for properties purchased in the preceding decade. Since the housing structures and, by extension, their values do not change, this suggests that the additional value is reflected in the land. In short, those considering production of real estate developments face a landscape that includes a more expensive land cost structure.

At the same time, the housing market surge has altered landowner expectations. Because housing, especially ownership housing, generates more cash flows than some

¹⁵ Source: <http://www.calpers.ca.gov/index.jsp?bc=/investments/assets/assetallocation.xml>, accessed 5/1/2008.

¹⁶ Cap rate reductions were also driven by economic projections suggesting significant rent growth over time.

other uses, it is now not uncommon for landowners to value their land as if it were to be used for housing production. The result has been an escalation of prices for land and parcels in previously lower-cost areas that would ordinarily be most conducive for the production of affordable housing on a cost basis.

On the construction side, costs have also grown dramatically. Figure 9 shows the progression of construction costs in the United States and Los Angeles between 1987 and 2007. While both building and construction costs have doubled during this period, these costs rose by less than the average price level in the economy, represented by the consumer price index, through 2002. Since 2002, however, building and construction costs have risen by about 23 and 27 percent, respectively. This rate has far outpaced the rate of inflation in the economy during this time, which was only slightly more than 16 percent (solid line in figure). Thus, the rate of increase in building and construction prices is 50 percent more than the rate of increase in the prices of other goods; construction is now noticeably more expensive on a relative basis.

These cost-based developments have made it extremely difficult to produce new rental housing at prices that are affordable. Construction and building costs typically account for about 60 percent of the costs associated with a development project, and land typically accounts for another 30 percent. Thus, nearly all inputs to the production of rental and affordable housing have increased in costs beyond general inflation in the economy.

The implications of this are clear. Consider a hypothetical 50-unit development project that could support affordable rents in 2002 and yield a level of return such that the project was attractive to pursue, which we will assume to be 15 percent. If one were to

try to build the same project given today’s more expensive cost structure, the project would yield only a 5 percent return if one were restricted to charging affordable rents. With such a low return, this project would not be built.

There are several possibilities for offsetting this. One alternative for making this project financially feasible would be to sacrifice affordability and increase the per-unit rent charged to tenants 11 percent above the affordable level.¹⁷ If loss of affordability is deemed unacceptable, there are three options: development costs can be reduced, cash flows can be increased, or subsidies can be provided. Reducing costs, the so-called “value engineering,” is not an attractive option for equity reasons. A goal of housing policy is to create quality housing for all, and this strategy would leave lower-income families in a lower-tier of housing. Indeed, considerable public sector expenditures have focused on increasing quality rather than reducing it. A notable example is the menu of activities provided by HUD’s Office of Healthy Homes and Lead Hazard Control, which includes programs to eliminate lead-based paint hazards in housing nationwide.

Increasing cash flows typically involves increasing the project density, such that more units are produced, or changing the product mix, either in terms of land use or target population. Changes, and particularly increases, in density require community support, and this has not been forthcoming in many California communities. So there is a question as to the viability of this approach. Changes in land use could involve producing mixed use projects where the non-housing use generates relatively high cash flows that cross-subsidize the affordable housing units. Acceptance of Housing Choice Vouchers,

¹⁷ This assumes a 25 percent escalation in construction and building costs, a 44 percent escalation in land costs [corresponding to a cap rate decline from 8.5 percent to 6.0 percent], and a 16 percent escalation in rent and all other costs. The result holds independent of the definition of “affordable rent” one were to use.

which guarantee the receipt of fair market rents that exceed tenant ability to pay, is another means to increase cash flows. Finally, mixed-income projects expand the target population to those with more financial means, which permits higher rent generation and potentially significant cross-subsidies. A challenge in this regard is enticing developers to set aside units as affordable; their inclination will be to charge market rents across the board.

This strongly suggests that, if units serving lower- and middle-income populations are to be produced in significant numbers, government and other sources must provide subsidies. Unfortunately, in California the structure of the major subsidy programs disadvantages mixed-income projects. The need for affordable housing in California has grown dramatically, due in part to the failure of housing production to keep pace with population growth. As a consequence, the state government has sought to leverage its housing subsidies to create the most affordable units possible. This has resulted in funding formulas that are tilted very much in favor of affordable housing developments that need to be 100 percent affordable (i.e., serving families with incomes below 80 percent of the area median income) in order to be eligible for funding. Indeed, an 8-year review of projects winning awards via these programs finds that very few approach a true mixed-income standard.

This reality stands in stark contrast to the preferences of local communities. If affordable housing serving lower-income families is to be produced, nearly all would prefer them to occur in a mixed-income setting rather than as concentrated lower-income housing projects. The memories from the large public housing failures remain strong, and so any proposed developments that lean in that direction are unlikely to be supported

or sought out. By contrast, mixed-income projects and communities lack such negative associations and may even have positive perceptions.¹⁸

Hence we have a conundrum. The state desperately needs as many affordable units as possible, but localities concerned with quality of life issues are opposed to the production of completely affordable project. For some, mixed-income is a sensible solution to the affordable housing problem, in that may be more likely to produce sustainable communities that do not place undue burden on a locality's services. In addition, mixed-income developments provide a built-in cross subsidy which, in principle, reduces the required public investment. For others, a focus on mixed-income reduces the impact of the limited funds available for affordable housing, and will result in significant hardship for a number of families that would otherwise have been served.

Models of mixed-income success

As is often the case, the definition of mixed-income depends on who is using it. In the current policy context, mixed-income usually refers to a mix of households, all of whom have lower incomes. For example, in California's low income tax credit program, award winning projects might reserve 60 percent of units for families with low income and 40 percent of units for families with very low income, where low and very low are defined as incomes below 80 and 60 percent of the metropolitan area median income. Others, however, view mixed-income over a broader income range an include middle and

¹⁸ See the discussion of NIMBYism and the testimonial of Park DuValle in Louisville, Kentucky in U.S. Department of Housing and Urban Development (2003), *Mixed-Income Housing and the HOME Program*, Office of Community Planning and Development, <http://www.orangecountyfl.net/NR/rdonlyres/enztuv73mik3wzotr5f2r3o7aplsezkcvrchh4xefr2cvtx2ro3cgyfnfs4ds3qcoixmf23el2pmkgbiofxqhlj67b/HomeMIH.pdf>.

upper class families. Less attention has been given to this type of income mixing, either in terms of policy or research. This will be the focus of the ensuing survey.

The landscape of truly mixed-income communities developed under current models is decidedly limited.¹⁹ This section details several projects that might meet this standard. For comparability purposes, our focus emphasizes examples in high-cost markets that are similar in cost structure to California, though there are some examples in other parts of the country. In addition, with one exception, this survey excludes projects whose mix of incomes is mandated through an inclusionary zoning ordinance. There has already been considerable debate on this topic, and we do not wish to rehash the arguments here.

Neighborworks Studies

The Neighborworks organization commissioned researchers to study mixed-income housing projects that served very low income households.²⁰ This research, which examined the experiences of eight projects, concluded that seven items were essential for success. As with other studies, the emphasis was on operations and marketing. For example, the first recommendation is to ensure that financing structures produce a modest project debt burden. Other recommendations focused on maintaining project quality on an on-going basis, strategically marketing and leasing, and providing an appropriate amenity mix.

¹⁹ See footnote 8 in Paul C. Brophy and Rhonda N. Smith (1997), “Mixed-Income Housing: Factors for Success,” *Cityscape: A Journal of Policy Development and Research*, 3 (2), pp. 3-31.

²⁰ *Seven Strategies for Successfully Marketing and Stabilizing the Occupancy of Mixed-Income/Mixed-Race Properties*, NeighborWorks America research summary report, June 2006, available at http://www.nw.org/network/pubs/studies/documents/sevenStrategies_MixedIncmHousing_SummaryReport_6-16-06_001.pdf

We summarize the experiences of two of the case studies below.

Academy Homes I, Roxbury, MA²¹

Built as public housing in the 1960s, Academy Homes I is a 202 unit project located in the heart of Boston. The project is mixed-income in the sense that about 25 percent of the units are market rate. The project is financed with Section 8 voucher subsidy, capital from the low-income housing tax credit program, and loans under favorable terms from HUD.

A key aspect to the program was a community development corporation/tenant ownership structure, whereby key decisions reflected the interests of both developer and residents. Thus, a decision was made to keep renovations modest to reduce debt coverage needs, which accommodated the developer need for adequate returns and tenant concerns regarding displacement. Another interesting feature of the project is that, in contrast to many affordable developments, large units were not disproportionately (or even proportionately) reserved for lower-income tenants. Large market rate units are rare, and they have been a source of stability for the project. Despite this distribution, units are not overcrowded, as there is an average of 1 person per bedroom in the typical unit. Finally, the project's location is a definite asset. Boston is a high cost market, which contributes to a strong and stable demand for units. Moreover, the proximity of Academy Homes to many amenities, including public transit, also adds to its appeal.

Auburn Court, Cambridge, MA²²

²¹ Judy Weber (2005), *Seven Strategies for Successfully Marketing and Stabilizing the Occupancy of Mixed-Income/Mixed-Race Properties, A Case Study of Academy Homes I in Roxbury, Massachusetts*, report prepared for NeighborWorks America, October, available at http://www.nw.org/network/pubs/studies/documents/academyHomes_CaseStudy_000.pdf.

Located near the MIT campus in Cambridge, Auburn Court is in the midst of a neighborhood that benefitted from the technology boom of the late 1990s and its proximity to the campus. The development's units are distributed such that slightly more than 50 percent of the units are market rate (39 of 77), with the majority of the rest being reserved for lower-income families (Section 8 and tax credits). This project's unit mix is driven in part by a special one-third set aside requirement under a special inclusionary zoning district provision. However, the project easily exceeds this limit and operates more in the spirit of a pure mixed-income project.

As with other projects highlighted, the success of Auburn Court is linked to project management. In particular, the project was supervised by experienced developers, asset managers, and property managers, all of whom were aggressive in executing strategies and modifying them as necessary. The project also benefitted from a strong real estate market, as prevailing market rents permitted a sizable cross subsidy that reduced the extent to which significant subsidies were needed. That noted, planned amenities were expensive, and the development team pieced together a series of low-cost loans and grants to ensure that debt service requirements were not too burdensome. Similar to Academy Homes, Auburn Court had a very desirable location, as it is near mass transit and the gentrified neighborhoods around MIT.

Atlanta

²² Judy Weber (2005), *Seven Strategies for Successfully Marketing and Stabilizing the Occupancy of Mixed-Income/Mixed-Race Properties, A Case Study of Auburn Court, Phase I in Cambridge, Massachusetts*, report prepared for NeighborWorks America, October, available at http://www.nw.org/network/pubs/studies/documents/auburnCourt_CaseStudy_000.pdf.

In a 2005 conference, Renee Glover reported on efforts by Atlanta over 10 years to revitalize communities that featured the creation of 13 mixed-use and mixed-income communities.²³ The HOPE VI program was the foundation for much of this work, and the city used it to generate considerable additional investment. According to Glover, the leverage ratio was 12:1, with \$250 million in federal grants leading to about \$3 billion of private and local investment.

The Atlanta effort featured a public/private model that is distinctly market-oriented in its focus, and the resultant projects all exceeded market thresholds for investment returns. Glover highlights four overarching principles:

- No more than 40 percent of the project should be public housing;
- Projects must meet market standards as regards quality and amenities;
- Families must be trained over longer periods to ensure their productive participation in society; and
- Schools, retail and commerce must be the backbone that supports the community.

This final point is key, as we have already discussed the importance of quality amenities for (1) attracting residents who will be willing to pay market rate prices and (2) meaningfully reducing the burden lower- and middle-income families face. As one example, Glover notes that Centennial Place Elementary School students outperform national averages. She further implies that this is a more general phenomenon in Atlanta.

Multi-Project Survey

²³ Renée Lewis Glover (2005), “Making a Case for Mixed-Use, Mixed-Income Communities to Address America’s Affordable Housing Needs,” presentation to the Center for American Progress, Oct. 12, <http://www.orangecountyfl.net/NR/rdonlyres/ebzy6inbgjjbnshovuneeaa75ohynu66nzkgmveosuhpaqki2tsxgiw64ezffmo6usiwqz6mlm6ptal2xacjib5w7dug/MakingTheCase.pdf>.

As part of a special issue on mixed-income housing, Paul Brophy and Rhonda Smith studied the experiences of seven such projects that varied in terms of their geography, local economic and development circumstances, income-mix, and financing structure.²⁴ They assessed the projects, one of which was a BRIDGE Housing project (Emery Bay II), through interviews, site visits, and compilation of data on unit mix, resident employment and income characteristics, and turnover rates.²⁵

They offered six main conclusions. Of those the most significant ones involved operational considerations. For example, Brophy and Smith highlight the importance of adhering to basic real estate development and management principles and offer insights regarding marketing strategies (i.e., do not market to the income mix). Interestingly, the authors also discuss the necessity of having clear objectives for income mixing. They note the difficulties of achieving true neighborhood integration and upward mobility for lower-income families. Both of these, they argue, require investments beyond housing.

Phoenix, Arizona – Matthew Henson Apartments

McCormack, Baron , Salazar (MBS) has been one of the few consistent producers of mixed-income developments, as they have developed a business strategy predicated on the ability to redevelop undervalued land located in or near the urban core. The large Matthew Henson Apartments in Phoenix is one such project. Developed under the HOPE VI program, Matthew Henson involved demolishing a low density public housing project

²⁴ Paul C. Brophy and Rhonda N. Smith (1997), “Mixed-Income Housing: Factors for Success,” *Cityscape: A Journal of Policy Development and Research*, 3 (2), pp. 3-31, available at <http://www.huduser.org/Periodicals/CITYSCPE/VOL3NUM2/success.pdf>.

²⁵ The projects reviewed were Harbor Point and Tent City in Boston, MA, Jones Family Apartments in San Francisco, CA, Emery Bay Club and Apartments in Emeryville, CA, Timberlawn Crescent in Montgomery, MD, The Residences at Ninth Square in New Haven, CT, and New Quality Hill in Kansas City, MO.

and replacing it with slightly higher density new housing.²⁶ Thus, unlike many HOPE VI projects, Matthew Henson Apartments have more units than were previously present. One quarter of the project's units are set at market rates. All units are built to the same quality and are not differentiated based on rents charged.

Several elements contribute to the project's success. First, the land for the project was provided at a low price via a long-term lease. This permitted significant savings that could be translated into lower rents. The second is the process by which the project is leased up and managed. MBS explicitly markets the project as a mixed-income project, and all residents are aware of the income mix prior to becoming tenants. In spite of this, the project has had few problems in terms of vacancies, even for the market rate units. This has been attributed to the management of the property, which is done in-house. MBS management staff applies a rigorous screening procedure that all applicants, including those seeking the market rate units, must follow. This ensures that all members of the project meet a minimum standard, and helps the community develop in a holistic and integrated fashion.

Los Angeles – Puerta del Sol

Located near the Avenue 26 Station of the Gold Line light rail system in Los Angeles, Puerta del Sol is part of a multi-project redevelopment effort of an industrial corridor that has resulted in a consolidated mixed-income community. The project itself is a high density, 165-unit ownership product, where none of the units is income-restricted. The target population is families with incomes between 100 and 200 percent of the metropolitan area median income, with most falling between 125 and 175 percent.

²⁶ Information from this session was obtained via a phone interview with Tony Salazar.

Two projects comprise the affordable component of the collective, Flores Del Valle Family Apartments and Tesoro Del Valle, both developed by AMCAL Housing. Both projects were funded via the Low Income Housing Tax Credit program and together these projects have 167 units, all of which are affordable. All units are targeted toward large families and senior populations.

An important key to the success of this project was timing, particularly for the ownership portion of the collective. The project was bid prior to the significant commodity price movement documented earlier and units went to market just before the collapse of the housing market, which permitted significant buy-out of units. Fewer than 5 units remain unsold. Also important were the low land basis and significant city subsidies from multiple homebuyer programs, both of which increased the affordability of the project.

Issues to consider

Given this brief review, the key question is whether mixed-income housing can be expected to thrive as an independent approach to providing housing. We have identified a number of aspects that argue in favor of promoting this approach. However, there are significant barriers to providing such developments, the most significant of which is the basic underlying economics of development in high cost markets. So, what are the issues that must be addressed if mixed-income development is to be sustainable as a strategy?

In reviewing the cases described above, a common element across many of these projects was the presence of a large parcel of low-cost land in the urban core. The large size facilitated the production of a significant number of units, which makes cross

subsidy more feasible. In addition, for many of these redevelopment efforts, a key feature was public ownership, which allowed for conversion without incorporating significant land costs. As one example, the Timberlawn Crescent project in Montgomery County obtained the land at 1/20th of its prevailing market value. These deep land discounts reduced the extent to which large subsidies were required in order to include lower housing prices. They also had the added benefit of permitting projects with lower densities to be economically feasible. Lower densities are a key to preempting public challenges and difficult approval processes. Puerta Del Sol also benefitted from considerable reduction in land costs associated with public participation in the project. Unlike Timberlawn, however, this project sought higher density to capitalize on the proximity to a mass transit stop.

A second element that permitted relatively smooth planning and approval processes was that most of these locations were the source of considerable problems. HOPE VI sites are selected precisely because they were troubled public housing projects that featured concentrated poverty, familial strife, and elevated levels of crime. The replacement of these eyesores was as likely to garner public support as opposition. In Los Angeles, the district councilman is actively supporting the repositioning of the neighborhood from industrial to residential, and has promoted redevelopment through several projects in the area.

This appeal is evident in the experience of HUD's multifamily housing portfolio. In their study of mixed-income projects in this portfolio, Khadduri and Martin note that

they are more likely to be located in areas with low poverty rates.²⁷ Significantly, they find little relationship between mixed-income location and race or ethnicity of the occupants, a positive finding that suggests that acceptance of mixed-income projects may be broader and more general than one might expect.

A third commonality across the projects discussed is proximity to amenities. Because of their location close to urban cores, many public housing projects that are the focus of HOPE VI-type redevelopment have a built in advantage regarding the nearby availability of jobs, services, and goods. These projects were able to leverage these amenities into higher rents, which allowed for the possibility of meaningful cross-subsidy for the affordable units. For those projects without such natural advantages, such as those observed in Atlanta, success has meant significant investment in this supportive infrastructure. Without significant amenities that hold some appeal, the task of attracting families that have the means to choose where to live becomes much more difficult.

Professionalism is another common theme across the projects. Affordable housing development is at its core real estate development; successful projects will need to be managed effectively from a development perspective. This requires creating financing, engaged public diplomacy, skilled marketing, and clear and focused property management.

An additional issue that must be raised is how best to use the limited funds available to subsidize affordable housing development. Using existing pools of money to support mixed-income development means that there will necessarily be fewer dollars

²⁷ Jill Khadduri and Marge Martin (1997), “Mixed-Income Housing in the HUD Multifamily Stock,” *Cityscape: A Journal of Policy Development and Research*, 3 (2), pp. 33-69.

available for other established subsidy programs.²⁸ This would likely translate into the production of fewer aggregate affordable units, since some of the money used for mixed-income projects would contribute to total project overhead (either directly or indirectly). Given the extreme shortage of affordable housing statewide, many might view this as quite undesirable. Indeed, California’s current structure for the main subsidy programs, which incentivizes the production 100 percent affordable projects, suggests that a consensus to maximize the number of units already exists. Thus, the pursuit of mixed-income might need to occur in the absence of significant subsidy.

In reviewing the cases here, a potential typology for mixed-income developments emerges. The cases point to 4 strategies for producing mixed-income projects:

- Inclusionary mandate;
- Formal program structure (i.e., the HOPE VI model)
- Synthetic mixing; and
- Incentivizing mixed-income development.

The inclusionary mandate approach, not discussed here, holds that all projects must reserve a pre-determined proportion of its units for lower-income families. Though relatively straightforward to apply, this approach has proven to be highly controversial. Many developers view the mandate as burdening them with sole responsibility for bearing costs associated with a broader mission. Consequently, this approach has been met with considerable resistance and, unless applied at the state level to cover all development in the California, is unlikely to result in an embrace which is likely to result in the production of a considerable volume of affordable units.

²⁸ This, of course, assumes no increase in funding for these activities, which seems to be a reasonable expectation.

There is ample evidence that producing mixed-income through a formal program can be effective. There are many HOPE VI projects that have improved the communities in which they are located. The most significant challenge for this type of approach is the uncertain funding and commitment that comes with a reliance on governmental policy and philosophical approaches. The change in funding for HOPE VI with the change in administrations in 2001 is perhaps the clearest measure of the degree to which this approach has risks that suggest this approach might not be viable.

Synthetic mixing is an interesting variation on the approach to producing mixed-income communities. However, it has some drawbacks for increasing it to scale. First, it requires significant coordination within the public sector. Planners must consistently maintain a mixed-income priority in the local jurisdiction, and then compatible projects must be proposed and moved through the development process in relative temporal proximity. This could be problematic if usual community challenges accompany the proposed affordable project but not the market rate component.

Finally, one might consider incentivizing existing programs to promote the production of mixed-income projects. An advantage to this approach is that it gets codified into the overall affordable housing framework for the state. A drawback is that it relies on discretionary behavior on the part of developers. Like the formal program approach, this can result in significant variation in the production of mixed-income projects over time. This is discussed more below.

Is there a way to put all of these pieces together? The need for proximity to amenities argues for exploring locations where transit-oriented development might work.

The state has recently made considerable investments in infrastructure, particularly mass transit, and these activities are likely to continue. This offers a clear opportunity to leverage these investments and obtain wins along both housing and jobs dimensions. In Los Angeles, the Expo Line and the eastern extension of the Gold Line, both currently under construction, immediately come to mind. In the Bay Area, the on-going expansion of the BART system similarly offers mixed-income possibilities.

The key challenge involves how to best achieve cross-subsidies from market rate to affordable units. Here, it might first require a change in consideration of the desired “mode” of housing. In particular, it might be easier to gain significant cross-subsidies in an ownership capacity as opposed to a rental one. While more true before the recent collapse of the housing market, there remains something of a premium placed on ownership properties. In addition, if one were willing to adopt the strategy implemented by Academy Homes in Boston and not require a proportional distribution of units, one could perhaps position the market rate units so as to gain considerable price premia. These would facilitate the creation of affordable units within the project while preserving a reasonable rate of return for the developer.

A different approach, if one is unwilling to cede the notion of rental mixed-income communities, might be to change the rules underlying the major subsidy programs designed to support the production of affordable housing. A particular focus might be on point allocation, so that mixed-income project proposals are not penalized. Alternatively, the Tax Credit Allocation Committee and other policy-makers could establish a separate set-aside category for mixed-income projects, much as they do for projects targeted towards special needs, senior and large family populations. As one

example, Arizona has taken the former approach, with mixed-income projects receiving points on a sliding scale depending on the percentage of market-rate units.²⁹

Unfortunately, the experience in Arizona has been decidedly mixed. As shown in figure 10, despite the fact that the Low Income Housing Tax Credit program encourages the production of mixed-income projects, there has been considerable variation in the success of obtaining mixed-income projects through the program. Indeed, the market appears to be sensitive to the overall strength of the housing market; in good times, fewer mixed-income projects are pursued.

If rental is to be pursued, communities will have to commit to supporting these projects through the entitlement process. Because there are only so many penthouse apartments a rental project can have, achieving mixed-income projects that meet standard developer return thresholds – absent significant land or other subsidies – will require higher densities than most locations presently allow. Given experience to date regarding entitling for higher densities through density bonus programs, this dimension will undoubtedly be a significant barrier. Perhaps this will be the most significant barrier.

Concluding thoughts

Mixed-income developments have been lifted up as a possible solution to many problems that California currently faces. If centrally located, it would ease burdens on both middle- and lower-income families. This would help return California to maximum competitiveness by providing firms with a full set of options in terms of staffing

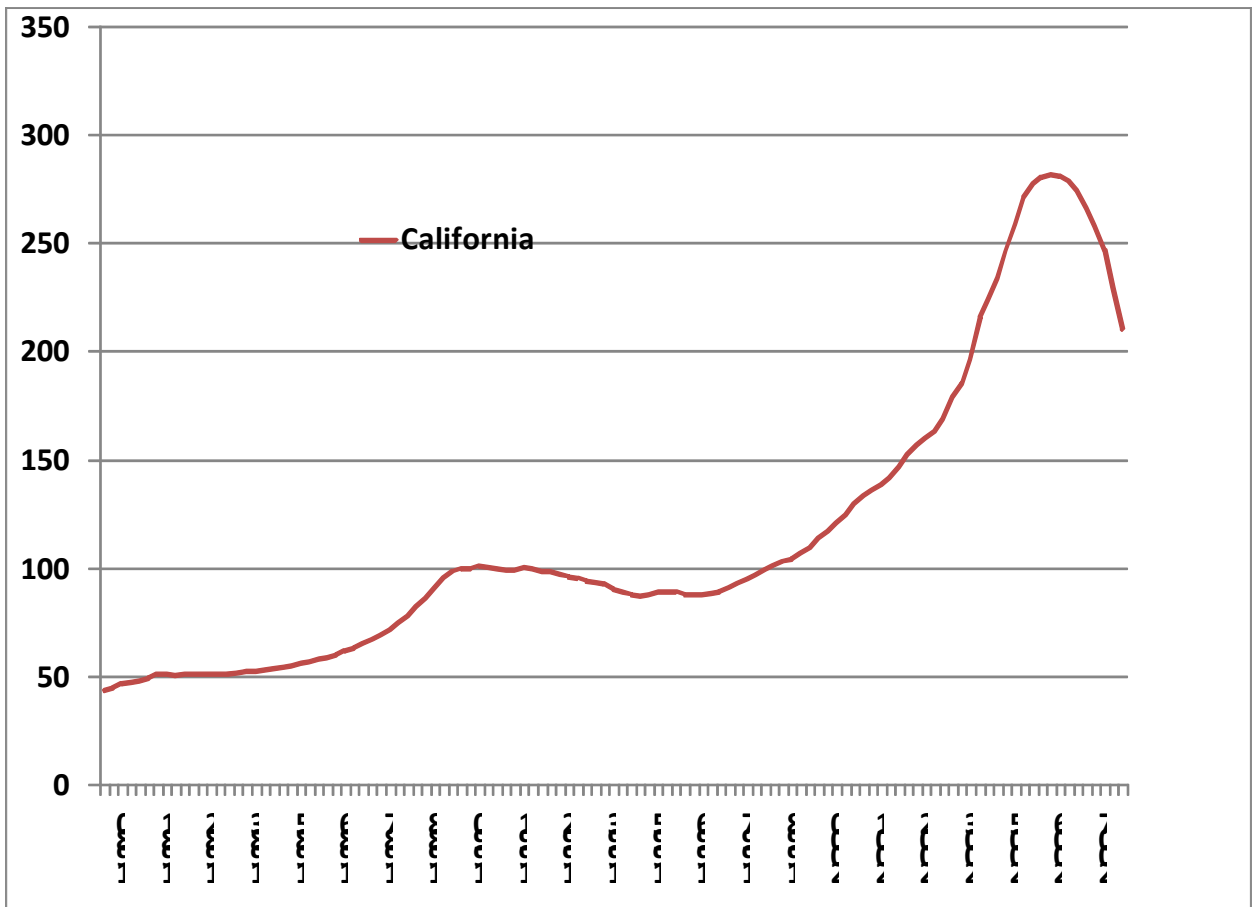
²⁹ Arizona Department of Housing, *2008 Qualified Allocation Plan, Low-Income Housing Tax Credit Program*, available at http://azcms.housingaz.com/uploads/RENTAL%20APPLICATIONS/LIHTC/08%20QAP/2008_QAP_%20FINAL_%20APPROVED.pdf.

positions. It would reduce the strain on local jurisdictions in terms of providing social services. And it would also contribute to higher quality of life for the families who reside in the projects.

However, there are significant challenges to taking this strategy to a larger scale. The most significant is the need for subsidy, which can result in a “cannibalization” of housing programs; one would be taking units from a tax credit or bond program and giving them to a mixed-income program. Given the significant deficit that the state faces in terms of affordable housing units, this strikes me as somewhat counterproductive. A preferred approach would be to find a way to provide this housing without the need for significant subsidy. Perhaps a homeownership program targeted to transit or other nodes would be a feasible approach. Of course, this will require local community support, something that has generally not been forthcoming.

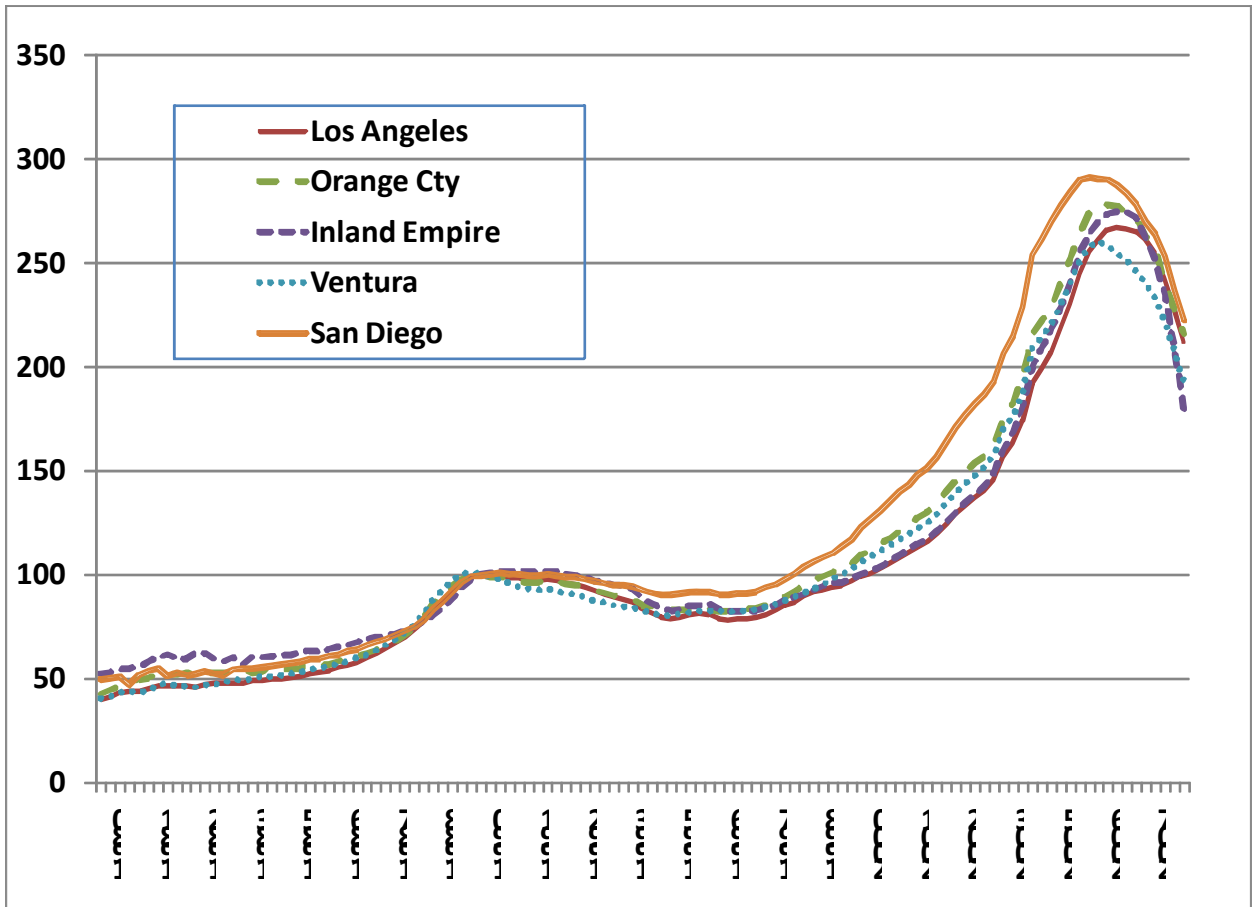
Assuming a framework for developing mixed-income communities, whether rental or ownership, can be put in place, however, there is cause for optimism. California is fortunate to have a large pool of talented real estate professionals who, in such an environment, would be able to execute a mixed-income development strategy. If there is a will, there is certainly the way.

Figure 1. House Price growth, California, 1990 Q1=100



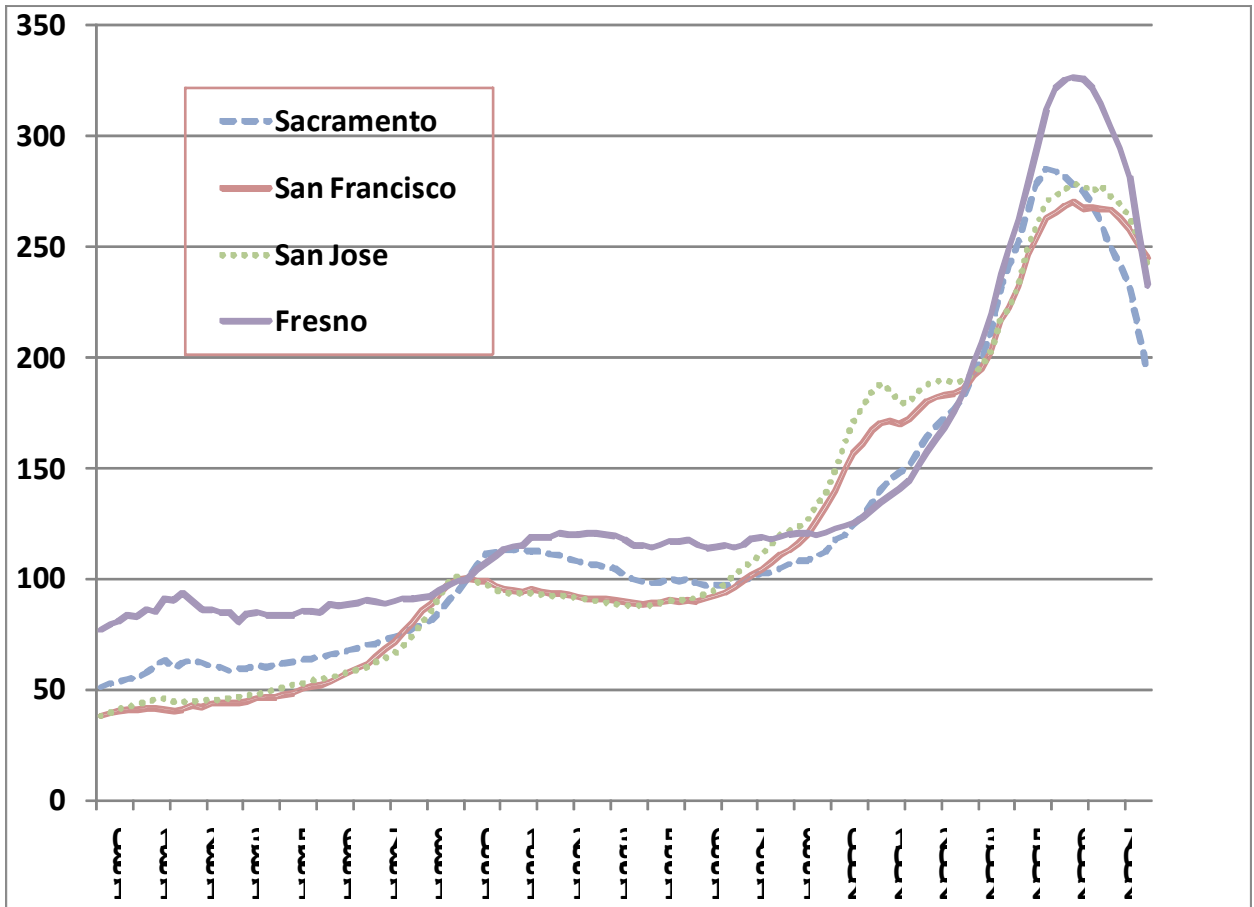
Source: Federal Housing Finance Agency (previously Office of Federal Housing Enterprise Oversight)

Figure 2. House price growth, selected southern California counties, 1990 Q1=100



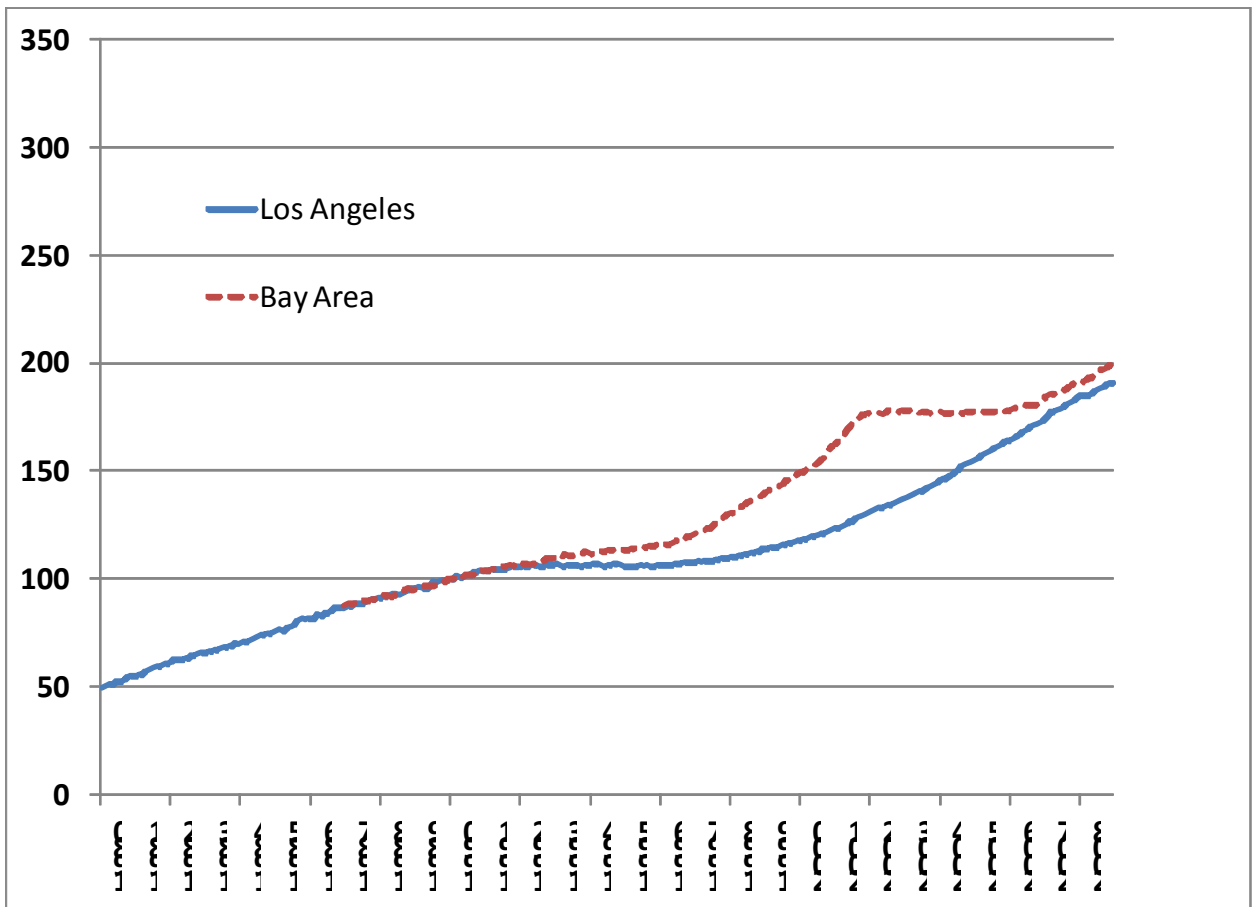
Source: Federal Housing Finance Agency (previously Office of Federal Housing Enterprise Oversight)

Figure 3. House price growth, selected northern California counties, 1990 Q1=100



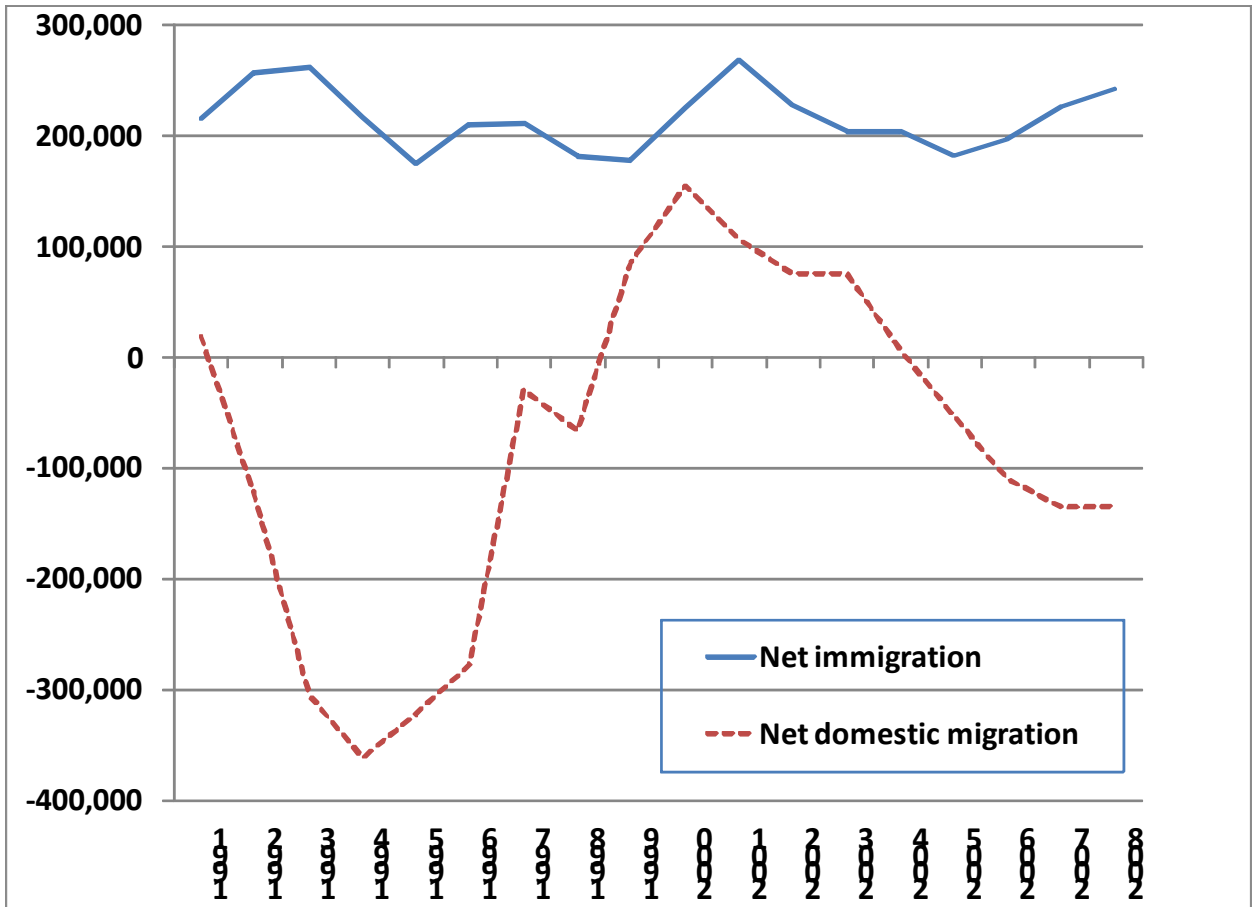
Source: Federal Housing Finance Agency (previously Office of Federal Housing Enterprise Oversight)

Figure 4. Rent level growth, January 1990=100



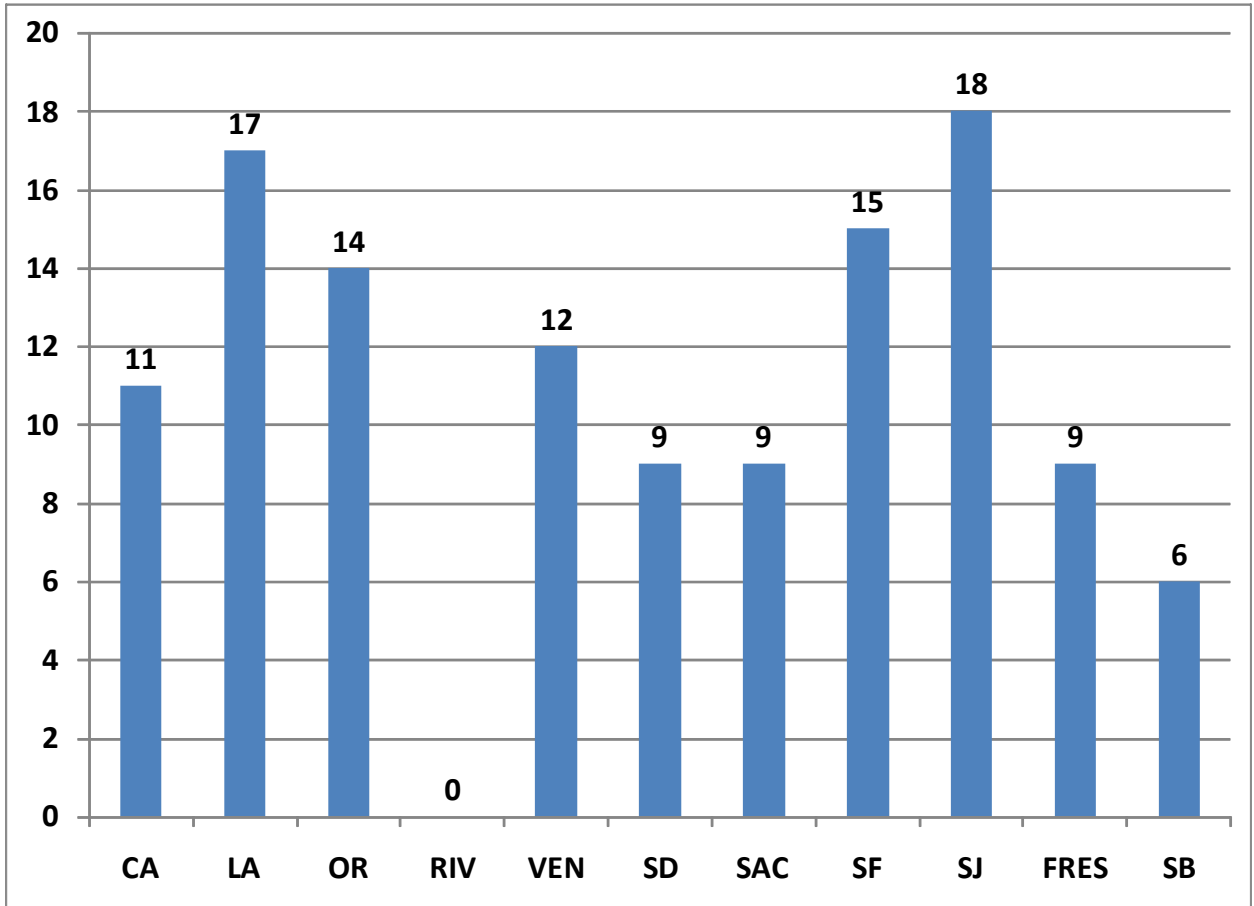
Source: U.S. Bureau of Labor Statistics

Figure 5. Migration trends in California, 1991-2008



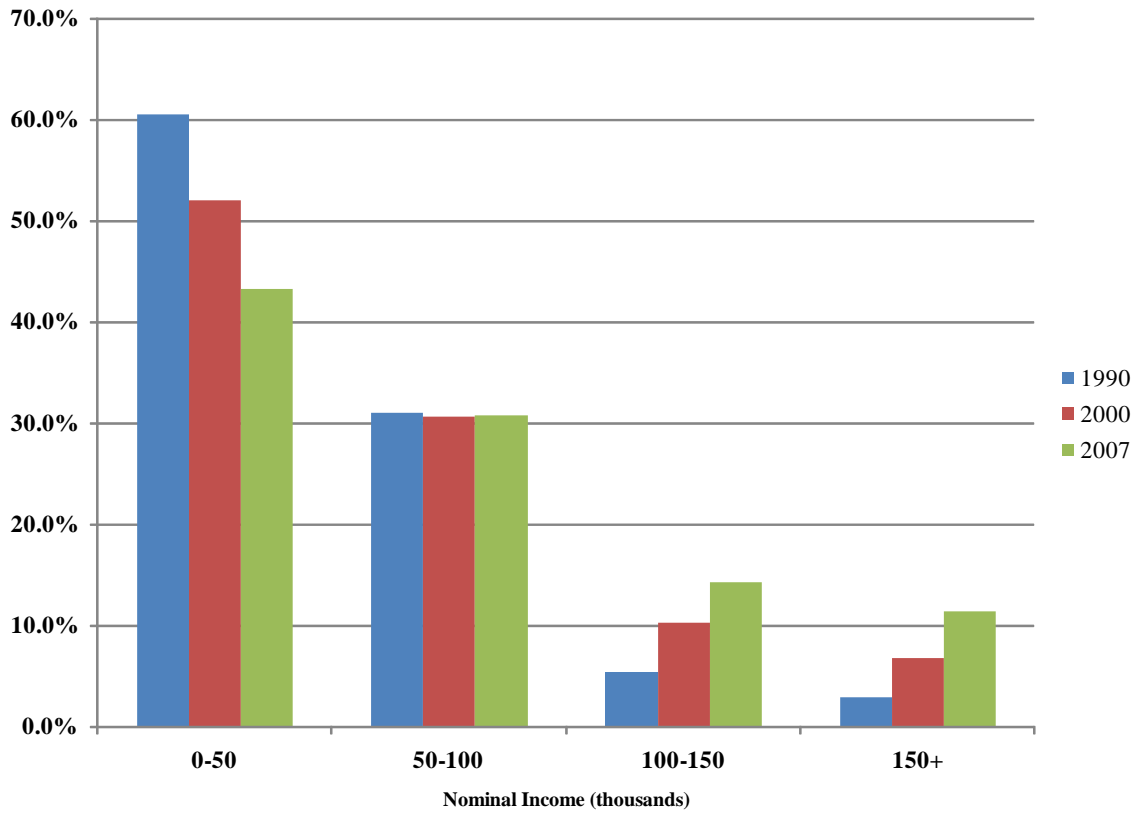
Source: California Department of Finance.

Figure 6. Number of years that net domestic migration < 0 between 1991 and 2008, statewide and for selected California counties



Source: California Department of Finance.

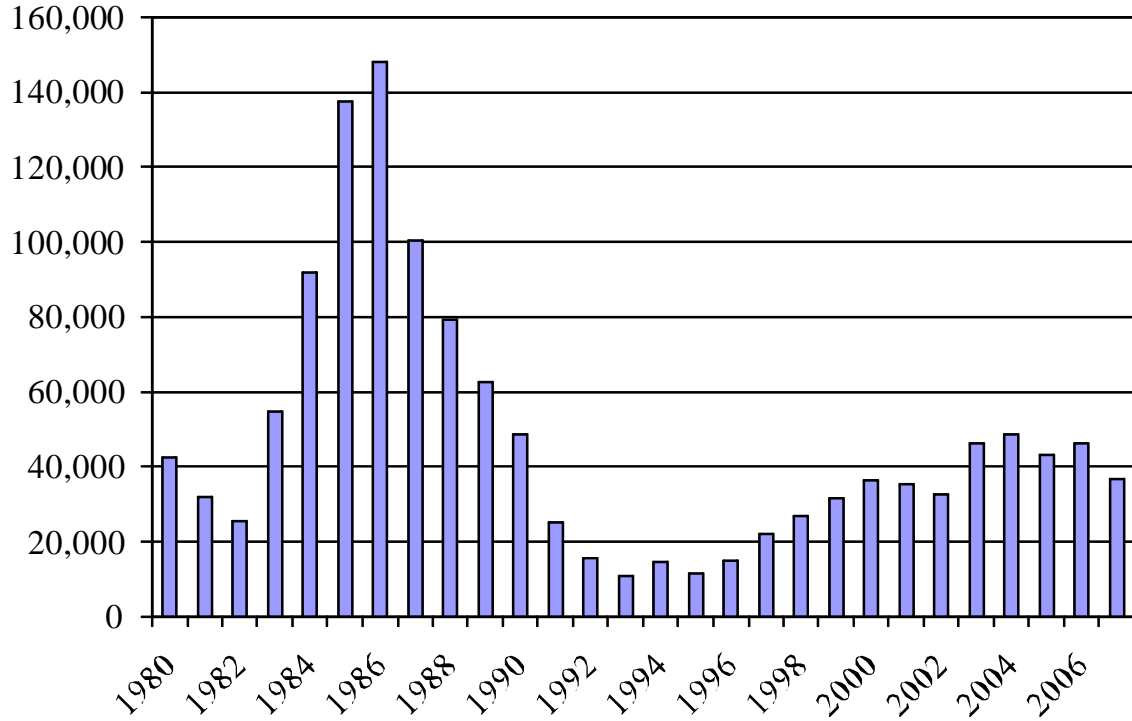
Figure 7. Distribution of California population, by nominal income, 1990, 2000, 2008



Source: U.S. Census Bureau

Note: Incomes for 1990, 2000, and 2007 are in 1989, 1999, and 2007 nominal dollars.

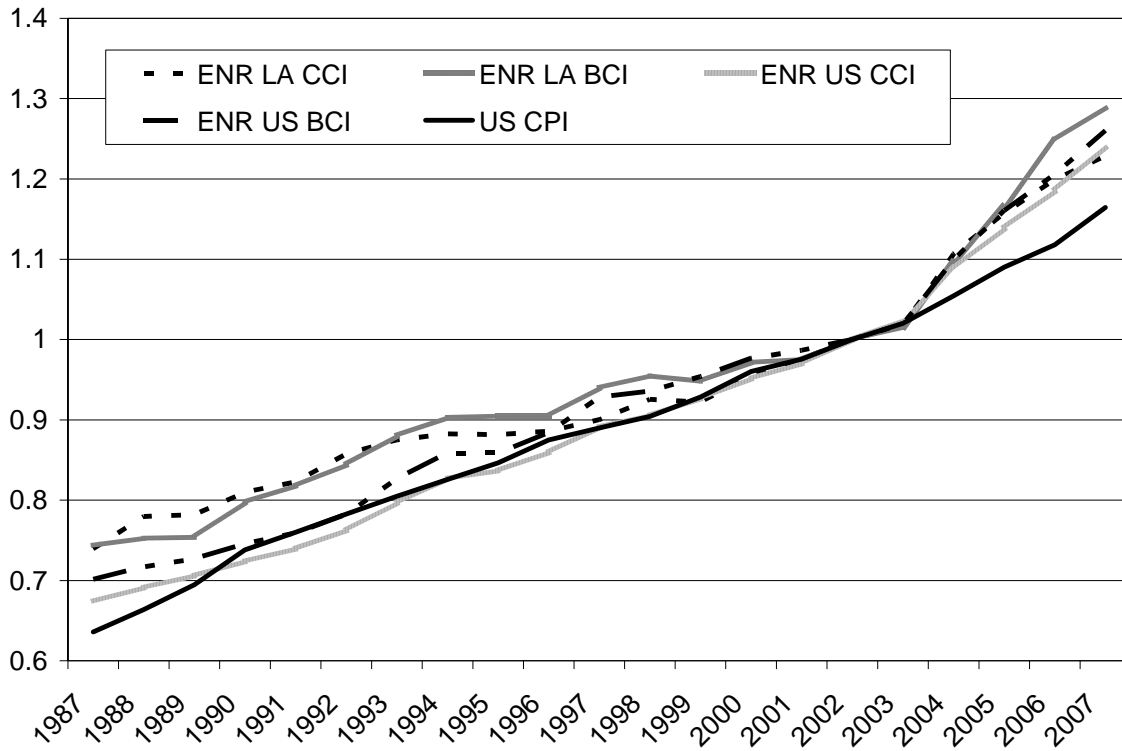
Figure 8. California permits for large structure units



Source: U.S. Census Bureau

NOTE: Large structures are those with more than 5 units.

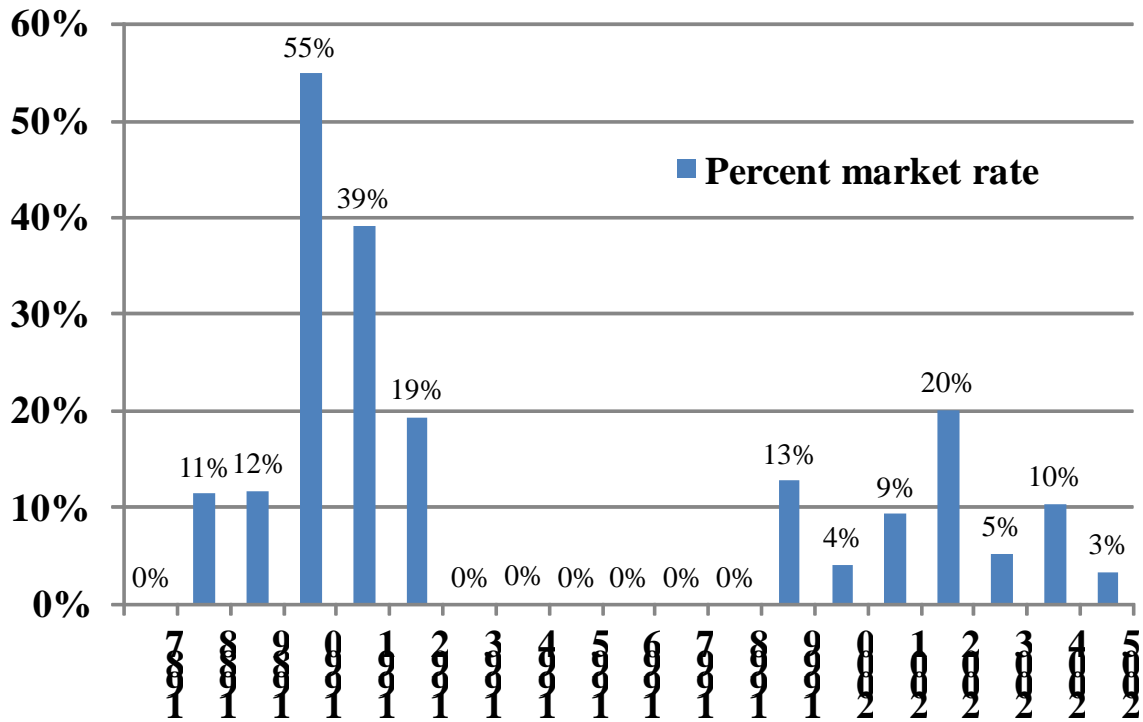
Figure 9. Construction and building cost trends compared to the consumer price index



Source: McGraw Hill Construction Engineering News Record (ENR).

NOTE: Cost or price level in 2002 = 1, CCI = construction cost index, BCI = building cost index, CPI – consumer price index.

Figure 10. Share of Units Produced under Arizona’s Low Income Housing Tax Credit program that are Market Rate, 1987-2005



Source: Arizona Department of Housing.

Table 1. Income and hourly rate required to pay for median house, selected California counties, 1990, 2000, and 2008

	<u>1990</u>	<u>2000</u>	<u>2008</u>
<i>Annual income (nominal)</i>			
Los Angeles	\$48,829	\$40,532	\$69,480
Orange County	\$66,167	\$60,476	\$95,586
Inland Empire	\$30,335	\$25,337	\$36,504
Ventura	\$62,052	\$55,024	\$79,619
San Diego	\$47,665	\$49,047	\$71,107
Sacramento	\$27,659	\$27,187	\$35,930
San Francisco	\$71,153	\$83,318	\$116,855
San Jose	\$73,536	\$91,719	\$119,036
Fresno	\$19,757	\$20,309	\$30,814
<i>Hourly wage</i>			
Los Angeles	\$25.43	\$21.11	\$36.19
Orange County	\$34.44	\$31.50	\$49.78
Inland Empire	\$15.80	\$13.20	\$19.01
Ventura	\$32.32	\$28.66	\$41.47
San Diego	\$24.83	\$25.55	\$37.04
Sacramento	\$14.41	\$14.16	\$18.71
San Francisco	\$37.06	\$43.39	\$60.86
San Jose	\$38.30	\$47.77	\$62.00
Fresno	\$10.29	\$10.58	\$16.05
<i>Median Income</i>			
Los Angeles	\$34,965	\$42,189	\$52,628
Orange County	\$45,922	\$58,820	\$71,601
Inland Empire	\$33,276	\$42,458	\$54,996
Ventura	\$50,091	\$59,666	\$72,984
San Diego	\$35,022	\$47,067	\$60,970
Sacramento	\$32,297	\$43,816	\$55,822
San Francisco	\$33,414	\$55,221	\$65,519
San Jose	\$48,115	\$74,335	\$83,074
Fresno	\$26,377	\$34,725	\$44,979

Source: California Association of Realtors, Federal Reserve, Freddie Mac, Bureau of Labor Statistics, U.S. Census.

NOTE: Figures for the Inland Empire are a population-weighted average of figures for Riverside and San Bernardino counties. Median incomes for 1990, 2000, and 2008 reflect 1989, 1999, and 2007 median household incomes respectively. Annual income required is calculated by assuming that a family will use 40 percent of their income for housing mortgage costs. Mortgages are assumed to be 30-year fixed-rate mortgages priced at the prevailing interest rate for the quarter. Families are assumed to provide a 10 percent downpayment. Hourly wage figures are based on annual income required and a 1920 hour annual workload.

Table 2. Permits issued by decade in California

	<u>Structures</u>		<u>Units</u>	
	<u>Sum</u>	<u>Annual Average</u>	<u>Sum</u>	<u>Annual Average</u>
1980s	65,035	6,504	775,149	77,515
1990s	16,478	1,647	222,142	22,214
2000-2007	17,969	2,246	325,342	40,668

Source: U.S. Census Bureau.