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THE SQUEEZE ON THE MIDDLE CLASS

CENTER FOR DEMOGRAPHICS & POLICY RESEARCH BRIEF CHAPMAN UNIVERSITY



CALIFORNIA FEUDALISM THE SQUEEZE ON THE MIDDLE CLASS

by

Joel Kotkin and Marshall Toplansky



2018

CENTER FOR DEMOGRAPHICS & POLICY RESEARCH BRIEF CHAPMAN UNIVERSITY

"Demographics is destiny" has become somewhat an overused phrase, but that does not reduce the critical importance of population trends to virtually every aspect of economic, social and political life. Concern over demographic trends has been heightened in recent years by several international trends notably rapid aging, reduced fertility, large scale migration across borders. On the national level, shifts in attitude, generation and ethnicity have proven decisive in both the political realm and in the economic fortunes of regions and states.

The Center focuses research and analysis of global, national and regional demographic trends and also looks into policies that might produce favorable demographic results over time. In addition it involves Chapman students in demographic research under the supervision of the Center's senior staff. Students work with the Center's director and engage in research that will serve them well as they look to develop their careers in business, the social sciences and the arts. They will also have access to our advisory board, which includes distinguished Chapman faculty and major demographic scholars from across the country and the world.

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The Henley Social Science Research Lab supports undergraduate and faculty research through a variety of programs. Research assistants staff the lab five days a week and can help faculty with the collection and analysis of date. They are also available to support students by providing tutoring in SPSS, GIS and quantitative methods for courses that include this content. The lab also encourages and facilitates interdisciplinary research with the creation of faculty work groups and serves as a resource for the community and can provide consulting services. The Henley lab is pleased to provide consulting for local government and community groups.



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San Francisco city street

THE GREAT MIDDLE-CLASS SQUEEZE

"From the Beginning, California promised much. While yet barely a name on the map, it entered American awareness as a symbol of renewal. It was a final frontier: of geography and of expectation."

— Kevin Starr, Americans and the California Dream: 1850-1915 (1973)."

EXECUTIVE SUMMARY

California was built by people with aspirations, many of them lacking cultural polish or elite educations, but dedicated to hard work, innovation, family and community. A large number came from other countries or poor backgrounds: sharecroppers from the South, campesinos from Mexico, people fleeing communism and poverty in Asia, escapees from Hitler's Europe or Okies and others fleeing the dust bowl.

This proud legacy is threatened. California has now taken on an increasingly feudal cast, with a small but growing group of the ultra-rich, a diminishing middle class, and a large, rising segment of the population that is in or near poverty. Indeed, amidst some of the greatest accumulations of wealth in history, California has emerged as a leader in poverty, particularly among its minority and immigrant populations and throughout its interior. Something is clearly wrong with this picture. Yet our state leaders, and too many of our business and civic leaders, are convinced that California, far from being something of a cautionary tale, offers a great "role model" for the rest of the country.¹ The state's drift towards an ever more unequal, feudalized society, characterized by concentrated property ownership, persistent poverty levels, and demographic stagnation does not seem to concern our Sacramento leadership.

What needs to change? If we want to again be a place of opportunity for all, we need to dial down California's increasingly expensive, messianic land use and climate change policies, which have dramatically increased housing and energy costs, forcing individuals and companies elsewhere. This will allow us to develop more housing and midd le-class jobs, especially in more affordable areas such as the Central Valley and the Inland Empire. A dramatic reform of our education system, which underserves our next generation, particularly in poor and minority communities, needs to be enacted. Other steps, like investing in basic infrastructure-roads, dams, electric transmission-could boost the flagging blue collar economy of the state.

"California has now taken on an increasingly feudal cast, with a small but growing group of the ultra-rich, a diminishing middle class, and a large, rising segment of the population that is in or near poverty"

California's Recent Evolution

California's economic diversity, which spans agriculture, home-building, aerospace, entertainment and tech, has long provided enormous opportunities for a broad range of residents. Even as recently as the 1996-2006 period, California job creation was well-distributed in terms of regions, job types and incomes. The recovery after the great recession, which hit California more profoundly than it did the rest of the country,

(Figure 1) The Bay Area became California's engine of employment growth from 2007-17, growing at twice the state's average. In the decade prior to that, which included the "Dot Com/Tech Wreck", It grew at one-fifth the level of the rest of the state

	1997-2007	2007-2017						
Employment Growth								
California Excl. Bay Area	2,170,835 859,217							
Bay Area	90,250	488,692						
California Total	2,261,075	1,347,908						
Percent Employment Growth								
California Excl. Bay Area	20.9%	6.8%						
Bay Area	3.2%	16.9%						
California Total	17.1%	8.7%						

Sources: Compiled from U.S. Bureau of Labor Statistics, Current Employment Statistics, 1997-2017, Total Nonform Employment, Annual Averages (Not Seasonally Adjusted), extracted from https://www.bls.gov/data/, accessed March 2018. The BLS CES aggregates data for the Bay Area in three regions, San Francisco Redwood City-South San Francisco, San Jose-Sunnyvale-Santa Clara, and Oakland-Hayward-Berkeley

created a far more narrow, weak, and geographically constrained economy² (Figure 1).

Today California's economy is dominated by a handful of Bay Area tech firms that have expanded at one of the most dynamic paces in economic history. Most of these companies are in a relatively constrained geography along the San Francisco Peninsula. Together, these tech firms—Apple, Netflix, Facebook, Google—along with Microsoft and Amazon, have achieved a combined net worth equal to one-quarter of the NASDAQ and equal to the GDP of France. The S&P 500, the broad index of stocks, has a total market capitalization of approximately \$24.2 trillion slightly more than the GDP of the country. They represent 15% of the entire S&P 500 companies' market capitalization.³

This has been a heady period for the Bay Area, with San Jose and San Francisco boasting the first and third highest average per capita income in the country.⁴ Between 2007 and 2016, according to an analysis of Bureau of Labor Statistics data, the Bay Area created 200,000 jobs that paid better than \$70,000 annually. Yet during that same period, high wage jobs dropped in Southern California and statewide; simply put, the Bay Area replaced the high wage jobs lost in the recession while the rest of the state did not⁵ (Figure 2).

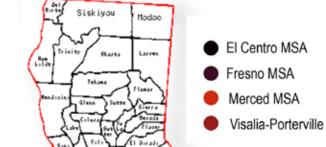
Part of the problem has been big losses in blue collar jobs, critical to the state's working class. California lost 423,700 manufacturing jobs between 1991 and 2016. Such jobs pay significantly better than the retail and service industry jobs that have characterized the postrecession growth.6 Minimum or near minimum wage jobs in 2015-6 accounted for almost two thirds of the state's new job growth, notes the state's Business Roundtable.7 These problems have arisen in "boom times," so we should be particularly concerned about what will happen if, as appears likely, the economy slows.⁸ By late 2017 California's GDP growth rate, once well above the national average, was beginning to fall below it.⁹ Growth in high wage sectors like professional and business services is now slower in Silicon Valley and San

Francisco than in boomtowns such as Nashville, Dallas-Fort Worth, Austin, Orlando, San Antonio, Salt Lake City, and Charlotte (Figure 3). Most California metros, including Los Angeles, fell in the bottom half of the rankings.¹⁰

The Geography of California's New Feudal Order

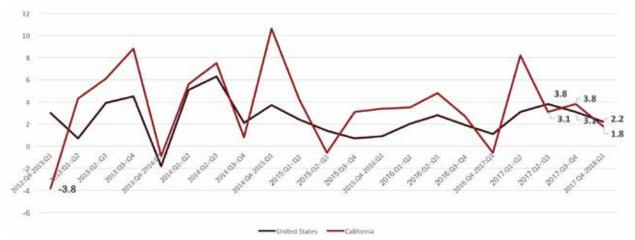
California over the past decade has created great, perhaps even unprecedented wealth, but it has done so in a way that has offered few benefits to the middle and working classes. Under Governor Jerry Brown's father, the late Governor Edmund G. Brown, California emerged as a simultaneously capitalist and admirably social democratic society. Brown's biographer, Ethan Rarick, described his leadership as having made the twentieth century into "The California Century," with our state providing "the template of American life." There was an 'American Dream' across the nation, he noted, but here we had the 'California Dream.'11

Today's state agenda is turning the dream into something of a nightmare. California now suffers one of the highest



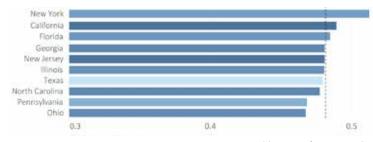




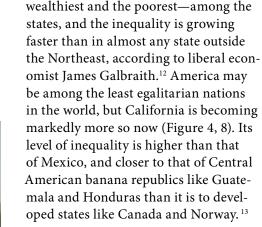


Sources: Bureau of Economic Analysis, U.S. Department of Commerce, updated July 24, 2018





Sources: U.S. Census Bureau, American Community Survey Table 19803 for 2016 and 2006 (1-year estimates), https://factfinder.census.gov, accessed July 2018



GINI rates —the ratio between the

The state's interior, as well as its far flung exurban and rural areas, have been especially vulnerable. Inland Empire economist John Husing suggests that the state's green policies have placed it "at war" with home building, energy, agriculture and manufacturing.14 This is particularly important in regions where many residents lack a college education. Educational achievement scoring by Wallet Hub shows that five inland areas, plus agriculturally oriented Salinas, rank among the 13 lowest out of 150 metro areas in the country.¹⁵ Unlike the far better-educated Bay Area, these regions have not built up jobs, information or business services that could replace the lost blue-collar positions.16

The shift in the economy has created a vast swath of poverty across portions

of the state. The Inland Empire—with a population of four million, nearly as many people as metropolitan Boston suffers among the highest poverty rates of any of the nation's 25 largest metropolitan areas.¹⁷ Among 229 metropolitan areas, notes a Pew study, three of the ten metropolitan areas with the lowest incomes in California's interior— Fresno, Merced, Visalia-Porterville and El Centro. Pew also found that three of the ten metropolitan areas with the highest proportion of low-income adults were also in the California's interior¹⁸ (Figure 2).

The contrasts between the state's regions are breathtaking. Eight of the 21 US counties with the largest number of households with incomes over \$200,000 are in California.¹⁹ Yet, California is also home to a remarkable 77 of the country's 297 most "economically challenged" cities, according to a scoring of poverty and employment data by the National Resource Network.²⁰ Los Angeles, by far the state's largest metropolitan area, has the among the highest poverty rates of major US metros.²¹

Poverty and the lack of opportunity are greatest in California's interior, but the problem is also substantial within affluent coastal counties. In the last decade, according to the Brookings Institution, among the nation's large cities inequality grew most rapidly in San Francisco; Sacramento ranked fourth.²² According to a recent study by the California Budget Center, San Francisco ranks first in California for economic inequality; average income of the top 1% of households in the city averages \$3.6 million, 44 times the average income of the bottom 99%, which stands at \$81,094.23

The most fundamental threat to the



Los Angeles

(Figure 2) Change in Employment By Wage Level, By California Region, and U.S, 2007 –2016

Area	High Wage Jobs Created				
Bay Area Counties	+201.3	+206.6	+407.8		
Southern California Coastal Counties	-41.1	-332.6	+291.5		
California - Statewide	-36.5	+1,108.1	+1,071.6		
USA	-192.2	+6,684.6	+6,492.4		

Sources: Bureau of Labor Statistics, Census, full years 2007 and 2016. Low wage defined as under \$30,000 in 2007 Mid wage defined as \$30,000-69,999 in 2007. High Wage as \$70,000 and above for all geographic areas in 2007.

middle class in California is the state's extremely high cost of living, which has largely been caused by unprecedented house price increases relative to household incomes. More than 80% of the higher cost of living in California is the result of higher housing costs.²⁴

California, adjusted for costs, has the overall highest poverty rate in the country, according to the US Census Bureau²⁵ (Figure 6). A recent United Way study showed that close to one in three of the state's families are barely able to pay their bills.²⁶ Fully one in three welfare recipients in the nation live in California, which is home to barely 12% of the country's population.²⁷

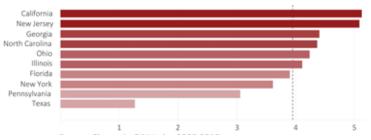
Even more tragic has been an explosion in homelessness, a problem which has declined in much of the rest of the country.²⁸ Los Angeles County has roughly 50,000 homeless people, up 23% since last year and 75% since 2000. San Francisco streets have become unhealthy, due to the presence of syringes, garbage and feces.²⁹

Today, eight million Californians live in poverty, including two million children.³⁰ Roughly one in five California children lives in deep poverty, states a recent report by the Public Policy Institute of California and the Stanford Center on Poverty and Inequality. This number has risen since the Recession, despite the boom. The report noted that 45.8% of California's children lived in or near poverty.³¹

The Housing Crisis: Key Driver of Future Feudalism

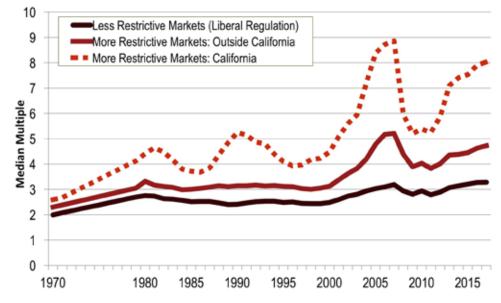
At its essence, feudalism was about hierarchy, and the domination of land ownership by a relative few. In the era that preceded feudalism, a strong, land-owning middle class played a critical role in, for example, the Greek democracy and the Roman Republic. Later, from seventeenth century Holland to US post-war

(Figure 2) Change in Employment By Wage Level, By California Region, and U.S, 2007 –2016



Sources: Bureau of Labor Statistics, Census, full years 2007 and 2016. Low wage defined as under \$30,000 in 2007 Mid wage defined as \$30,000-69,999 in 2007. High Wage as \$70,000 and above for all geographic areas in 2007.

(Figure 8) California & the United States Compared Middle-Aged Income Housing Affordablity: 1970–2017



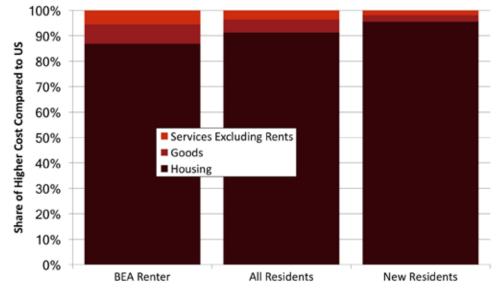
Sources: Census Bureau, Harvard University and Demographia

One indication: the home used by the middle-class Brady Bunch was recently sold for just under two million.

suburbia, dispersed ownership of land was a critical component of dispersed wealth and power and the strengthening of the middle orders. Property remains key to financial security: Homes today account for roughly two thirds of the wealth of middle-income Americans³² (Figure 8).

Before 1970, California home prices (adjusted for incomes) were at about the national average; houses in California were barely 10% more costly than nationally.³³ But the state has imposed increasingly draconian curbs on housing growth, particularly in the suburban fringes. In the major metropolitan areas since 2010, 40% of the population growth has been in the outer suburbs and exurbs, and less than 10% in the urban core favored by California's policies.³⁴ With the constraint on new suburban housing tracts, California prices have skyrocketed by an inflation-adjusted 210%, three times the post-1969 national average. One indication: the home used by the middle-class Brady Bunch was recently sold for just under two million.³⁵ High housing costs plus rising taxes have eroded the financial position of California's middle-class residents far more than it has hurt their counterparts in other states (Figure 8A).

This trend likely will continue if the state keeps opposing new suburban development.³⁶ Meanwhile, the regulatory structure is worsening. Local governments have imposed regulatory fees that typically add upwards of \$50,000 to the cost of building a new home, two and half times the national average. New state demands for "zero emissions" homes promise to boost this by an additional \$25,000. These kinds of policies have tended to raise prices both elsewhere in the US and abroad.³⁷ The raw cost of meeting California's green



(Figure 8A)Share of Higher Cost of Living by Factor Los Angles, San Francisco, San Diego, & San Jose.

Sources: Estimated from Dept. of Commerce Data

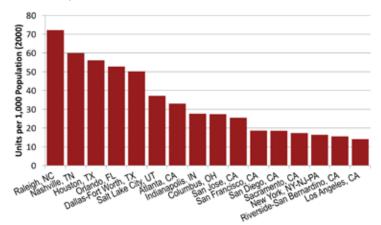
requirements adds an estimated \$150,000 per unit and enmeshes construction projects in years of red tape before approval.³⁸ Nationally homebuilders suggest preconstruction costs in California adds up to 42.6 percent of costs compared by 32 % nationally.³⁹

Perhaps the most pernicious result of these policies has been to constrain housing production for the single-family homes preferred by most families. Although much wealth has been created and the population has continued to grow, albeit slowly, housing construction has lagged. California built about 90,000 fewer houses annually from 1980 to 2010 than was necessary to adequately provide for population growth, according to the Legislative Analyst.40 This is a problem that seems unlikely to be solved quickly. California's rate of issuing building permits for both single and multi-family housing remains well below the national average, particularly compared to prime competitor states, such as Texas (Figure 9).41

The unintended result has been to turn

California home ownership from a middle-class staple into a luxury item reserved for the affluent. The income needed to purchase the median priced house in the state has soared. According to the National Association of Realtors, it takes an income of \$318,000 to qualify for the median priced house in San Jose, \$242,000 in San Francisco, and \$146,000 in the San Diego metropolitan areas. In Orange County, it takes \$126,000; it is

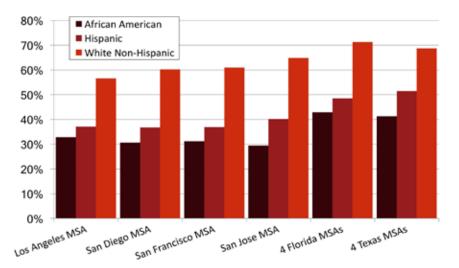


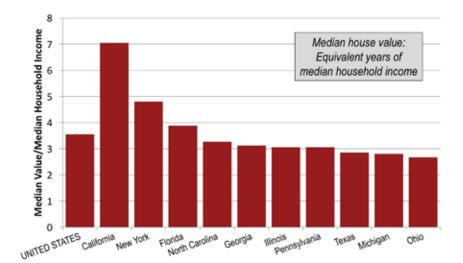


Sources: Derived from Census Bureau data (Texas A&M Real Estate Center)

(Figure 10) Home Ownership Rates Compared California Coastal, Florida, & Texas Major MSA's

Sources: Derived from American Community Survey 2016



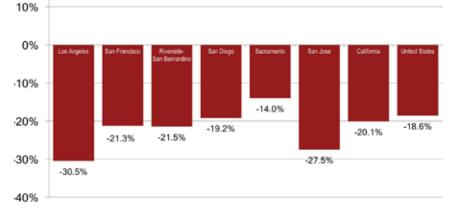




Sources: Derived from ACS 2016



Sources: Derived from Census Bureau data



\$160,000 in Los Angeles County. These figures are from double to five times the national average^{42, 43} (Figure 10).

Perhaps even worse, the biggest differential between California's prices and national averages occurs at the low end, which is where people traditionally enter the market. Not surprisingly, California now has among the overall lowest homeownership rates of any state (Figure 10A). Out of the 75 largest metropolitan areas, San Jose has the lowest homeownership rate in the country, Fresno is 73rd, Los Angeles 72nd, San Diego 71st and San Francisco 66th. Housing policy is quietly reducing the growth of the state's middle class by essentially removing many from even the remote possibility of buying a house.44

Who Loses Out? Millennials

The housing crisis has been felt most by those who will shape our future, minorities and millennials. Californians who are between 25 and 34 years old suffer the third lowest homeownership rate (25.3%) in the country, one-third below the national average, ahead only of New York and Hawaii.45 In San Francisco, Los Angeles and San Diego, according to Census Bureau data, the 25-34 home ownership rates range from 19.6% to 22.6%, approximately 40% below the national average (Figure 11). Since 2010 these areas have experienced far more rapid declines in millennial homeownership than the national average and many key competitive metropolitan areas.

The problem for millennials lies primarily in a toxic combination of high costs and relatively low salaries. California millennials on average earn about the same as their counterparts in less expensive states such as Texas, Minnesota and Washington.⁴⁶ But California millennials generally shell out more for rent or a down payment. According to *Zillow*, for workers between the ages of 22 and 34 rent costs claim upwards of 45% of income in Los Angeles and San Francisco, compared to closer to 30% of income in Dallas-Fort Worth or Houston (Figure 12). In Los Angeles and the Bay Area, a monthly mortgage takes, on average, close to 40% of income, compared to 15% nationally.⁴⁷

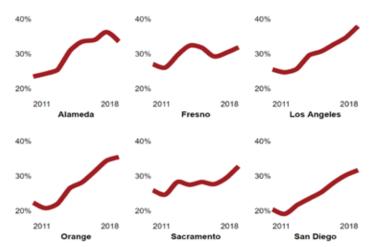
More and more, the key lies in winning the birth sweepstakes through inheritance. As prices have risen, more buyers have become dependent on money from parents and relatives; roughly one in three new loans in California depend on resources from family, up from one in four just in 2011. In Los Angeles and Orange Counties, close to 40% of loans are based on family money, up from 25% in 2011. Nationally the rate is 26%⁴⁸ (Figure 12).



 Homeless Woman in San Fransisco

(Figure 12) More Than 35% Of Home Mortgages Require Family Assistance for Down Payments in California, Double the U.S. Rate

Percent of family-assisted down payments for FHA loans, by county



Sources: County-level data via HUD: current through May 2018 https://www.scpr.org/ news/2018/07/31/85109/where-do-people-get-money-to-buy-california-homes/

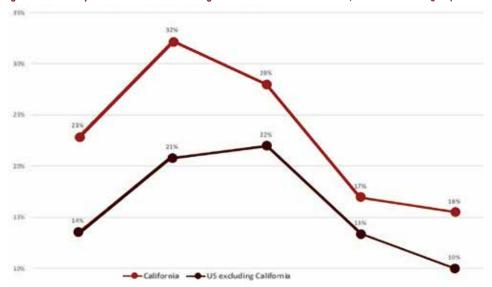
The Minority Dilemma

Some see proudly multicultural California, where Hispanics and African Americans constitute 45% of the total population, as the model for future diversity and inclusiveness. Yet, despite California's wealth and promise, it has begun a very real retreat from the middle-class growth that helped to make it a promised land for so many minorities. Almost one third of the state's Hispanics and one fifth of African-Americans, notes the United Way, hang on the edge of poverty (Figure 13). Based on cost-of-living estimation tools from the Census Bureau, 28% of African-Americans in the state live in poverty, compared with 22% nationally.49

Hispanics, the state's largest ethnic group, are projected to comprise close to a majority of the population by 2050.⁵⁰ Fully one-third of Latinos live in poverty, compared with 21% that do so outside of the state. Over two-thirds of non-citizen Latinos, the group most loudly defended by the state's progressive leadership, live at or below the poverty line⁵¹ (Figure 14). Although they make up only 39% of the state's population, Latino men, women and children constitute almost 53% of California's poor.⁵²

For California's historically disadvantaged minorities, property ownership is becoming more difficult. Although some kids from wealthy families—primarily white non-Hispanics or Asians—can purchase houses with parental help, many Latinos and blacks lack those resources and are increasingly priced out of the market⁵³ (Figure 15). California's white Non-Hispanic homeownership rate remains above 62 percent, but just 42% of all Latino households, and only 33% of all black households own their own homes.⁵⁴

High rents and housing prices have forced many minorities to live in deplorable conditions. One in four Angelinos, according to a recent UCLA study, spends half their income on rent, the highest of any major metro.⁵⁵ The California rate of overcrowding is roughly twice the national average.⁵⁶ Los

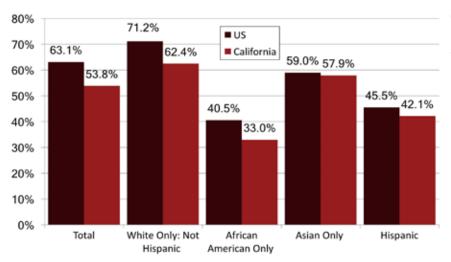


(Figure 13) Poverty rates in California are higher than in the US as a whole, across all ethnic groups

Sources: CPS Table Center, https://www.census.gov/cps/data/cpstablecreator.html for official and NASbased estimal, Consumer Expenditure Survey (CE)-based threshold and NAS income less medical out of pocket expenditure (see https://www.census.gov/cps/data/povthresholds.html) and geographic price difference adjustment. Angeles County, where the population is nearly 60% Latino or African-American, suffers the highest level of households with "severe overcrowding" (at least 1.5 persons per room) of any major metropolitan area. California's overcrowding rate is the nation's second-worst.⁵⁷

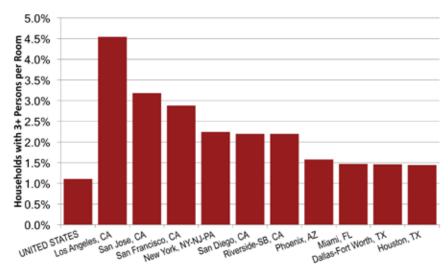
Migration Trends

Recent migration patterns reflect this growing squeeze on California middle and working-class families. Net outmigration, after declining during the early years of the recession, has more than tripled since 2014 (Figure 16). Even worse, according to a recent UC Berkeley study over a quarter of Californians are considering a move, half of them out of the state, with the strongest proclivity found among people under 50.⁵⁸



(Figure 14) Home Ownership: California & US 2016: Total & 4 Largest Ethnicities

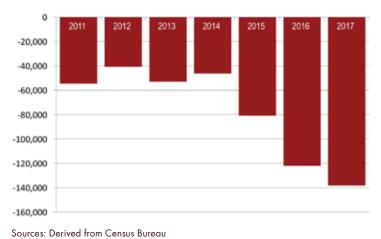
Sources: Derived from Census Bureau data

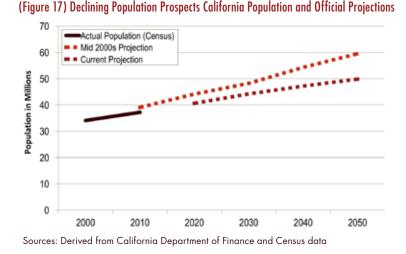


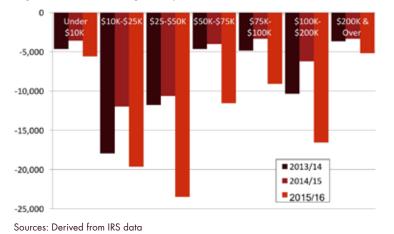
(Figure 15) Highest Severe Overcrowding Rates States & DC: 2016

Sources: Derived from ACS 2016









(Figure 18) Net Domestic Migration by Income Cakifornia: 2013/14 to 2015/16

This is occurring as California's population growth, once among the nation's highest, fell short of expectations and below the national average last year ⁵⁹ (Figure 17). As recently s a decade ago, the California Department of Finance (DOF) was projecting a population of nearly 60 million by 2050. Slowing growth led DOF to reduce the 2050 projection by nearly 10 million based on the 2010 Census count.⁶⁰

Who Leaves?

Of course, population growth itself does not guarantee prosperity, but there are some disturbing trends. The state's boosters and the administration itself like to talk as if California is simply giving itself an enema to expel its waste, while making itself an irresistible beacon to the best and brightest.⁶¹

The reality, however, is more complicated. An analysis of IRS data from 2015–16, the latest available, shows that while 56% of those who left the state had incomes under \$50,000 annually, 44% were at levels above that. Roughly one in four had an income of over \$100,000. This wealthiest segment left the state at almost the same rate as those with in the lower income strata in recent years the out-migration of middle and even wealthy people has grown dramatically⁶² (Figure 18).

Perhaps even more troubling has been the age of those leaving. Rather than largely a migration of people headed towards retirement, the strongest out-migration has been concentrated among people in and around childbearing years, most notably the 35 to 44-year-old cohort (Figure 19). Again, this trend has become more pronounced in the most recent figures.

The loss of young families is reflected in a decline in perhaps the greatest

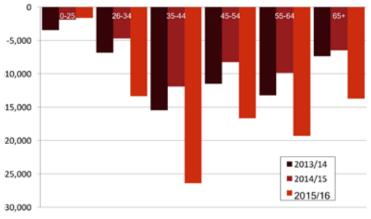
indicator of societal vitality: family formation and children. After years of above average rises in its number of children, California now suffers its lowest crude birth rate since 1907. Los Angeles and San Francisco ranked among the bottom 10 in birthrates among the 53 major metropolitan areas in 2015⁶⁴

High-tech Feudalism

In a way not seen since the land consolidation of the Middle Ages when lords established military control, or perhaps since the early days of the industrial revolution, the shift to a digital economy has created an enormous accumulation of wealth.65 Technology has been a major force in California for decades, but the current surge, and its extraordinary concentration, is unprecedented. In the five years from 2013 to June 2018, five technology companies grew in value by \$2.7 trillion, the fastest increase in growth over a five-year period in American financial history (Figure 20). The value of these five stocks is the equivalent of almost 20% of the value of US GDP. In the history of the S&P 500, the top five companies have never been in the same industry. According to stock market analyst Michael Batnick, in past eras, even though we may have seen similar or higher percentages of concentration among the top five, they have been from diversified industries.66

The clustering of so many top firms in Silicon Valley-San Francisco Bay Area has generated an extraordinary, and youthful, coterie of the ultra-rich. Some 70% of the 56 billionaires under 40 live in California, with 12 in Francisco alone. As the tech firms exploit their quasi-monopolies and enjoy exceedingly high profits, costs are unlikely to make them go elsewhere.⁶⁷

(Figure 19) Net Domestic Migration by Age California: 2013/14 to 2015/16

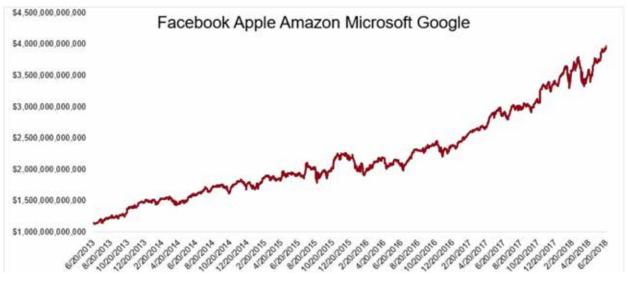


Sources: Derived from IRS data

The late futurist Alvin Toffler optimistically saw these tech firms critical to creating "the dawn of a new civilization," with vast opportunities for societal and human growth.⁶⁸ Instead, the tech economy seems to be creating greater inequality, including in its Bay Area base. We may instead be heading gradually towards what the Japanese futurist Taiichi Sakaiya described as "a hightech middle age," where only a wealthy few control the commanding heights of the economy and political life. ⁶⁹

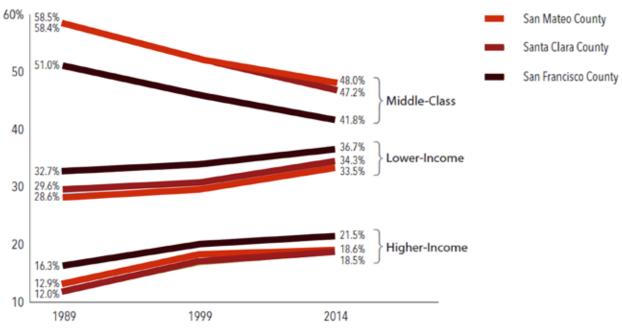
"The clustering of so many top firms in Silicon Valley-San Francisco Bay Area has generated an extraordinary, and youthful, coterie of the ultra-rich."

This is a sad and dramatic change. As recently as the 1980s, note researchers Manuel Pastor and Chris Brenner, the San Jose area boasted one of the country's most egalitarian economies. Jobs in manufacturing, assembly, transportation and customer support helped middle, and even working-class families to achieve "the California dream." The '80s, (Figure 20) Top 5 Tech Companies Grew Market Value By \$2.7 Trillion in The Last 5 Years . . . The Largest and Fastest Increase In History



Sources: Source: NASDAQ Stock market data, Yahoo Finance

(Figure 21) Middle-Class Households in Silicon Valley Are Being Replaced With Low- and Upper-Income Household Share of All couty Households, by Income Segment, 1989 to 2014



Source: Budget center analysis of US Census Bureau data

they said, were "good times for growth and equity in Silicon Valley."⁷⁰

The shift of employment from industrial to software industries has meant fewer opportunities for assemblers and other blue-collar workers. Over the past century, Silicon Valley has greatly expanded in information jobs, but it has lost over 160,000 manufacturing positions.⁷¹ The new software companies simply need fewer workers per dollar than traditional tech firms do; their revenues per employee are two to three times those of, for example, Intel.⁷² They also often employ non-citizens on temporary visas, who now constitute upwards of 40 percent of their workforce.⁷³

"Ultimately," note Pastor and Brenner, "what has emerged is a region that our key informants almost universally described as fragmented and divided, with the high-tech community largely isolated from the broader region and particularly those parts of the region that are less fortunate"⁷⁴ (Figure 21). The valley may be minting money for some tech workers, but, as a Joint Venture Silicon Valley report showed, incomes have declined for the largely working class Latino and African American population.⁷⁵

Urban website CityLab has described the Bay Area as "a region of segregated innovation," where the rich wax, the middle class wanes, and the poor live in increasingly unshakable poverty.⁷⁶ Some 76,000 millionaires and billionaires call Santa Clara and San Mateo counties home. At the other end are the thousands of people who struggle to feed their families and pay their bills each month. Nearly 30% of Silicon Valley's residents rely on public or private assistance⁷⁷ (Figure 22).

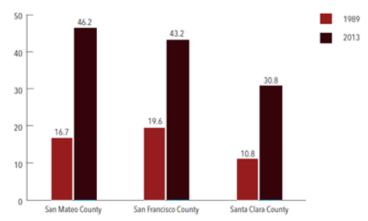
Under current circumstances, we can expect more of the same. The regional

planning agency projects that barely one in five future jobs will be middle income; the rest will be at the lower end.⁷⁸ At the same time, housing prices are so high that even many Google and Apple engineers are unable to afford a house in the area. Recruiting new workers has become increasingly difficult.⁷⁹ In a 2014 survey of more than 200 business executives conducted by the Silicon Valley Leadership Group, 72% of them cited "housing costs for employees" as the most important challenge facing Silicon Valley businesses.⁸⁰

Brave New Valley?

The society that Silicon Valley epitomizes seems increasingly like that in Aldous Huxley's *Brave New World*. Those at the top, the Alphas, live in comfort. Families have been abolished except on reservations for misfits, and people widely enjoy a remarkable access to pleasurable pharmaceuticals and unconstrained, commitment-fee sex in the city.

Huxley's future eerily resembles the one favored by the oligarchs. As author Greg Ferenstein notes, they house their workers in a largely childless college campus



(Figure 22) In The Bay Area, Top 1% Earn Between 31 and 47 Times More Than The Bottom 99%. In 1989, It Was Between 11 and 17 Times

Sources: Keystone Research Center analysis of Franchise Tax Board, Intrnal Revenue Service, Thomas Piketty and Emmanuel Saez (2003), US Bureau of Economic Analysis, and US Cenusus Bureau data

Homelessness in Los Angeles



environment, and they will pay women workers to freeze their eggs. They are serviced by low-wage workers—the Deltas, Gammas and Epsilons of Huxley's world—largely imported from the suburban fringes; in the Bay Area, the largest rise in poverty tends to be in exurbs or suburbs, far from the best job opportunities.⁸¹ In some ways, this also has a historic aspect, recalling the cities of New Spain where, in late feudal fashion, the upper class clustered in the desirable city area serviced by native Mexicans forced to live on the periphery.⁸²

This increasingly class-bound society is not ideal for the very kind of ambitious upstart who has played such a glorious role in the valley's history. As tech has become one of the most concentrated industries, many startups are formed in large part to be acquired. The historic startup culture, suggests *The Economist*, is being strangled by oligarchic domination.⁸³ Notes one online publisher about his firm's relationship with Google.

If you're a *Star Trek* fan, you'll understand the analogy. It's a bit like being assimilated by the Borg. You get cool new powers. But having been assimilated, if your implants were ever removed, you'd certainly die. That basically captures our relationship to Google.⁸⁴

Not surprisingly, the oligarchs have little trouble with this kind of relationship. Rather than expect their workers or consumers to grow and achieve greater independence, notably by owning houses and starting companies, they reject the idea of dispersing wealth. Gregory Ferenstein, who interviewed 147 digital company founders, says most believe that "An increasingly greater share of economic wealth will be generated by a smaller slice of very talented or original people. Everyone else will increasingly subsist on some combination of parttime entrepreneurial 'gig work' and government aid."85 Such part-time work has been growing rapidly, accounting for roughly 20 percent of the workforce in the US and Europe and is expected to grow substantially, notes McKinsey.86

To keep the hoi polloi in line, numerous oligarchs—Mark Zuckerberg, eBay founder Pierre Omidyar, Elon Musk and founder of seed funding firm Y Combinator Sam Altman- have embraced ideas that mirror policies in early industrial Britain that offered a 'proletarian alms bag' to keep the masses from starvation and off the street. These ideas include, of course, not stripping their own wealth, but having taxpayers provide guaranteed wages, health care, free college and housing subsidies. This also has the virtue of helping them expand the use of 'gig workers,' who do not receive benefits from their employers. Low-paying and inconsistent gig economy jobs are one of the prime reasones for rising poverty in the Bay Area.⁸⁷

For the next generation, such handouts, including housing subsidies, promise a

future not of owned houses, but of rented apartments. The oligarchs have tried to push legislation that would allow developers to build such structures even when they are opposed by neighborhoods and violate established zoning.⁸⁸ Unable to grow into property-owning adults, these workers will subsist as rental serfs.⁸⁹

"Low-paying and inconsistent gig economy jobs are one of the prime reasons for rising poverty in the Bay Area."

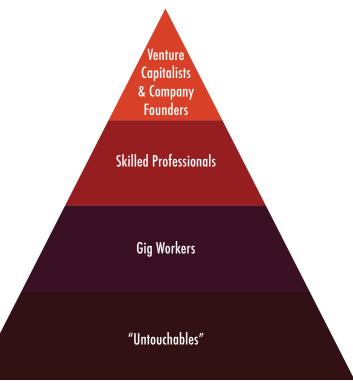
Wired magazine's Antonio Garcia Martinez has labeled this, 'feudalism with better marketing." In Martinez's view, above all is the new aristocratic class, "...an inner party" of venture capitalists and company founders.⁹⁰ Well below them is an "outer party" of skilled professionals, well paid, but given high prices and taxes, living ordinary middle-class lives. Below them lies the vast population of gig workers, whom Martinez compares with sharecroppers in the south, "...with the serfs responding to a smart phone prompt rather than an overseer's command." Further below still lie those who constitute, in Martinez's phrase, "the Untouchable class of the homeless, drug addicted, and/or criminal."

He describes a society that, as in the Middle Ages, is, "…highly stratified, with little social mobility."⁹¹ High prices make it all but impossible for those who are not highly affluent to own their homes. Workers in the gig economy, much less the "untouchables," have little chance to improve their lot.⁹²

Slowing Feudalism's Bright Future

California's policy choices are important, not just for us but for the whole country. For better or worse, the nation's progressive intelligentsia sees in our current politics the future of the country. As Peter Leyden and Ruy Teixeira recently suggested, our state is in the vanguard of every positive trend, from racial diversity and environmentalism to policing gender roles. "California," they wrote recently in *Medium*, "is the future of American politics."⁹³

If this is so, feudalism will have a bright future, not only here but across the country. The state has upped its greenhouse gas goals to well above those of the Paris accords, a seemingly impractical level. It has even committed to removing all fossil fuels from its electricity grid, a policy that seems almost certain to boost energy prices even higher.⁹⁴ The new mandate for solar on new houses, for example, could increase house prices, already at absurd heights, by another \$20,000 without doing much to reduce greenhouse gas (GHG) emissions, notes Mike Shellenberger.⁹⁵



Overall, California's green regulators predict that the implementation of ever-stricter climate rules will have a "small" impact on the economy, pointing to strong aggregate economic and job growth in recent years.⁹⁶

Yet this view has been utterly devastated by a new study from Chapman University, in which coauthors David Friedman and Jennifer Hernandez demonstrate that California's draconian anti-climate-change regime has exacerbated economic, geographic, and racial inequality.⁹⁷ The primary impact of climate regulations, as laid out by Friedman and Hernandez, has been to chase away historically well-paying jobs in manufacturing, energy and home building, all key fields for working- and middle-class Californians.

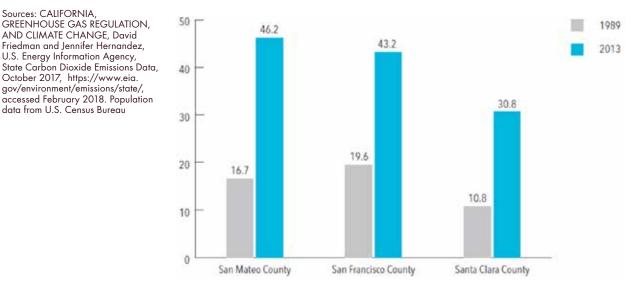
And to make things worse, California's efforts to save the planet have done little more than divert GHG emissions to other states and countries.⁹⁸ Since 2007, when the Golden State's landmark global-warming legislation was passed, note Hernandez and Friedman, California has accounted for barely 5% of the nation's GHG reductions (Figure 23). Over that

time the state has ranked a mediocre 35th nation-wide in GHG reductions.

And given that in 2010 the state accounted for less than 1% percent of global GHG emissions, the disproportionately large reductions sought by state activists and bureaucrats would have no discernible effect on global emissions under the Paris Agreement. "If California ceased to exist in 2030," Friedman and Hernandez note, "global GHG emissions would be still be 99.54% of the Paris Agreement total."

Housing and Energy

Rather than preen about their policies, California policymakers should be able meet the strong goals of the Obama Administration, but not in ways that damage the states already beleaguered middle and working classes. Instead of imposing policies that are marginally helpful or even harmful, California could encourage biomass use, and clean up the state's vast forested areas—some 33 million acres—which could provide renewable energy and reduce the excessive emissions from wildfires caused by years of forest mismanagement.⁹⁹



(Figure 23) In The Bay Area, Top 1% Earn Between 31 and 47 Times More Than The Bottom 99%. In 1989, It Was Between 11 and 17 Times

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(Figure 24) California Has The Second Highest Electricity Rates In The Continental U.S.

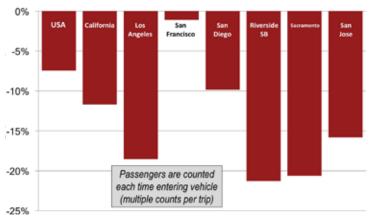
Sources: Table 5.6.A. Average Price of Electricity to Ultimate Customers by End-Use Sector, U.S. Energy Information Administration

Overall, California needs to reappraise its energy agenda. Going 100% renewable by 2045, as the state recently mandated, is likely to boost energy costs even higher, and put more strains on middle and working class households.100 The state's aggressively green policies, including a shift from nuclear and natural gas to renewable energy, have pushed California industrial electricity rates to a level that is twice as high as those in such competitor states as Nevada, Arizona and Texas. In early 2018, state electricity prices were 58% higher, and gasoline over 90 cents per gallon higher, than the national average¹⁰¹ (Figure 24).

These high prices have been particularly devastating to traditional blue-collar industries. Manufacturing employment, highly sensitive to energy-related and other regulations, has declined by 160,000 jobs since 2007. California has benefited far less from the national industrial resurgence, particularly this past year. Manufacturing jobs—along with those in construction and logistics, also hurt by high energy prices—have long been key to upward mobility for non-college-educated Californians.¹⁰² Such costs also put stress on many poorer households, particularly in the interior, where roughly 15% percent of residents live under conditions of "energy poverty."¹⁰³

Similarly, policy-makers should work to increase housing supply on the periphery, as was common until the early 1970s. State officials insist, for example, that density will reduce carbon emissions while improving affordability and boosting transit use. Yet, as Los Angeles has pursued densification under state and regional policies, housing prices and rents have soared, but transit ridership has continued to drop.¹⁰⁴ A UCLA report explains one factor has been the incentives for real-estate speculation that have driven the area's predominantly poor

"Overall, California needs to reappraise its energy agenda."



(Figure 25) Transit Boardings: FY 2014-2018 Largest California Urban Areas & National

Sources: Derived from ACS 2016



 Homes in San Fransisco

transit riders further from trains and buses, forcing many to purchase cars ¹⁰⁵ (Figure 25).

To allay concerns about housing affordability, the state has allocated about \$300 million from its cap-and-trade funds for housing, a meager amount given that the cost of building affordable housing in urban areas can exceed \$700,000 per unit.

More efficient ways to improve housing options clearly lie in the marketplace: In suburban development, and in redevelopment of retail vacancies and large areas of undeveloped or underdeveloped urban lands. Despite the rhetoric from some urban containment advocates, California has lots of open land. Barely 5% of the state is developed, including all the suburbs and exurbs, and California has the highest urban densities in the nation, even higher than New York. ¹⁰⁶

There is no inherent contradiction between suburban development and sustainability. To implement solar power, for example, British economist Hugh Byrd notes that spread-out suburbs and their rooftops are far better suited than denser forms.¹⁰⁷ Suburban growth could also prove to be a better environment for maintaining wild animal populations that cannot survive in denser areas. Alan M. Berger, co-director of the MIT Norman B. Leventhal Center for Advanced Urbanism, has noted that the suburbs millennials will likely inhabit will be different than those of today: more walkable, environmentally sustainable, and eventually connected by autonomous technologies.¹⁰⁸

Re-Imagining the Future of California

Californians have many reasons to seek change, if not for themselves, for the next generation. A recent Dornsife/ Los Angeles Times poll found that only 17% of Californians believe the state's current generation is doing better than previous ones. More than 50% thought 18-30-year-old Californians were doing worse.¹⁰⁹ Most Californians, both liberal and conservative, have expressed concern about the state's inequality, and a majority, despite the 'boom,' expressed dissatisfaction with the economy.¹¹⁰

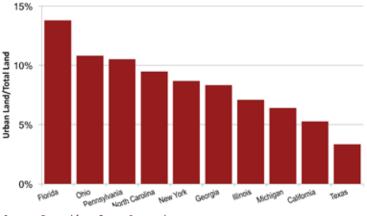
One critical priority is to consider policies that allow interior counties with very different populations and economic challenges to employ more growth-friendly policies. However impressive the wealth creation in Silicon Valley, the state cannot thrive with its aristocracy living in coastal splendor while as much as one-third of the population lives amidst long-term, persistent poverty (Figure 27). Organized labor, at least on the private side, seems to have seen this issue: California cannot succeed based only on high-wage tech jobs and low-wage service ones Yet today the state projects that only two of the fifteen fields expected to grow by 2026 would be high-wage, and the average pay will be \$41,000, barely a living wage in a high cost state.¹¹¹

Sadly, the state is driving regions to adopt policies that could exacerbate

feudal patterns. The 2040 regional plan for the Bay Area ("Plan Bay Area") calls for 75% of new housing development to take place on barely 5% of the land mass, all but guaranteeing high prices. One alternative scenario assumes that 78% percent of new housing in the Bay Area would be multi-family and 22% single-family (detached and attached). The clear majority of new housing would be rentals.¹¹² This approach will not do much to address climate issues: A recent UC Berkeley study suggests that enforced densification would save less than 1% of the new 2030 reductions mandated by the state, something statistically meaningless compared with current annual worldwide emissions of 49,000 million metric tons (Figure 26).¹¹³

This doubling down on the state's current housing agenda represents a threat to the future of middle-class families in the state. Some proposals, supported in large part by tech oligarchs, addressed these shortages by stripping local governments of their ability to control high-density housing in their areas, an attempt that elicited widespread opposition even in progressive cities like Los Angeles, San Francisco and Berkeley.¹¹⁴ Opposition to dense development remains strong in many coastal communities, including Silicon Valley. Similarly, the notion

(Figure 26) Urbanization as a % of Total Land Area 10 Most Populous States: 2010



Sources: Derived from Census Bureau data

Occupational Title	Projected Year Employment Estimate 2026	Numeric Change 2016-2026	2018 First Quarter Wages	2018 First Quarter Annual Salary
Total, All Occupations	20,022,700	1,933,100	\$20.14	\$41,901
Office and Administrative Support Occupations	2,659,500	79,600	\$18.81	\$39,132
Sales and Related Occupations	1,807,000	68,900	\$14.91	\$31,001
Food Preparation and Serving Related Occupations	1.752.109	216.000	\$12.13	\$25,232
Personal Care and Service Occupations	1,389,700	303,600	\$12.03	\$25,026
Management Occupations	1,327,609	131,100	\$56.60	\$117,727
Transportation and Material Moving Occupations	1,265,400	145,700	\$15.52	\$32,260
Education, Training, and Library Occupations	1,179,300	104,400	\$26.60	\$55,302
Business and Financial Operations Occupations	1,143,500	121,800	\$36.28	\$75,454
Healthcare Practitioners and Technical Occupations	981,100	143,200	\$41.64	\$86,619
Construction and Extraction Occupations Production Occupations	903,400 899,600	139,000	\$26.15 \$15.09	\$54,394 \$32,651
Personal Care Aides	870,000	248,000	\$11.74	\$24,419
Computer and Mathematical Occupations	723,600	116,200	\$49.06	\$102,034
Building and Grounds Cleaning and Maintenance Occupations	645,100	60,100	\$14.47	\$30,108
Installation, Maintenance, and Repair Occupations	599,200	46,100	\$23.91	\$49,720

(Figure 27) Of The Top 15 Occupations Expected To Grow in California, only 2 are high-paying

Sources: Derived from IRS data

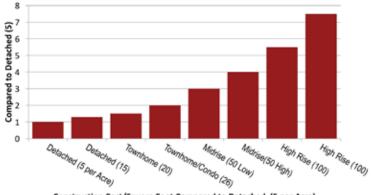
that more high density housing, widely favored by most urban theorists and planners, will relieve the state's affordability crisis, neglects to acknowledge that this kind of construction is up to five times as costly per square foot than lower-density construction¹¹⁵ (Figure 28). If there is one single accomplishment that could restore the friendliness of California to middle-income households, it is the restoration of historic middle-income housing affordability.

Infrastructure and Education

There also need to be other changes in state priorities. Once a model of educational success, California now ranks 32^{nd} in the country in educational performance, according to a 2018 *Education Week* report, despite the addition of \$31.2 billion since 2013 in new school funding.¹¹⁶

The state's poor students ranked 49th on National Assessment of Education Progress tests. California has among the low-

(Figure 28) Construction Cost by House Type San Francisco Bay Area



Construction Cost/Square Foot Compared to Detached (5 per Acre)

Sources: Derived from FBI Statistics: 2013, Major metropolitan areas (average).

est reading scores for 8th graders in the nation. Latino academic achievement is also generally lower than in the rest of the nation.¹¹⁷ In Silicon Valley, half of local public school students and barely one in five blacks or Latinos are proficient in basic math (Figure 29). San Francisco, which the nonprofit journalism site *Cal Matters* refers to as "a progressive enclave

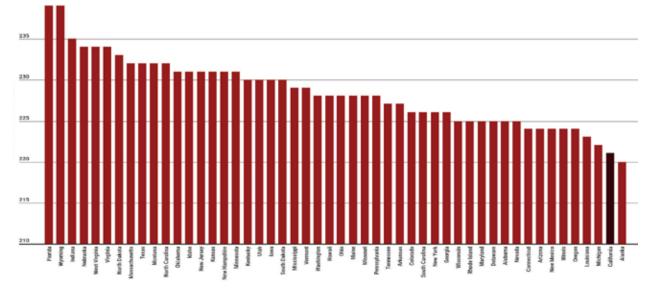
> "The state's poor students ranked 49th on National Assessment of Education Progress tests."

and beacon for technological innovation," had "the lowest black student achievement of any county in California," as well as the highest gap between black and white scores.¹¹⁸

While the state does have a strong sector of "gold and silver" public schools, most are in wealthy suburban locations such as Orange County, the interior East Bay, and across the San Francisco Peninsula. California's education system needs to focus more on skilled blue-collar jobs, an area in which it has failed miserably, so that people without elite educations can find decent work.¹¹⁹

A blue-collar focus should also extend to boosting basic infrastructure. This impacts the 'real' economy that provides opportunities for middle- and working-class families. California's superlative freeway system made possible the development of large, middle-class areas such as the San Fernando Valley, the South Bay and Orange County, and the spine of the San Francisco Peninsula, which eventually morphed into Silicon Valley.¹²⁰

But the current regime in Sacramento is not much interested in building new roads. It instead prefers that we go on a "road diet.¹²¹" This is based on the notion that if we make road conditions bad enough people will embrace transit. Yet, in recent years, billions have been spent



(Figure 29) California Students From Low Income Families Score At Bottom In 4th Grade Standardized Math Testing, Compared Other States

Sources: national Center for Educational Statistics, Maximum score is 500.

on transit, but ridership has increased at only one-third the rate of working at home, which now has a larger share of workers.¹²² We continue to fund an ill-conceived high-speed rail system with costs that have more than doubled since initial planning. Despite considerable scaling back, it is more than ten years behind schedule. As many as twothirds of Californians no longer want to fund it.¹²³ Meanwhile, the roads that we use are ranked among the worst in the country.¹²⁴

Greater amounts should be spent, as was done under Pat Brown, on basics like roads, bridges, and water storage, as well as on energy transmission and water pipelines. New technologies, an area in which California excels, should be pushed here first, including autonomous vehicles, expanded ride sharing in lieu of conventional transit, and desalinization plants.¹²⁵ Instead, Governor Brown and his advisors have been reluctant to build new water storage or roads in fear that they might induce the growth of communities, particularly in the interior parts of the state, that don't fit their green density model.¹²⁶

The new policy we embrace differs dramatically in who it wishes to serve: the state's middle and working classes as opposed to the oligarchs and well-placed pressure groups. Truckers and warehouses use roads. Factories need reasonable energy; farms and urban communities should expect reasonable water prices; droughts tend to impact smaller farming areas, such as those in the San Joaquin Valley or the Central Coast, with lots of poor people.¹²⁷

The Political Challenge

In a normal political environment, these policies would spark debate not only among conservatives, but among traditional Democrats. Recently, some 200 veteran civil rights leaders sued the California Air Resources Board (CARB), on the basis that state policies are skewed against the poor and minorities.¹²⁸ Last year, the first signs of a middle class push back were seen when a handful of largely Latino and inland Democrats—some of them backed by the state's residual energy industry—opposed some of the Administration's more extreme proposals. Similarly, some eleven Democrats, most from working class or interior districts, recently voted against the 100% renewables mandate. "This is yet another in a laundry list of bills that are discriminatory to the people I represent," said Adam Gray of Merced.¹²⁹

To be sure, progressives make a convincing case that without an expanded welfare state California's poverty would be worse, and potentially more disruptive.130 But with its wealth and generous public spending, California's poverty rate should be among the lowest in the country. Sadly, many steps to address inequality being urged by progressives—a \$15 minimum wage, ever stricter environmental laws, more onerous labor laws, mandatory quotas on corporate boards, enforced diversity at the UCs, and a state-sponsored single payer health system-may provide some relief to the poor, and perhaps meet some social goals, but may not much help the aspirations of working-class Californians to join the middle class.¹³¹

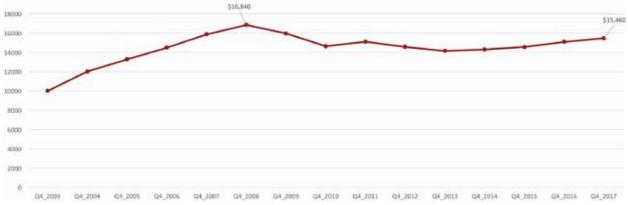
Business leaders must address these issues with an alternative scenario that offers opportunities for ownership.¹³² However well intentioned, this approach, which may help some tenants, has historically discouraged building in many cities.¹³³

To create an alternative to feudalism, or to ever-greater state control of virtually every aspect of our lives, Californians need to create a policy agenda that, first and foremost, serves the basic interests of state residents by expanding opportunity across classes and geographies. Those of us concerned about a better future for the next generation may have good cause to be discouraged. But we have great human resources. An unmatched physical endowment and a culture of innovation. And we believe there's a way to restore California's once proud reputation as incubator of aspirations, and a fulfiller of dreams.

Homelessness in San Fransisco



(Figure 30) California Household Non-Mortgage Debt Trends, 2003-2017



Sources: Derived from FBI Statistics: 2013, Major metropolitan areas (average).

HOW MIDDLE-CLASS CALIFORNIANS DEAL WITH THE FINANCIAL SQUEEZE

What is the impact of rising costs on everyday Californians? We set out to answer this question by looking at the real-world household finances of different groups within the state.

Our Chapman University research team identified eight broad California "personas" that we can all relate to. We looked at diverse groups of people who vary by whether they live inland or on the coast, by age, by how many children they are raising, and by income level. Our goal was to answer a simple question: How much income do people have after paying taxes and the essential expenses required for a reasonably expected standard of living at their income level? The answers raise deep concerns about the sustainability of the California Dream.

"How much income do people have after paying taxes and the essential expenses required for a reasonably expected standard of living at their income level?" To a remarkable extent, Californians simply cannot afford the expenses necessary to support the standard of living that would be expected at their income level. This has consequences that affect expenditures and lifestyle. Those with above average incomes might underfund their savings. Retirees might cut back on healthcare and transportation spending. Lower income people might share housing costs with other households. Households with children might avoid costly child care by relying on friends or relatives, or even leaving older children unsupervised.

Many turn to consumer debt to plug the gap. Data from the Federal Reserve Bank of New York on non-mortgage debt shows that Californians have increased their percentage of after-tax income dedicated to consumer debt service to close to what it was at pre-recession levels. This has forced many people into lower standards of living and heavy borrowing to survive financially.

We examined the pre-tax incomes, the spending habits necessary to support a reasonably expected standard of living, and the resulting hypothetical surpluses or deficits in eight cases (personas) (Figure 30). (Figure 31) Summary Description of 8 California Personas and Hypothetical Surplus/Deficit

Persona	<u>Pre-Tax</u> <u>income</u> Percentile	2018 Pre- <u>Tax HH</u> Income	Career Life <u>Stage</u>	Number of Children Living In <u>HH</u>	Own/Rent	Inland or <u>Coastal</u>	2018 Hypothetical Surplus (Deficit)
Upper Management and Professionals	99%	\$500,000+	Senior Executive	2	Own	Anywhere	\$78,073 +
Mid-Level Executive	95%	\$230,000	Mid-career	2	Own	Coastal	(\$1,523)
Jr. Executive or Professional	80%	\$125,000	5 years' experience	1	Own	Coastal	(\$8,838)
Recent Professional Degree	60%	\$75,000	Just starting career	0	Rent	Coastal	\$10,039
Service Line Worker	40%	\$47,000	Varied	2	Rent	Coastal	(\$21,017)
Retirees – Statewide	60%	\$75,000	No longer working full-time		Own	Anywhere	(\$7,463)
Experienced Manufacturing Worker	60%	\$75,000	10+ years' experience	2	Own	Inland	(\$15,757)
Agricultural or Service Worker	40%	\$47,000	Varied	2	Rent	Inland	(\$11,358)

(Figure 32) Hypothetical Spending As A Percentage of After-Tax Income: 2018 — 8 California Personas

<u>Persona</u>	Housing and Utilities and Prop Taxes (if <u>own)</u>	Food	<u>Trans-</u> portation	Healthcare	Childcare	Healthcare	Other (<u>incl.</u> Comms, clothing, <u>et. al.</u>)	Debt Service	2018 Hypothetical Surplus/Deficit As % of After Tax Income
Upper Management and Professionals	42%	4%	7%	2%	5%	6%	1%	6%	27%
Mid-Level Executive	51%	7%	12%	4%	9%	10%	3%	6%	-1%
Jr. Executive or Professional	54%	9%	11%	7%	9%	9%	5%	6%	-10%
Recent Professional Degree	45%	7%	7%	4%	0%	10%	3%	6%	19%
Service Line Worker, Coastal	60%	26%	26%	17%	6%	8%	4%	6%	-53%
Retirees – Statewide	70%	11%	13%	9%	0%	0%	3%	6%	-12%
Experienced Manufacturing Worker	36%	17%	17%	11%	24%	8%	7%	6%	-26%
Agricultural or Service Worker, Inland	36%	26%	26%	17%	6%	8%	4%	6%	-29%

Our results are based on statistics published by broad data collection sources, such as the MIT Cost of Living Calculator and the Bureau of Labor Statistics (BLS) Consumer Expenditure Survey. We also used secondary research on specific areas of expenditure from topic-specific sources. Finally, we incorporated interviews with individuals and families about expense levels they are experiencing in the real world. We placed greater weight on the "real world" numbers people shared with us. Table 1 shows the percentage of after-tax income each spending category represents for each of the different personas.

As you can see, only two of the personas would have enough income for their expected standard of living: the upper 1%, and recent college graduates with professional degrees and without children to support.

For our other personas, hypothetical spending exceeds after-tax income from 1% (for mid-level executives with \$230,000 in pre-tax household incomes) to 53% for coastal service line workers. Six of the eight personas have negative hypothetical income, which can be as high as \$21,017 for lower income coastal service workers.

"Housing, not surprisingly, is the highest expense for all personas"

Housing, not surprisingly, is the highest expense for all personas, ranging from 70% of after-tax income for retirees to 36% for lower income people who share household expenses with other families. Transportation is the next highest expense, as a percentage of after-tax income, for most others. For experienced manufacturing workers in inland counties earning a pre-tax income of \$75,000, however, childcare expenses can represent a very high percentage of income.

The BLS Consumer Expenditures Survey suggests that sacrifices in child care may be a principal way to cut essential expenses enough to live within incomes. Using our rough estimates, it appears that many Californians have a deficit every month relative to the expected standard of living. Many often simply "do without." Little of California's population is "living the dream;" even fewer are living it without financial anxiety.

Homes in San Fransisco





END NOTES

- 1. Matthew A. Winkler, "California Leads U.S. Economy, Away From Trump," Bloomberg, May 10, 2017, https://www.bloomberg.com/view/articles/2017-05-10/ california-leads-u-s-economy-away-from-trump.
- "California Economy: Annual Forecast Charts," California Lutheran University, September 14, 2017, https://blogs.callutheran.edu/cerf/files/2017/09/Annual_Pop_PerCapitaGDP_Forecast1.pdf; David Friedman and Jennifer Hernandez, "California, Greenhouse Gas Regulation, and Climate Change," New Geography, June 25, 2018, http://www.newgeography.com/content/006014-california-greenhouse-gas-regulation-and-climate-change.
- "Is It Normal For The Top-5 Companies In The S&P 500 Index To Be Worth As Much As The Bottom 282?," Seeking Alpha, July 23, 2018, https://seekingalpha. com/article/4189055-normal-topminus-5-companies-s-and-p-500-index-worthmuch-bottom-282; Scott Galloway, "Silicon Valley's Tax Avoiding, Job-Killing, Soul-Sucking Machine," Esquire, February 8, 2018, http://www.esquire.com/ news-politics/a15895746/bust-big-tech-silicon-valley/.
- 4. Tammy Sons, "The Top Income Cities Per Capita in the United States," Medium, March 18, 2018, https://medium.com/thrive-global/the-top-income-cities-percapita-in-the-united-states-6e14139ed238.
- 5. Alex Thomas, "A Tale of Two SoCals: Poverty in Southern California," New Geography, January 16, 2018, http://www.newgeography.com/content/005854-a-tale-two-socals-poverty-southern-california.
- 6. Rob Lapsley, "Will Standing Up to Trump Hurt California's Economy?" California Business Roundtable, December 8, 2016, https://www.cbrt.org/will-standing-up-to-trump-hurt-californias-economy/.
- Susan Shelley, "In California, a poor imitation of economic growth," Los Angeles Daily News, January 27, 2017, https://www.dailynews.com/2017/01/27/in-california-a-poor-imitation-of-economic-growth-susan-shelley/. "Job Growth Slows in Silicon Valley," Patch, September 18, 2017, https://patch.com/california/milpitas/ job-growth-slows-silicon-valley-think-tank.
- 8. "Percent Change in Real GDP by State," https://www.bea.gov/system/files/qgdpstate0718_0.png; "Personal Income: Percent Change at Annual Rate," https:// www.bea.gov/system/files/spi0618.png; Dan Walters, "Could California be seeing the onset of a recession?" Mercury News, December 4, 2017, https://www.mercurynews.com/2017/12/03/walters-could-california-be-seeing-the-onset-of-a-recession/.
- 9. Joel Kotkin, "The Cities Creating the Most High-Wage Jobs," Forbes, June 26, 2017, https://www.forbes.com/sites/joelkotkin/2017/06/26/the-cities-that-are-cre-ating-the-most-high-wage-jobs/#62c2e0d34e9e.
- Ethan Rarick, California Rising: The Life and Times of Pat Brown (Berkeley: University of California Press, 2005), 383; Joel Kotkin, "The True Legacy of Governor Brown," The Orange County Register, February 26, 2017, https://www.ocregister.com/2017/02/26/the-true-legacy-of-gov-jerry-brown/.

- 11. James Galbraith, "Inequality and the 2016 Election Outcome: A Dirty Secret and a Dilemma," New Geography, July 5, 2017, http://www.newgeography.com/ content/005678-inequality-and-2016-election-outcome-a-dirty-secret-and-a-dilemma.
- Spencer P. Morrison, "California's Income Inequality Now Worse Than Mexico's, Poverty Level Highest in America," National Economics Editorial, January 17, 2018, https://nationaleconomicseditorial.com/2018/01/17/californian-income-inequality-tops-mexico/.
- Joe Matthews, "The Inland Empire Strikes Back," Zocalo, April 23, 2015, http:// www.zocalopublicsquare.org/2015/04/23/the-inland-empire-strikes-back/ideas/ connecting-california/.
- Adam McCann, "Most & Least Educated Cities in America," Wallet Hub, July 24, 2018, https://wallethub.com/edu/most-and-least-educated-cities/6656/#main-findings.
- 15. "Large Cities Business Service Jobs 2017 Best Cities Rankings," New Geography, http://www.newgeography.com/content/005673-large-cities-business-servicesjobs-2017-best-cities-rankings; Joel Kotkin, "Tech's New Hotbeds: Cities With Fastest Growth in Stem Jobs Are Far from Silicon Valley," New Geography, January 12, 2018, http://www.newgeography.com/content/005847-techs-new-hotbedscities-with-fastest-growth-in-stem-jobs-are-far-from-silicon-valley.
- 16. Emma G. Gallegos, "Los Angeles Is the Poorest Big City," LAist, September 9, 2014, http://laist.com/2014/09/19/los_angeles_is_the_poorest_of_the_m.php.
- 17. http://www.pewsocialtrends.org/files/2016/05/Middle-Class-Metro-Areas-FI-NAL.pdf
- 18. Derived from American Community Survey 2017.
- "Hidden in Plain Sight: Why California's Economically Challenged Cities Matter," National Resource Network, November 18, 2015, http://www.nationalresourcenetwork.org/en/Document/306226/Hidden_in_Plain_Sight_Why_Californias_Economically_Challenged_Cities_Matter.
- 20. Derived from American Community Survey 2017.
- 21. Amy Graff, "\$303K is the annual income needed to buy a median priced home in San Francisco," SF Gate, February 15, 2018, https://www.sfgate.com/realestate/ article/income-needed-buy-home-San-Francisco-real-estate-12614111.php; Alan Berube, "All Cities Are Not Created Unequal," Brookings, February 20, 2014, https://www.brookings.edu/research/all-cities-are-not-created-unequal/; Frederick Kuo, "San Francisco has become one huge metaphor for economic inequlity in America," Quartz, June 21, 2016, https://qz.com/711854/the-inequality-happening-now-in-san-francisco-will-impact-america-for-generations-to-come/.
- 22. Luke Reidenbach, Mark Price, Estelle Sommellier, and Ellis Wazeter, "The Growth of Top Incomes Across California," California Budget & Policy Center, February 2016, https://calbudgetcenter.org/wp-content/uploads/The-Growth-of-Top-Incomes-Across-California-02172016.pdf.

- 23. Wendell Cox, "What is Middle-Income Housing Affordability?" New Geography, June 19, 2018, http://www.newgeography.com/content/006007-what-middle-in-come-housing-affordability.
- 24. Liana Fox, "The Supplemental Poverty Measure: 2017," Census Bureau, September 12, 2018, https://www.census.gov/library/publications/2018/demo/p60-265. html.
- 25. "Struggling to Stay Afloat: The Real Cost Measure in California 2018," United Way, https://www.unitedwaysca.org/realcost.
- 26. "Is California the Welfare Capital?" The San Diego Union-Tribune, July 28, 2012, http://www.sandiegouniontribune.com/news/politics/sdut-welfare-capital-of-the-us-2012jul28-htmlstory.html.
- 27. Daniel Duane, "The Tent Cities of San Francisco," The New York Times, December 17, 2016, https://www.nytimes.com/2016/12/17/opinion/sunday/the-tent-cities-of-san-francisco.html; Jennifer Medina, "California Today: State's Homeless Population Drives National Increase," The New York Times, December 21, 2017, https://www.nytimes.com/2017/12/21/us/california-today-states-homeless-population-drives-national-increase.html?partner=rss&emc=rss&_r=0; Jim Mc-Dermott, "Tent City, USA: Southern California's homelessness crisis," America Magazine, October 16, 2017, https://www.americamagazine.org/politics-society/2017/09/18/tent-city-usa-southern-californias-homelessness-crisis.
- 28. Laura J. Nelson, "As waves of homeless descend onto trains, L.A. tries new strategy: social workers on the subway," The Los Angeles Times, April 6, 2018, http:// www.latimes.com/local/lanow/la-me-metro-homeless-20180406-htmlstory.html; Chris Pleasance, "Simply unacceptable': Disturbing footage emerges of semi-conscious junkies openly shooting up in front of commuters in vomit-covered BART station as San Francisco struggles to contain its homeless problem," Daily Mail, April 27, 2018, http://www.dailymail.co.uk/news/article-5665041/Shocking-footage-shows-junkies-taking-San-Francisco-BART-station.html; "Homeless in LA - homeless population surges 75% in past six years," Dr. Housing Bubble, April 30, 2018, http://www.doctorhousingbubble.com/homeless-in-l-a-homeless-population-surges-75-in-past-six-years/; Gale Holland, "L.A.'s homelessness surged 75% in six years. Here's why the crisis has been decades in the making," Los Angeles Times, February 1, 2018, http://www.latimes.com/local/lanow/la-me-homelesshow-we-got-here-20180201-story.html; Bigad Shaban, Tony Rutanooshedech, and Michael Horn, "Diseased Streets," NBC Bay Area, March 14, 2018, https://www. nbcbayarea.com/news/local/Diseased-Streets-472430013.html; Matier & Ross, "SF's appalling street life repels residents – now it's driven away a convention," San Francisco Chronicle, July 3, 2018, https://www.sfchronicle.com/bayarea/ matier-ross/article/SF-s-appalling-street-life-repels-residents-13038748.php#photo-15404073&nws=mcnewsletter.
- 29. "California, Greenhouse Gas Regulation, and Climate Change," http://www.newgeography.com/content/006014-california-greenhouse-gas-regulation-and-climate-change.

- 30. http://www.ppic.org/publication/child-poverty-in-california/
- Edward N. Wolff, "The Asset Price Meltdown and the Wealth of the Middle Class," National Bureau of Economic Research, November 2012, http://www.nber. org/papers/w18559.pdf?new_window=1; Jonathan Israel, The Dutch Republic: Its Rise, Greatness and Fall, 1477-1806 (New York: Oxford University Press, 1995), 9-11, 112, 1004.; Simon Schama, An Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age (New York: Vintage, 1997), 38-39.; Jeffrey A. Winters, Oligarchy (Cambridge: Cambridge University Press, 2011), 78-90; Montesquieu: Selected Political Writing, edited and translated by Melvin Richter (Indianapolis: Hackett Publishing, 1990), 86-7, Michael Grant, The Fall of the Roman Empire (New York: Collier, 1990), 58-60; James Westfall Thompson and Edgar Nathaniel Johnson, An Introduction to Medieval Europe, (New York: WW Norton, 1937), 13-14; Paul Johnson, The Renaissance: A Short History (New York: Modern Library, 2002), 5.
- 32. Calculated from National Association of Realtors and California Association of Realtors median house price data.
- 33. City Sector Model analysis of American Community Survey and Census data, 2010-2014 (See: http://www.newgeography.com/content/004349-from-jurisdic-tional-functional-analysis-urban-cores-suburbs)
- 34. Katherine Lam, "'Brady Bunch' house selling for nearly \$1.9 million amid concerns buyers will want to tear it down," Fox News, July 19, 2018, http://www. foxnews.com/real-estate/2018/07/19/brady-bunch-house-selling-for-nearly-1-9million-amid-concerns-buyers-will-want-to-tear-it-down.html.
- 35. Nick Fouriezos, "1 in 5 Californians is Poor. Housing Prices are to Blame," OZY, August 23, 2018, https://www.ozy.com/acumen/1-in-5-californians-is-poor-hous-ing-prices-are-to-blame/88484.
- 36. Edward Glaeser and Joseph Gyourko, "The Economic Implications of Housing Supply," Journal of Economic Perspectives 32, N. 1 (Winter 2018): 3- 30, https:// pubs.aeaweb.org/doi/pdf/10.1257/jep.32.1.3, Paul C. Cheshire, Max Nathan, and Henry G. Overman, "Urban Economics and Urban Policy: Challenging Conventional Policy Wisdom," Edward Elgar Publishing, 2014, https://www.e-elgar.com/ shop/urban-economics-and-urban-policy, Wendell Cox, "A Question of Values: Middle-Income Housing Affordability and Urban Containment Policy," Frontier Centre for Public Policy, October 2015, https://fcpp.org/sites/default/files/documents/Cox%20-%20A%20Question%20of%20Values.pdf.
- 37. Joe Bousquin, "The Unintended Consequences of Law," Builder Magazine, October 13, 2016, https://www.builderonline.com/building/regulation-policy/the-unintended-consequences-of-law_o.
- Paul Emrath and Caitlin Walker, "Regulation: Over 30 Percent of the Cost of a Multifamily Development," National Association of Home Builders, June 2018, https://www.nmhc.org/contentassets/60365effa073432a8a168619e0f30895/nmhcnahb-cost-of-regulations.pdf.

- 39. Mac Taylor, "California's High Housing Costs: Causes and Consequences," Legislative Analyst's Office, March 17, 2018, https://lao.ca.gov/reports/2015/finance/ housing-costs/housing-costs.pdf.
- 40. Patrick Clark, "Texas is a Homebuilding Machine. And the rest of the U.S.?" Bloomberg, August 15, 2017, https://www.bloomberg.com/news/articles/2017-08-16/texas-leads-the-u-s-in-new-home-construction-and-california; Niall McCarthy, "Texas is Winning America's Homebuilding Race," Statista, August 18, 2017, https://www.statista.com/chart/10736/texas-is-winning-americas-homebuilding-race/.
- 41. "Qualifying Income Based on Sales Price of Existing Single-Family Homes for Metropolitan Areas," National Association of Realtors, 2018, https://www.nar. realtor/sites/default/files/documents/qualifying-income-for-metropolitan-areas-q2-2018-single-family-2018-08-08.pdf, 2nd quarter 2018, 10% down payment.
- 42. Kevin Smith, "Californians fleeing state's high cost of housing," The Orange County Register, November 14, 2016, https://www.ocregister.com/2016/11/14/cal-ifornians-fleeing-states-high-cost-of-housing/.
- 43. Derived from American Community Survey.
- 44. Andy Kiersz and Kathleen Elkins, "Here's how much millennials are earning annually across the US," Business Insider, December 6, 2015, https://www.businessinsider.com/millennial-median-wage-map-2015-12/#alabama-1.
- 45. Patrick Clark, "The exact moment big cities got too expensive for millennials," Bloomberg, July 15, 2015, https://www.bloomberg.com/news/articles/2015-07-15/ the-exact-moment-big-cities-got-too-expensive-for-millennials.
- 46. David Wagner and Aaron Mendelson, "Where do people get money to buy California homes these days? Often, from mom and dad," SCPR, July 31, 2018, https:// www.scpr.org/news/2018/07/31/85109/where-do-people-get-money-to-buy-california-homes/.
- 47. "California, Greenhouse Gas Regulation, and Climate Change."
- 48. Mark Hugo Lopez and Manuel Krogstad, "Will California ever become a majority-Latino state?" Pew Research Center, June 4, 2015, http://www.pewresearch.org/ fact-tank/2015/06/04/will-california-ever-become-a-majority-latino-state-maybe-not/.
- 49. Betsy Baum Block, Henry Gascon, Peter Manzo, Adam D. Parker, "Struggling to Get By: The Real Cost Measure in California 2015," United Way, https://www. unitedwaysca.org/images/StrugglingToGetBy/Struggling_to_Get_By.pdf.
- 50. John Myers, "Millions of Californians are poor, and they don't always live where you'd expect," Los Angeles Times, July 29, 2018, http://www.latimes.com/politics/ la-pol-ca-road-map-poverty-report-20180729-story.html.
- 51. Gillian B. White, "Millennials Who Are Thriving Financially Have One Thing in Common," The Atlantic, July 15, 2015, https://www.theatlantic.com/business/archive/2015/07/millennials-with-rich-parents/398501/.

- 52. Chris Salviati, "The Racial Divide in Homeownership," Apartment List, August 22, 2017, https://www.apartmentlist.com/rentonomics/racial-divide-homeowner-ship/.
- 53. "Expanding Opportunity: New Resources to Meet California's Housing Needs," Policy Link, Winter 2005, http://www.policylink.org/sites/default/files/Housing-California_final.pdf; "UCLA study identifies L.A. as most unaffordable rental market in the nation," UCLA Newsroom, August 12, 2014, http://newsroom.ucla. edu/stories/ucla-study-identifies-l-a-as-most-unaffordable-rental-market-in-thenation.
- 54. "Expanding Opportunity."
- 55. More than one person per room. Derived from American Community Survey, 2012-2016; 2017 American Community Survey data.
- 56. "California Forecast," Center for Economic Research Forecasting, September 18, 2017, https://blogs.callutheran.edu/cerf/files/2017/09/Annual_History1.pdf; Angela Hart, "California exodus? Poll finds voters consider moving due to sky-high housing costs," Sacramento Bee, September 18, 2017, https://www.sacbee.com/news/politics-government/capitol-alert/article174026561.html; Jeff Daniels, "Californians fed up with housing costs and taxes are fleeing state in big numbers," CNBC, March 20, 2018, https://www.cnbc.com/2018/03/19/californians-fed-up-with-housing-costs-and-taxes-are-fleeing-state.html.
- 57. Missing
- 58. Based on Census data and California Department of Finance projections.
- 59. Thomas Elias, "Who's Leaving California? Not who you think," Los Angeles Daily News, September 1, 2017, https://www.dailynews.com/2016/07/18/whos-leaving-california-not-who-you-think-thomas-elias/.
- 60. Brian Addison, "Trio of New Studies Show Low Income, Middle Class Are Vacating California While Wealthy Move In; Housing Costs to Blame," Long Beach Post, May 3, 2018, https://lbpost.com/longbeachize/urban-design/trio-new-studies-show-low-income-middle-class-vacating-california-wealthy-move-housingcosts-blame/; 2015-2016 data derived from IRS migration reports.
- 61. Joyce A. Martin, et al., "Births: Final Data for 2016," National Vital Statistics Report Vol. 67, No. 1 (January 31, 2018), https://www.cdc.gov/nchs/data/nvsr/nvsr67/ nvsr67_01.pdf; Steve Rubenstein, "California birthrate plunges to lowest level in a century," San Francisco Chronicle, May 17, 2018, https://www.sfchronicle.com/ bayarea/article/California-birthrate-plunges-to-lowest-level-in-a-12923521.php.
- 62. Gary Becker, "Low Birth Rates: Causes, Consequences, and Remedies," The Becker-Posner Blog, August 18, 2013, http://www.becker-posner-blog.com/2013/08/ low-birth-rates-causes-consequences-and-remedies-becker.html.
- 63. Marc Bloch, Feudal Society (London: Routledge, 1961), xii-xiii; Thomas Piketty, Capital in the Twenty-first Century (Cambridge: Harvard University Press, 2014), 174.



- 64. Michael Batnick, "The Ghost of Tech Stocks Past," The Irrelevant Investor, June 30, 2018, http://theirrelevantinvestor.com/2018/06/30/the-ghost-of-tech-stocks-past/; Michael Batnick, "Is It Normal For The Top-5 Companies In The S&P 500 Index To Be Worth as Much As The Bottom 282?" Seeking Alpha, July 23, 2018, https://seekingalpha.com/article/4189055-normal-topminus-5-companies-s-and-p-500-index-worth-much-bottom-282?page=2.
- 65. Ben Tarnoff, "Tech's push to teach coding isn't about kids success it's about cutting wages," The Guardian, September 21, 2017, https://www.theguardian.com/technology/2017/sep/21/coding-education-teaching-silicon-valley-wages; Sally French, "China has 9 of the world's 20 biggest tech companies," Market Watch, May 31, 2018, https://www.marketwatch.com/story/china-has-9-of-the-worlds-20-biggest-tech-companies-2018-05-31; Michael Anton, "The Frivolous Valley and its Dreadful Conformity," Law and Liberty, September 4, 2018, https://www.lawliberty.org/liberty-forum/the-frivolous-valley-and-its-dreadful-conformity/; "The 100 largest companies in the world by market value in 2018 (in billion U.S. dollars)," Statista, May 11, 2018, https://www.statista.com/statistics/263264/top-companies-in-the-world-by-market-value/
- 66. Alvin Toffler, The Third Wave (New York: Bantam, 1980), 9.
- 67. Taichi Sakaiya, The Knowledge Value Revolution (Tokyo: Kodansha International, 1985), 152.
- 68. Chris Benner and Manuel Pastor, Equity, Growth, and Community: What the Nation Can Learn from America's Metro Areas (Oakland: University of California Press, 2015), 167.
- 69. Gabriel Metcalf, "Four Future Scenarios for the San Francisco Bay Area," SPUR Regional Strategy, August 2018, https://www.spur.org/sites/default/files/publications_pdfs/SPUR_Future_Scenarios_for_the_SF_Bay_Area.pdf; Alex Thomas, "The Demographics of Poverty in Santa Clara County," New Geography, January 11, 2017, http://www.newgeography.com/content/005501-the-demographics-poverty-santa-clara-county.
- 70. Jeff Desjardins, "Which Companies Make the Most Revenue Per Employee?" Visual Capitalist, June 15, 2017, http://www.visualcapitalist.com/companies-revenue-per-employee/; "The Demographics of Poverty in Santa Clara County."
- 71. https://www.chapman.edu/wilkinson/_files/ghg-fn.pdf
- 72. Equity, Growth and Community, 168.
- 73. "The Demographics of Poverty in Santa Clara County"; Issie Lapowsky, "Silicon Valley's Biggest Worry Should be Inequality, Not a Bubble," Wired, February 4, 2015, https://www.wired.com/2015/02/silicon-valley-inequality-study/.
- 74. Marisa Kendall, "Buying a Bay Area home now a struggle even for Apple, Google engineers," Mercury News, February 15, 2018, https://www.mercurynews. com/2018/02/14/buying-a-bay-area-home-now-a-struggle-even-for-apple-googleengineers/.

- 75. Rachel Massaro, 'Silicon Valley Index 2016," Joint Venture Silicon Valley, Institute for Regional Studies, 2016, https://jointventure.org/images/stories/pdf/ index2016.pdf.
- 76. Aarian Marshall, "3 Dire Visions of the Bay Area in 2070 and one that's pretty great,' Wired, September 6, 2018, https://www.wired.com/story/spur-bay-area-2070-report-predictions/; "Buying a Bay Area home now a struggle."
- 77. "Buying a Bay Area home now a struggle."
- 78. "California's High Housing Costs."
- 79. Gregory Ferenstein, "The Disrupters," City Journal, Winter 2017, https://www. city-journal.org/html/disrupters-14950.html; Dara Kerr, "Egg freezing, so hot right now," CNET, May 22, 2017, https://www.cnet.com/news/egg-freezing-sohot-right-now/; Tony Roshan Samara, "Race, Inequality, and the Resegregation of the Bay Area," Urban Habitat, November 2016, http://urbanhabitat.org/sites/ default/files/UH%20Policy%20Brief2016.pdf.
- T.R. Fehrenbach, Fire and Blood: A History of Mexico (New York: Collier, 1973), 70.
- 81. "Tech's push to teach coding"; "China has 9 of the world's 20 biggest tech companies"; "Why startups are leaving Silicon Valley," The Economist, August 30, 2018, https://www.economist.com/leaders/2018/08/30/why-startups-are-leaving-silicon-valley; Rex Crum, "Let's make a deal: SV150 firms spent \$41 billion on acquisitions in 2016," The Mercury News, May 1, 2017, https://www.mercurynews.com/2017/05/01/lets-make-a-deal-acquisitions-were-all-over-the-sv150-in-2016/; "Too much of a good thing," The Economist, March 26, 2016, https://www.economist.com/briefing/2016/03/26/too-much-of-a-good-thing.
- 82. Josh Marshall, "A Serf on Google's Farm," Talking Points Memo, September 1, 2017, https://talkingpointsmemo.com/edblog/a-serf-on-googles-farm.
- 83. "The Disrupters."
- 84. James Manyika, et al., "Independent work: Choice, necessity, and the gig economy," McKinsey Global Institute, October 2016, https://www.mckinsey.com/ featured-insights/employment-and-growth/independent-work-choice-necessity-and-the-gig-economy.
- 85. Greg Ferenstein, "Why are Billionaires Ditching the Republican Party," Medium, February 26, 2016, https://medium.com/@ferenstein/a-lot-of-billionaires-are-giving-to-democrats-here-s-a-look-at-their-agenda-b5038c2ecb34; Todd Haselton, "Mark Zuckerberg joins Silicon Valley bigwigs in calling for government to give everybody free money," Yahoo! Finance, May 25, 2017, https://finance.yahoo. com/news/mark-zuckerberg-joins-silicon-valley-202800717.html; Sam Altman, "Moving Forward on Basic Income," Y Combinator, May 31, 2016, https://blog. ycombinator.com/moving-forward-on-basic-income/; Julia Carrie Wong, "Silicon Valley subcontracting makes income inequality worse, report finds," The Guardian, March 30, 2016, https://www.theguardian.com/us-news/2016/mar/30/silicon-valley-subcontracting-income-inequality-worse-report; Diane Francis, "The Beginning of the End of Work," The American Interest, March 19, 2018, https:// www.the-american-interest.com/2018/03/19/beginning-end-work/.



Los Angeles city street

- 86. "The YIMBY Guide to Bullying and Its Results: SB 827 Goes Down in Committee," City Watch LA, April 19, 2018, https://www.citywatchla.com/index.php/los-angeles/15298-the-yimby-guide-to-bullying-and-its-results-sb-827-goes-down-in-committee; John Mirisch, "Tech Oligarchs and the California Housing Crisis," California Political Review, April 15, 2018, http://www.capoliticalreview.com/top-stories/tech-oligarchs-and-the-california-housing-crisis/; Joel Kotkin, "Giving Common Sense a Chance in California," City Journal, April 26, 2018, https://www.city-journal.org/html/giving-common-sense-chance-california-15868.html.
- 87. Laura Sydell, "In Google's Vision of the Future, Computing is Immersive," NPR, May 20, 2017, https://www.npr.org/sections/alltechconsidered/2017/05/20/529146185/in-googles-vision-of-the-future-computing-is-immersive.
- 88. Antonio Garcia Martinez, "How Silicon Valley Fuels An Informal Caste System," Wired, July 9, 2018, https://www.wired.com/story/how-silicon-valley-fuels-an-inhttps://libertyunyielding.com/2018/08/31/california-moves-to-impose-illegal-gender-quotas-for-corporate-boards/formal-caste-system/.
- 89. Ibid.
- 90. Ibid.
- 91. Peter Leyden, "California is the Future of American Politics," Medium, October 4, 2017, https://medium.com/s/state-of-the-future/california-is-the-future-6601cdf8caf8; Steve Kettman, "The Californization of America," The New York Times, June 2, 2018, https://www.nytimes.com/2018/06/02/opinion/sunday/ california-progressive-politics.html.
- 92. Trevor Nace, "California Goes All In 100% Renewable Energy by 2045," Forbes, August 1, 2017, https://www.forbes.com/sites/trevornace/2017/08/01/californiagoes-all-in-100-percent-renewable-energy-by-2045/#39771f0570f2; Laura Kusisto, "Rent Controls, a Bane of Landlords, Are Gaining Support as Costs Soar," The Wall Street Journal, February 4, 2018, https://www.wsj.com/articles/rent-controls-a-bane-of-landlords-are-gaining-support-as-costs-soar-1517749201.
- 93. Michael Shellenberger, "California's Solar Roof Law Will Raise Housing and Energy Prices But Do Little to Reduce Emissions," Forbes, May 10, 2018, https:// www.forbes.com/sites/michaelshellenberger/2018/05/10/californias-solarroof-law-will-increase-housing-energy-prices-and-do-little-to-reduce-emissions/#83cb52431995; Sal Rodriguez, "California to make homebuilding \$25000 to 30000 more expensive with new solar mandate," The Orange County Register, May 7, 2018, http://www.ocregister.com/california-to-make-homebuilding-25000-to-30000-more-expensive-with-new-solar-mandate.
- 94. Jed Kolko, "The Jobs Priced out of Expensive Metros," Indeed Hiring Lab, May 17, 2018, https://www.hiringlab.org/2018/05/17/jobs-priced-expensive-metros/.
- 95. "California, Greenhouse Gas Regulation, and Climate Change."
- 96. Ibid.

- 97. Larry Hamlin, "Gov. Brown blames 'greenhouse gases' for his flawed forest management policy leading to wildfire devastation," Watts Up With That?, August 3, 2018, https://wattsupwiththat.com/2018/08/03/gov-brown-blames-greenhousegases-for-his-flawed-forest-management-policy-leading-to-wildfire-devastation/; "California, Greenhouse Gas Regulation, and Climate Change."
- Ronald Stein, "100% Renewables will Fuel the Growth of Poverty and Homelessness," Fox & Hounds, September 11, 2018, http://www.foxandhoundsdaily. com/2018/09/100-renewables-will-fuel-growth-poverty-homelessness/.
- 99. John E. Husing, "Inland Empire," SCAG Economic Conference Preparation Report, October 20, 2017, https://www.inlandempire.us/wp-content/uploads/ Husing_Riverside-SanBernardino-110917.pdf.
- 100. Ibid; "California, Greenhouse Gas Regulation, and Climate Change"; Justin Fox, "Making (and Building, and Digging Up) Stuff Is Back in Fashion," Bloomberg, June 1, 2018, https://www.bloomberg.com/view/articles/2018-06-01/jobs-reportis-good-news-for-u-s-manufacturing.
- 101. Jonathan A. Lesser, "Less Carbon, Higher Prices: How California's Climate Policies Affect Lower-Income Residents," Manhattan Institute, July 30, 2015, https:// www.manhattan-institute.org/html/less-carbon-higher-prices-how-californias-climate-policies-affect-lower-income-residents-6363.
- 102. Wendell Cox, "Los Angeles Transit Ridership Losses Lead National Decline," New Geography, November 15, 2017, http://www.newgeography.com/content/005800-los-angeles-transit-ridership-losses-lead-national-decline; Tim Redmond, "Dramatic New Study questions transit-oriented development," 48Hills, April 18, 2017, https://48hills.org/2017/04/dramatic-new-study-questions-transit-oriented-development/.
- 103. Michael Manville, Brian D. Taylor, and Evelyn Blumenberg, "Falling Transit Ridership in Southern California," UCLA Institute of Transportation Studies, 2018, https://www.its.ucla.edu/policy-brief/falling-transit-ridership-southern-california/.
- 104. Urban containment is land use strategies that discourage or even prohibit suburban tract development on the urban fringe; Joel Kotkin, "How to take advantage of the retail apocalypse," The Orange County Register, June 25, 2017, https://www.ocregister.com/2017/06/25/how-to-take-advantage-of-the-retail-apocalypse/, Wendell Cox, "America's Most Urban States," New Geography, March 8, 2016, http://www.newgeography.com/content/005187-america-s-most-urban-states.
- 105. Hugh Byrd, "The Power of Suburbia," in Infinite Suburbia, ed. Alan Berger and Joel Kotkin (Princeton: Princeton University Press, 2017), 604 621.
- 106.Alan M. Berger, "The Suburb of the Future, Almost Here," The New York Times, September 15, 2017, https://www.nytimes.com/2017/09/15/sunday-review/future-suburb-millennials.html.
- 107."News and talk tops in overall local radio market," Santa Cruz Sentinel, September 14, 2018, http://www.santacruzsentinel.com/article/NE/20180217/ NEWS/180219695;

- 108. What's the California dream? Sunshine," USC Dornsife, March 1, 2015, https://dornsife.usc.edu/uscdornsife-la-times-poll-california-dream-feb-2015/.
- 109. Lydia O'Connor, "Californians Are Fed Up With Income Inequality, Poll Shows," Huffington Post, July 2, 2014, https://www.huffingtonpost.com/2014/07/02/california-wealth-gap-poll_n_5552348.html; Dan Whitcomb, "Poll finds most Californians dissatisfied with state's economy," Business Insider, November 9, 2015, http://www.businessinsider.com/r-poll-finds-most-californians-dissatisfied-with-states-econo-my-2015-11.
- 110. State Building & Construction Trades Council and United Brotherhood of Carpenters and Joiners of America, http://realcaliforniajobs.org/.
- 111."The Plan," Plan Bay Area 2040, https://www.planbayarea.org/plan.
- 112. Nathaniel Decker et al., "Right Type Right Place: Assessing the Environmental and Economic Impacts of Infill Residential Development through 2030," U.C. Berkeley Terner Center for Housing Innovation and Center for Law, Energy and the Environment, March 2017, https://ternercenter.berkeley.edu/right-type-right-place.
- 113."Tech Oligarchs and the Housing Crisis."
- 114. John E. Husing, "Inland Empire"; Megan Barnes, "Redondo Beach adopts temporary ban on controversial mixed-use projects," Daily Breeze, September 27, 2017, https://www.dailybreeze.com/2017/08/16/ redondo-beach-adopts-temporary-ban-on-controversial-mixed-use-projects/#nws=mcnewsletter; Andy Kessler, "In the Heart of Silicon Valley, They Don't Want New Jobs," Wall Street Journal, September 16, 2016, https://www.wsj.com/articles/in-the-heart-of-silicon-valley-they-dont-want-new-jobs-1474064487;
- 115."Priced Out: Can high-density housing solved the Affordability Crisis?" Event, August 25, 2015, https:// www.scpr.org/events/2015/08/26/1768/priced-out-can-high-density-housing-solve-the-affo/; Gerard Mildner, "Density at Any Cost," Portland State University, November 2014, https://www.pdx.edu/realestate/sites/www.pdx.edu.realestate/files/Mildner_UGR_article_3.pdf.
- 116."California Earns a C on State Report Card, Ranks 32nd in Nation," Education Week, September 5, 2018, https://www.edweek.org/ew/collections/quality-counts-2018-state-grades/highlight-reports/2018/01/17/ california.html.
- 117. Ibid; "California Here We Come, Right Back Where We Started From," Spotted Toad, January 2018, https://spottedtoad.wordpress.com/2018/01/02/california-here-we-come-right-back-where-we-started-from/.
- 118. Jessica Calefati, "California's poor students rank next to last on national test," Cal Matters, April 13, 2018, https://calmatters.org/articles/californias-poor-students-rank-next-to-last-on-national-test/; Brian Brennan and Erica Wood, "Warning Signs Silicon Cannot Ignore," Mercury News, May 30, 2017, https://www.mercurynews.com/2017/05/28/commentary-warning-signs-silicon-valley-cannot-ignore/ amp/.
- 119. MaryJo Webster, "Where the jobs are: The new blue collar," USA Today, January 12, 2015, https://www.usatoday.com/story/news/nation/2014/09/30/job-economy-middle-skill-growth-wage-blue-col-lar/14797413/.
- 120.Wendell Cox, "Built-Up Urban Areas in the United States," Demographia, 2010, http://demographia. com/db-stateuza2010.pdf.

- 121. Susan Shelley, "Dangerous 'road diets' are starving LA of common sense," Los Angeles Daily News, September 19, 2017, https://www.dailynews.com/2017/09/19/dangerous-road-diets-are-starving-la-ofcommon-sense-susan-shelley/.
- 122. Derived from American Community Survey, 2017.
- 123. Joseph Vranich and Wendell Cox, "California High Speed Rail," Reason Foundation, April 2013, https:// reason.org/wp-content/uploads/2013/04/california_high_speed_rail_report.pdf; Ralph Vartabedian, "As bullet train costs rise, only 31% of California voters want to keep paying for it," Los Angeles Times, May 25, 2018, http://www.latimes.com/politics/la-pol-ca-usc-poll-bullet-train-20180525-story.html, Ralphp Vartabedian, "California's bullet train is 11 years behind schedule. Lawmakers want to know when LA will benefit from it," Los Angeles Times, August 10, 2018, http://www.latimes.com/local/california/la-me-high-speed-rail-hearing-20180810-story.html.
- 124. Kurt Snibbe, "California's roads are some of the poorest in the nation and rapidly getting worse," The Mercury News, March 4, 2017, https://www.mercurynews.com/2017/03/04/californias-roads-are-some-of-the-poorest-in-the-nation-and-rapidly-getting-worse/; "As bullet train costs rise."
- 125. Susan Shelley, "The contemporary tyranny we know as sustainability," The Orange County Register, May 23, 2018, https://www.ocregister.com/2018/05/23/the-contemporary-tyranny-we-know-as-sustainability/; Dan Walters, "Big water moves mark Gov. Jerry Brown's final months," The Orange County Register, July 30, 2018, https://www.ocregister.com/2018/07/30/big-water-moves-mark-gov-jerrybrowns-final-months/; Susan Shelley, "The blithering idiocy of California's water crisis," The Orange County Register, July 9, 2018, https://www.ocregister.com/2018/07/07/the-blithering-idiocy-of-californias-water-crisis/; Thomas Del Beccaro, "California: The Physical Collapse of a Social State," Forbes, February 22, 2017, https://www.forbes.com/sites/thomasdelbeccaro/2017/02/22/ca-the-physical-collapse-of-a-social-state/#598ce2a56bdb; Dan Walters, "Why does California have the nation's highest poverty level?" Sacramento Bee, August 14, 2017, http://www.sacbee.com/opinion/california-forum/ article166553177.html
- 126. Victor Davis Hanson, "An Engineered Drought," City Journal, April 2, 2015, https://www.city-journal. org/html/engineered-drought-11548.html; Ben Adler, "How California's sprawl got in the way of a strong climate bill," Grist, September 17, 2015, https://grist.org/climate-energy/how-californias-sprawlgot-in-the-way-of-a-strong-climate-bill/; Spencer Michels, "Why Dams are at the heart of California's water wars," PBS, Nonvember 3, 2015, https://www.pbs.org/newshour/nation/dams-california-water-wars.
- 127. Laura Feinstein et al., "Drought and Equity in California," Pacific Institute, January 2017, http://pacinst. org/wp-content/uploads/2017/01/PI_DroughtAndEquityInCA_Jan_2017_Executive_Summary.pdf
- 128. Michael Shellenberger, "Number One In Poverty, California Isn't Our Most Progressive State It's Our Most Racist One," Forbes, May 31, 2018, https://www.forbes.com/sites/michaelshellenberger/2018/05/31/ number-one-in-poverty-california-isnt-our-most-progressive-state-its-our-most-racist-one/#6198645cd9c3.
- 129."100% Certifiable California," The Wall Street Journal, September 9, 2018, https://www.wsj.com/ articles/100-certifiable-california-1536532039#nws=mcnewsletter; "California's Climate Change Revolt," The Wall Street Journal, September 11, 2015, https://www.wsj.com/articles/californias-climate-change-revolt-1442014369; Leslie Eastman, "Latest California Proposal Features Gas Rationing," Legal Insurrection, August 11, 2015, https://legalinsurrection.com/2015/08/latest-california-proposal-features-gas-rationing/.

- 130. Daivd B. Grusky et al., "Why Is There So Much Poverty in California?" Stanford Center on Poverty and Inequality, https://inequality.stanford.edu/sites/default/files/eop.pdf.
- 131. Julia Carpenter, "California wants to mandate a woman on every company board," CNN Money, August 30, 2018, https://money.cnn.com/2018/08/30/pf/california-women-company-boards/index.html; Heather Mac Donald, "UCLA's infatuation with diversity is a costly diversion from its true mission," Los Angeles Times, September 2, 2018, http://www.latimes.com/opinion/op-ed/la-oe-mac-donald-diversity-ucla-20180902-story.html
- 132."Is Housing Affordability a Problem Where You live?" Retire by 40, May 21, 2018, https://retireby40.org/ is-housing-affordability-a-problem-where-you-live/.
- 133. Laura Kusisto, "Rent Controls, a Ban of Landlords, Are Gaining Support as Costs Soar," Wall Street Journal, February 4, 2018, https://www.wsj.com/articles/rent-controls-a-bane-of-landlords-are-gaining-support-as-costs-soar-1517749201; Conor Dougherty, "Rent Control Campaign in California Is Taken to the Streets," New York Times, April 12, 2018, https://www.nytimes.com/2018/04/12/business/ economy/california-housing.html; Jibran Khan, "Kamala Harris's Rent Subsidy Would Help Landlords, Not Renters," National Review, August 1, 2018, https://www.nationalreview.com/2018/08/kamala-harris-rent-subsidy-would-go-to-landlords-not-renters/; Adam Brinklow, "Should California's Costa Hawkins rent control act be repealed?" Curbed San Francisco, August 1, 2018, https://sf.curbed. com/2018/8/1/17639734/rent-control-debate-california-prop10-costa-hawkins.

Design Notes

California's Social Priorities and the graphics utilize the following:

To achieve visual harmony a modified version of the grid Jan Tschichold conceived for his book Typography was employed.

MINION PRO Chapman's serif family, is a digital typeface designed by Robert Slimbach in 1990 for Adobe Systems. The name comes from the traditional naming system for type sizes, in which minion is between nonpareil and brevier. It is inspired by late Renaissance-era type.

FUTURA is Chapman's sans serif family. Designed by Paul Renner and released in 1927. It was designed as a contribution on the New Frankfurt-project. It is based on geometric shapes, especially the circle, similar in spirit to the Bauhaus design style of the period.

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Book layout design by Eric Chimenti; professor at Chapman University, book exterior design by Caitlyn Mumaw, Chapman University Class of 2020, and interior design by Cassandra Taylor, Chapman University Class of 2019.

Eric Chimenti's work has won a Gold Advertising Award, been selected for inclusion into *LogoLounge: Master Library, Volume 2 and LogoLounge Book 9*, and been featured on *visual.ly*, the world's largest community of infographics and data visualization. He has 17 years of experience in the communication design industry. To view a client list and see additional samples please visit www.behance.net/ericchimenti.

Professor Chimenti is also the founder and head of Chapman's **Ideation Lab** at which Caitlyn and Cassandra work. The Ideation Lab supports undergraduate and faculty research by providing creative visualization and presentation support from appropriately qualified Chapman University undergraduate students. Services include creative writing, video, photography, data visualization, and all aspects of design. Students specialize in the design and presentation of complex communication problems.





