



# CALIFORNIA DREAMING

IMAGINING NEW FUTURES FOR THE STATE



California has always been a frontier—a place of change and innovation. From the gold rush to the rise of the film industry, from the free speech movement of the 1960s to the emergence of Silicon Valley as an engine of innovation, California has reinvented itself time and again.

Perhaps this is why many of us find ourselves asking: Can California do it again? Today the state is facing some of its toughest challenges. And its future will be crafted from our responses to these challenges—as individuals, as organizations, as communities. We can already see signals of some of these responses as we scan the California landscape. They point to very divergent futures, to alternative scenarios in which we come face-to-face with what we value.

Will California become the leading **Smart State**? Or will it evolve as a vibrant **Culture Commons**? Will we reinvent the state to embody **21st Century Superstructures**? Or will we retreat into an **Enclave Economy**? These are four strikingly different visions of how the state could look in 2020. But in reality, California will be—and perhaps already is—some combination of all four of these scenarios.

This map is an invitation to explore the future worlds that are already emerging today in California. It's a tool to tackle, head on, the big questions facing the state. It's a chance to think about the alternatives, to compare and contrast scenarios that provoke us to think in new ways, to ask better questions and engage in important conversations with our neighbors, our colleagues, and our community leaders. Perhaps most important, it's a way to reinvent ourselves as 21st century Californians.

Take a tour of California's landscape-in-the-making. Grapple with one or more of the big questions. Imagine your day in one of the future scenarios. And then take your next step—it may be the first step toward building the new California dream.

# HOW TO USE THIS MAP

## explore the present, envision the future

This map is a tool for exploring the big questions facing California today and for envisioning the kind of future we want to build for the state. But it is not complete without your input. Whether you work from the top down or from the bottom up, you'll end up in the center of the map, where you can fill in the landscape with your unique vision.

### FROM THE TOP DOWN: Explore the Big Questions

Q: How will we learn in a century of vast information and increased complexity?

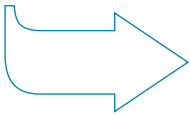
On the map and in the text on the back of it, you'll encounter seven big questions facing the state of California. For each of these questions, you'll find data points and projections: information you need to understand what's at stake and how existing patterns and practices may shape the future. Discuss the questions and data with friends and family, colleagues, or with members of your community. Identify the issues that are most important to you or your organization—and the places where you can make the biggest difference. Avoid rushing to a favorite solution. Think about different ways to answer the questions.

### FROM THE BOTTOM UP: Scan the Signals and Scenarios



At the bottom of the map, you'll find signals of change: small innovations or disruptions that could point to larger trends in the future. These signals add up to four alternative scenarios. These are four different views of how the future may unfold in a world of growth or collapse, constraint or transformation. Think about your own future—or that of your organization—in each of these scenarios. What signals would you add? Which scenario inspires you the most? Which is most challenging? What values underpin each scenario? What could you do to ensure that you can thrive in all of them?

### ACROSS THE CALIFORNIA LANDSCAPE: Build Your Vision



The arrows on the map are your own workspace. This is where you can think systematically about your own role in the future of California. Every individual, every organization, every community counts. So think about who you are today and what you contribute to the California of the present. Then think about who you're likely to be in 2020, given the trends, signals, and scenarios on the map. Finally, fill in your own response to the big questions—to build your unique vision of the California you want.

You can build this vision for yourself, or you can work with colleagues in your workplace to think about how your organization can help build a different kind of California. Or you can engage your community in imagining the kind of difference it can make. Fill in the blanks together or individually. Add some photographs or your own charts to the California landscape. Remember, the future isn't complete without your contributions!



#### ABOUT THIS MAP

This map was developed by Institute for the Future (ITF) in collaboration with California Institute for Telecommunications and Information Technology (Calit2) and the Center for Information Technology Research in the Interest of Society (CITRIS). The map emerged from a workshop led by Marina Gorbis and Rod Falcon, with a group of experts in a variety of fields. For more information on the workshop and a list of experts, visit [www.iff.org/FutureofCalifornia](http://www.iff.org/FutureofCalifornia). The ideas expressed on this map are the sole responsibility of ITF.

For more information about this project or ITF, please contact Sean Ness at [sness@iff.org](mailto:sness@iff.org) or 650.233.9517.



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# FOUR VISIONS OF CALIFORNIA

## GROWTH

### SMART STATE

A growth scenario is both about business-as-usual and innovation-as-business. Economic growth continues to define success for corporations, institutions, and even communities. And in a state where technical know-how and entrepreneurship have been a winning formula for growth for several decades, the state is investing in systems that expand that advantage. At the heart of this investment is a new digital backbone of automated systems aimed especially at solutions for climate, energy, water, and waste problems. The state is also cultivating a design advantage, in both of its traditional areas of leadership—aerospace and electronics—and in new approaches to industries such as food, fashion, and even the automotive industry. But the real platform for growth is urban data, as smart systems keep a finger on the pulse of California cities and entrepreneurs spin this data into marketplace gold. Sadly, the continued emphasis on research leadership in the public university system does little to expand opportunities for those who can't afford the high cost of a college education, and the rich-poor gap continues to widen.

#### EDUCATION

The **educational system**—and the UC system in particular—is streamlined as an engine of economic growth. Result? Research becomes a priority for all institutions of higher learning, with even stronger links between industry leaders, startups, and university research labs. R&D accounts for a growing percentage of the state's GDP.

#### WATER & ENERGY + WORK

**Smart meters, smart grids, and community-scale power and waste technologies** drive both resource conservation and new wealth, with new green jobs for skilled technicians. Still, the state can't quite keep ahead of demand for energy and water.

#### GOVERNANCE & EQUITY + MIGRATION

Even as **migration** from Asia and Latin America continues to slow, the large Asian and Latino populations in California create strong social and economic ties with these regions—so much so that together they function as an integrated economy in many ways.

## CONSTRAINT

### CULTURE COMMONS

In a constraint scenario, California abandons growth for growth's sake as it tries to rein in demand for natural resources. The state turns its attention to a combination of cultural norms (focused on conservation) and cultural expression (focused on expanding support for the creative arts). Underpinning this new social consensus is the growth of a variety of commons that leverage new social media for everything from supporting small-scale food distribution to community health to building the creative infrastructure. But perhaps the most significant shift is a redefinition of freedom: citizens accept cultural norms and taxes as a platform for freedom. Taxes generate revenue that assures access to education, health, and public infrastructures.

#### FOOD + HEALTH

Driven by health costs and health concerns, the state reorganizes its food systems around the concept of the **urban foodshed**. Urban planning takes into account the demand for food, leveraging local production capacity to sustain city populations and integrating **urban, peri-urban, and rural farming**. The state imposes a **fast food tax** as well as food-mile incentives.

#### WORK

While all the scenarios see some growth in green jobs, the constraint scenario sees investment in honing a **green labor economy**—redefining all jobs as green jobs and using green development to create income opportunities for even the poorest citizens.

#### WATER & ENERGY + HEALTH

Using a combination of **carbon markets, personal carbon quotas, and steep gasoline taxes**, California aims to be the **national leader in reduction of carbon emissions**. Beyond conservation, the state targets a variety of toxic wastes to improve community health—and even works with China to craft independent agreements aimed at reducing trans-Pacific pollution.

#### GOVERNANCE & EQUITY

Leveraging its **new social consensus**, the state finds the political will to **repeal Proposition 13**, providing the financial resources needed to address the most extreme disparities in health, education, and income.

# FOUR VISIONS OF CALIFORNIA



## TRANSFORMATION

### 21ST CENTURY SUPERSTRUCTURES

In a transformation scenario, fundamental changes in the way people organize themselves transform the institutional landscape of California. While familiar organizations don't disappear, many are forced to reinvent themselves. Parallel institutions emerge in health, education, food production, and manufacturing. These parallel institutions tap a highly connected populace to create ad hoc networks and teams for responding rapidly to both local and distant needs. New kinds of communities emerge as the focal point of diverse activities, from emergency response to caring for an aging population. These communities transcend the familiar sectors and geographical boundaries, reorganizing the flow of money and resources. Supporting these new flows are new platforms for tracking value exchanges—many of them using game architectures.

#### EDUCATION + WORK

Education escapes the bounds of traditional institutions as **digital tools** and **social media** enable learning teams focused on community-based projects. Platforms for validating learning and assigning credits emerge, including **gaming platforms**.

#### HEALTH

Building on research that shows the power of networks as platforms for **positive contagion**, both private and public health networks begin to build a healthier, happier citizenry. The state demonstrates leadership in reducing obesity, particularly through **network effects**.

#### FOOD + WATER & ENERGY

Using **new kinds of food networks** to reinvent food production and distribution practices, California not only takes the lead in rebuilding the farming landscape around local communities; it also reduces the **water and energy footprints of agriculture**.

#### WORK + MIGRATION

**Molecular-scale assembly** changes the fundamental organization of manufacturing, refocusing it on **small-scale production centers** and high-tech design. A partnership between Mexico's Baja California workers and San Diego's technology leaders creates a model of regional excellence.

#### GOVERNANCE & EQUITY

Social media platforms, including games, become channels for **participatory governance** and re-imagining a **more distributed, decentralized governance** that is not necessarily focused on local geographies but on communities of interest.

## COLLAPSE

### ENCLAVE ECONOMY

In California, a collapse scenario begins with a catalytic natural disaster, like an earthquake or wildfire—or both. Loss of resources plus high costs of recovery drain wealth from the public sector. The private sector moves to protect its own resources, with increased privatization of water, security, and education. The result is the emergence of a couple wealthy, walled metropolitan areas (such as San Diego-Orange County and the San Francisco Bay Area) that control access to most of the state's resources. Meanwhile, other parts of the state slip into slum-like conditions. The exception are places where large Latino populations exploit the so-called "Latino Paradox"—leveraging family and community values as well as traditional food and health practices. In 2020, they provide the only hint of a possible path out of collapse.

#### EDUCATION + WORK

Public education becomes increasingly **privatized**. Most UC campuses are privatized and refocused on producing research scientists and technologists. K-12 is also increasingly privatized; a growing segment of the **young population drops out** to help support their families in low-skill labor jobs.

#### FOOD

With pressures on the state's **water infrastructure** and **lockdown of certain farm regions** by wealthy urban communities, the food system begins to fail. Without coordinated protection, the state's fisheries also fail.

#### WORK + MIGRATION

As **privatization of education, health, and security** continue, **the gap between rich and poor** becomes extreme. The wealthy aggregate in secure urban enclaves or walled suburban communities, tapping the poor for resources needed from outside.

#### GOVERNANCE & EQUITY

Crime and security risks increase in the state, and **prisons** and **police/fire services** are **privatized** in the hands of a few large corporations. Cities buy these services directly, without significant state oversight.

# THE SEVEN BIG QUESTIONS

## from dilemmas to responses

### OVER THE COMING DECADE, CALIFORNIANS WILL ACT.

Whether we act as individuals, as communities, as interest groups, or as citizens in a formal process of governance, we will respond to a growing number of dilemmas to create the California of 2020.

We can respond with an understanding of these dilemmas. Or we can simply react to the problem of the moment. Which we choose could make the difference between a future in which the state remains a world leader, or one in which we effectively become a failed state.

As we imagine what we can be—as we consider the alternative scenarios available to us—today’s trends, innovations, and disruptions can help us understand what is at stake. Take some time to consider the challenges embedded in each of the seven big questions facing California. Discover some facts you may not have known. And most important, use the questions posed here to help you prepare your response to the coming decade

## HEALTH

### UNHEALTHY BUILT AND NATURAL ENVIRONMENTS

The connections between health and the environment are becoming clearer and more actionable. We are now able to track everything from the toxicity of industrial and consumer waste (including pharmaceutical waste) to the impacts of so-called “sick buildings” with greater accuracy. The dilemma is how to convert toxic environments into health-friendly environments at a time when resources are already stressed.

- › **How will citizens, health providers, employers, and technologists partner to recover healthy spaces and places in the state?**

### BURDEN OF CHRONIC DISEASE

Across the country, more than half of the population suffers from chronic disease today, and the number is expected to increase 25% by 2020. Even though Californians have a better chronic disease profile than the nation as a whole, 20% of the population suffers from multiple chronic diseases and accounts for 60% of the state’s health care spending. As the population ages, this burden of chronic disease will grow.

- › **How can Californians accelerate the spread of healthy lifestyles and preventive care that can reduce this burden?**

### INCREASING HEALTH DISPARITIES

From earlier onset of chronic disease among Native Americans and lower health care coverage for Latinos, to limited access to healthy food among poorer Californians and declining health resources among aging Californians, health disparities point to growing health risks across California—as well as growing debates about how to meet diverse and changing needs.

- › **What new strategies will Californians invent—as health consumers as well as health citizens—to correct or compensate for these disparities?**

### NEW BORDERS, NEW INFECTIONS

As California’s virtual borders extend to include the entire Pacific Rim, health risks expand, too. Business and leisure travel, health tourism, and trade in food and manufactured goods all increase the chances for the spread of disease in new patterns. At the same time, new diseases—including potentially lethal mutations of the Avian flu virus, tuberculosis, and staph infections—can spread more quickly throughout the entire region.

- › **How can we tap health mobs and health-conscious Internet users to create robust early responses to new threats from infectious diseases?**

### DIMINISHING LATINO HEALTH ADVANTAGE

California’s Latinos are poorer, with less health coverage than non-Latino whites. But their health statistics for mental health, asthma, heart disease, and age-adjusted deaths have been lower than for non-immigrant, non-Latino whites. Some speculate that a combination of diet and cultural factors get the credit. However, as the percentage of second- and third-generation Latinos grows in the population—and Latinos acculturate—this health advantage may be eroding.

- › **What can we learn from first-generation Latino immigrants and how can we extend this advantage to other groups?**





## EDUCATION

### PRIVATIZATION OF PUBLIC EDUCATION

By 2025, privatization of education comes in a variety of forms, including increasing enrollment in private institutions, contracting with private organizations to run schools, increasing student tuitions in public universities while decreasing funding from state taxes, and increasing corporate sponsorship of university research. All these strategies have grown over the past decade, narrowing the options for the state's poor and middle-class students to get strong educations while reducing public input to the curriculum.

- › **What alternatives for funding will strengthen the traditional values of public education?**

### NOT ENOUGH COLLEGE GRADUATES

By 2025, 41% of jobs will require a bachelor's degree or higher, according to the Public Policy Institute of California. But only 35% of Californians will have those degrees. At the same time, there will be a surplus of workers for less-skilled jobs. This gap represents a potential loss of personal income, of higher income jobs (and tax revenues), and of economic growth.

- › **How can Californians recreate a virtuous cycle of investment in higher education that yields higher personal and state resources for reinvestment in the labor force?**

### LOWER COLLEGE ENROLLMENT, MORE RESEARCH FUNDING

Just over half of California high school students continue on to college—a ranking of 42nd out of 50 states. Meanwhile, university income is increasingly driven by research, not student fees. As the college-age population declines, the funding model for California's public universities is faltering, and many of the brightest professors and researchers are taking jobs outside the state.

- › **How can we engage more of the population in college-level learning and continue to lead the nation in research and innovation?**

### SECOND-GENERATION LATINO EDUCATIONAL LEAD

Nearly half of students in California's public K-12 schools are Latinos. The future prospects of these students differ widely, depending on whether they are first-, second-, or third-generation Latinos in the United States. While both first- and third-generation Latinos struggle to complete high school and find steady work, second-generation 18- to 24-year-olds show a different pattern, with the highest level of degree completion of any group.

- › **How can this second-generation achievement be sustained among third-generation California Latinos?**

### SHIFT FROM PRINTED TEXTBOOKS TO DIGITAL RESOURCES

The Internet has changed the way people learn, from preschool through university. In Menlo Park, a venture capitalist spends his spare time creating more than 1000 free online courses for use worldwide. Students engage in global games for learning and credit. The University of California is now planning an online degree program, available worldwide at the same tuition as a campus program.

- › **How will California tap the variety of online resources to help its entire population achieve a globally relevant education?**

## FOOD

### CLIMATE IMPACTS ON CROPS

Climate change threatens the stability of California's agricultural production. Flooding and drought will likely make water management more difficult. More extreme weather events could wipe out crops. This may lead to more climate variability and challenge conventional crop management regimes. Local shifts could force entire crops—such as vineyards—to move to new locations. Or they could provide new opportunities for crops.

- › **How can Californians make their food systems more adaptable to climate variations?**

### FOOD FOR EXPORT VS. DISTRIBUTED LOCAL PRODUCTION

For 50 years, California has been the leading state in agricultural exports, providing half the nation's agricultural products and leading the nation in global exports of many foods. At the same time, California's Sacramento-area small farms lead the nation in direct farm-to-consumer sales, enjoying better receipts than when using mainstream distribution channels.

- › **What choices will California farmers make regarding mainstream food for export vs. local direct-to-consumer marketing, and how will those choices impact the way we eat?**

### GROWTH OF URBAN FARMING

From backyard "victory gardens" to beekeeping on the roof of the Fairmont Hotel in San Francisco, California is a hotbed of experiments in urban farming. The barriers to sustainable urban farming include long-term access to land, initial cost of setting up gardens, and urban vandalism. Nevertheless, urban farming is a source of food, jobs, training, and community engagement.

- › **What role will urban farming play in building resilient households and communities?**

### GROWTH OF URBAN AND SUBURBAN FOOD DESERTS

Approximately half of the state's population lives within a half mile of a full-service grocery store, but some urban areas have so little access to grocery stores that they have been called "food deserts." West Oakland's population of 25,000 has only one grocery store but 36 convenience and liquor stores that offer minimal access to fresh food.

- › **How can Californians bridge the growing "food access" divide that threatens the state?**

### SCHOOL LUNCH REFORM

School-age children now suffer from so-called old-age diseases such as obesity, type 2 diabetes, and arterial diseases. These diseases are linked to highly processed foods children now eat both at home and in school lunch programs. A movement to reform lunch programs and educate children about healthy eating is gaining a foothold in several school districts in California.

- › **How can Californians best transform children's diets to guarantee long, healthy lives?**

## WORK

### MORE GREEN JOBS

According to Pew Charitable Trusts, California led the nation in the growth of green jobs over the past decade, with green jobs growing faster than the overall workforce. In the ten-year period from 1998 to 2007, clean energy produced more than 10,000 new businesses and more than 125,000 jobs. This trend is likely to continue.

- **How can we turn the challenges of building a global green economy into opportunities for all Californians?**

### DESIGN LEADERSHIP

Throughout its history, California has been a source of design leadership—from film and fashion to human-machine interfaces like the Macintosh, iPhone, and iPad. With a critical mass of cutting-edge design talent and a long history of the studio model to quickly assemble creative teams and produce a competitive product, California is poised to expand its leadership in new sectors, such as automotive and green technology.

- **How can we tap the state's design talent to address social as well as technical challenges while creating new economic opportunities?**

### ROBOTICS AND LOCAL MANUFACTURING

California may lead the country in both public and private innovation in robotics and small-scale manufacturing technologies that combine computerized design with new molecular-scale materials. These are likely to continue the trend in declining manufacturing jobs and even reorganize how manufacturing is done—giving advantages to flexible, well-funded, small-scale manufacturing centers that can quickly retool for new products.

- **How can California reinvent its workforce to ride this wave of innovation with minimal costs to today's workers?**

### MORE ENTREPRENEURS FROM MEXICO

While California's economy has historically attracted a growing flow of immigrant laborers—to the extent that 1 in 4 new entrants to the labor force is Mexican born—the flow may be stabilizing now. In addition, the profile of new migrants may be changing. Increasingly, Mexicans are coming to California as entrepreneurs with funds to invest in new businesses that create new jobs.

- **How can these new immigrants reshape California's economy—and especially the Latino workforce?**

### RIISING CHINESE LABOR COSTS = MORE CALIFORNIA JOBS?

Average hourly wages in China have doubled in the past five years, making the Chinese labor force less attractive to foreign companies. For U.S. companies, these rising costs may signal a return to manufacturing at home—especially if investments in smaller, low-cost labor markets around the world also prove costly.

- **How can Californians reposition their workforce and manufacturing know-how as a competitive edge vis-a-vis foreign markets with growing labor costs?**

## WATER & ENERGY

### UNSUSTAINABLE GROWTH IN DEMAND FOR WATER

If Californians continue to use water at the same rate as today, demand for water could grow 40% by 2030. Much of this growth will be in Southern California with its expanding population. Suggested solutions range from conservation to groundwater banking, recycling, large-scale water transfers, and desalination.

- **How will Californians weigh the benefits of growth and development against the realities of a limited water supply?**

### DECLINING SIERRA SNOWPACK: –52% BY 2090

Climate change will likely cut the Sierra snowpack in half by the end of the century. The snowpack is essential to the California economy, providing not only residential, industrial, and agricultural water but also supporting a healthy tourist industry. This decline will occur at the same time that the population and demand on food production is growing.

- **How can Californians begin to create water-efficient systems today that will compensate for declining water supplies?**

### MODEST GAINS IN DESALINATION, GRAY WATER CONVERSION

California is investing in technologies that convert ocean water or household and industrial gray water into fresh water. However, the energy requirements of desalination are likely to drive the cost of water up steeply, and risks to ocean environments are significant.

- **What innovations in both technology and lifestyle can help Californians make use of previously unusable water supplies while also protecting—or even improving—local environments?**

### URBAN VS. AGRICULTURAL WATER CONFLICTS

Agriculture accounts for the largest percentage of the human water footprint. Yet much of the food grown in California is consumed outside the state, or in the state's large cities, where residential and industrial demands for water are also growing.

- **How will we, as Californians, balance the complex demands on our water resources across the state and across sectors?**

### INCREASED DEMAND FOR SMALLER, SUSTAINABLE HOUSING

Smaller, sustainable housing has emerged as a potential high-demand market in California. And while green innovation has been championed by well-educated, well-resourced consumers to date, the state has inaugurated a Single-Family Affordable Solar Homes (SASH) program for owners of low-income housing.

- **How will Californians reinvent the dream of owning one's own house in the coming decade?**

### GROWTH OF ELECTRIC VEHICLE ECONOMY

With aggressive goals for cutting greenhouse gas emissions and reducing energy consumption, California creates a favorable testbed for an electric vehicle infrastructure and market. Many questions arise, however, about demand on the power grid, sustainability of batteries, and speed of deployment.

- **What kinds of incentives and policies will Californians embrace as the state becomes a leader in the electric vehicle economy?**

## GOVERNANCE & EQUITY

### RICH-POOR GAP CONTINUES TO GROW

For the past 15 years, the rich-poor gap has grown steadily. Between 1995 and 2007, the gains of those in the top 20% have grown 5 times as fast as those in the bottom 20%. In recent years, the bottom 40% have actually declined in wealth. And the wealthiest 1% enjoyed gains 8 times those of the average middle-class taxpayer.

- › **How can Californians redesign economic growth to benefit the entire population?**

### COASTAL WEALTH, INLAND POVERTY

For decades, the average per capita income of people living in coastal California has grown much faster than any other region. From 1989 to 1999, coastal populations enjoyed income growth of 20% compared to a decline of -0.2% in the central region of the state.

- › **What development strategies can build an infrastructure for wealth in the inland areas of the state?**

### RIISING PRISON POPULATION, OLDER INMATES

California's prison populations are operating at 200% of legal capacity. Incarceration rates also target ethnic groups unequally: African Americans are six times as likely to be jailed as whites, Latinos nearly twice as likely. Incarceration rates for the poorer parts of the state are more than double the rates for wealthy coastal areas.

- › **How can Californians address the social causes of crime to reduce demand on the justice system?**

### RISE OF THE LATINO INDEPENDENT VOTER

In California, voters who "decline to state" party affiliation are increasing, with nearly 20% registering this way today. Latinos match this percentage overall, but nearly 30% of Latinos under the age of 26 are going independent, suggesting a trend toward even greater numbers of independent Latino voters.

- › **How will Latino independent voting impact the state's political profile and processes?**

### GERRYMANDERED DISTRICTS = FRAGMENTATION

Following the 2000 Census, voting district boundaries in California were redrawn through a bi-partisan process that tried to define cohesive Republican or Democratic districts. As the 2010 Census again calls for redistricting, the state may see additional gerrymandering, potentially leading to increased fragmentation of neighborhoods, towns, cities, and counties.

- › **How can Californians manage the redistricting process to reduce fragmentation?**

### GROWING SECESSIONIST DEMANDS

Secessionist movements are nothing new in California. As California enjoys a large share of the country's wealth from industry, agriculture, and natural resources, the state maintains a level of economic self-sufficiency that emboldens these demands. Add to that growing ties to Asia and Latin America—plus the desire to negotiate independently with countries such as China and Brazil—and we have a recipe for more secessionist demands.

- › **How can we use the secessionist debate to better understand the complex relationship between California and the rest of the world?**

## MIGRATION

### GROWTH OF SUBURBAN AND EXURBAN POVERTY

Across the nation, the poverty rate of suburbs grew by 15% in the last decade. In California, migration of the poor to suburbs and exurbs has made Bakersfield, Fresno, and Modesto among the top 10 cities in the nation suffering from suburban poverty. But even in coastal cities, the poor are increasingly shifting from the urban core to the suburban periphery.

- › **How can California rebuild its suburbs as vital communities for raising healthy families and pursuing the new California dream?**

### CHILDREN OF IMMIGRANTS ARE DRIVERS OF POPULATION GROWTH

While California has led the nation in legal immigrants for the past 30 years, its share of immigrants seems to be stable at around 27%. Looking forward, the children of these immigrants—primarily Latinos and Asians—will account for the largest growth in California's population.

- › **What challenges and opportunities will a vibrant second-generation immigrant population pose as California continues to integrate diverse cultures into the state's identity?**

### AGES 30 TO 50: LARGE MIGRATION OUT OF STATE

California's high cost of housing and turbulent job market may be driving an entire generation away. Generation X, focused on establishing families and careers as knowledge workers, is leaving the state for more attractive destinations, such as Colorado, Georgia, and Texas. After driving housing and labor markets for the past two decades, this age group will experience no new growth in California, while the boomer generation ages and a new bulge of young people emerges.

- › **How will the state reorient its economy as this core growth engine stalls?**

### NEW KINDS OF BORDERS AND BOUNDARIES: WALLED COMMUNITIES

Gated communities, in which developers and private owners assume the infrastructure costs for public spaces, can relieve the burden on counties to provide these services. However, they also tend to segregate communities, increasing ethnic tensions. Such communities have been growing rapidly in California, representing over 21% of new development in Orange County, 31% in San Fernando Valley, and 50% in the Palm Springs area.

- › **What options can counties pursue to provide critical infrastructure without fragmenting their communities?**

### NEW CROSS-BORDER VIRTUAL COMMUNITIES

The Internet has linked people across traditional geographic boundaries, creating social, economic, and political networks that change where people can work, live, and share experiences. These networks have the potential to both increase cohesiveness across diverse regions of the state and increase fragmentation as people align themselves by new kinds of affinities.

- › **How can Californians use these new virtual communities to untangle all the dilemmas we will face in the next decade?**



# WHAT WILL YOU DO TO BUILD A BETTER CALIFORNIA?

## HEALTH

Q: How will we create healthy lifestyles in a world of new health risks?

- › Unhealthy built and natural environments
- › Greater burden of chronic disease
- › Increasing health disparities
- › New borders, new infections
- › Diminishing Latino health advantage

RESPONSE HEALTH INTERVENTION

## EDUCATION

Q: How will we learn in a century of vast information and increased complexity?

- › Privatization of public college education
- › 2025: 1 million fewer college grads than needed
- › Lower college enrollment, more research funding
- › Second-generation Latino educational lead
- › Shift from printed textbooks to digital resources

RESPONSE EDUCATIONAL RETHINK

## FOOD

Q: How will we reinvent our food systems to foster sustainable bodies and ecosystems?

- › Climate change impact on crops
- › Food for export vs. distributed local production
- › Growth of urban farming
- › Growth of urban and suburban food deserts
- › School lunch reform

RESPONSE FOOD UPGRADE

## WORK

Q: How will we build a strong economic foundation with 21st century industries and jobs?

- › More green jobs
- › Design leadership
- › Growth of robotics and local manufacturing
- › More entrepreneurs from Mexico
- › Rising Chinese labor costs = more California jobs?

RESPONSE WORK REDESIGN

## WATER & ENERGY

Q: How will we thrive with less water and more expensive energy?

- › Unsustainable growth in demand for water
- › Declining Sierra snowpack: -52% by 2090
- › Modest gains in desalination, gray water conversion
- › Urban vs. agricultural water conflicts
- › Increased demand for smaller, sustainable housing
- › Growth of electric vehicle economy

RESPONSE RESOURCE FORMULA

## GOVERNANCE & EQUITY

Q: How will our systems of governance assure responsive leadership, justice, and equitable access to state resources?

- › Continued growth of rich-poor gap
- › Coastal wealth, inland poverty
- › Rising prison population, older inmates
- › Rise of Latino independent voter
- › Gerrymandered districts = fragmentation
- › Growing secessionist demands

RESPONSE GOVERNMENT REFORM

## MIGRATION

Q: How will we redefine our borders, spaces, and places to support robust and resilient communities?

- › Growth of suburban and exurban poverty
- › Children of immigrants = drivers of population growth
- › Ages 30 to 50: large migration out of state
- › New kinds of borders and boundaries: walled communities
- › New cross-border virtual communities

RESPONSE MIGRATION REDIRECT

2010

who are YOU TODAY?

2020

who will YOU be IN THE FUTURE?

## FOUR VISIONS OF THE FUTURE

### GROWTH SMART STATE

California enters a new era of growth, built on the backbone of smart systems. These systems support innovation across a host of sectors and industries—from ubiquitous online learning to city governance to new models for the aerospace, biomedical, and alternative energy industries. The rewards of growth are not equally distributed, however. The rich and young thrive. Poor Gen-Xers have the hardest path.

- › University of California: platform for economic growth
- › R&D spending: growing percentage of GDP
- › Smart water and waste systems
- › Urban data as a growth industry
- › Integrated pan-American, pan-Pacific economy
- › Design advantages in automobiles, apparel, and food

### CONSTRAINT CULTURE COMMONS

A sober-minded assessment of risks and resources in the face of water and energy shortages leads to a new focus on communities and commons—with a new partnership across sectors to reinvent culture in California. A combination of strong policy and creative innovation yields a lifestyle blueprint that emphasizes the creative arts, community health, and conservative consumption.

- › Repeal of Proposition 13
- › Serious greenhouse gas controls
- › Independent agreements between California and China
- › Green labor economy
- › Flourishing cultural arts
- › Integrated foodshed and urban planning
- › Rights for non-human "citizens"

### TRANSFORMATION 21ST CENTURY SUPERSTRUCTURES

A new kind of citizenship emerges as people build parallel institutions that leverage social media for their core infrastructure. Communities—not all geographically defined—replace sectors as the organizational substrate for learning, innovation, wealth generation, and governance. Neuroscience provides the design paradigm for this institutional transformation, with new capacities to engage, inspire, and learn.

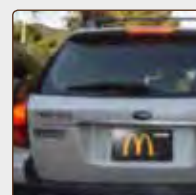
- › Project-focused education
- › Participatory community research
- › Reinvestment in local farming
- › Games as a governance platform
- › New design principles from neuroscience
- › Open money platforms

### COLLAPSE ENCLAVE ECONOMY

In the face of large-scale disaster, a highly privatized society loses its cohesiveness. Wealth is concentrated in a few highly-connected urban areas that lock in basic resources from their periphery. Beyond the boundaries of these secure enclaves—and isolated from them—less well-off populations struggle to maintain any advantages of community. In the most successful example of adaptation, the Latino population leverages its culture to rebuild socially, economically, and environmentally devastated areas.

- › Catalytic natural disasters: earthquakes, wildfires, floods
- › Walled cities: secure connections to food, health, and learning
- › Utopian communities, suburban slums
- › Privatization of education
- › Privatization of police and prisons

Digital license plates—with ads



<http://latimesblogs.latimes.com>

Digital food tracking



<http://harvestmark.com>

Distributed earthquake sensing



<http://qcn.stanford.edu>

Recycled products, re-invented workers



<http://projectdesign.org>

Strong environmental regulations



<http://latimesblogs.latimes.com>

Community eco-mapping and monitoring



<http://sf.urbanecomap.org>

Alternative currencies



<http://www.humboldtexchange.org>

New food networks



<http://www.longbeachlocal.org>

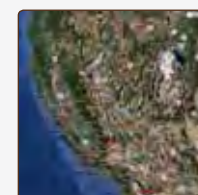


<http://californiafarmlink.org>



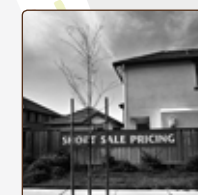
<http://foragesf.com>

Disaster planning



<http://enplan.com/fires/>

Failure of inland suburbs



<http://www.businesswire.com>

Public-private educational collaborations



<http://www.businesswire.com>