Reprint No. 242

California Growth: Hard Questions, Few Answers

Michael B. Teitz

February 1991

University of California at Berkeley

$3.00

Reprint 242
Reprinted from *California Policy Choices*, Volume 6; John J. Kirlin and Donald R. Winkler, editors.

California Growth; Hard Questions, Few Answers

Michael B. Teitz

University of California at Berkeley
Institute of Urban and Regional Development

CALIFORNIA GROWTH: HARD QUESTIONS, FEW ANSWERS

3

Michael B. Teitz

California's high rates of growth, long viewed as a positive force for economic development, are coming to be seen as presenting serious problems in the form of land use conflicts, fiscal strains, and a general deterioration in the quality of life. The combination of low taxes and easy access to high-quality transportation, housing, and education to which Californians have become accustomed unfortunately can no longer be sustained.

As growth has continued and problems have emerged, Californians have responded in reactive and limited ways, either passing broad legislation to deal with symptoms of growth or attempting to control growth on a local level. The complexity of issues raised by population growth, and their regional and statewide impacts, suggest that the state should develop and implement a growth management policy that will provide a framework for other levels of government to promote balanced development and economic growth while protecting individual opportunity and environmental quality.

Rapid population growth in California is not new. What is new is that growth is now perceived by many as a problem rather than an advantage. Perhaps for the first time in the state's history, Californians are seriously questioning the value of population growth and urban development. Mainly, this concern is local, responding to traffic congestion and declining environmental quality. But there is also a broader issue, namely the capacity of the state as a whole to absorb and manage growth without significant diminution of the quality of life. This issue has been raised principally by environmental advocates. The opposite question, whether quality of life can be sustained without growth, though less popular, is equally important and is advanced by advocates of business, labor, and development. Confounding both views is the apparently inexorable march of growth itself, which has continued with only temporary slowdowns for over fifty years.

One striking feature of events since the March 1988 publication of *Vision: California 2010* by the California Economic Development Cor-

poration[1] has been the increase both in population and in debate about growth and its local and regional implications. The need for a level of development sufficient to realize the aspirations of California's population, noted in the report, remains. However, it is becoming increasingly clear that a viable strategy for managing growth in the state will also require solutions to some intractable problems of development.

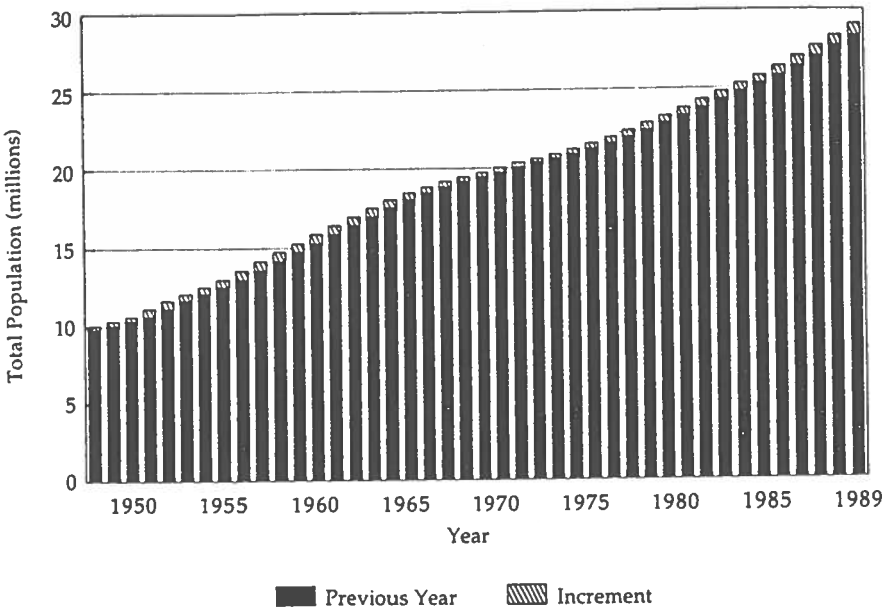
This chapter explores four topics related to population growth in California: growth trends, especially over the last forty years, and projections for the future; attitudes toward growth in California, both present and past, and the assumptions that have underpinned policy and action in the state at different times; successes and failures of responses to growth in the state; and possible policy goals and instruments appropriate for the 1990s.

Growth in California

It is impossible to look at the history of population growth in California and not be struck by its remarkable size and consistency. In the forty-two years from 1947, when the post-World War II boom was just beginning, up to 1989, the state's population tripled, from about ten million people to close to thirty million (see Figure 3-1). The state's compound annual growth rate over that period has been 2.8 percent, more than double the 1.2 percent of the U.S. as a whole. There have been fluctuations in the amount and rate of population growth over time, but at no time has the trend been reversed.[2] Figure 3-2 shows the annual increments in the population for this period. Annual population growth was high, at about 550,000 per year, during the period 1955-64. It fell to a low of 240,000 per year in 1971-72, but in the eighteen years since then the growth increment has increased almost continuously to about 750,000 in 1988-89, the largest total recorded over the whole period. Even in 1979-82, during the most severe recessions since the Depression, population growth scarcely faltered. Such an eighteen-year trend was bound to produce powerful effects, and it raises the question of how long growth at this level can continue.

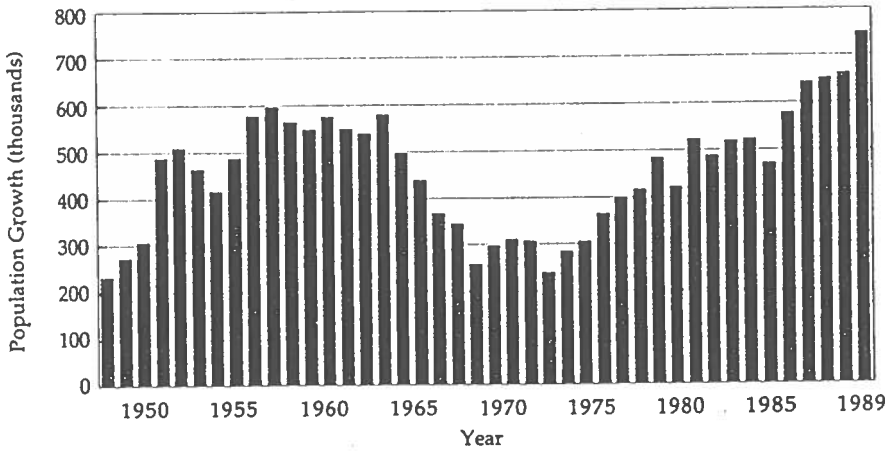
1. California Economic Development Corporation, *Vision: California 2010*, Sacramento, 1988.
2. In the 1970s there was a period when growth slowed in the aggregate with decline in many areas within the state.

Figure 3-1. Total State Population and Growth, 1948-89



Source: California Department of Finance

Figure 3-2. Annual State Population Growth, 1948-89



Source: California Department of Finance

History suggests that rapid growth cannot continue indefinitely. But it does not tell us when it will stop or how large the population might become. Is there any limit to California's population? Comparisons can be instructive. New Jersey is an urbanized state that is now growing only very slowly. If California were to equal the population density of New Jersey in 1980, the state would have over 150 million people. That most likely is unrealistic, because New Jersey is the most densely populated state in the U.S. It is small and does not contain large areas of uninhabited land, though there is more than most people realize. It might be more appropriate to compare California instead to the Northeast region of the U.S., comprising the states from Pennsylvania through Maine, an area only 4 percent larger than California, which includes a substantial proportion of mountainous land. At the 1980 density of this Northeast region of the U.S., California would have a population of 47.2 million people. That is 57 percent larger than the state's 1990 population. If past trends were to continue that population would be reached in the year 2030, only forty years from now.

Interestingly, in the forty years from 1940 to 1980, the Northeast's population grew by 36 percent, but by the final decade of that period growth had fallen almost to zero. In 1940 the region's gross population density was 220 persons per square mile (ppsm). By 1980 it had reached 302 ppsm. California in 1980 had a gross population density of 151 ppsm, up from 44 ppsm in 1940. California's gross density was therefore substantially lower in 1980 than that of the Northeast in 1940, and approximately equal to that of New England in 1950.

These comparisons do not tell us what will happen in California. Changes in the region's economy or in that of the world at large may slow population growth, especially from migration. Changes in behavior or composition of the population may slow the rate of births, increase the number of deaths, or change the rate of migration to other states. All of these help to explain the sudden collapse of growth in the Northeast. There may be constraints on growth in California, for example in water supplies or other basic necessities for development associated with the arid character of the state. Such natural constraints have been forcefully argued, but they must confront examples such as Italy, which has a comparable climate and a

population of almost 58 million in an area two-thirds the size of California.[3]

There also may be deliberate shifts in policy that affect the growth rate in order to maintain environmental quality and lifestyle. Such policy initiatives are not unprecedented in California. However, in the past, they almost always accommodated or reinforced growth; in this period, they may impede or restrict it.

What the trends and comparisons do tell us is that the dynamics of growth are very powerful. California has been an urbanizing state for a long time. There is little inherent in the state's physical, economic, demographic, or social makeup to prevent growth from continuing if national and world economic, social, and political conditions continue to favor it. Virtually all forecasters of the state's population see no fundamental change over the coming years. They differ in details and in the time horizon to which they are willing to project, but the most widely accepted view is that the state's population will increase by about ten million people by 2010. Population forecasters have been wrong many times, and they will be wrong again. Nonetheless, prudence suggests that these forecasts be taken seriously. The quality of life in California in the next century will depend on actions taken today.

Prospects for the future may be illuminated by looking at where growth has taken us in the past. The simplest way to do this is to examine the changes in population in the state's fifty-eight counties since 1947. Although the counties are not a perfect geographic base for analysis, particularly because some, such as San Bernardino, are so large, they do permit comparisons over long periods of time.

Growth Regimes in California

Some characteristics of growth are immediately evident and well known. The state's population growth has been predominantly urban and metropolitan, primarily in the three metropolitan areas of Los Angeles, San Francisco, and San Diego. Central Valley counties, especially around Sacramento, also have grown rapidly in recent years. In the three coastal metropolitan areas, growth has occurred partly through increasing density, but mainly through extensive

3. In fact, Italy is slightly larger than Arizona, but it is not generally perceived as being densely populated.

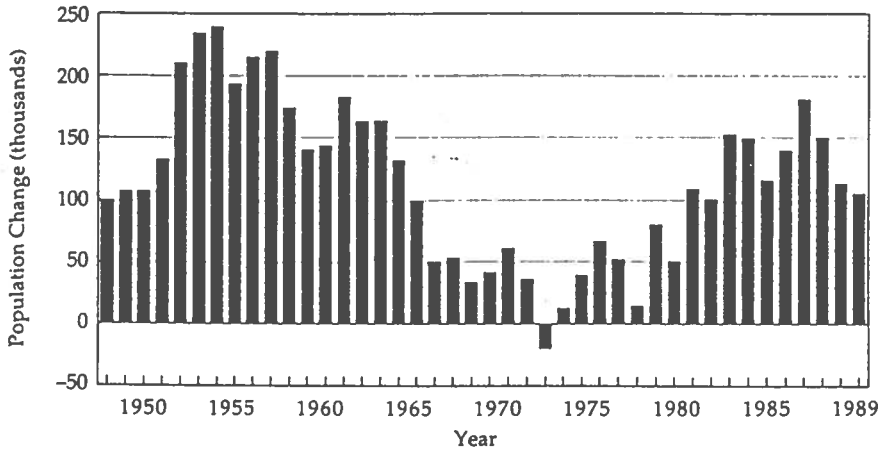
peripheral development. In the process, it has moved inland—in San Francisco to the inner coastal valleys and now the Central Valley; in Los Angeles toward San Bernardino and Riverside counties, in addition to the enormous growth in Orange County; and in San Diego, into the north and east county areas. These regions have accounted for a major part of the state's total growth in recent years.

The nature of this growth is revealed in the patterns of change over time. These "growth regimes" vary enormously from county to county and among the regions of the state. They show much more precisely what has happened. In a conventional model of development, an area experiencing growth should exhibit over time an S-shaped total population curve, as growth first accelerates then declines as buildable land becomes scarce and further population increases can be achieved only with greater density. Such a pattern would be associated with low absolute growth at the beginning, increasing absolute growth up to some point, and then diminishing growth as the area approaches some population equilibrium. This pattern may be interrupted by changes in demographic behavior and economic activity, but over time these should even out.

Such patterns are visible in California, but often with major variations. For example, Los Angeles, the state's largest county, showed exactly this pattern from 1947 to 1971 (see Figure 3-3). Since then, however, it has seen a resurgence of growth, though never to the absolute population increments of the period from 1950 to 1975. Nonetheless, in 1988 absolute growth in the county still exceeded 100,000. Although the level of growth is now falling, the end is not in sight. San Francisco, on the other hand, is a county that is essentially built out and difficult to increase in density. As shown in Figure 3-4, the city has fluctuated from growth to decline and back again since 1947.

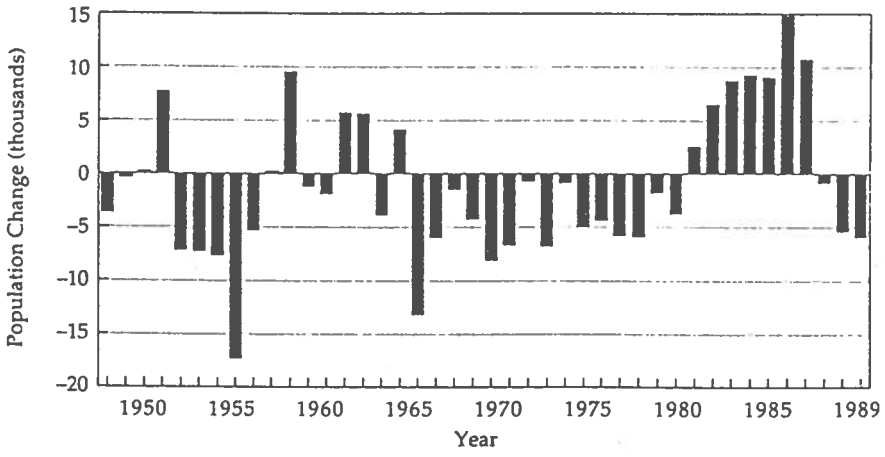
Every county, along with its constituent cities, has a unique situation and history, but there do appear to be some striking patterns. We may identify eight regimes of growth that reflect how counties have fared during the turbulence of the past forty years. In part, they

Figure 3-3. Annual Population Change, Los Angeles County, 1948-89



Source: California Department of Finance

Figure 3-4. Annual Population Change, San Francisco County, 1948-89



Source: California Department of Finance

reflect where counties are located in relation to outward-moving waves of growth from metropolitan centers across the state.[4]

The first group of counties are the historic cores of three major metropolitan areas, San Francisco, Los Angeles, and Sacramento (see Figures 3-3, 3-4, 3-5, and 3-6). With the exception of San Francisco, which had built out earlier, these counties all exhibit peak levels of population increase in the 1950s and 1960s, followed by sharp declines and recoveries to substantial growth levels in the 1980s. These are counties with annual population increases in excess of 20,000, and in the case of Los Angeles, ten times that amount. Although the level of increase remains high, and space still exists for new development, constraints of land availability and development regulations will place increasing obstacles to further growth. Nevertheless, their metropolitan centrality continues to make development attractive, especially for higher-density uses.

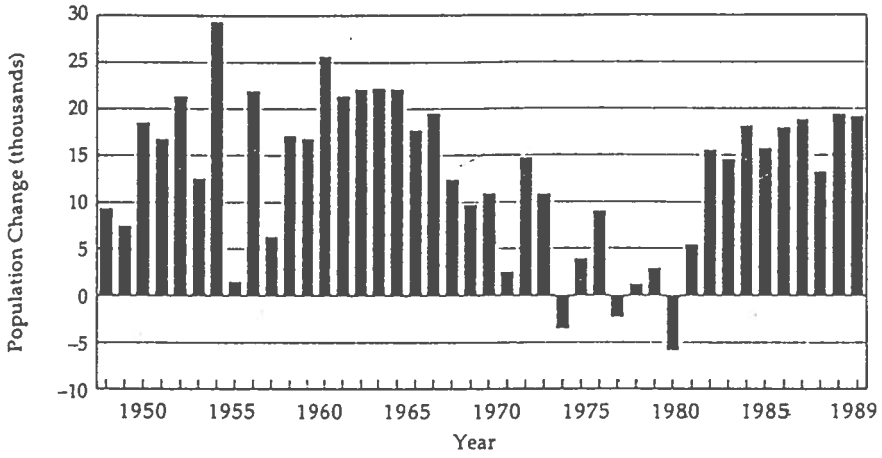
Closely associated but differing in pattern are some counties immediately adjacent to the metropolitan cores. These counties have experienced huge growth, in effect creating secondary cores. Santa Clara and Orange counties, in particular, display remarkably similar patterns, as shown in Figures 3-7 and 3-8. Growth in these counties peaked at very high levels in the 1960s, and has declined thereafter, with variations from year to year. Neither county has experienced the zero or negative growth seen in the old core counties, although Santa Clara dipped below 10,000 in 1984 for the first time since 1947. Absolute growth may be expected to continue in this group, its rate depending on economic conditions and regulatory behavior.

A third regime of growth is exhibited in counties in the first ring around the core counties, which have continued to grow in a way that fluctuates but does not show a clear trend. Examples are Contra Costa County in the Bay Area and Ventura County, adjacent to Los Angeles (see Figures 3-9 and 3-10). While they have had intermittent peaks and dips, each of these counties has sustained growth at the rate of 10,000 to 15,000 persons per year. They have additional land and may be expected to continue this pattern.

---

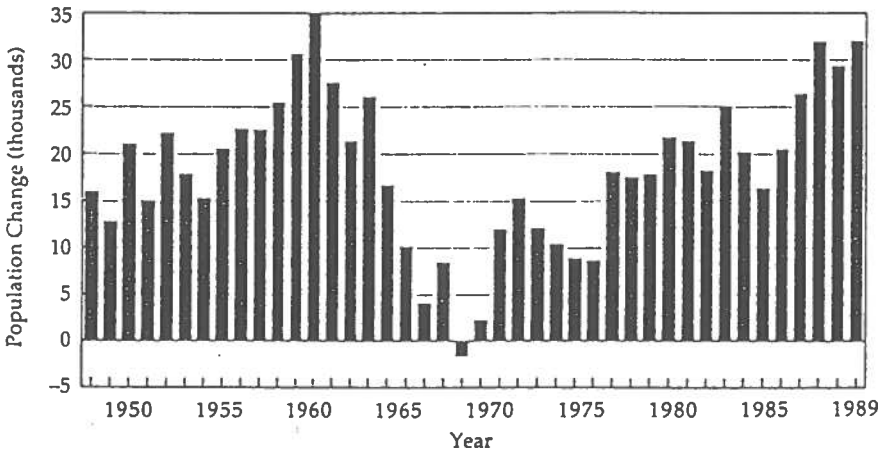
4. Identification of these growth regimes is based on visual comparison of patterns of growth in all fifty-eight counties. A research project funded by the California Policy Seminar is now in progress at the Institute of Urban and Regional Development at the University of California, Berkeley. It is exploring more analytic approaches to the identification and use of growth profiles for cities and counties in the state. Formal methods for comparing the shapes of such time series are somewhat limited.

Figure 3-5. Annual Population Change, Alameda County, 1948-89



Source: California Department of Finance

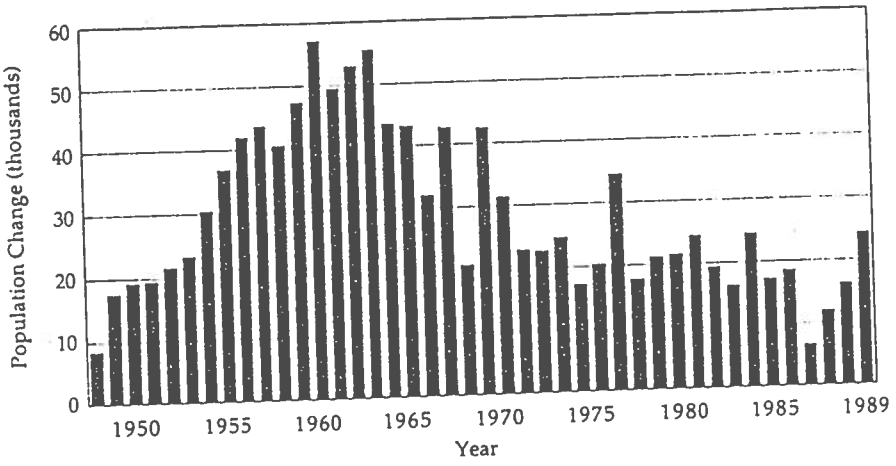
Figure 3-6. Annual Population Change, Sacramento County, 1948-89



Source: California Department of Finance

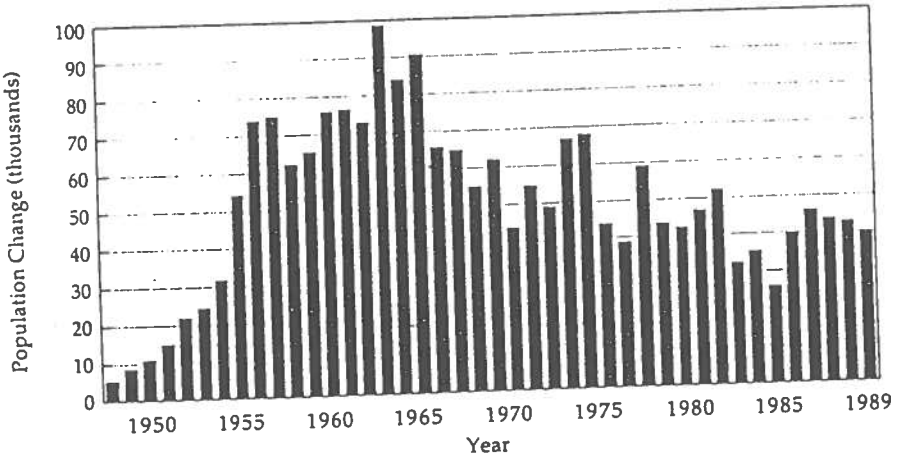
Each of the first three groups has been historically close to the metropolitan centers of growth. The fourth group takes us to the peripheries of metropolitan areas, where counties exhibit recent high absolute or relative rates of growth after years of quite constant

Figure 3-7. Annual Population Change, Santa Clara County, 1948-89



Source: California Department of Finance

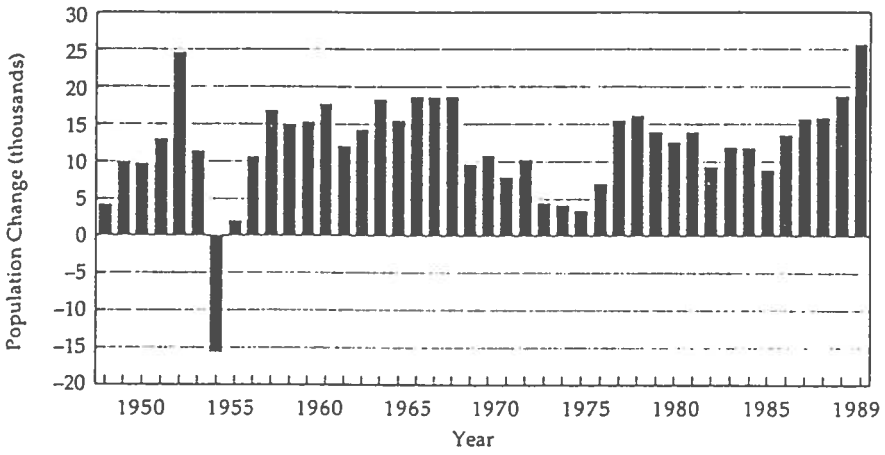
Figure 3-8. Annual Population Change, Orange County, 1948-89



Source: California Department of Finance

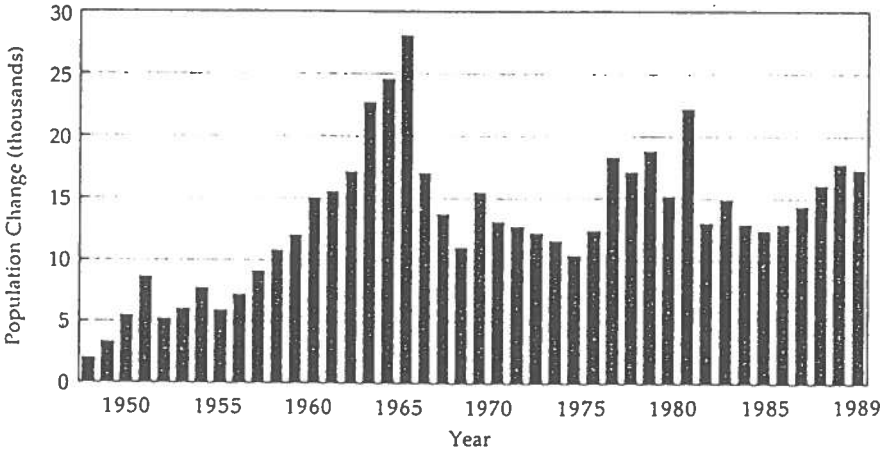
levels. At high absolute levels, the best examples are Riverside and San Bernardino counties, where increases approaching 100,000 persons per year are ten times historic levels (see Figures 3-11, 3-12, and 3-13). At a lesser scale, Stanislaus County is receiving overspill from

Figure 3-9. Annual Population Change, Contra Costa County, 1948-89



Source: California Department of Finance

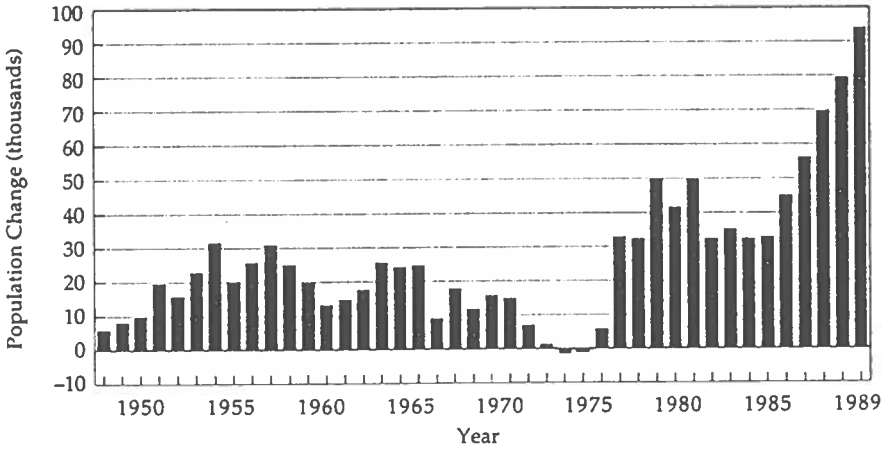
Figure 3-10. Annual Population Change, Ventura County, 1948-89



Source: California Department of Finance

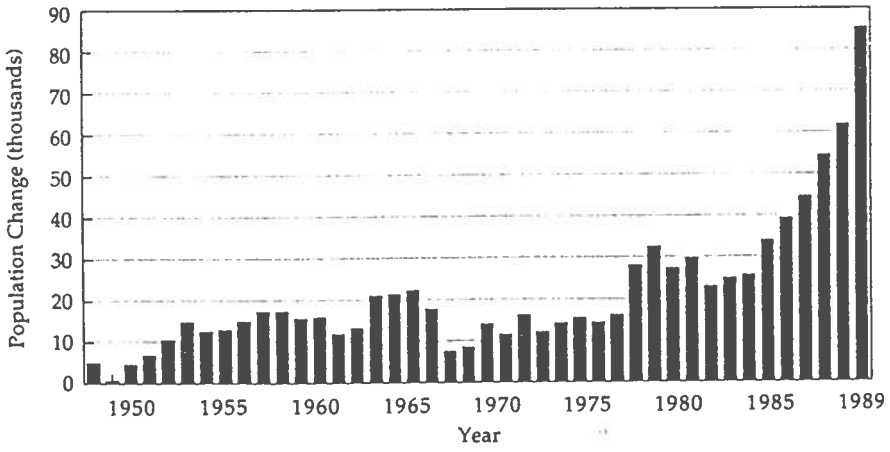
the San Francisco Bay Area and has increased by up to 18,000 persons per year. Other examples from the Bay Area include Solano and Sonoma counties. A similar pattern is visible with much smaller

Figure 3-11. Annual Population Change, San Bernardino County, 1948-89



Source: California Department of Finance

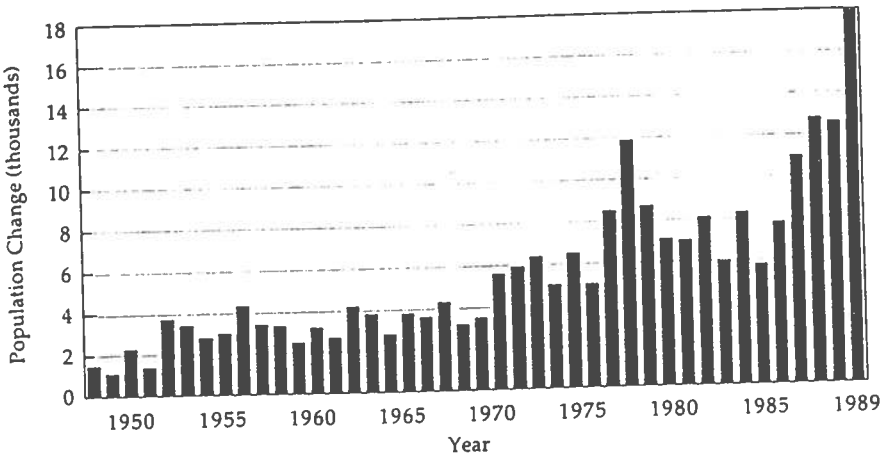
Figure 3-12. Annual Population Change, Riverside County, 1948-89



Source: California Department of Finance

magnitudes in Imperial County, relating to San Diego, and in Calaveras and El Dorado counties, relating to Sacramento. Each of these counties, and others like them, are now at the outer frontier of urban development, with all the issues and tensions that are implied. Their

Figure 3-13. Annual Population Change, Stanislaus County, 1948-89



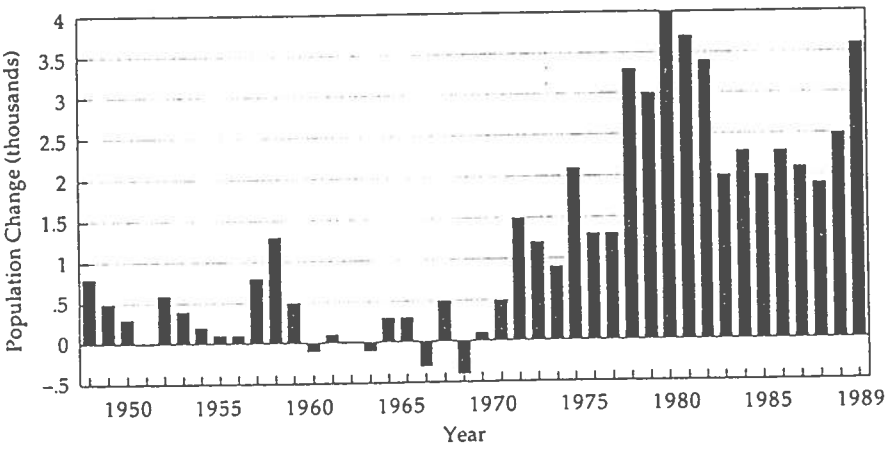
Source: California Department of Finance

percentage growth rates are very high and they are likely to be sustained.

The fifth set of counties illustrates a growth regime that differs from the previous four both in its temporal pattern and in its relation to the metropolitan centers. Many Central Valley counties show a growth pattern that is characterized by years of relatively stable but low growth in the 1950s and 1960s, very low or negative growth in the late 1960s and early 1970s, and much higher sustained growth in the late 1970s and 1980s. Among those with this regime are San Joaquin, Tulare, Madera, and Kern (see Figure 3-14, 3-15, and 3-16). Less clear but similar are Fresno, Merced, and Butte counties. Exactly why growth has occurred in this pattern is not immediately apparent, but it reflects the fact that these Central Valley counties did not fully participate in the pre-1970 round of urban growth in the state. That has evidently changed in the 1980s, even in such relatively isolated areas as Tulare County. The implications of this change may be momentous for the state's urban structure.

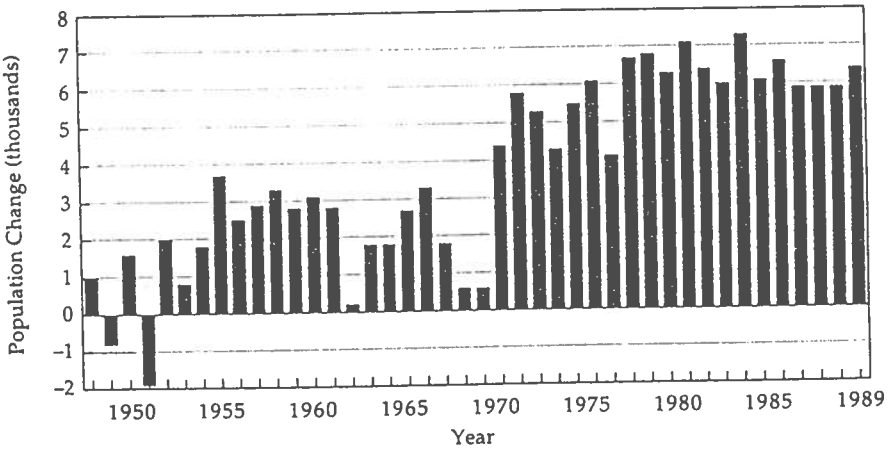
The next two growth regimes reflect special circumstances. Humboldt and Del Norte counties have grown in a way that is almost the reverse of the state (Figure 3-17 and 3-18). Both increased quite strongly in relation to their size in the 1950s. With the decline of the

Figure 3-14. Annual Population Change, Madera County, 1948-89



Source: California Department of Finance

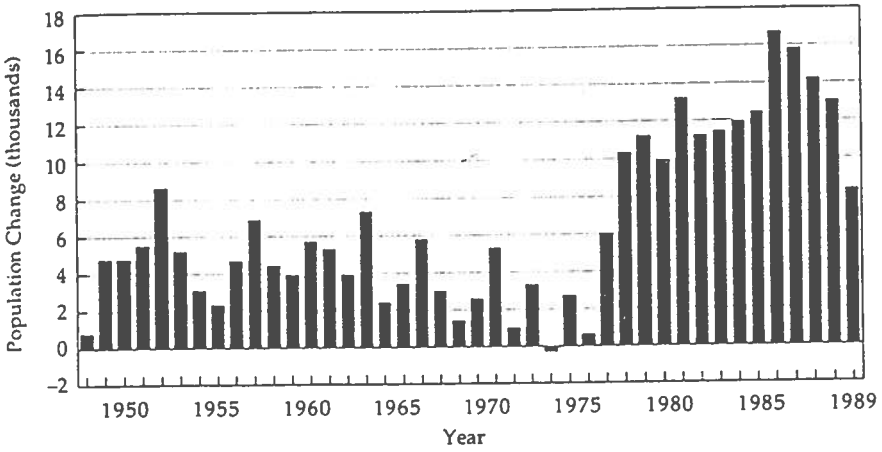
Figure 3-15. Annual Population Change, Tulare County, 1948-89



Source: California Department of Finance

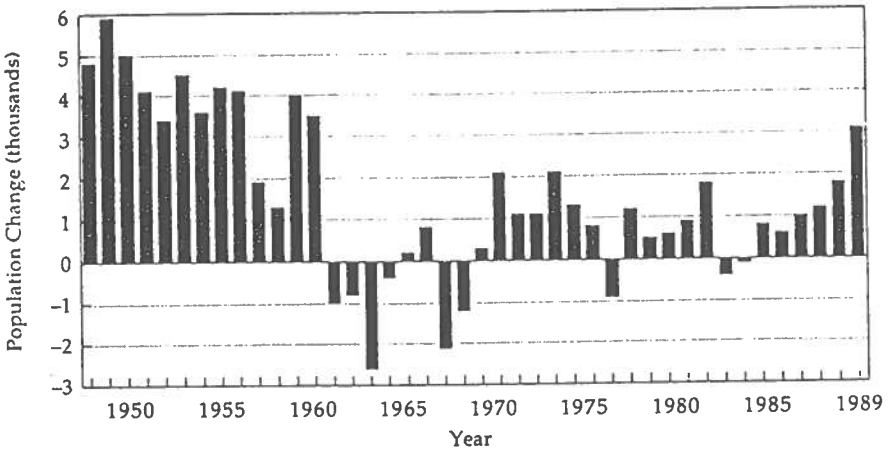
lumber industry, both saw absolute population declines and severe economic distress from the 1960s onward, and both are showing some indications of modest recovery in the late 1980s. These are

Figure 3-16. Annual Population Change, San Joaquin County, 1948-89



Source: California Department of Finance

Figure 3-17. Annual Population Change, Humboldt County, 1948-89

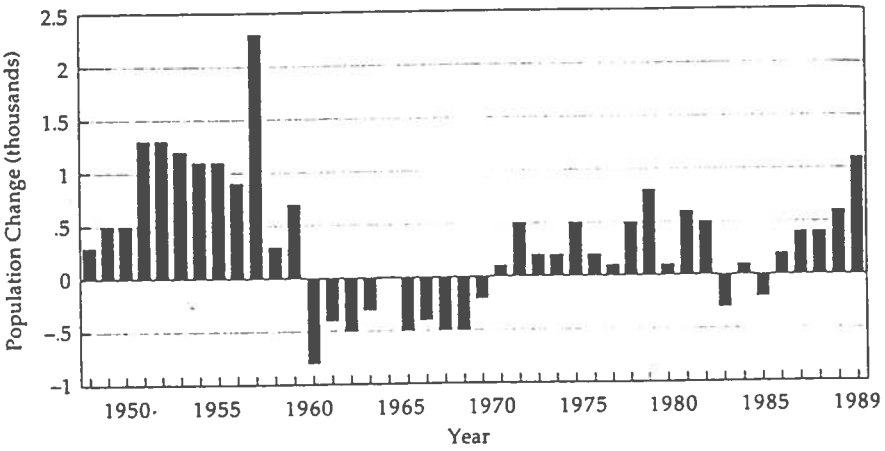


Source: California Department of Finance

isolated counties and are unlikely to be centers of substantial growth unless access is improved.

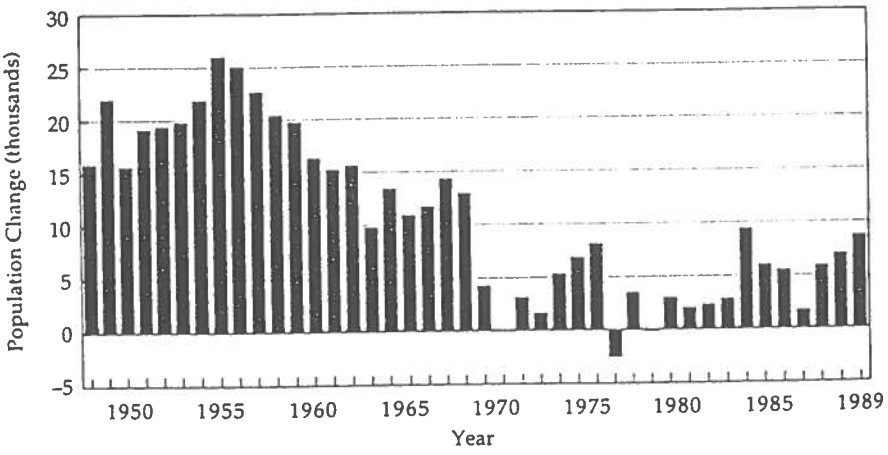
Similar in form but very different in cause are the patterns of high growth followed by low growth shown by San Mateo, Marin, and

Figure 3-18. Annual Population Change, Del Norte County, 1948-89



Source: California Department of Finance

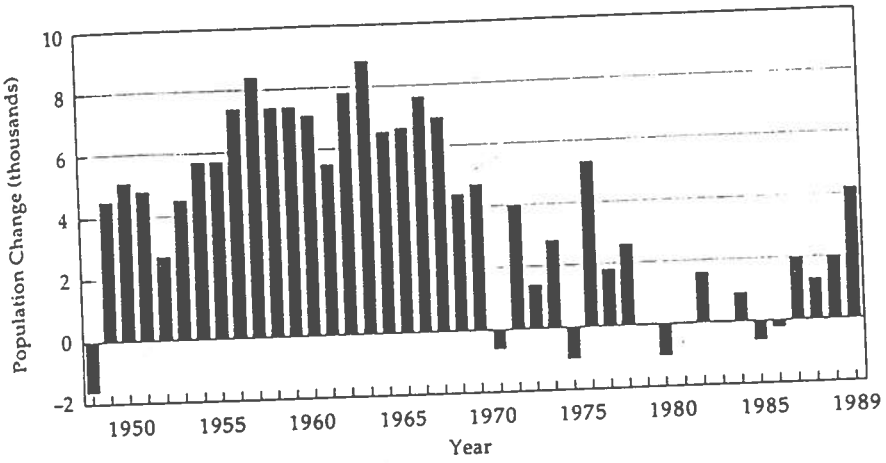
Figure 3-19. Annual Population Change, San Mateo County, 1948-89



Source: California Department of Finance

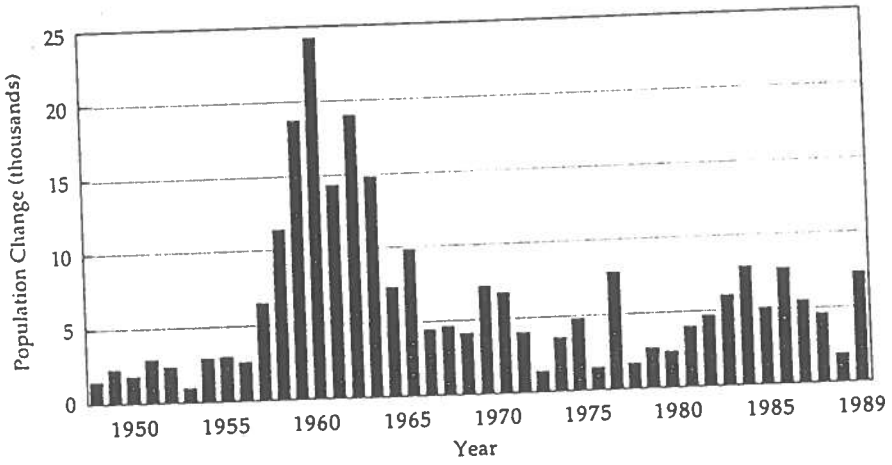
Santa Barbara counties, as seen in Figures 3-19, 3-20, and 3-21. In these cases the cause is regulation rather than economic decline. The pattern is especially marked in San Mateo and Marin counties, each of which is adjacent to a metropolitan core county and might have

Figure 3-20. Annual Population Change, Marin County, 1948-89



Source: California Department of Finance

Figure 3-21. Annual Population Change, Santa Barbara County, 1948-89



Source: California Department of Finance

been expected to grow in a pattern not similar to those of Contra Costa or Ventura in the second growth regime discussed above. Although Marin is far better known as a center of concern for environmental quality and political response, the pattern of growth

in the two counties is virtually identical. In each, the expected growth path has been truncated to permit a relatively low and fluctuating rate of increase since about 1970. Despite the strong pressures for development that might be expected given their locations, each of these counties has succeeded in controlling development. However, the larger picture suggests that the growth expected in these counties has not been eliminated, but rather appears to have been displaced further out in their respective regions.

The eighth growth regime is no growth at all or modest growth with no trend. Mountain counties, peripheral to the state, such as Alpine, Modoc, and Sierra have very small populations and virtually no growth. These counties are among the most inaccessible in the state and have much public land, in contrast to counties, such as Placer, that are in the Sierra Nevada but have grown dramatically as result of their access. Similarly trendless, but showing some growth are rural counties such as Monterey and Sutter. In these cases, and many others such as Mendocino, a complex set of influences, including local regulation, may be operating to sustain the status quo.

Future Growth Areas

Not all counties in the state fit into these eight growth regimes. Nonetheless, they do bring out some important characteristics of population growth at this scale. If we want to understand how growth manifests itself in the state, we must look at the geographic pattern of pressures for development and at the local responses, both of which vary greatly. It seems clear that the critical points are now in the counties at the frontier of urban development and in those that lie just beyond them. Where metropolitan areas meet, as between San Francisco Bay and Sacramento, the urban edge becomes hard to define.

One clear lesson of this analysis is that attempts to regulate growth can be successful, but that the result may be to spur development beyond the bounds of regulation. How far it is possible to go is determined by the economics of development—how much people will pay, where they will work, and how far they will drive. But as the economy becomes increasingly dependent on services, the geographic bounds seem to be relaxing, and once development is established, it is now more than ever able to build on itself, becoming a

self-generating process. Because the locations in which development is financially feasible are limited at any particular time, intense growth tends to occur in relatively limited areas. Thus, we need to go beyond the county level to consider the specific locations of development pressure.

There is no single source of information on development that is comparable to the county population data. In consequence, an attempt to identify the areas of major development pressure in the state requires the careful and laborious assembly of information from many local sources. Such an effort is in progress, but is not yet complete. An alternative is to utilize diverse public sources and judgment to identify such areas. The following discussion is based on this approach, and should be regarded as a point of departure for further analysis rather than a definitive assessment.

The principal points of development pressure are clearly related to metropolitan growth, but they are on the peripheries of the state's metropolitan areas, and in some instances beyond them. In northern California, the growth of the Bay Area westward and northwestward is creating two zones of intense development pressure toward the Central Valley. It is a feature of recent commentary on growth that it is increasingly described in terms of corridors, associated primarily with major freeways. In this instance, the corridors are on I-80 through Fairfield and on towards Davis, and on I-580 as it extends west beyond I-680, toward Stockton. The I-680 north-south corridor has itself been the location of some of the most intense development in the past decade. The I-80 corridor accounts for the growth in Solano County and is beginning to interact with development in Sacramento. The I-580 and I-680 corridors have accounted for most of the high growth in Alameda County, and in part, in San Joaquin and Stanislaus counties. Although it is not fully documented, there is a strong perception that this development is driven primarily by the emergence of a major employment center in the I-680 corridor, as well as some commuting further into Alameda County and even to Silicon Valley. It can therefore be regarded as an expansion of the Bay Area metropolis beyond the coast ranges and into the Central Valley.

Complicating the picture of growth in northern California is the emergence of Sacramento as a center of rapid growth in its own right, together with other cities further south in the Central Valley.

Although observers have documented this growth, there has been little study of its significance. Very large developments have occurred and more are planned, both north and south of Sacramento. As we have seen from the county growth regimes, the counties to the south have experienced a pattern of consistently high growth since the late 1970s. No single corridor or zone of growth stands out in this pattern of development. Rather, we may be seeing the simultaneous development of the existing string of centers in the San Joaquin Valley, historically located on U.S. 99. However, also existing in the valley is I-5, which is carrying high traffic volumes and should increasingly influence this development, especially toward Sacramento.

What kind of urban and metropolitan structure is implied by this pattern of development in the Central Valley? We may be witnessing an historic shift toward the development of a multi-nucleated linear metropolis. On the other hand, this growth might also be viewed as no more than long-distance spillover from the two major metropolitan centers, the San Francisco Bay Area and Los Angeles. At this time, there is no evidence of an emerging dynamic sector that will drive growth in the way that high technology drove Orange County or Silicon Valley. However, if these cities become the target for migration of populations moving away from the existing metropolitan areas, then there is potential for very large growth over the next twenty years. There is no effort being undertaken to look at the area in a coherent way. If growth does continue, the resulting metropolitan structure may be seriously flawed, causing environmental problems on a large scale and the loss of unique resources of agricultural land.

The specific growth areas of southern California exhibit similarities to those in the north. The most intense development in recent years has occurred along freeway corridors, especially I-10, extending eastward from Los Angeles to San Bernardino and Riverside. The rate of increase in development in this area is as fast as anywhere in the state, despite environmental problems. In the northern part of Los Angeles County, development has spilled over also into the Palmdale-Lancaster area, and there has been a surge of growth in the Simi Valley. This is not to deny the high levels of growth in other areas of the Los Angeles-Orange County area. Rather, these locations have emerged as newer points of growth,

accelerating rapidly from a low base, and exhibiting the typical pattern of peripheral metropolitan development that has become so prevalent in the state. There is no immediately comparable focus of development in the southern Central Valley to compare with Sacramento. Nonetheless, Bakersfield has shown a rapid acceleration of development in recent years. Since its growth is propelled by many of the same spill-out forces that are at work further north, this growth may be expected to continue.

State Growth and Development Policy

California's high rates of growth have produced powerful impacts, in the form of development pressures, local land use conflicts, traffic congestion, air pollution, and fiscal problems. These, in turn, have led to a widespread perception of deteriorating environmental conditions and quality of life.[5] Local and regional political efforts to create regional or subregional organizations to address growth issues are one response. Examples include Bay Vision 2020 in the nine-county Bay Area region and the 2000 Partnership in the Los Angeles area. The state legislature has also begun to respond to growth issues in a variety of ways, including reports, hearings, and legislative proposals. These are important moves, but they reflect a deep uncertainty about how to deal with growth. There is no broad consensus about appropriate policies for the state or its regions to address growth and environment in the twenty-first century.

The Pro-Growth Era

Such uncertainty was not always the case. It can be argued that there was indeed a state policy toward growth and development during the decades between 1945 and 1970. Under a succession of administrations, both Republican and Democratic, a political consensus existed that saw growth and development as positive forces. As a result, the state enacted a series of measures that both accommodated and facilitated growth as it occurred. These measures created a physical and social infrastructure of unequaled quality in the U.S.

5. The indicators of such a perception are numerous and varied, including local growth moratoria, opposition to specific developments of all kinds, the growth of local and regional organizations dedicated to environmental preservation, and pressure on legislatures and courts.

Most important among them were the creation of a statewide water system, modernization of the highway system, and the development of a complex, multi-layered system of higher education.[6]

This consensus was flawed in many respects. Some groups were effectively excluded from full political participation; others had enormous influence politically. The distribution of benefits was certainly not equitable. As is generally the case in politics dominated by pro-growth coalitions, development interests gained proportionally more than others.[7] Nonetheless, the large majority of the population felt sufficiently benefited by change to find it politically acceptable. Thus, there was no politically effective challenge to the idea of supporting growth.

In part this was due to the broader conditions of the time. The development of infrastructure was strongly shaped by national policy and funding, especially for water and highways, through the Central Valley Project and the interstate highway system. The Cold War and its hot interludes in Korea and Vietnam generated defense industry investment, to both service the Pacific and capture government procurements in the emerging technologically advanced industries. After the extraordinary effort of World War II, this was a period in which the sensation of economic and military power still mingled with the memories of economic disaster and tragedy in the Depression. With migration to the state at unprecedented levels, jobs being created in huge numbers, incomes rising faster than the national rate, and housing demand seemingly unending, it is scarcely surprising that business and labor regarded growth in a positive light.

What is perhaps more surprising is that the state was able to conceive and execute visionary ideas on a extraordinary scale. California established the models for infrastructure and education that the rest of the country and much of the world would follow in later

---

6. The creation of these systems took place over many years and with a large number of legislative acts and popular votes. Often these were controversial, as illustrated in the case of water by Marc Reisner's *Cadillac Desert* (New York, Penguin Books, 1987). Nonetheless, broad support was necessary for the large bond issues involved, and the necessary referenda did pass.

7. The concept of the pro-growth coalition has been developed by John Mollenkopf in *The Congested City* (Princeton, NJ, Princeton University Press, 1983). He argues that city politics in the U.S. traditionally have been dominated by a coalition of business and labor interests that favored development. Certainly this seems to have been the case in California during the post-war decades.

decades. These were not simply physical systems; they required the creation of complex organizations of high technical quality. Through public action, California created the basis for efficient production and an educated labor force that resulted in increasing productivity and income, which in turn propelled the state's rise from a peripheral to a central position in the U.S. economy. California's political leaders during this time made many mistakes, but they were able to recognize the nature of the forces at work, and they succeeded in making decisions that served the state well in the years that followed. However, they could not construct a consensus that was lasting.

Collapse of the Pro-Growth Consensus

During the 1970s the state's policies toward growth and development shifted dramatically. Both Republican and Democratic administrations rejected the policies of the earlier period, although their expressed objectives differed. The Reagan governorship sought to reduce taxes and public expenditures, targeting higher education especially. The Brown administration sought to reduce infrastructure expenditures, rejecting highways and large water projects as socially undesirable. Why did the consensus on growth, development, and public investment break down, even though population growth continued, albeit at a somewhat reduced level? No simple explanation is sufficient.

We may see the end of the pro-growth consensus as reflecting both external and internal shifts. The world changed in profound ways in the 1970s. Most visible was the rapid increase in oil prices in the early and late years of the decade, which created international chaos and recession. California, as an oil-dependent state, was seriously affected by the price increases and forced to adjust. The dominance of the automobile as a mode of transportation was called into question, together with the lavish use of energy to which the state's economy had become accustomed. Policies that relied on these means to accommodate growth began to be widely criticized.

Painful and politically costly as those events were, they were less important than the deeper shifts occurring in the competitive position of U.S. industrial production in relation to the rest of the world. Despite the remarkable rise of the electronics industry in Silicon Valley and the Los Angeles region, U.S. productivity ceased to grow

at its former pace, and virtually all manufacturing sectors found themselves increasingly at a competitive disadvantage in world trade. Since the U.S. was a free-trade economy to a large degree, this meant that the domestic market also was opened to fierce competition, which was reinforced by the high value of the dollar against other currencies. Thanks to two decades of enormous growth, by 1970 California had become a major industrial power in virtually all sectors except basic steel. By 1985, following the worst recession since the 1930s, California had lost proportionally more of its industrial production and employment than had the more visibly impacted northeastern and midwestern states.[8] The state's economy was saved by the dynamism of the growing high-technology sectors, the huge defense build-up in the early 1980s, and the long-term shift from manufacturing to service-sector production and employment, which was much less affected by external competition.

State population growth faltered in the mid-1970s and again in the early 1980s, but it did not decline, even in the face of high unemployment. Nonetheless, the impacts of industrial contraction and slowing productivity were felt in incomes and translated into a growing reluctance to absorb rising tax burdens. The "growth dividend" of the post-war period was a product of increasing productivity. With rising incomes, people were less likely to question increasing taxes for public investments and services. But as gains in productivity and real incomes slowed, this willingness declined. Governor Reagan reflected this in his fiscal austerity at the beginning of the decade; by 1978 it exploded into the taxpayer revolt that produced Proposition 13 and later the Gann amendment to the state constitution. In the struggle for resources that ensued, new large-scale investments in water development or transportation became impossible to support politically, and education no longer commanded wide public support.

Other changes acted in concert with the disappearance of the growth dividend. Rising environmental awareness, on both a world and a local scale, led to questions about the impact of development on environmental quality. People in California had become accustomed to environmental amenities, which they sought to protect by

8. See Michael B. Teitz and Philip Shapira, "Growth and Turbulence in the California Economy," in Lloyd Rodwing and Hidehiko Sazanami (eds.), *Deindustrialization and Regional Economic Transformation*, Boston, Unwin Hyman, 1989.

contesting large investments in freeways and water systems. The Peripheral Canal is a good example of a major project that, while it might have attracted opposition, would not have been defeated two decades earlier. Ironically, however, Californians had also become accustomed to high levels of service, especially in highway transportation. This was due in large part to the excess capacity created during the pro-growth years that allowed people to drive in urban areas at speeds unequaled virtually anywhere else in the world. It was not until that excess capacity became used up, first in Los Angeles, and later in most urban areas, that congestion and declining service levels were fully experienced. By then, unfortunately, Californians had become accustomed both to low taxes and to easy automobile transportation, a combination that could not be sustained.

Similarly incompatible priorities for taxation, public investment, and environmental quality are found in the case of housing. During the pro-growth period, housing development in the state was remarkably rapid, with supply generally meeting demand and prices stable. Despite the extraordinary increase in demand, California housing prices did not grow faster than those in the nation as a whole. This development was sustained by a system for constructing the necessary urban infrastructure, especially access highways, water, sewers, and schools, that spread its cost over the larger population. It was paid for either by the national government or through bonded indebtedness and general fund tax revenues. The result was cheap suburban housing, built at low densities with publicly funded facilities, extending outwards from the principal metropolitan cores in the state.

This model of development produced affordable new housing for middle-income people, enabling them to enter into home ownership. It was not equitable, in the sense that the costs of infrastructure were not fully borne by the immediate recipients, although in the long term mobility would allow a large proportion of the population to participate if they bought newer homes. The poor and non-homeowning groups paid for new infrastructure, but gained only through the filtering down of better housing released by movers, and through the absence of competition for older housing, which was not attractive in comparison with relatively inexpensive, new, and accessible suburban homes.

Such a model of development could not withstand the stresses of the 1970s. As a way of producing inexpensive housing, it collapsed in the face of the forces described above, together with the changing structure of households in the state. The new urban areas were partially planned, but often lacked amenities, such as parks, and relied almost entirely upon automobile transportation. Such areas were especially vulnerable to rising oil prices and declining environmental quality as the fragments coalesced into the enormous masses of urban development exemplified by Los Angeles, with its rapidly growing numbers of vehicles, miles driven, and increasing air pollution. Inflation during the 1970s, brought on in part by the rising cost of energy, created direct pressures on housing. Within urban areas, rising energy and transportation costs refocused attention on existing housing, especially in more accessible and environmentally desirable locations, creating competition and sharply rising prices.

These impacts were reinforced by shifts on both the supply and demand sides of the housing market. The recession of 1973-74 sharply reduced housing production. During the subsequent recovery and inflation, house prices rose rapidly. With real interest rates lagging behind inflation, housing became the most effective form of inflation hedge and source of capital gain open to the average household. That household was becoming younger, smaller, and much more numerous as the baby boom generation entered the market. Furthermore, even in the face of recessions at the beginning of the 1980s, migration to California continued, its sources shifting to Asia and Latin America rather than elsewhere in the U.S. However, this surge in demand occurred precisely at the time when resistance to tax increases and support for environmental regulation were coming into full flower. Tax limitation laws and federal cutbacks were ending much of the public financing of local development infrastructure, which therefore had to be financed from the development itself, through fiscal zoning of various kinds. Meanwhile, environmental opposition was pushing developers toward larger and more expensive houses. Serviced land in the major metropolitan areas became a very scarce commodity, pushing up housing prices even further.

The net result was much higher housing costs. From being a state with relatively inexpensive new housing, California was transformed into one with the most expensive new and existing housing in the U.S. Only on the distant edges of metropolitan areas and in the

Central Valley could moderately priced new housing be produced, and even there prices rose substantially as the 1980s drew to a close. Californians had realized their objectives of low property taxation and tighter control of development. But these goals were achieved only at the cost of much higher priced housing and a rising proportion of income spent on housing by all except those homeowners who did not move. In particular, the housing situation of the poor became increasingly difficult as older, low-cost housing at the cores of the metropolitan areas was demolished to make way for central city redevelopment, even as the demand for older urban housing by smaller affluent households increased. Although homelessness cannot be attributed entirely to the loss of affordable housing stock, that loss has certainly increased the numbers of people affected.

The collapse of the pro-growth consensus has affected many other areas of California's development, most notably education. Yet, for all its wide-reaching effects, the building of a new coalition and policy framework to deal with growth has been slow and hesitant. It is worth noting that the fundamental changes that have shaped the shift in California development policy—declining productivity, industrial restructuring and global competition, rising tax resistance, growing environmental awareness—generally began during the 1970s or earlier. Their consequences were fully felt only in the 1980s, in part because overcapacity in major infrastructure systems allowed absorption of continuing growth, and in part because of the reluctance of the legislature, the development industry, and the public to recognize the extent of the change. Various measures have been invented and used to deal with problems as they arose. The next section examines some of these efforts.

Responses to Growth

As growth has continued and problems have emerged, the absence of a broad consensus has not prevented responses to those problems. On the contrary, a rising level of public concern has been reflected in an array of attempts to deal with the consequences of development. However, these efforts, in contrast with those of the earlier period, have been for the most part reactive and limited in character. Where political constituencies could be assembled, action has occurred, but important areas of policy have been neglected.

Only recently have more comprehensive measures been seriously proposed.

The number and variety of attempts to deal with growth are too great to be fully described here. However, they may be summarized in two broad groups, both of which reflect the creation of political constituencies responding to specific problems. For purposes of this discussion, they will be identified as functional responses and jurisdictional responses. Functional responses deal with growth by addressing its symptoms by broad legislation, while jurisdictional responses deal with growth by controlling or managing development within specific locations.

Functional responses to growth comprise measures at the national, state, or local levels that attempt to deal with problems of a particular type, for example, air quality, traffic congestion, or toxic pollution. Laws dealing with such functional problems have been enacted in response to widespread perceptions of declining standards of performance in clearly identifiable and specific domains that are often associated with particular technical or scientific expertise. They represent, as it were, a symptomatic response to growth.

Legislation designed to deal with functional problems of growth is often complex. In the case of air quality, the debates at the national and state levels have been going on for two decades and involve major differences among interest groups and competing theories of response. Conflicts abound over the sources of air pollution, especially static versus mobile sources, each with its interest groups. Similarly, the types of pollutants and the risks associated with them are debated, with more complexity added recently by the concern over carbon dioxide and its role in global warming. Cutting across these distinctions are arguments about appropriate responses that range from direct regulation, which is in effect quantity rationing, to market and price rationing, as means to affect individual and group behavior. The result has been a complex web of laws and organizations that are largely uncoordinated and sometimes work at cross-purposes. Nonetheless, these efforts comprise the most important element of public policy influencing growth at this time.

In contrast with functional responses, we may point to those reactions to growth that seek to deal with development at the local level. In California, especially, the tradition of home rule—the ability of local governments to deal with their problems as they see them—

is very powerful. It encourages communities to deal with problems such as those produced by growth within the boundaries of their own local governments. The most evident form of this response is local growth control or growth management. Such efforts typically do not rely on the impetus of legislation at a larger geographic scale. Rather, they seek to preserve the qualities of lifestyle and environment that are valued by local constituencies by directly addressing growth itself.

Like functional responses, local growth controls reflect conflicts among constituencies, especially between existing residents and development interests. Specific functional problems, notably traffic, often are seen as the motivating force, but at heart the model of intervention is to regulate development directly by moratoria on construction, limits on the level of permissible development, or the creation of urban limit lines and greenbelts. The domain of such controls is limited by the jurisdiction within which constituencies are able to work effectively, and therefore they tend to be local in scale. Although some other states have implemented attempts at growth management, in California the only statewide effort of this type was the attempt to control development on the coast. The Coastal Act resulted from a legislative initiative that was similar in many respects to other initiatives at much smaller scales, especially in its origins in grassroots organizations. Its subsequent history has shown the difficulty of such an effort at the statewide level.

There are conflicting views as to the most important motivating factors in local growth regulation. Some commentators believe that one impetus for local ballot initiatives for growth management actually may be the desire of developers for a stable and predictable environment for development. However, such a desire would not exist without the possibility of regulation of development. The motivation of existing residents who support growth controls is primarily to maintain stability in the residential environment, which may be threatened by virtually any form of development. Hence, the common attribution of a NIMBY (Not In My Back Yard) motive to such efforts.

Whatever the motivation, the form and impact of local growth regulations tend to be adverse to development. However, because such efforts are almost entirely conducted at the local level, their impacts may do more to shift the location of development than to

impede it as a whole. In vigorous markets, the net result is likely to be lower density and more dispersed development, which paradoxically may add to traffic congestion and air pollution at a regional scale. Where commuting to central locations is a major factor in traffic generation, this impact is likely to have serious consequences.

These two groups of growth responses are not mutually exclusive. Rather, they intersect in a variety of ways. For example, functional problems inevitably have spatial manifestations. Thus these responses need an areal as well as a functional domain. However, the areas involved do not necessarily reflect community boundaries or governmental jurisdictions. Air or water quality management, for example, require the capacity to respond in terms of natural air basins or watersheds. As a result, there is a tendency for these functional efforts to result in the creation of special purpose governmental entities that have an ambiguous position in relation to local governments. In California, air quality management districts or regional transportation commissions have jurisdictions that overlap with those of local governments. The potential for conflict, or at least unclear responsibility, is always present, and it may be enhanced by the way in which local governments influence the governance of the functional agencies.

Even more important is the growing perception that functional or symptomatic responses to growth, such as air pollution control, involve sequences of causation that go far beyond their original realm of concern. The recognition that automobile pollution is affected not only by the numbers of cars and their pollution control equipment but also by commute patterns, which in turn depend on location of employment and housing, has shifted the basic assumptions under which air pollution control agencies are working. As agencies such as the Southern California Air Quality Management District move toward this stance, their focus shifts from air pollution to land use regulation. In this mode, such agencies come more and more to resemble local growth management entities, but operating at a regional rather than a local scale. However, in most instances, they do not have the legitimacy of local governments as elected bodies, nor do they have a general mandate for planning. The result may be the subordination of land use planning to a single functional concern, which is generally regarded as an undesirable way in which to handle this complex area. Combined with the absence of elective

legitimacy, the status and public acceptance of such agencies may be questionable.

The recognition that growth impacts are complex, extending across functional realms and jurisdictions, has given rise recently to a renewal of interest in planning for growth at a larger scale. In some respects, these proposals resemble expanded versions of older functionally directed legislation. For example, Proposition 111, passed in June 1990, raises the gasoline tax, earmarks funds for transportation, and relaxes the Gann limit on state expenditure. This initiative also calls for transportation systems management in the form of congestion management plans at the county level, opening a wide avenue for growth management.

An even more recent effort, the Brown bill, AB 242, would establish regional development and infrastructure agencies to prepare regional general plans covering air and water quality, transportation, housing, spheres of influence, and capital facilities. Local land use plans would be required to be consistent with the regional plans. Such an agency would succeed existing regional agencies, and local governments would be required to participate. If passed, this bill would mark a major change in attitude on the part of the state toward regional planning. In one sense, it is the latest in a long line of attempts to create a regional level of planning in the state. Up to now, they have all failed, but that does not mean that state legislation is impossible in the new conditions that now exist.

Even at the local level, recognition of interdependency and the intransigence of problems has occurred to a significant degree. Both in the San Francisco Bay Area and in southern California, attempts are in process to create regional organizations to deal with the complexity of growth and development. BayVision 2020 is a regional commission intended to create a blueprint for solutions to regional problems. The commission has substantial support among influential groups, including some favoring and some opposing further growth. Its impact is uncertain at this time, since it has not yet reported any conclusions. Furthermore, the absence on the commission of any local elected officials may leave it open to easy criticism. Nonetheless, its formation represents an important stage in recognition of the regional nature of growth and its consequences.

Positive as many of these diverse responses are, they do not add up to a coherent policy for addressing growth in California, nor do

they reflect the full range of policy tools that might be utilized. It is to these questions that we now turn.

A Growth Policy for Caliornia

The extraordinary level of interest in growth management, and the spate of activity now occurring suggests that there would be real benefit from a review of the key goals and constraints that a policy for growth in California should address. Added to this, there is need for debate about the range of policy options that it might utilize. The aim of this section is to explore these two topics. Before doing so, we need to ask why the state should have any explicit policy toward development.

The Case for State Growth Policy

Should the state have a growth policy? Certainly, there is no evident agreement among public officials or the public on the need for such a policy. Few would question the desirability of economic growth and higher incomes for the state's population, but equating that goal with concrete actions to deal with population growth and urban development is far less likely. Despite the breakdown of consensus on growth, the state has done quite well in the past two decades, managing to absorb large numbers of migrants, yet sustaining its position within the U.S. as a dynamic center of economic development. Nonetheless, there is good evidence that the future may not be simply a continuation of the past. Within the state, the character of growth and its consequences are changing as environmental concerns increasingly shape people's perceptions. At the same time, California faces a more difficult competitive environment in the larger world, an environment in which good policy choices may be the key to economic success. Countries such as Japan, Taiwan, and Singapore have shown that managed development is not a pipe dream; rather, it is a source of great competitive advantage if it is done well.

More specifically, there are a number of reasons why growth and development choices made now are likely to be critical. At the broadest level, the state needs to be able to sustain economic growth and productivity in order to accommodate the transformation in the

population that is now occurring. The changing population of California over the next twenty years, as the white population ages and relatively decreases in comparison to minorities, will require growth in order to maintain social stability and opportunity. If in-migration continues at its recent, historically high rates, the pressure for development will be immense. Even if in-migration declines, the upwardly mobile, younger population will demand housing and urban amenities comparable to those of the majority.

In the face of restrictive behavior in established urban and metropolitan areas, these populations will face two choices. Either they will vote for increased density in the areas that they control politically, or they will move to areas in the state where development is still encouraged. The first outcome is not likely, given shifting patterns of preference within existing urban areas and recent experience in Los Angeles and San Francisco, where popular pressure has consistently reduced densities. The second outcome is likely to mean a continuation of current forms of development, in which fiscal pressures favor low-density, automobile-oriented development on distant urban fringes. In the absence of major technological innovations, this pattern of development is unlikely to be able to meet environmental standards, especially for air quality. Furthermore, it threatens unique and major resources of environmental quality and agricultural lands in the state.

The case of the Central Valley is central to this scenario, although a similar pattern also exists in the coastal counties and in southern California. The next twenty years will almost certainly see the full force of development of a Central Valley metropolis. As discussed above, the pace of growth has already accelerated to a remarkable degree, and it shows no sign of slackening. These will be the critical years for development, when irreversible decisions are made that will shape the welfare of millions of people. And yet, unlike the other metropolitan areas in the state, there is no dominant governmental entity in the area, no Los Angeles, San Francisco, or San Diego. Despite the mistakes that were made, those governmental entities could and did make important collective decisions on development.

In contrast, the Central Valley area has a moderately strong focus in Sacramento, and an array of counties and cities strung out in linear fashion along U.S.99 and I-5. This is a recipe for potential

disaster in several respects. Los Angeles has demonstrated the inadequacy of auto-oriented urban development on the densest freeway grid yet constructed. The traffic and air pollution problems to be anticipated in a linear city are even worse. The prospect now is for a metropolis created by the coalescence of many independent entities, each acting in its own interest. Given their fiscal structure, collective development decisions will not be made at all, or will reflect local bargaining. Locating important metropolitan facilities will be difficult, and it is likely to result in inefficient solutions. This fragmentation of development planning almost certainly also threatens the most productive agricultural area in the world. Although farmland should not be slavishly preserved, the loss of a unique resource due to inefficient development would be poor long-term policy.

It might be argued that this form of urban development, which reproduces suburban growth without an urban organizing framework, provides for social choice among alternative environments, amenities, public expenditures, and cost levels. That may be true at the level of the individual household, but the urban structure that emerges is likely to be inefficient in terms of travel patterns and will generate air pollution, while not providing a full range of residential choice. Rather than having to absorb draconian changes in the future as pollution levels and energy costs rise, a more effective solution should consider the structural efficiency of the urban system in these terms first, and then find a way to realize the benefits of a disaggregated system of local governance.

Although the Central Valley is probably the most critical area in terms of urban structure and investment decisions, other regions in the state have similar problems. For San Bernardino and Riverside counties, like their counterparts on the fringes of the Bay Area, the costs of growth in the present pattern are likely to prove very high in the coming decades. And yet, in the absence of either regulation or incentives to produce growth in other forms and areas, there is little likelihood of change.

If, indeed, it makes sense to think seriously about policy intervention in California's growth and development, two sorts of questions need to be addressed. First, we need to clarify goals or objectives and the variables in which they are expressed. One of the key benefits of public intervention is that it makes possible a response to objectives that would not automatically be served by individual or

group choices, but which are nonetheless important to the public welfare. The problem, of course, is that such objectives are not universally subscribed to and that public priorities must be established through political processes. Second, we must understand the full range of policy instruments and the associated variables that affect realization of goals. These instrumental concerns are often technical in character, but they are not purely so. Ideology, belief, values, interests, and prejudices are also entwined with the perceptions of instruments as they are with objectives.

Growth Policy Goals and Constraints

Goals for development policy at the state level will inevitably reflect the clash of interests, but an argument may also be made for recognition of benefits that are achievable only through public action. Thus, in states that have adopted development policies there tend to be broad goals reflecting widely held desires for economic growth, balanced development, environmental quality, and individual opportunity. Another level of goals reflects more specific areas of public discontent, for example, traffic congestion, air quality, housing costs, open space, and fiscal problems. In thinking about goals for state action, it is appropriate to consider both of these levels in the context of what the state can do best in comparison with other levels of government.

Given the tradition of home rule in California and the high level of disagreement about public policy and governmental roles that has existed for the past two decades, it seems as though the state's goals should be carefully demarcated. This does not imply that their scope should be narrow. On the contrary, the state is the logical level at which to view California's development from a broad perspective, establishing the framework within which other levels of government and communities pursue their own objectives. In this context, it is appropriate to ask what is missing in those local and regional perspectives.

Perhaps the most striking gap is the absence of a view of the state as an evolving and dynamic set of regions. Neither within the existing metropolitan regions themselves, nor at the state level, is there a voice for a vision of California as a place made up of places. Urban and regional development is a complex process that cannot be

centrally planned. That is evident from the experience of countries that have attempted it. However, development also occurs within an economic, social, and political context that is established by public action, with its web of laws, expectations, and customs. That context can be more or less consciously shaped. As the world and its processes grow more complex, it is becoming evident that formation of the framework within which development occurs solely by the aggregation of narrow choices is insufficient. Such a process may ignore structural requirements that are critical to a larger settlement pattern that works.

At the level of the state, then, what is necessary is an overview of development that regards regional and metropolitan growth at the most general level, and asks whether that growth is creating a structure of settlement that will be effective in the long term. In this, development policy should match economic policy, which asks whether the state's economy is heading in a productive direction; whether the framework of laws enhances the creation of a viable economy. The goals implicit in such a view of development policy are neither to prevent growth nor to enhance it at any cost. Rather, they should reflect an aspiration for a workable urban and regional structure in the state, together with its associated infrastructure and services, that can meet the needs of the future population. How large that population will be cannot be determined, although it surely will be substantially larger than it is at present. What is necessary now is to ensure that the irreversible decisions about development are made in a way that enhances the likelihood of a good and productive environment for the state over the foreseeable future.

In California there has been little real debate about these questions. Yet the process of development each day is inexorably answering them in detail. As we have seen from the experience of the past forty years, the results of such a process are too often unsatisfactory in the aggregate. Few people want another Los Angeles, but the system of development that we have will almost certainly produce one. If the state is to avoid either a continuation of its present problems in new locations, or simplistic "solutions" imposed by the initiative process, it must find a way to establish a broad vision of how its urban structure will evolve in the future.

Of course, such a vision is difficult to articulate and realize. It implies the establishment of priorities for location of development and of key infrastructure facilities, both of which have been extraordinarily difficult in recent decades. It suggests consideration of new forms of transportation technology that will be costly and difficult to finance. New forms of housing and settlement patterns are likely to be necessary, with all the problems of introduction that such changes imply. And it will generate inevitable opposition both from those likely to be impacted by development and from those who resist any constraints. Nonetheless, the larger goals of a productive economy, a high-quality environment, and a society of opportunity will be increasingly difficult to realize without such a vision in a world and a state that both have more people and are more interdependent than ever before.

Choice of Policy Instruments

The problem of appropriate policy instruments and the way in which they might be used is still open, even if the need for some form of policy intervention is accepted. At present, there are two major theoretical perspectives about policy instruments for addressing the problems of growth. Conventionally, such instruments and policies are distinguished as utilizing direct regulation on the one hand, or pricing and market-like mechanisms on the other. However, many possibilities cut across these distinctions, often in subtle ways. Simple ideological selection of instruments is rarely ideal, though it is often the starting point for debate. Furthermore, we may conceive of a policy framework that employs these mechanisms at different levels of scale, from statewide to regional to local. Depending on how sensitive behaviors and outcomes are to local conditions, alternative instruments and scales may be appropriate. To add even further to this complexity, the question of what type of organization is most appropriate for achieving public objectives with different instruments at differing scales has scarcely been addressed. Given the vast range of public, quasi-public, and private organizations engaged in growth issues, this is not a trivial concern. Thus, in thinking about growth policy, we need to address at least these three dimensions—instrumental theory, scale of application, and form of organization for implementation.

If we follow this schema, what can be said about the responses to growth up to this time? First, the dominant instrumental theory that has been used is regulation. Direct control is appealing for its concreteness and apparent direct connection between objectives and means. Thus, most recent efforts to shape growth and its consequences have been regulatory in character, from zoning to emissions control. This contrasts both with the use of infrastructure investment as an instrument for shaping development in the earlier period, and with proposals for using pricing or other market mechanisms to achieve social objectives that have been advanced more recently by economists.

Although it is unlikely that regulation could ever be replaced entirely by such mechanisms in development policy, there is a good case to be made that it has been overused and that the results are at least inefficient. In environmental policy at the national level, there is increasing interest in using pricing to reflect the full costs of resource use, and in California a water market is slowly emerging from years of debate. In transportation there is a growing recognition that no amount of freeway capacity can satisfy traffic demands in the absence of pricing, rationing, or congestion. If congestion is unacceptable on the grounds of time loss and air pollution, then pricing or rationing of some kind will occur. Similarly, the substitution of cash payments for free parking, together with substantial parking charges, is gaining favor as a means of encouraging alternative modes of transportation.

For development, such mechanisms need to be explored much further. For the most part, they have been used primarily for revenue raising in order to offset the tax limitations imposed in the late 1970s. As such, their effects have often been to encourage lower-density and higher-cost housing, or to divert development to more peripheral locations. Thinking about ways to utilize market-based mechanisms to encourage development that enhances urban structure should be an important project for the next decade.

Shaping urban growth will also require the use of infrastructure investment, especially highway and transit funding. As California increases in population density, the viability of alternative forms of transportation will increase. In Europe the process of creating a single economy is already taking advantage of the development of high-speed ground transportation systems, such as MAGLEV, to

shape a new pattern of urbanization. National governments and cities are competing to secure their place in the European urban system by virtue of their location on the emerging network. In many respects, California offers an excellent opportunity to explore a similar development in the U.S. Now is the time to begin serious consideration of such a system for the state. That consideration should take explicitly into account the impact of such a system on urbanization and regional development in California. Implementation of a system should not simply serve existing patterns of urbanization, but also shape the urban system itself.

The second aspect of policy design and implementation set out above concerns the level at which it is directed. From the state perspective, the most important elements here are, first, an effort at the state level to monitor and influence development at the broadest scale and, second, the creation of effective policy direction at the regional level.

The need for a state perspective on growth has already been discussed. How that perspective can be achieved is no simple matter. State policy will always be developed between the governor and the legislature. No other institution can take over that function. What can be done is to improve the visibility of development issues and the quality of information upon which judgments can be based. Such a function should include monitoring of development, research on its nature and the forces driving it, and the ability to answer the governor's or legislators' questions about development and its impacts. This would be an intelligence function, capable both of gathering information and of interpreting it with a high degree of sophistication. As the eighth largest economy in the world, California has remarkably poor information about itself. The legacy of an earlier era, one of small state government and limited access, which worked during the years of growth consensus, no longer functions in a time of much greater complexity. This function would enhance the intuitive understanding of the state by its political decision makers, an understanding that is now inadequate despite the efforts of state staff under conditions of limited budgets. It is time for California to develop the capability to understand and manage its own growth that is appropriate to a rich and populous state.

At the regional level the state's principal task is to ensure that the regions have the political and organizational structure to make good

collective decisions about those aspects of development that are their concern. Avoidance of central direction means that this includes most decisions. Effective implementation means that the power to make difficult decisions should not be diluted by local vetoes over regional issues. Such a structure need not be a single form for all regions, but each will require a state mandate.

If those mandates can be developed in cooperation with regional initiatives, so much the better. In fact, they are unlikely to be achieved in any other way. Nonetheless, local officials and constituencies ultimately must embrace regional decisionmaking powers to solve their most important problems. If there is one lesson from the existing councils of governments, it is that voluntary federations are too weak to do the job of supporting metropolitan development. And special-purpose agencies inevitably are distorted by their single functional nature. How powers ultimately are allocated will depend on political processes, but if there is no commitment at the state level to regional decisionmaking power, then creation of effective regional organizations is unlikely. If there are no effective regional organizations for development, then the outlook for California's environment will be bleak as the state's population continues to grow, which it surely will.

The author is indebted to many people for discussion and ideas. Foremost among them are John Landis, Al Lipson, Lance Barnett, Elizabeth Deakin, Peter Hall, John Kirlin, and the participants in a California Economic Development Corporation workshop on growth in California.