A Perspective On The California Economy

Office of the Legislative Analyst

December 1988

Preface

The condition of the state's economy is of paramount importance to California's citizens and public officials. Because the economy is responsible for providing people with their jobs and income, its health is probably the single greatest determinant of the living standards and overall quality of life of Californians. The economy also is inextricably linked to the decisions that state and local governments must make regarding providing Californians with public services. This is because economic conditions directly affect the amount of taxes and other revenues that the government collects for *funding* public services. In addition, economic conditions affect the *need* for public services, since the volume of business activity and the number of people the economy supports help determine the demand for such diverse public services as highways, water systems and schools. Likewise, economic conditions affect the amount of public assistance payments, claims for unemployment compensation, and caseloads for health and various other social programs.

The purpose of this report is to provide the Legislature with an overview of the California economy, including information that will assist it in making decisions that will affect the economy's future health and thus the quality of life in California. The report considers three specific questions:

- First, what are the ***basic characteristics*** of the California economy?
- Second, what are California's ***future economic prospects?***
- Third, what are the ***potential problem areas and legislative policy issues*** which relate to the economy's future and will need to be addressed?

This report was written by Jon David Vasche and reviewed by Peter Schaafsma. It was typed by Lynn Kiehn and designed for publication by Suki O'Kane. ❖

Table of Contents

Executive Summary 1

Chapter I
California's Economy -- What are its Basic Characteristics? 5
- How Big Is the California Economy? 5
- How Has the Economy Been Performing Recently? 6
- What Does California's "Industry Mix" Look Like? 7
- Highlights on Key Industries 13
- The Geographic Dispersion of Economic Activity Within California 20

Chapter II
What Are California's Future Economic Prospects? 27
- What Are The Key Factors Conducive To Economic Growth? 27
- The Bottom Line -- Continued Growth 30
- Policy Decisions Will Significantly Influence the Future 33

Chapter III
Potential Problem Areas and Legislative Policy Issues Relating to California's Economic Future 34
- What Are the Key Problem Areas and Policy Issues? 34
- The Challenges Facing California Are Formidable 36
- Both Planning and Actions Are Needed 39
- The Time For Responding Is Now 40

Executive Summary

Executive Summary

This report provides an overview of the California economy, including information which will assist the Legislature in making decisions that will affect the economy's future course. The report focuses on three questions:

- What are the basic characteristics of the California economy as it exists today?
- What are California's future economic prospects?
- What are the potential problem areas and legislative policy issues which relate to the economy's future and will need to be addressed?

Basic Characteristics of the California Economy

California has one of the largest, most diversified and dynamic economies in the world today. Its general characteristics include the following.

The Economy's Size

California's gross product -- the value of the goods and services that it produces -- exceeds half a trillion dollars. This means that California ranks as the seventh largest economy in the world.

Recent Performance

California's overall economic performance in recent years has been favorable. For example, its unemployment rate has fallen for six years in a row. Its employment and income growth over the past five years have averaged a healthy 4 percent and outperformed the nation. Californians also continue to enjoy a relatively high per capita income level -- eighth highest in the country.

Industrial Diversity

California's economy is one of the most diversified that can be found anywhere. This tends to make California's economy less volatile from year to year and less prone to economic downturns than most other economies. Altogether, there are over 120 separately identifiable nonagricultural industries in the state, while over 250 separate crops and livestock commodities are produced in the agricultural sector.

Industry Mix

Nearly half of California's 12.1 million jobs are in the service and trade sectors. The remaining jobs are split between manufacturing (18 percent), government (16 percent), finance-related industries and real estate (7 percent), construction (5 percent), and various other industries (7 percent). Most of the state's job growth in recent years has been in the service, trade and finance industries. Compared to the nation, California's economy is relatively less dependent on manufacturing and more geared toward the service, trade and finance-related sectors.

Key Industries

In an economy as diverse as California's, no single industry is dominant. However, three areas of particular importance to the state include the agricultural sector, aerospace (including the defense-related industries), and foreign trade. For example:

- ***Agriculture.*** California had farm production in 1987 that totaled nearly $16 billion. It is the nation's leading farm state and the top producer for over 50 different farm commodities, despite the fact that California accounts for only about 3 percent of total U.S. farmland acreage.
- ***Aerospace and defense.*** California's aerospace sector appears to account for over 20 percent of both total California economic activity and national activity in the aerospace sector. Total federal defense-related spending in California is around $50 billion annually, of which a bit over half represents defense contracts that benefit the aerospace sector. Because of its importance to California, the possibility of cutbacks in defense spending naturally is a negative factor for the state. However, the net damage is expected to be relatively modest. This is because defense only accounts for about 20 percent of the state's aerospace activity, and much of the loss in federal dollars is expected to be offset by private sector domestic demands and a strong export market for these products.
- ***Foreign trade.*** Nearly $120 billion of foreign trade passed through California in 1987, resulting in an estimated half-million to one million California jobs in such industry sectors as manufacturing, finance, trade and services. The majority of California's trade is with Asian nations, particularly Japan. The leading items traded include computers, electronic equipment, agricultural products and automobiles. The volume of traded goods entering California from foreign nations is about twice the volume leaving the state for foreign destinations.

Geographic Dispersion of Economic Activity Within California

Different geographic areas of California vary considerably in terms of the nature of their economic activity:

- The majority of California's nonagricultural jobs -- nearly 70 percent -- currently is concentrated within the state's two largest metropolitan regions -- the Los Angeles and San Francisco Bay areas. These also are the areas with the lowest unemployment rates and highest per capita income levels.
- In the case of agriculture, activity is most concentrated in the Central Valley, where the three counties of Fresno, Kern and Tulare account for over one-third of the state's total agricultural output.
- There also is considerable variation in the nonagricultural industry mix in different regions of the state. For example, the share of total jobs accounted for by manufacturing ranges from over 20 percent in the Los Angeles region, to less than 10 percent in the Sacramento and northern California foothills region.

- Economic growth is proceeding most rapidly in areas like Riverside-San Bernardino, Sacramento and San Diego, which are absorbing the "spill over" of economic activity from the more crowded areas like the Los Angeles and San Francisco Bay areas.

Future Economic Prospects for California

The factors most conducive to a state's economic growth include:

- population growth
- export opportunities
- a balanced industry mix
- adequate labor supplies
- availability of nonlabor resources, like energy and raw materials
- good climate
- acceptable environmental quality
- availability of reasonably priced land and housing
- efficient transportation systems
- adequate public services, such as schools, water delivery systems and sewage treatment facilities
- reasonable tax levels, and
- governmental policies and programs that are supportive of economic growth.

In the case of California:

- Most economists believe that the net effect of these factors in the future will be ***positive,*** and thus that the California economy will continue to expand in the years to come.
- Population growth is expected to be a key force driving California's future economic growth. Increased population, however, ***also will significantly increase the demand for a wide range of public services,*** including infrastructure, education, and various health and social services.
- Although both employment and income growth during the next decade are expected to be less than during the 1980s, ***the state's economy still is expected to experience moderately strong growth and outperform the nation.***

This expectation of continued moderate growth implicitly *assumes that the necessary steps will be taken to ensure that additional growth can be accommodated.* The economy's *actual* future performance, however, will depend in part on how various problem areas and legislative policy issues relating to the economy are addressed.

Potential Problem Areas and Legislative Policy Issues Relating to the Economy's Future

No one can predict the complete list of problems and policy issues that will end up influencing the economy in the future. However, it currently appears that this list includes:

- meeting the state's basic transportation needs
- adequately supplying and efficiently allocating water
- meeting other public infrastructure needs like schools and waste disposal facilities
- achieving adequate educational training and vocational skills for the state's labor force
- establishing and meeting healthy environmental standards

- mitigating the problems of high housing costs
- coordinating the actions of differing governmental entities with regard to factors like air quality, transportation and urban congestion; and
- ensuring that existing taxation and spending limits do not impair the ability of California's state and local governments to provide the full range of services that the public demands and the economy needs to function efficiently.

The Challenges Facing California Are Formidable

California faces an *imposing task* in meeting the above challenges to the state's economic future. Some steps have been taken in the right direction, such as the authorization of additional bond monies to fund certain infrastructure needs, and the recent enactment by the Legislature of several significant measures for dealing with the state's air pollution problems. Generally speaking, however, despite the importance and urgency of the challenges at hand, *relatively little has been done thus far to address them.* Doing so will require *coordinated long-term planning* amongst different branches and levels of government in the state, followed by *specific actions* to implement these plans.

Why is Coordinated Long-Term Planning Needed?

Coordinated long-term planning is needed because many of the issues and problems involved are so large in scope and complex to deal with that they cannot be effectively addressed either on "short notice" or by individual governmental entities acting in isolation from one another. In addition, the problems will require a *variety of approaches,* ranging from the development of comprehensive long-term capital outlay plans, to considering tools like water pricing strategies, greater use of broad regional governmental entities, increased reliance on the private sector to provide public infrastructure, and zoning strategies to ensure efficient use of costly land.

Actions Must Follow

Making *plans* for accommodating future economic growth and enhancing the economy's prospects, while an important first step, becomes little more than an academic exercise unless such plans are actually *used.* Thus, it is important for the Legislature and other state and local government decisionmakers to not only *plan* for the economy's future, but also be committed to take the *actions* needed to implement such plans.

A typical example of where *both planning and follow-up actions* are needed involves public infrastructure. First, both state and local governments need to develop comprehensive multi-year capital outlay planning processes, like the one enacted for the state by the Legislature in 1988 but vetoed by the Governor. Second, the plans themselves must be formulated and then activated, including taking steps to provide for the necessary funds to finance them.

The Time To Respond Is Now

Regardless of the exact actions that need to eventually be undertaken, one thing is clear -- because California is so rapidly urbanizing and undergoing so many other significant changes, ***now is the time for making and implementing plans for accommodating the state's future economic growth.*** The sooner and more effectively this job is undertaken, the better will be California's future economic performance, living standards and overall quality of life. ❖

Chapter I

Chapter I

California's Economy -- What Are Its Basic Characteristics?

This chapter provides an overview of the basic features and characteristics of the California economy -- one of the largest, most diversified and dynamic economies in the world today. Specifically, the chapter:

- Puts into perspective exactly how large the state's economy is.
- Evaluates how the economy has been performing recently.
- Discusses the relative importance of different industries in the California economy, and how its industry mix has been changing over time.
- Highlights the special significance of three industry segments of particular importance to the state -- agriculture, aerospace and defense, and foreign trade.
- Shows how California's economic activity is dispersed geographically throughout the state.

How Big Is the California Economy?

The best way of measuring the California economy's overall size and comparing it to the economies of other states and nations is to look at California's gross state product (GSP) -- the total dollar volume of the goods and services the economy annually produces.

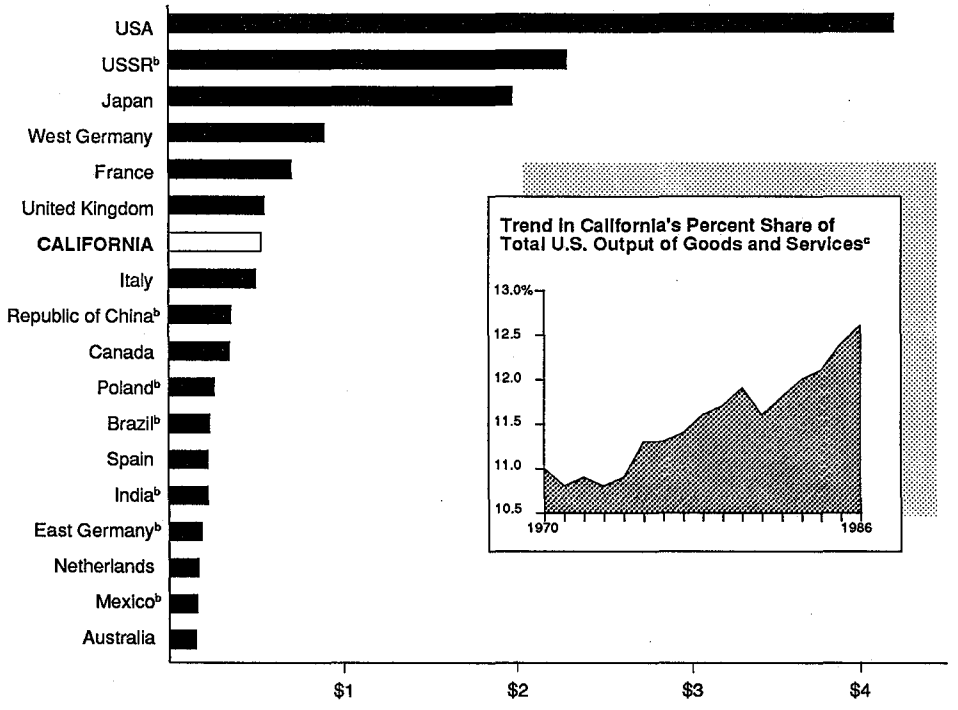
Seventh Largest Economy in the World

Chart 1 indicates that California's GSP exceeds *half a trillion dollars*. The chart also shows that in 1986, the most recent year for which reliable international data on gross product are available, California ranked as the *seventh largest economy in the world*. California's ranking may be even higher today, given its relatively strong growth during each of the past couple of years.

Chart 1

Size of California's Economy Compared to Other Nations[a]

1986 Gross Product (trillions of U.S. dollars)



[a] *National data represent 1986 gross domestic product for the various countries valued in 1986 U.S. dollars, as published in the* 1988 Statistical Abstract of the United States, *U.S. Department of Commerce, Bureau of the Census. Data for California represent 1986 gross state product in 1986 U.S. dollars, as obtained from the U.S. Department of Commerce.*

[b] *Bar represents 1984 estimated gross national product, adjusted upward to 1986 based on its 1984 relationship to U.S. gross national product.*

[c] *Current-dollar California gross state product as a percent of U.S. gross national product.*

Exactly What Has Recent Economic Performance Been Like?

Using any one single term to characterize the economy's performance in recent years is difficult, for several reasons. First, like all economies, California's tends to normally experience ebbs and flows from one year to the next because of recurring business cycles and such factors as oil price shocks, changes in federal fiscal and monetary policies, and financial market developments. Second, even in good years not all industries and geographic regions of the state perform equally. On balance, however, it is fair to say that California's overall economic performance during recent years has been *favorable.*

California Has Been Outperforming the Nation

Several of the better barometers of how an economy is performing overall include its growth in income, output and employment; its rate of unemployment; and its pace of inflation. Chart 2 shows that California's recent track record in these areas has been very good. For example:

- The unemployment rate has fallen for six years in a row. In 1988, it is at its lowest annual level in nearly 20 years.
- During the past five years both real income and employment in California have risen at a healthy 4-percent pace, and have outperformed the nation.
- California's gross state product as a percent of U.S. gross national product has increased steadily since the early 1970s, from less than 11 percent to around 13 percent (see Chart 1).
- California's inflation rate, although somewhat above the nation's, has averaged only slightly over 4 percent during the past five years.

As discussed later, California also continues to be a relatively high-income state, with a per capita income level that ranks eighth highest among all states and exceeds the national average by about 15 percent.

Given the above, California merits a *high score* in terms of its overall economic performance in recent years.

What Does California's "Industry Mix" Look Like?

California is noted for having one of the most diversified industry mixes in the nation and, for that matter, in the entire world. This is a great advantage for the state, because it means that California's economic fortunes are not excessively dependent on the performance of only a few industries. This tends to insulate California somewhat from the various shocks and disruptions that can affect individual industries, especially cyclically sensitive industries such as automobile manufacturing, agriculture and tourism. As a result, California's economy is less volatile from one year to the next than are the economies of many other states. It also is relatively less vulnerable during economic downturns.

How Important Are Different Industries?

Chart 3 shows the relative importance of different industries in California in terms of their share of total jobs as of 1987, the most recent year for which complete data are available. Among other things, the chart indicates that:

- Almost half (47 percent) of the state's 12.1 million jobs in 1987 were in the service sector (24 percent) and trade sector (23 percent).
- Manufacturing accounted for 18 percent of all jobs, including 6 percent for the aerospace and defense-related industries such as aircraft, missile systems, electronics, communications equipment and technical instruments.
- The remaining 35 percent of all jobs were in government (16 percent); finance, insurance and real estate (7 percent); transportation, communications and utilities (5 percent); construction (5 percent); agriculture (3 percent); and mining (less than 1 percent).

Chart 3 also shows the relative importance of some of the larger sub-industries that comprise these broad industry-sector breakdowns. Altogether, there are over 120 separate nonagricultural industries operating in California, plus over 250 separate crops and livestock commodities produced within the

Chart 2

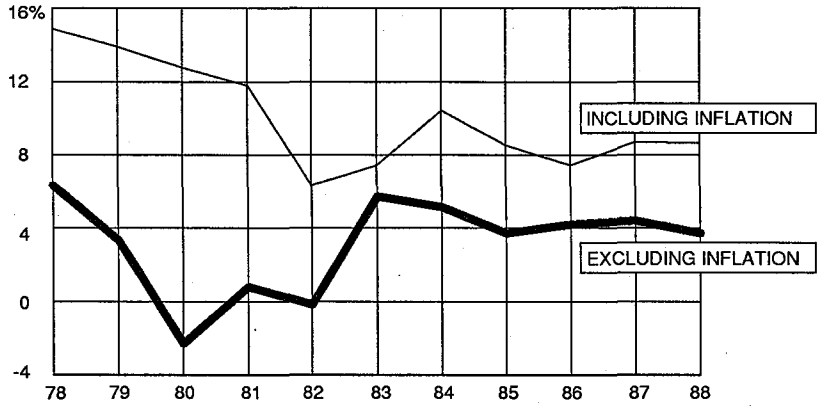
California's Recent Economic Performance for Selected Variables

1978-1988

PERSONAL INCOME

Average annual increase during past 5 years

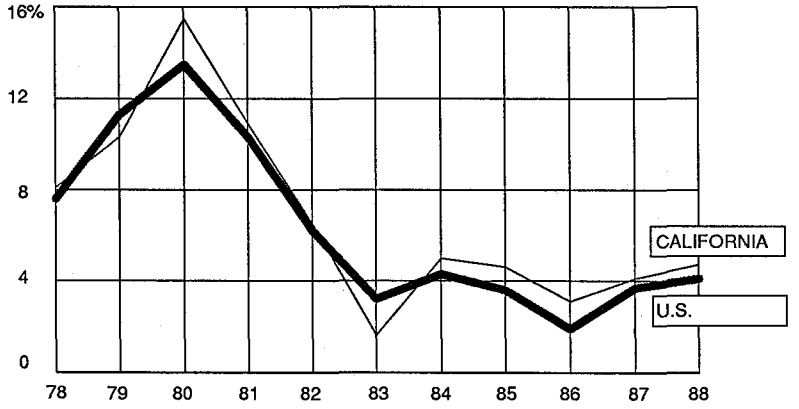
	Including inflation	Excluding inflation
California	8.7%	4.2%
U.S.	7.4	3.8



CONSUMER PRICE INFLATION

Average annual inflation rate during past 5 years

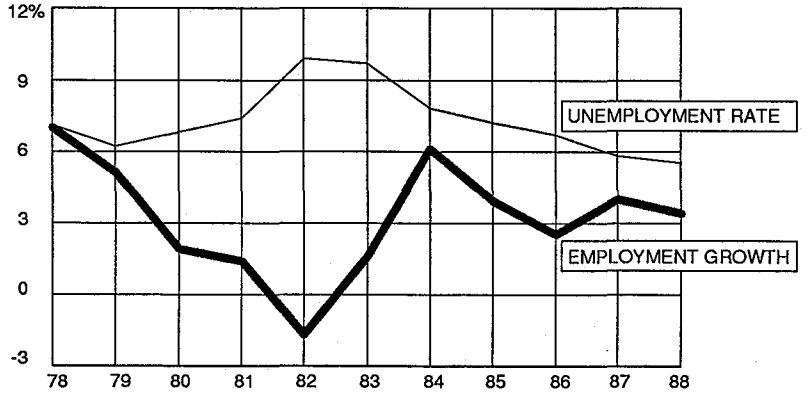
California	4.3%
U.S.	3.5



EMPLOYMENT[a]

Average annual employment growth during past 5 years

California	4.0%
U.S.	3.3

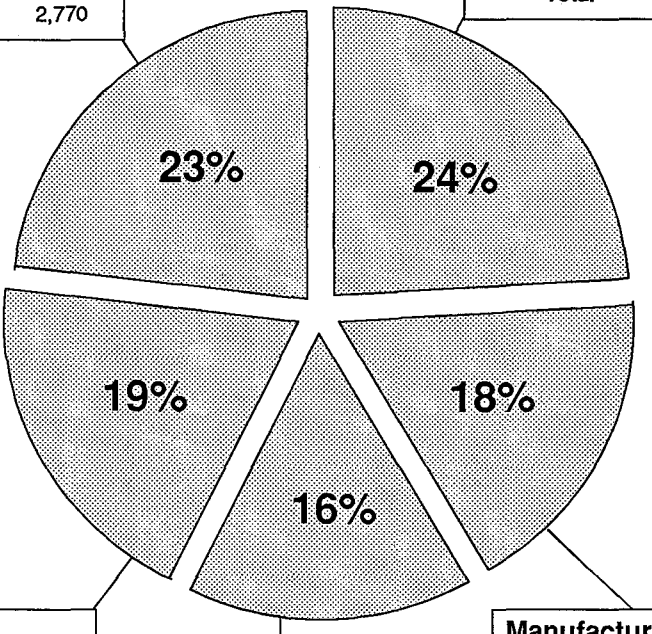


[a] *Data represent nonagricultural wage and salary employment and the civilian unemployment rate.*

Chart 3

California Employment in 1987, by Industry

(jobs in thousands)



Service Jobs

Business	754
Health	698
Hotels	164
Auto-related	163
Personal	126
Amusements	120
Motion pictures	90
Professional and all other	825
Total	2,940

Trade Jobs

Wholesale trade	700
Retail trade	2,070
Total	2,770

Other Jobs

Finance, insurance and real estate	801
Transportation, communications and utilities	583
Construction	574
Agriculture	345
Mining	41
Total	2,344

Manufacturing Jobs

Nondurable		683
Food processing	(172)	
Apparel	(127)	
Printing	(153)	
Other	(231)	
Durable		1,430
Aerospace	(757)	
Other	(673)	
Total		2,113

Government Jobs

Federal		348
State		342
Education	(152)	
All other	(190)	
Local		1,199
Education	(648)	
Counties	(245)	
Cities	(212)	
Special districts	(94)	
Total		1,889

[a] *Source: California Employment Development Department and California Department of Finance. Data represent the interim wage and salary employment series. Detail may not add to totals due to rounding.*

agricultural sector. Thus, the state's economy has *tremendous diversity.*

How Has the Industry Mix Been Changing Over Time?

California's current industry mix reflects the fact that most of the state's job growth in recent years has been concentrated in the service and trade sectors. Chart 4 shows that thus far during the decade of the 1980s, the state's level of employment has risen by 18 percent, meaning that 1.9 million new jobs have been added in California. Of these new jobs, the chart shows that:

- Nearly 80 percent have been concentrated in three industry sectors -- services (42 percent), trade (27 percent) and finance-related industries (10 percent). As indicated in the chart, these three sectors all have experienced *above-average rates* of job growth, led by a 36-percent gain in the service industries. As a result, these sectors have seen their share of the state's economy *rise substantially.* (Chart 4 shows that the construction sector also has grown at an above-average pace during the 1980s; however, because its share of the industry mix is much less than the service, trade and finance sectors, it accounted for less than 8 percent of the state's total job gains.)
- In contrast, manufacturing employment has grown by only 5 percent and accounted for less than 6 percent of the state's job gains during the 1980s, employment in both agriculture and mining has actually fallen, and government employment has increased only modestly. As a result, these sectors have seen their share of the state's economy *fall.*

Several factors help explain why the industry mix has changed the way it has, especially the strong growth in the service and trade sectors. For example:

- It is common for economies with relatively high and rising per capita income levels and large numbers of well-to-do households, as in California, to devote increasing shares of their income to things like entertainment, travel and personal services, all of which translate into added service-sector jobs.
- Trends such as more two-wage-earner households have generated increased demands for certain types of services (such as eating out during the workweek, child care, yard maintenance and house upkeep) that at one time were provided through the home, not the marketplace. In other words, there has been an increased "marketization" of goods and services.
- Certain entirely new service industries have sprung up that were simply not much in existence years ago, such as financial planners and computer service technicians.
- The increasing internationalization of the world's economies has increased the percentage of the world's output which is subject to foreign trade. Because California is a leading point of entry and exit for U.S. trade commodities, this translates into added trade-sector jobs for the state.
- Tourism has become an increasingly important part of the state's economy.

How Does California's Industry Mix Compare With the Nation's?

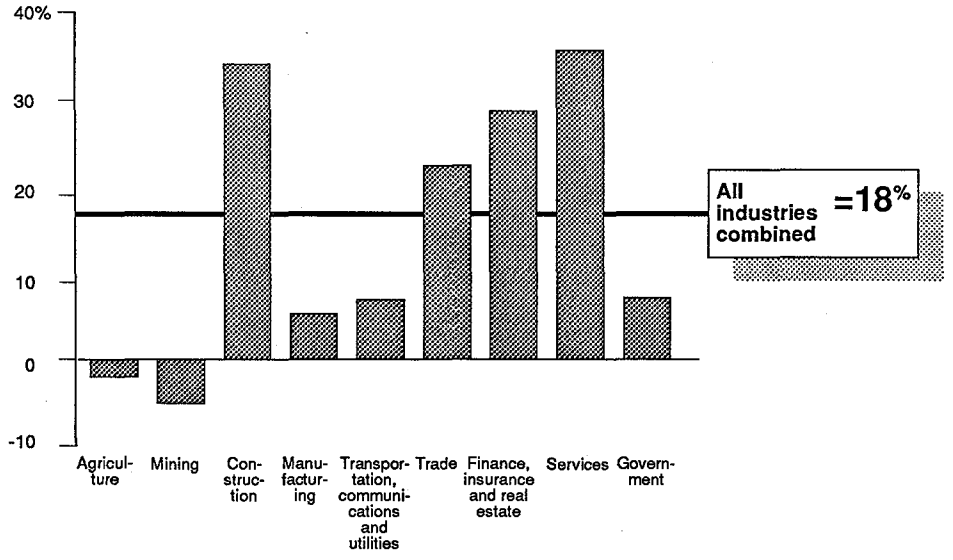
Because of its industrial diversity, California's industry mix is somewhat similar to the nation's -- at least much more so than for most other states. There are, however, some notable differences. These differences are best shown by comparing California's share of the nation's gross national product (GNP) for different industry sectors, the most recent data for which is 1986. The results appear in Chart 5. It indicates that whereas California's average share of 1986 GNP for all industries combined

Chart 4

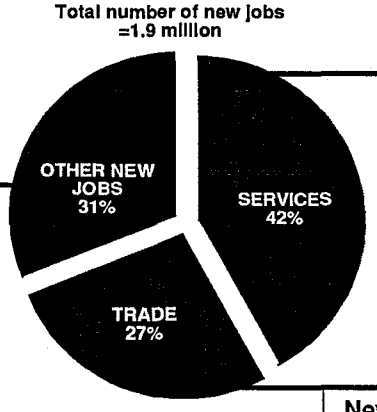
Growth in California Employment During the 1980s

By Industry

Percent Change in Jobs (1980 through 1987)



Share of New Jobs (1980 through 1987)



Other New Jobs

	Number (in thousands)	Percent of Total
Finance, insurance and real estate	178	9.6%
Construction	146	7.8
Government	126	6.8
Manufacturing	105	5.7
Transportation, communications and utilities	37	2.0
Mining	-2	-0.1
Agriculture	-7	-0.4
Total	583	31.4%

New Service Jobs

	Number (in thousands)	Percent of Total
Business	287	15.5%
Health	145	7.8
Hotel	51	2.7
Personal	26	1.4
Other	262	14.1
Total	583	31.4%

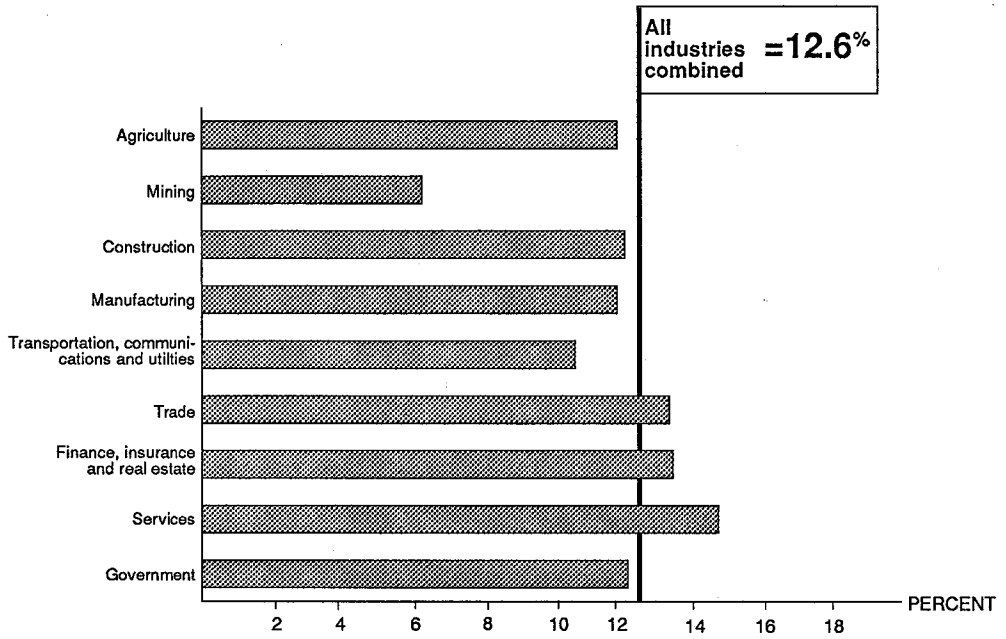
New Trade Jobs

	Number (in thousands)	Percent of Total
Wholesale	116	6.3%
Retail	387	20.9
Total	504	27.2%

Chart 5

California's Share of U.S. Economic Output

By Industry[a]



Manufacturing

Transportation equipment excluding motor vehicles	29.1%
Electronics-related	21.7
Instruments	12.8
Nonelectrical machinery	11.8
Primary and fabricated metal	8.0
Motor vehicles and equipment	3.1
All other	10.5
Average for durable goods	13.5%
Food and related products	11.7%
Printing and publishing	10.1
Rubber and plastics	7.6
Chemicals and related products	5.8
Other	8.9
Average for nondurable goods	8.9%
Average for all manufactured goods	11.9%

Trade

Wholesale	13.1%
Retail	13.5
Total	13.4%

Finance-related

Real estate	14.1%
Insurance	12.3
Banking	10.6
All other	13.4
Total	13.5%

Services

Business-related	16.6%
Health-related	13.0
All other	15.0
Total	14.8%

Government

Federal	11.5%
State and local	12.6
Total	12.2%

[a] *Data are based on estimates by the U.S. Department of Commerce for U.S. gross domestic product and California gross state product in 1986, the most recent year that data for the latter have been published.*

was nearly 13 percent, the state accounted for:

- Somewhat *higher* industry shares of GNP for services, trade and finance-related industries (especially real estate); and
- Somewhat *lower* industry shares of GNP for agriculture, construction, manufacturing, transportation- communications-utilities, government, and especially mining.

Highlights On Key Industries

The above findings regarding the state's industry mix support the view that California is more service-oriented and less manufacturing-oriented and dependent on other primary industries than the nation generally. They do *not* imply, however, that the significance of "basic" industries like manufacturing and agriculture should be downplayed, as they still are of *critical importance* to California and their contribution to the state's economic well-being can hardly be overstated. This is because although such "basic" industries do not account for a majority of the state's jobs and economic output, their share still is substantial and serves as the "foundation" upon which much of the rest of the economy is built. As a result, many of the state's jobs in the service, trade and finance-related industries are directly or indirectly dependent upon them.

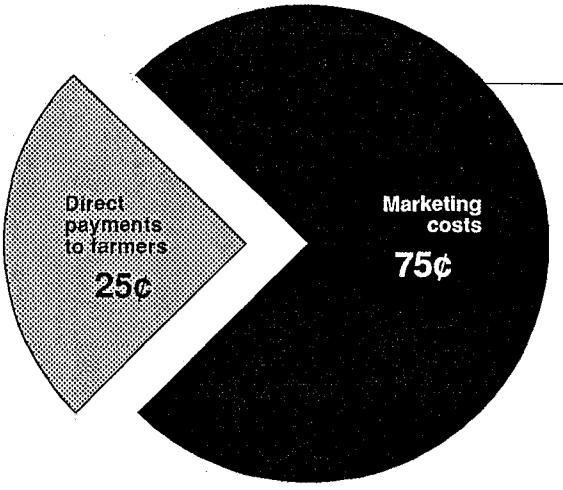
Given the importance of the state's "basic" industries, a closer look at California's agricultural sector and its leading manufacturing sector -- aerospace -- is merited. A closer look at the foreign trade sector also is appropriate, given its significant role in the state's economy.

The Agricultural Sector in California

California is by far the nation's leading agricultural state. Agriculture remains one of the single most important "basic" industries in California today. The value of California farm production totaled nearly $16 billion in 1987. However, agriculture's contribution to the California economy is far greater than this, because most farm production generates substantial demands on other sectors of the economy for activities like financial services, packaging and distribution. For example, Chart 6 shows that for each dollar consumers spend on food products, an average of only about 25 cents represents payments to farmers. The remaining 75 cents is for marketing,

Chart 6

Average Breakdown of Where $1 Spent on Food Goes[a]



Breakdown of Marketing Costs	
Nonfarm labor	34.0¢
Packaging	8.0
Advertising	4.5
Transportation	4.5
Depreciation[b]	4.0
Fuel and power	3.5
Before-tax profits	3.0
Rent payments	3.0
Interest costs	2.0
Repairs and maintenance	1.5
All other	7.0
Total	75.0¢

[a] *Based upon data in* 1988 Economic Report of the Governor.
[b] *Represents costs for the use and replacement of capital equipment used in processing and marketing food products.*

including packaging, distribution and advertising. Likewise, payments to farmers for agricultural production used for nonfood purposes, such as the cotton used in clothing and animal skins used for furs and leather goods, also account for only a fraction of the final product value. Given the above, agriculture probably accounts directly and indirectly for at least 10 percent of California's total economic activity.

What crops does California produce?

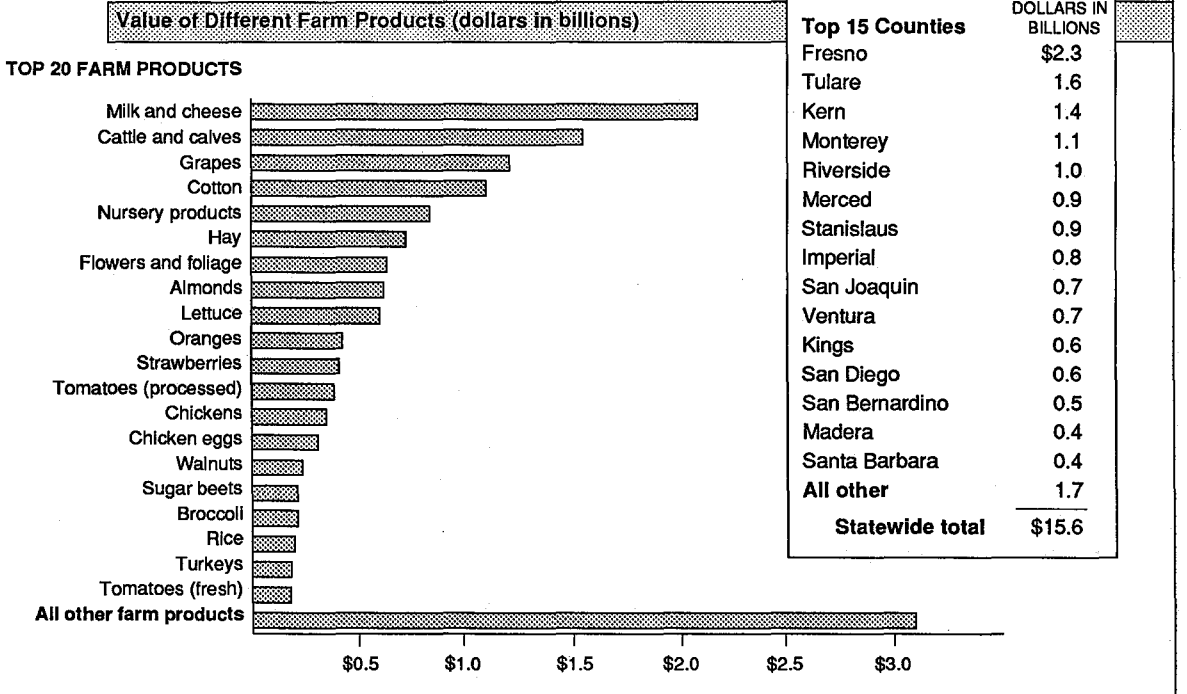
California probably has the single most diverse agricultural sector in the world. The state produces over 250 different crops and livestock commodities, and leads the nation in the production of over 50 of these crops and commodities. In fact, there are many crops for which California is essentially the nation's sole producer, including almonds, walnuts, artichokes, dates, figs, kiwifruit, olives, pistachios, prunes, raisins and pomegranates. Many of California's products are high-valued commodities, and highly productive modern farming technologies are used throughout much of the state. This enables California to account for some 12 percent of total U.S. farm output, even though California farmland amounts to only one-third of California's land acreage and only 3 percent of total U.S. farmland.

Chart 7 summarizes California's top 20 farm products in terms of total receipts paid to farmers. It indicates that these 20 products account for about 80 percent of California's total dollar farm output. Four of these product

Chart 7

Leading California Farm Products and Agricultural Counties

1987



Farm Production by County

Top 15 Counties	DOLLARS IN BILLIONS
Fresno	$2.3
Tulare	1.6
Kern	1.4
Monterey	1.1
Riverside	1.0
Merced	0.9
Stanislaus	0.9
Imperial	0.8
San Joaquin	0.7
Ventura	0.7
Kings	0.6
San Diego	0.6
San Bernardino	0.5
Madera	0.4
Santa Barbara	0.4
All other	1.7
Statewide total	$15.6

Source: California Department of Food and Agriculture.

categories each have sales exceeding $1 billion and combine for nearly 40 percent of all agricultural production value in California -- milk and cheese, cattle and calves, grapes, and cotton.

Chart 7 also identifies how farm production is distributed geographically throughout the state. Fresno is the largest farm-production county with over $2 billion in annual receipts, and, together with its neighboring Central Valley counties of Tulare and Kern, accounts for over one-third of the total value of the state's agricultural output.

California's Aerospace Sector

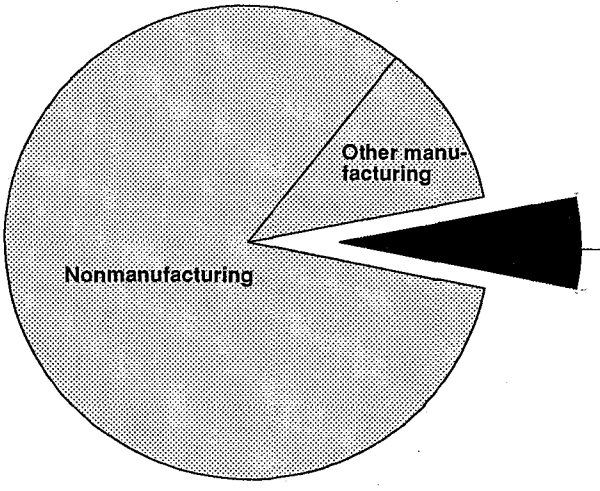
Probably the single industry grouping most closely associated with California, other than possibly agriculture, is the sub-sector of durable goods manufacturing known as aerospace. Economists do not totally agree regarding exactly which individual industries should be lumped under this heading. However, a common view is that aerospace includes industries such as computing and communications equipment and devices, technical instruments, electronics equipment and components, aircraft and parts, and missiles and other space-related products.

How big is the aerospace sector?

Chart 3 (earlier) and Chart 8 indicate that there are about three-quarters of a million jobs in aerospace industries in California, which represents about 6 percent of total state employment and over 30 percent of all California manufacturing jobs. Chart 8 also shows the breakdown of aerospace employment by the individual industries comprising aerospace.

Chart 8

California Aerospace Employment in 1987[a]



Aerospace manufacturing industries	Percent share of total CA jobs	Number of jobs (thousands)
Computing equipment	0.8%	98
Communications equipment	1.6	190
Electronic components	1.2	149
Aircraft and parts	1.4	175
Missiles and space	0.7	84
Instruments	0.5	55
Other	0.1	6
Total Aerospace	6.2%	757

[a] *Source: California Employment Development Department, Department of Finance and Commission on State Finance.*

As shown in Chart 5 (earlier), California aerospace industries account for a disproportionately large share of total U.S. aerospace output -- nearly 30 percent for industries producing nonmotor vehicle transportation equipment like airplanes, and over 20 percent for electronics-related products. Given the high dollar values of the products that aerospace employees produce and the substantial spin-off jobs that they generate in the service, trade and other manufacturing industries, aerospace probably accounts directly and indirectly for over 20 percent of California's total economic output.

How important is defense spending to California?

Part of California's aerospace activity is supported by federal defense spending. Chart 9 shows that total federal defense spending in California currently is over $50 billion annually, and is equivalent to about 8 percent of California's gross state product. Thus, it currently is a major source of stimulus to California's economy. About half of this spending is for nonprocurement purposes, including pay for defense-related employees and operation of military bases. The other half of the money is spent for defense contracts, most of which generate jobs in the aerospace sector. California generally has received about 15 percent to 20 percent of all federal defense prime contract awards. About 20 percent of the output produced in California's aerospace industries appears to be defense-related.

What will reduced defense spending do to aerospace?

Chart 9 shows that throughout most of the 1980s, federal defense spending in the state had been increasing quite rapidly, both in dollar terms and as a percent of the state's economy. For example, between 1979 and 1986 inflation-adjusted "real" defense spending in California rose by almost 75 percent, or an average annual growth rate of over 8 percent. Thus, defense spending was a major source of economic growth and aerospace jobs during these years. Recently, however, federal budget restrictions have softened the outlook for California defense spending. As Chart 9 shows, only small increases in spending have occurred during the past couple years and the dollar volume of prime contracts awarded has actually fallen. Thus, while defense spending is clearly important to California, it appears that the state will be getting less stimulus from this source than it has during the past decade. As discussed in Chapter II, however, the aerospace industry is expected to continue to perform relatively well despite the loss in federal dollars, because of offsetting private sector domestic demands and a strong export market for such outputs as commercial aircraft, computer equipment and parts, and electronics products.

International Trade and the California Economy

Foreign trade benefits the state's economy in several ways. For example, it directly generates jobs in industries which produce the goods that the foreign buyers of our products demand. It also generates jobs in industries that have to directly handle traded goods, such as the service and transportation industries.

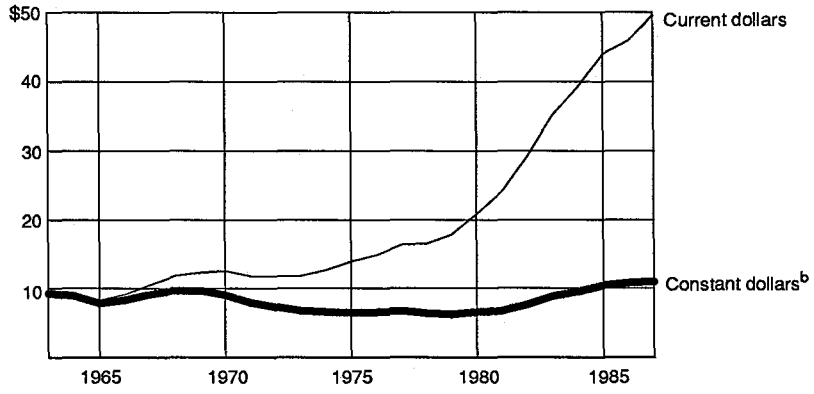
Although there is no solid measure of exactly what the contribution of foreign trade is to California's economy, it definitely is *very substantial.* For example, various private and governmental studies suggest that as many as one million jobs, or close to 10 percent of the state's total, may be directly or indirectly tied to foreign trade, including as many as half-a-million direct jobs in the state's manufacturing industries. It also has been suggested that trade-related activities may account for as much as 15 percent of California's gross state product. Thus, whatever the exact economic contribution of foreign trade is, it is significant.

Chart 9

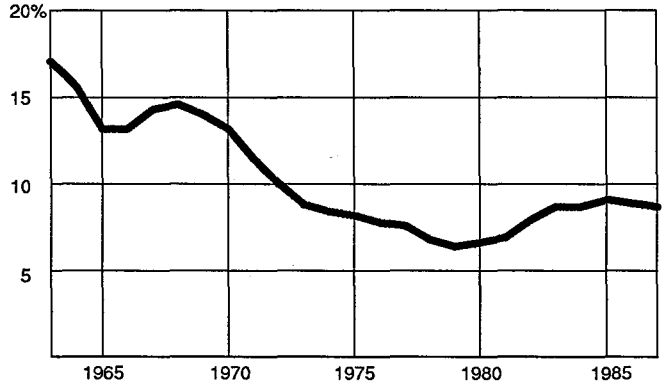
Federal Defense-Related Spending in California[a]

Mid-1960s through 1987

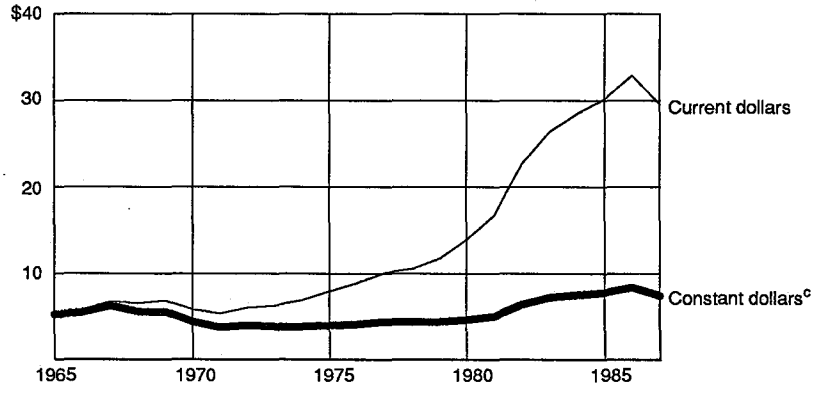
Federal Defense-Related Spending in California (dollars in billions)



Federal Defense-Related Spending as a Percent of Gross State Product



Defense Prime Contracts Awarded to California (dollars in billions)



[a] *Source: Commission on State Finance. Data are for fiscal years ending in years shown.*
[b] *1963 dollars.*
[c] *1965 dollars.*

How much and what type of foreign trade activity occurs?

Chart 10 summarizes the dollar volume and other characteristics of the foreign trade which passed through California's custom districts in 1987, and also shows the historical trends in trade flows. It indicates that the total volume of foreign trade in 1987 was $118 billion, including about $40 billion in exports to other nations and nearly $80 billion in imports from other nations. Thus, the volume of traded commodities imported into California is twice the size of the amount being exported to other nations. The chart also indicates the following:

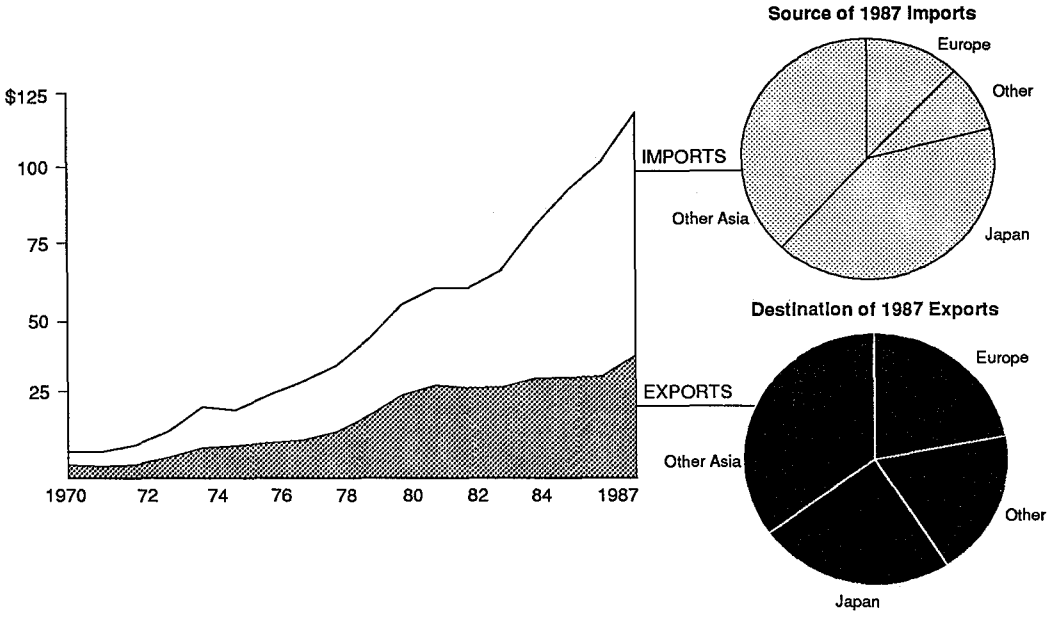
- ***Trends in trade.*** The volume of foreign trade passing through California has *increased dramatically* in recent years, especially the imports coming into the U.S. from foreign nations. For example, during the 1980s the total trade flow has more than doubled and the volume of imports has more than tripled. These increased trade flows reflect both the increasing internationalization of the world's economies, and increased trading activity by countries whose trade passes through California (especially Japan).
- ***Trading partners.*** California's leading trading partners are the Asian countries located on the Pacific Rim, especially Japan. For example, nearly 80 percent of all imports entering California are from Asia, including over 40 percent from Japan. Asia also is the destination for nearly 60 percent of the exports leaving California, including 24 percent for Japan.
- ***Traded commodities.*** The largest categories of traded products include computers, electronic and photographic equipment, agricultural products, and automobiles.

Chart 10

Foreign Trade Activity in California

1970 through 1987[a]

Value of California Trade Flows (dollars in billions)



1987 Import and Export Volumes Passing Through California's Customs Districts

(dollars in billions)

COMMODITY CLASS	EXPORTS LEAVING CALIFORNIA	IMPORTS ENTERING CALIFORNIA	TOTAL TRADE VOLUME
Computers, electronic and photographic equipment	$15.8	$30.2	$46.0
Automotive equipment	0.8	14.5	15.3
Agriculture	5.0	3.7	8.7
Aircraft	3.1	0.2	3.3
Petroleum, coal and gas	1.3	1.0	2.2
All other	13.6	28.9	42.5
TOTALS	**$39.6**	**$78.5**	**$118.1**

[a] *Source: California Department of Finance and U.S. Department of Commerce, Bureau of the Census. Detail may not add to totals due to rounding.*

The Geographic Dispersion of Economic Activity Within California

The last general characteristic of the California economy to consider is how economic activity is distributed geographically throughout the state. The dispersion of agricultural activity was discussed earlier. This section shows how the state's nonagricultural activity is distributed geographically, and what the industry mix looks like in different regions of the state.

How Is California's Economic Activity Distributed Geographically?

Chart 11 depicts how California's total nonagricultural employment is distributed throughout different areas of the state, while Table 1 shows what this geographic distribution looks like for individual industry sectors. The chart and table indicate that:

- Nearly 70 percent of all California nonagricultural jobs are accounted for by the state's two largest metropolitan regions -- the Los Angeles region (45 percent of jobs) and the San Francisco Bay region (24 percent of jobs). By comparison, Chart 11 shows that these regions account for a relatively small portion of California's total land acreage. Thus, at the present time, nonagricultural economic activity in the state is quite concentrated geographically.
- Economic activity also is highly concentrated in these same two regions for all of the largest individual industry sectors. For example, these regions account for nearly 80 percent of all manufacturing jobs, 69 percent of service and trade jobs, and 74 percent of jobs in finance-related industries.

Table 1
Distribution of 1988 Nonagricultural Employment in Different Industries, by Region[a]

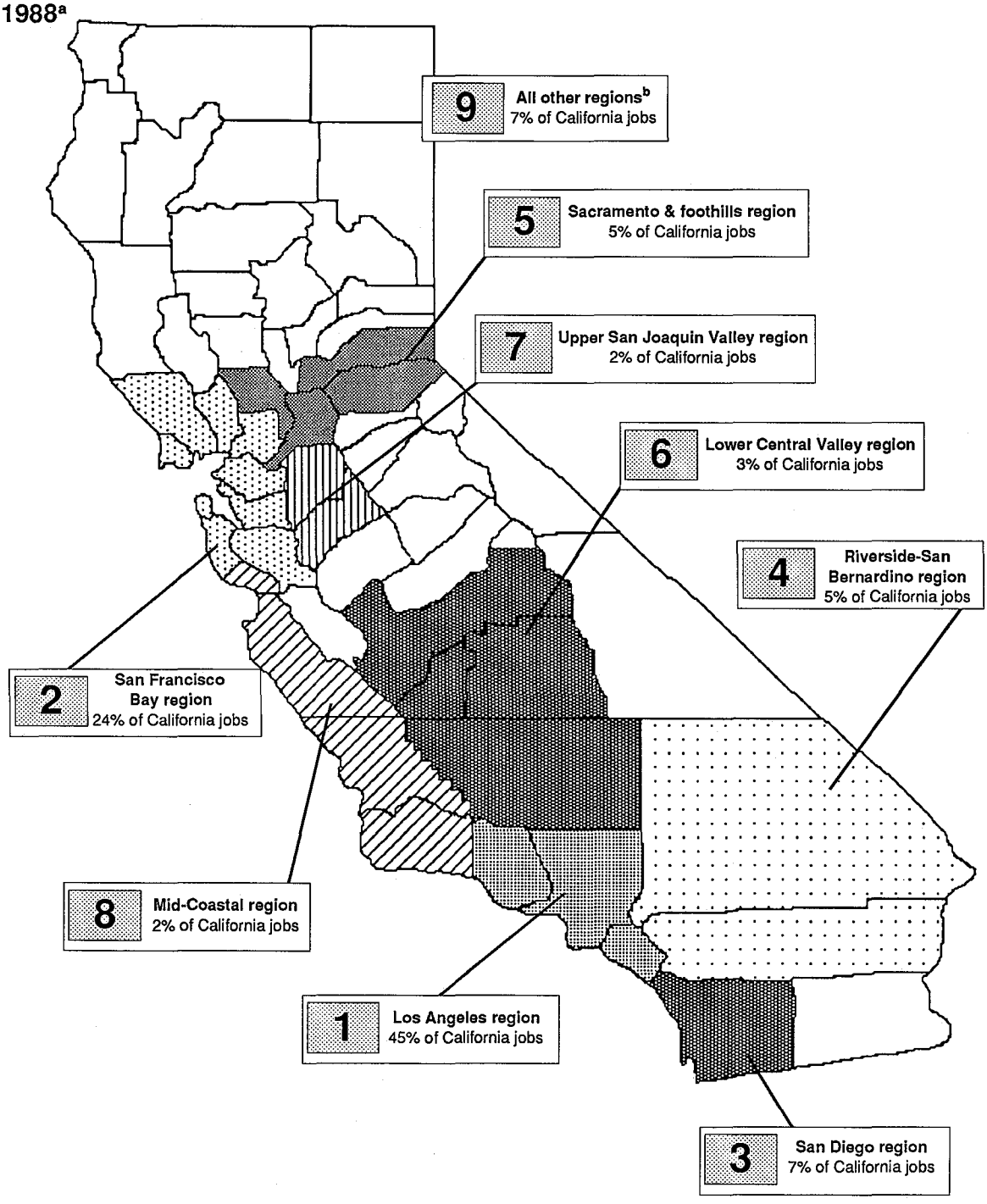
REGIONAL PERCENT SHARES OF STATEWIDE EMPLOYMENT							
	REGION	Manufacturing	Trade & Services	Finance, Insurance & Real Estate	Mining, Construction, Transportation & Utilities	Government	All Industries Combined
1	Los Angeles region	55%	45%	48%	39%	35%	45%
2	San Francisco Bay region	23	24	26	24	23	24
3	San Diego region	6	8	8	8	8	7
4	Riverside-San Bernardino region	4	5	3	7	6	5
5	Sacramento and foothills region	2	5	4	5	9	5
6	Lower Central Valley region	2	3	2	4	4	3
7	Upper San Joaquin Valley region	3	2	2	2	2	2
8	Mid-coastal region	1	2	2	2	3	2
9	All other regions	5	7	5	8	9	7
	TOTALS, ALL REGIONS	100%	100%	100%	100%	100%	100%

[a] Source: California Employment Development Department. For description of data see notes to Chart 11. Data are rounded to the nearest full percentage point, and therefore detail may not add to totals.

Chart 11

Geographic Distribution of California Nonagricultural Employment

1988[a]



[a] *Data used are nonagricultural wage and salary employment as of August 1988, as reported by the California Employment Development Department. These data are for metropolitan statistical areas (MSAs) located within the county boundaries of the shaded regions shown.*

[b] *Includes (1) employment in unshaded areas and (2) employment within the county boundaries of the shaded regions shown, but which lie outside of the actual MSAs.*

Regional variations in unemployment and income

Different geographic areas of California also vary considerably in the ability of their residents to find jobs and in the amount of income they earn. For example:

- Chart 12 shows how *unemployment rates* differ throughout California. As of August 1988, the statewide unemployment rate was 5.6 percent but the rates for individual counties ranged from under 4 percent to over 25 percent.
- Chart 13 shows how *per capita income* differs throughout the state. It indicates that whereas the average per capita income level for Californians is well above the nation's average and ranks eighth among states, the 1986 income levels in different counties of the state ranged from a high of nearly $30,000 to a low of only about $10,000.

Generally speaking, those regions with the highest concentrations of nonagricultural employment also tend to have below-average unemployment rates and the highest income levels, whereas the more agriculture-oriented and rural areas tend to have higher unemployment rates and lower income levels.

What Do the Industry Mixes of Different Regions Look Like?

Table 2 shows the relative importance of different nonagricultural industry sectors in different geographic regions of the state. It shows that:

- Trade and services account for roughly *similar* shares of employment in most regions -- generally around 50 percent.
- The relative importance of jobs in finance-related industries, including real estate, *differs somewhat* between regions. However, in all regions it is fairly modest -- well under 10 percent.
- Regarding the relative importance of other industries, there are *considerable regional differences*. For example, the share of manufacturing jobs ranges from a high of over 20 percent in the Los Angeles and

Table 2

Distribution of 1988 Nonagricultural Employment in Different Regions, by Industry[a]

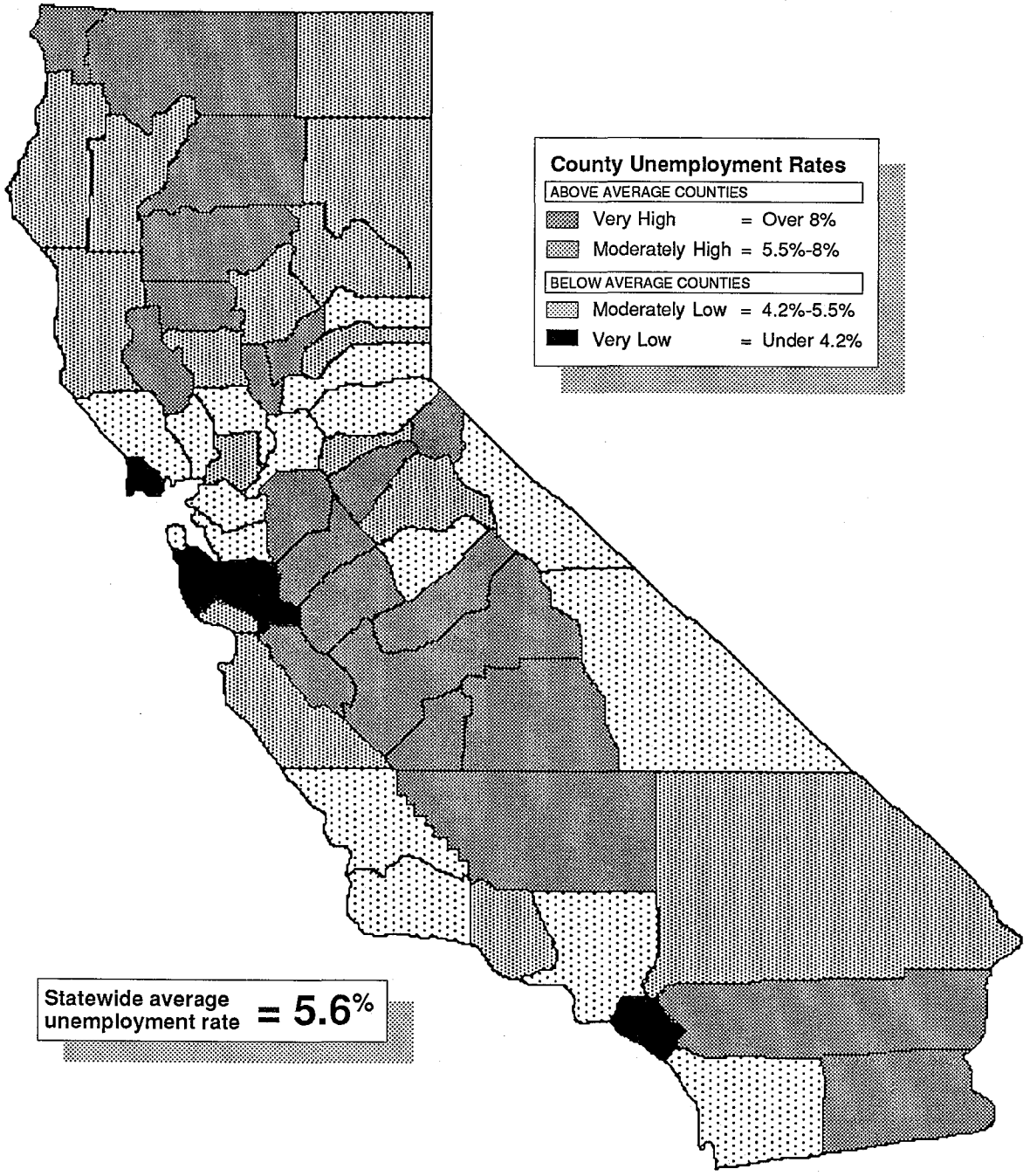
	INDIVIDUAL INDUSTRY SECTOR PERCENT SHARES OF TOTAL EMPLOYMENT						
	REGION	Manufacturing	Trade & Services	Finance, Insurance & Real Estate	Mining, Construction, Transportation & Utilities	Government	Totals, All Industries
1	Los Angeles region	22%	49	7	9	12 =	100%
2	San Franciso Bay region	17%	49	8	11	15 =	100%
3	San Diego region	14%	51	7	11	17 =	100%
4	Riverside-San Bernardino region	14%	49	4	14	19 =	100%
5	Sacramento and foothills region	8%	46	6	12	28 =	100%
6	Lower Central Valley region	10%	48	5	16	22 =	100%
7	Upper San Joaquin Valley region	21%	45	5	11	18 =	100%
8	Mid-coastal region	12%	52	6	9	20 =	100%
9	All other regions	13%	49	5	13	21 =	100%

[a] Source: California Employment Development Department. For description of data see notes to Chart 11. Data are rounded to the nearest full percentage point, and therefore detail may not add to totals.

Chart 12

Unemployment Rates in Different California Counties

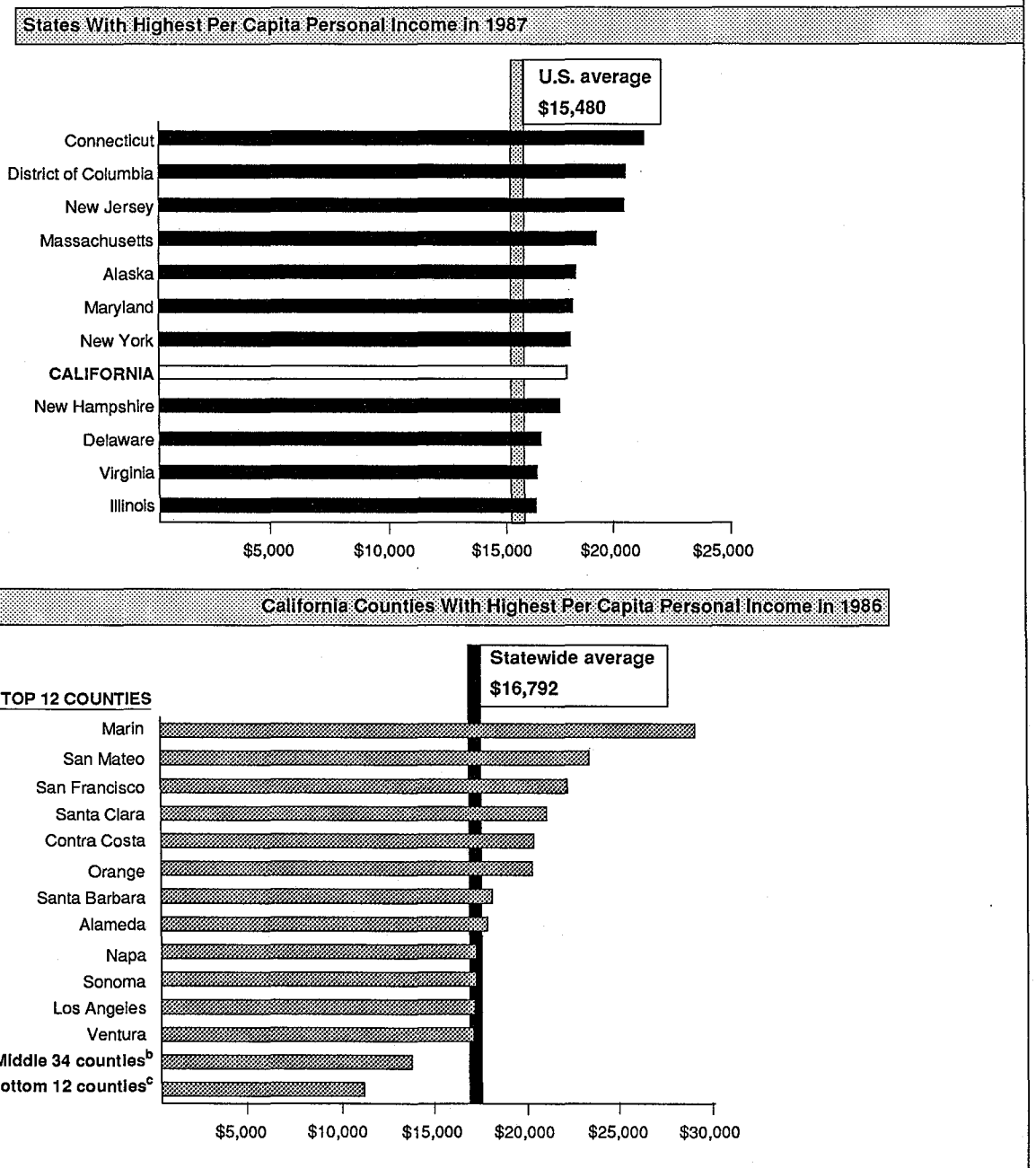
August 1988[a]



[a] *Data are from the California Employment Development Department. County data are not seasonally adjusted. However, for the statewide unemployment rate, the seasonal adjustment for the month of August is negligible.*

Chart 13

Per Capita Personal Income for Different States and California Counties[a]



[a] *Data from U.S. Department of Commerce, Bureau of Economic Analysis.*
[b] *Includes all counties other than the top-12 and bottom-12 counties.*
[c] *Includes the counties of Siskiyou, Tulare, Modoc, Lassen, Tehama, Kings, Madera, Trinity, Calaveras, Del Norte, Imperial and Yuba.*

upper San Joaquin Valley areas, to less than 10 percent in the Sacramento and foothills regions. Likewise, the share of government employment is nearly 30 percent in the Sacramento region while it is only 12 percent in the Los Angeles area, despite the fact that the Los Angeles area accounts for a larger share of total statewide government employment than any other region -- 35 percent (see Table 1).

- As shown earlier in Chart 7, the agricultural sector also is far more important in some areas of the state than in others.

Given the above, there are some significant differences between the industry mix in different geographic areas of the state. Thus, geographic variation is another dimension of California's economic diversity.

How Fast Are Different Regions of the State Growing?

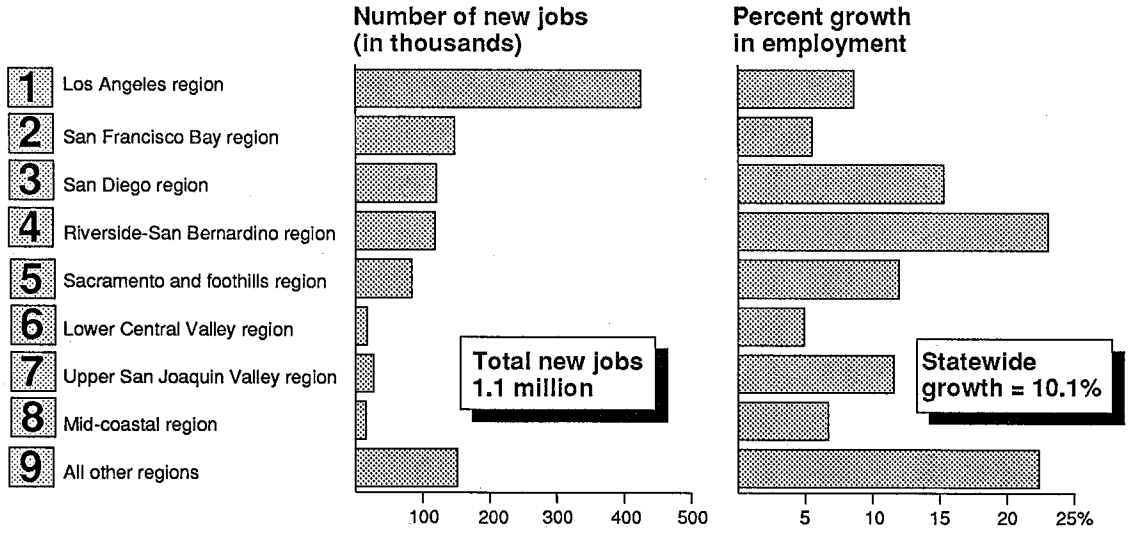
Considerable geographic variation also exists in the rate at which economic growth is proceeding in California. This is summarized in Chart 14, which shows both the numerical and percent growth in nonagricultural jobs in different regions over the past three years. Chart 14 indicates that:

- Of the 1.1 million new jobs created during this period, the largest *numbers* of new jobs -- over one half -- occurred in the state's largest employment areas -- the Los Angeles and San Francisco Bay regions. However;
- These are not the most rapidly expanding economic areas -- and in fact are below-

Chart 14

Growth in Nonagricultural Employment in Different California Regions

1985-1988[a]



[a] *Source: California Employment Development Department. Data shown are for the period August 1985 through August 1988. For description of data and geographic regions see notes to Chart 11.*

average -- in terms of *percentage growth.* Rather, the areas of highest growth include Riverside-San Bernardino, Sacramento, San Diego, and various other areas.

This geographic growth pattern reflects the fact that the regions with the largest concentrations of jobs in California are simply becoming crowded. As a result, economic activity is increasingly spreading to other areas throughout the state that have space to absorb new businesses and population. As discussed in Chapter II, these trends are expected to continue into the future.

Summary Regarding California's Economic Characteristics

The information presented in this chapter shows that California's economy is one of the largest, most diversified and dynamic in the world today. It produces an incredibly broad spectrum of products and has done quite well in recent years, generally outperforming the nation. There also is considerable regional variation in both the composition and strength of economic activity within California. All regions in the state, however, have one thing in common -- they are part of an expanding economy that will bring to them many economic and demographic changes in the years to come. This subject -- the future prospects for the California economy -- is the focus of Chapter II. ❖

Chapter II

Chapter II

What Are California's Future Economic Prospects?

It is difficult to accurately predict what the course of California's economy will be in the years to come, primarily because no one has a "crystal ball" capable of identifying and foreseeing the effects of all of the many factors that will ultimately end up influencing the economy's future. For example, how can anyone accurately predict such things as future technological changes, developments of new products, climatological changes, federal fiscal and monetary policies, and governmental actions involving land use, environmental issues and the funding of public infrastructure facilities like highways and water-delivery systems? Given these difficulties, all quantitative predictions of the economy's future involve at least some degree of speculation and are therefore subject to error.

Economists, however, have at least identified certain factors that tend to be conducive to economic growth. Given this, the most reasonable approach to assessing the economy's likely future prospects is to consider what these factors are and what their future net impact in California might tend to be.

What are the Key Factors Conducive to Economic Growth?

A state's economic growth depends on literally hundreds of different economic, demographic, political and social factors. However, economic research suggests that a relatively small number of these factors tend to be the dominant influence on a state's future economic prospects. Chart 15 lists 12 factors that economists have found to be particularly conducive to a state's future economic growth. These include population growth, export opportunities, a balanced industry mix, adequate labor supplies, availability of nonlabor resources such as energy and raw materials, good climate, acceptable environmental quality, availability of land and housing, efficient transportation systems, adequate public services generally (including schools, water delivery systems and sewage treatment facilities), reasonable tax levels, and governmental policies and programs supportive of economic growth.

How Well Does California Score?

California's score in terms of the factors shown in Chart 15 is mixed, with high marks in some areas and lower marks in others.

Chart 15

12 Key Factors Conducive to a State's Economic Growth

1. **Population growth**
   An expanding state population base that provides growing final markets for state-produced goods and services.
2. **Exporting opportunities**
   Convenient access to out-of-state domestic and foreign export markets.
3. **Balanced industry mix**
   A diversified economy which provides economic stability by not being overly dependent on a small group of industries, and which provides a complete financial network and spectrum of input suppliers that businesses can rely on.
4. **Adequate labor supplies**
   Availability of a reasonably priced supply of labor that meets the training and skill-mix required by industry.
5. **Availability of nonlabor resources**
   Adequate and reasonably priced energy supplies, water, and raw materials and other resources needed by industry and residents.
6. **Acceptable environmental quality**
   Sufficiently clear air, safe water, and control of toxins to achieve and maintain an acceptable environmental quality of life.
7. **Good climate**
   Favorable temperature and weather conditions, which minimize business and residential costs for heating and cooling, increase the months that outdoor economic activities like construction and agriculture can occur, and enhance recreational and tourism opportunities.
8. **Availability of land and housing**
   Adequate supplies of reasonably priced land and housing, which can enable businesses to profitably develop new facilities and attract and retain workers.
9. **Efficient transportation systems**
   Transportation networks, including roads, highways and mass transit systems, that are sufficient to avoid excessive congestion and its detrimental impacts on businesses, individuals and the environment.
10. **Adequate other public services**
    Sufficient provision of public services and infrastructure in addition to transportation facilities, including schools and universities, law enforcement, public health, fire protection, parks, libraries, water-delivery systems, and waste and sewage treatment facilities.
11. **Reasonable tax levels**
    Tax burdens on businesses and individuals which are not excessive, relative to the level of public services being demanded of and provided by government.
12. **Supportive governmental programs**
    Governmental programs and policies aimed at improving economic performance, such as removal of cumbersome and ineffective regulations, streamlining building and environmental permit processes, and selective targeted use of cost-effective financial incentives that promote economic growth.

Negative factors

As examples of *negative factors,* many of California's metropolitan areas now routinely experience severe traffic congestion and frequently violate state and federal air pollution standards. Other environmental problems also have become increasingly common, such as unclean water in many areas and excessive exposure to various toxins. There also are ongoing concerns about the amount of long-term water availability. These concerns have been heightened due to recent drought years which have led to diminished snow packs and runoff, low water levels in reservoirs and declining water tables in many areas of the state.

Housing costs are yet another problem. As shown in Chart 16, California's median housing price reached nearly $170,000 in June 1988. This was about 85 percent above the comparable median home price nationally, and in the large metropolitan areas where the majority of Californians live, median home prices were still higher -- in the general range of $200,000 and more. Rental housing costs are also high in these metropolitan areas, which is significant because 45 percent of the state's households are not homeowners. Furthermore, economists are projecting that shortages of affordable rental units may become increasingly common due to current sluggishness in multi-family housing construction.

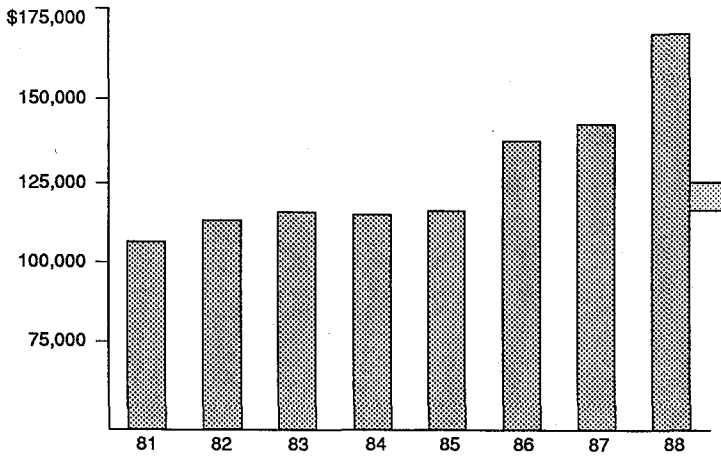
Positive factors

As examples of *positive factors,* California's climate has historically been very mild and favorable, its industry mix is very balanced, its energy costs have not been excessively high, it

Chart 16

Trends in California Single-Family Home Prices

1981-1988[a]



Median Home Sales Prices in Different Areas of California June 1988

AREA[b]	PRICE
Santa Barbara	$232,257
Orange County	211,038
San Francisco	209,687
Ventura	195,209
Los Angeles	182,364
Monterey	181,667
Statewide Median	167,428
San Diego	147,605
Northern Wine Country	130,882
Riverside/San Bernardino	108,567
Sacramento	92,708
Palm Springs/Lower Desert	92,500
Overall Central Valley	87,280
High Desert Area	81,190
Upper Northern California	71,896

[a] *Source: California Association of Realtors. Data represent the median sales prices of single-family detached homes in June of year shown. Data have not been adjusted to exclude the effects on prices of changes in the size or quality of homes.*

[b] *Areas include various cities and counties in each region. For example, the San Francisco area includes Berkeley, Contra Costa, Los Altos, Los Gatos, Saratoga, Mountain View, Sunnyvale, Marin, Palo Alto, San Jose and Southern Alameda. Alternatively, the northern California area includes data from Humboldt and Paradise, while the high desert area includes Barstow and Victor Valley.*

has direct access to foreign export markets through its three major ocean ports, and it offers wonderful scenic and recreational opportunities. California also offers businesses an enormous marketplace for their production due to its large and growing population base and high per capita income levels. Its tax levels are in the "average" range compared to other states. In addition, there are a number of government-sponsored incentive programs for businesses, including enterprise zones, special financing authorities and bond programs. Finally, there is still much open space in the state to absorb growth. Even though the state's housing prices and rents are on average high, land and housing costs are still fairly reasonable in many of these less densely populated areas of California (see Chart 16).

Given that there are both pluses and minuses in the picture for California, the key issue as regards the economy's future prospects is whether and to what extent the positive factors outweigh the negative ones.

The Bottom Line -- Continued Growth

As stated earlier, no one can guarantee an accurate prediction of what the economy will look like in future years, and no simple formula or equation exists capable of foretelling how the various factors cited in Chart 15 will ultimately combine to influence economic performance. However, the broad consensus amongst economists is that the net effect of the factors listed in Chart 15 will be *positive* for California. As a result, economists are essentially unanimous in predicting that California will experience *continued economic growth* in the foreseeable future. This consensus assumes, of course, that the state will not be the victim of natural catastrophes such as increasingly severe and lengthy drought spells or destructive earthquakes, or broad-based growth controls that might significantly restrict the state's economic growth. The consensus growth forecast also implicitly assumes that the necessary steps will be taken to ensure that additional growth can be accommodated.

Population Growth to be Key Driving Force

Population growth, which both drives economic growth and in turn is stimulated by it, is one of the leading reasons why California is expected to experience significant economic growth in future years. Chart 17 shows the current population projections of the U.S. Bureau of the Census for California through the year 2000. It indicates that:

- California's population is projected to increase more than twice as fast as the nation's; and
- The greatest population growth, both in numerical and percentage terms, is expected to come in the 45-to-64 age category. This group includes individuals representing well-established households enjoying their peak income years.

Both of these factors -- basic population growth and increased numbers of households with strong spending capability -- will tend to be a *positive stimulus* to the state's economy.

More public services also will be demanded

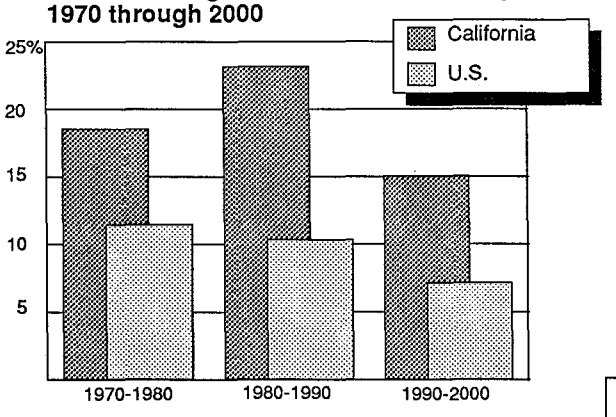
Chart 17, however, also indicates that:

- Growth in the 5-17 age category will proceed at an above-average pace, and will add more new Californians than any age group other than the 45-64 age category.
- Growth in the 65-and-over age category also will proceed at a rapid rate.

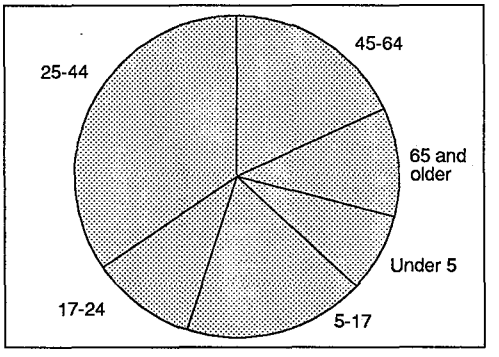
Chart 17

Projected California Population Changes[a]

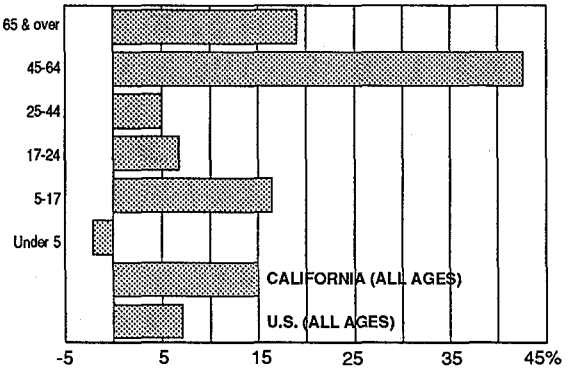
Percent Change in California & U.S. Population 1970 through 2000



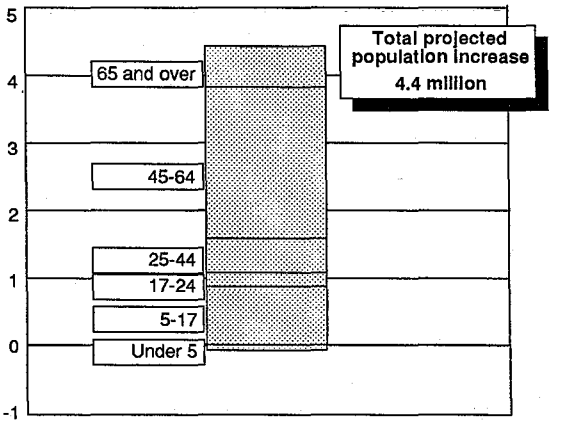
Projected Age Distribution of California Population 1990



Percent Change in Population by Age Group 1990 through 2000



Total Projected Growth in California Population by Age Group (millions of persons) 1990 through 2000



[a] *Source: U.S. Bureau of the Census.*

This means that in addition to the increased demands for public services that population growth ordinarily produces, there will be special demands placed both on the public education system due to the "bulge" in school-age population, and on the various social and health services programs that aid the elderly.

Thus, in addition to stimulating the economy, future population growth *will significantly increase the demand for public services in California.* Such demands may be even greater in the years beyond 2000, as the number of persons in the 65-and-over category swells further and the "bulge" of school children begin to enter college.

Exactly how these growth-induced public service demands are addressed will, in turn, eventually feed-back into California's future economic performance, by affecting the productivity of the labor force and the distribution of employment amongst different industry sectors.

Exactly How Much Economic Growth Are Economists Predicting?

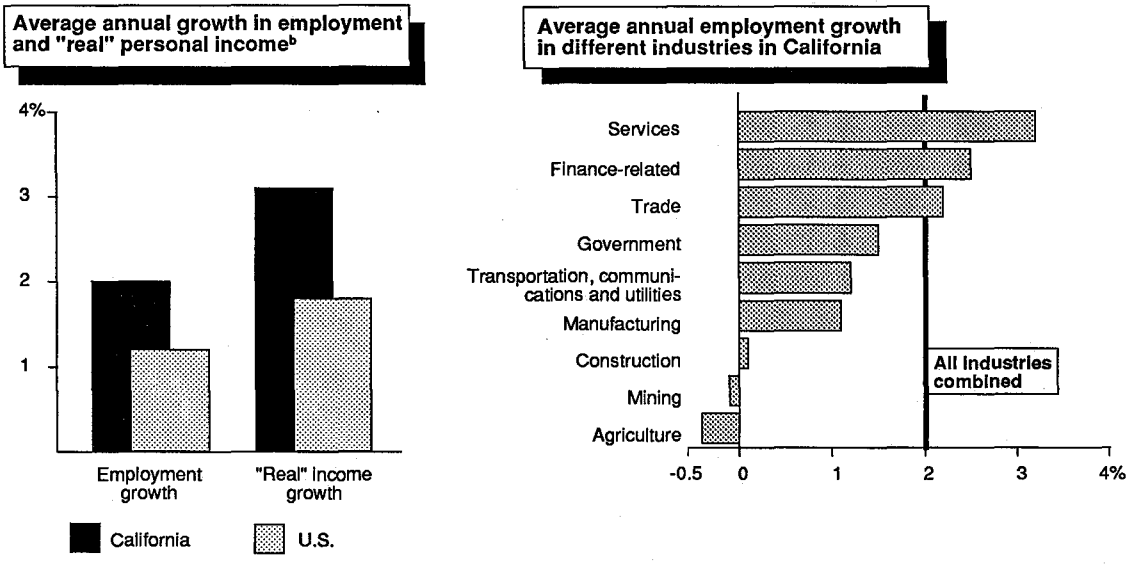
There are a number of academic institutions, governmental entities, financial organizations and private economic research firms which prepare long-range forecasts for the state and nation. Chart 18 summarizes their average outlooks for California as an illustration of what economists are assuming about California's future economic performance. The chart shows that:

- The consensus outlook is that California will experience annual average growth through the year 2000 of about 2 percent for employment and 3 percent for "real" income.
- These annual average growth rates are somewhat less than those of the 1980s -- over 2.5 percent for employment and nearly 4 percent for real income. However, they also are considerably *greater*

Chart 18

Consensus Projections of Growth in California Employment and Income

1988 through 2000[a]



[a] *Data represent the average of projections made by various forecasters in government, academic institutions, financial institutions and economic consulting firms.*

[b] *"Real" personal income is defined as total personal income minus the effects of consumer price inflation.*

than the consensus annual future growth rates projected by these forecasters for the nation -- 1.2 percent for employment and 1.8 percent for real income.

Thus, California is expected to experience moderate economic growth and to outperform the nation in future years. Chart 18 also shows that the industry sectors of greatest growth are expected to be services, trade and finance-related -- that is, the same sectors that have grown most rapidly during the 1980s. Finally, a review of the forecasts indicates that future economic growth is expected to be fastest in those geographic areas that both have space to accommodate additional population and businesses, and also are located where economic activity from existing areas of economic concentration will spill over into in the future, as these concentrated areas become unable to absorb additional growth themselves. These future high-growth regions include the Sacramento, San Joaquin Valley and San Bernardino-Riverside areas.

Policy Decisions Will Significantly Influence the Future

The fact that California's economy is expected to experience continued growth in the years to come does not mean, however, that the economy's future course is already fully determined. Quite the opposite is true. As noted above, the consensus growth forecast implicitly assumes that the necessary steps will be taken to ensure that future growth can be accommodated. There are, however, a variety of potential problem areas and legislative policy issues associated with future economic growth, ***and how these are addressed will significantly affect exactly what the state and its economy look like in the years to come.*** These potential problems and policy issues are discussed in Chapter III. ❖

Chapter III

Chapter III

Potential Problem Areas and Legislative Policy Issues Relating to California's Economic Future

This chapter identifies some of the potential problem areas and legislative policy issues that relate to California's economic future. The way in which these problems and issues are addressed will influence not only the state's future economic growth and general living standards, but also the overall quality of life in California.

What Are the Key Problem Areas and Policy Issues?

Naturally, there are a great many different potential problem areas and legislative policy issues that relate to the economic future of a state as large, complex and rapidly changing as California. Most of these potential problem areas and policy issues relate in one way or another to those factors listed in Chart 15 for which California does not score particularly well. All are worthy of attention if the economy is to realize its full potential in the future. Some of these potential problems and issues, however, stand out as being especially significant. These are listed in Chart 19, and include:

- Meeting the state's basic transportation needs.
- Ensuring adequate amounts and efficient allocations of water supplies.
- Meeting other public infrastructure needs, including school facilities, water and waste treatment facilities, and correctional facilities.
- Achieving literacy in the schools and providing adequate educational training and vocational skills for the state's labor force. This includes coping with the special problem of educating students representing an increasingly diverse mix of ethnic backgrounds and language skills.
- Establishing and ensuring achievement of adequate environmental standards for air, water, waste disposal and toxins.
- Taking advantage of whatever opportunities exist to mitigate the problem of excessively high housing costs.
- Achieving better coordination between different governmental entities regarding such issues as growth management,

Chart 19

Potential Problem Areas and Legislative Policy Issues Relating to the Economy's Future

Transportation Needs

What are the state and local transportation needs that must be addressed to ensure that California has a transportation network conducive to a healthy economy, and how will these needs be financed?

Water availability and allocation

What steps are needed to ensure that sufficient water will be available in the future to support a growing economy, and that water is optimally priced and distributed between different geographic regions and between agricultural, residential, commercial and industrial users?

Other public infrastructure needs

What are California's basic future needs and priorities for such capital infrastructure as schools, colleges and universities, water and waste treatment facilities, and correctional facilities, and how will these needs be financed?

Educational training

What educational programs and funding allocations are needed to ensure that the state's labor force develops skills that match the economy's future needs, and that the new educational needs are met that will accompany the changing ethnic composition of the state's population?

Environmental quality

What standards should be imposed in the future for air quality, water quality and toxic exposure in California, and should the state government play a greater role in managing and enforcing these standards, such as by having more centralized decision-making authority or better coordinating local efforts?

High housing costs

Are there ways to mitigate the problem of high housing costs in California and their negative effects on attracting businesses and their employees, such as by discouraging overly restrictive growth controls, zoning rules and building permit regulations?

Coordination between governments

What steps are needed to ensure that different and often neighboring governmental entities within California pursue consistent and coordinated policies regarding problems like growth limits, urban crowding, pollution abatement, exposure to toxins, and transportation congestion?

Constraints on adequately funding public services

Will existing limits on local property tax rates and state and local spending impair the ability of governments to finance the full range of needed public services in the future, including the increased public service demands that a growing economy will generate? If so, should these limits be revised?

pollution abatement, urban congestion, and other issues that individual governments often cannot effectively address acting in isolation.

- Taking steps to ensure that existing taxation and spending limits do not impair the ability of California's state and local governments to provide the full range of services that the public demands and the economy needs to function efficiently.

In our view, these factors head the list of challenges -- at least those that we know of today -- that must be addressed to adequately provide for California's economic future. They also will be key determinants, along with governmental policy decisions in areas like health care and social services, of the overall quality of life in California in future years.

The Challenges Facing California Are Formidable

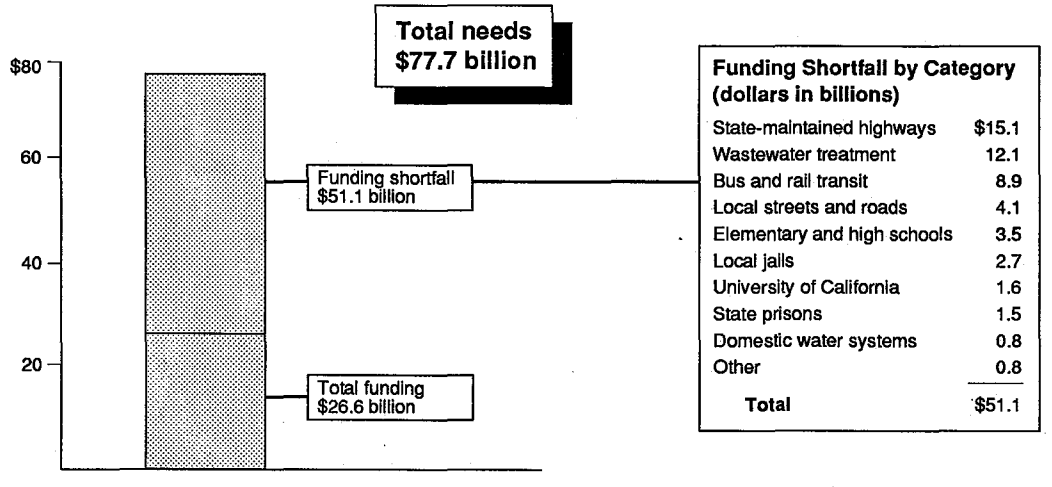
California faces an imposing task in addressing the above challenges and others which are not listed in Chart 19. Consider, for example, the following:

General infrastructure needs. There are billions upon billions of dollars worth of already identified public infrastructure financing needs through the next decade. For example, Chart 20 shows that in 1984 the Governor's Task Force on Infrastructure Review estimated there was a 10-year infrastructure financing shortfall of over $50 billion in California (measured in 1984 constant dollars). A different study by the Assembly Office of Research focusing on a narrower range of infrastructure needs identified a shortfall of $24 billion (also measured in 1984 constant dollars). The exact magnitude of the shortfall is

Chart 20

Ten-Year Infrastructure Funding Shortfalls Estimated by the Governor's Task Force on Infrastructure Review

billions of 1984 dollars[a]



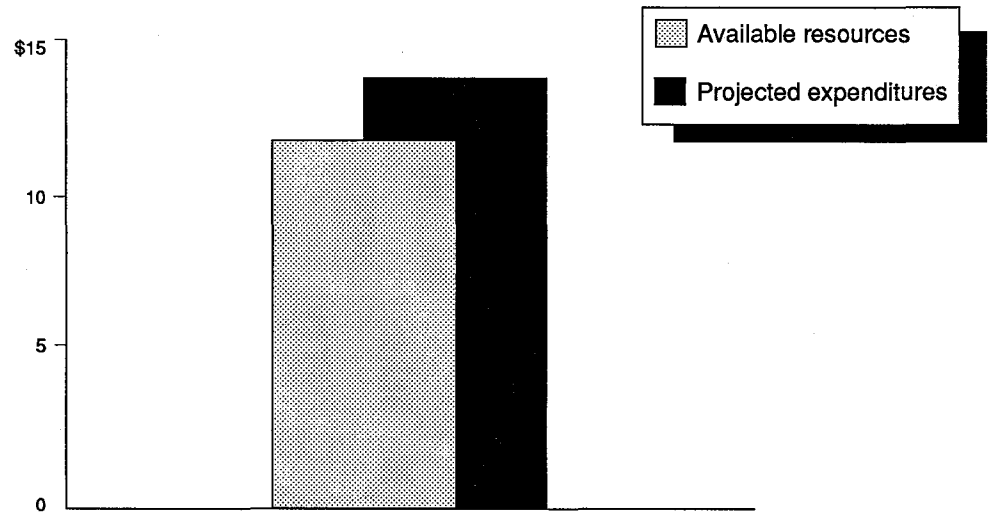
Funding Shortfall by Category (dollars in billions)	
State-maintained highways	$15.1
Wastewater treatment	12.1
Bus and rail transit	8.9
Local streets and roads	4.1
Elementary and high schools	3.5
Local jails	2.7
University of California	1.6
State prisons	1.5
Domestic water systems	0.8
Other	0.8
Total	$51.1

[a] *Source:* Infrastructure Report and Recommendations, *April 15, 1984, Governor's Infrastructure Review Task Force, State of California.*

Chart 21

Funding for the 1988 State Transportation Improvement Program (STIP)

dollars in billions[a]



[a] *Source: California Department of Transportation and Legislative Analyst's Office. Data represent estimates of resources and expenditures as of the time the 1988 STIP was adopted (October 1988), and cover projects for the 5-year period 1988-89 through 1992-93.*

open to debate, because of differences of opinion about how to define exactly what an infrastructure "need" is. However, one thing seems clear -- the financing shortfall is in the tens of billions of dollars.

Despite the enormity and urgency of this infrastructure problem, relatively little has been done to address it. True, there have been a number of bond issues approved in recent years to help fund infrastructure needs. However, the amount of money raised is relatively modest compared to the scope of the problem involved.

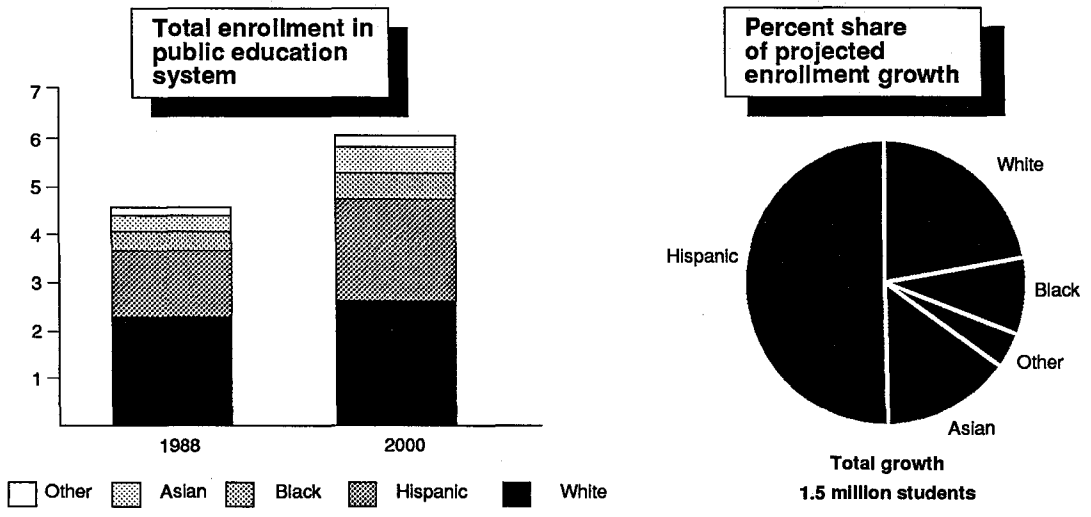
Transportation. The 1988 State Transportation Improvement Program (STIP) had an acknowledged five-year estimated funding shortfall of $2 billion when it was adopted in October 1988 (see Chart 21). Since then, this shortfall is estimated to be even greater -- over $3 billion. Like all infrastructure deficiencies, those in the transportation area can result in significant economic costs and inefficiencies. For example, it is conservatively estimated that the monetary value of time delays on state highways caused by traffic congestion exceeded $800 million in 1987.

Education. The State Department of Education estimates that over 20 percent of all 10th-grade students drop out of high school prior to graduation, with even higher dropout rates for ethnic minorities. It also has been estimated that of the 1.5 million additional students expected to be enrolled in the California public school system by the year 2000, nearly 80 percent will represent ethnic minorities (see Chart 22). A significant number of these additional enrollees are expected to be immigrants and others with limited English proficiency, which will make attaining existing student performance standards harder. Finally, California currently has one of the highest average class sizes in the country, spends

Chart 22

Estimated Ethnic Mix of California's Student Population

students in millions[a]



[a] *Source: California Department of Education.*

less per pupil than the national average, and is facing a shortage of qualified teachers in some subjects. For instance, one-third of all mathematics teachers currently are not fully credentialed. These factors can work to erode the educational training and skills of the state's labor force, and thus its earnings potential, productivity, and attractiveness as a "drawing card" for businesses.

Air pollution. The air pollution problems in a number of California's major metropolitan areas are amongst the very worst in the nation. During the past year, for example, federal health standards for ozone concentrations were frequently violated in such metropolitan regions as Los Angeles, Ventura and Sacramento. These violations resulted in federal bans on certain types of industrial construction in some California areas, and pose health hazards for people.

Housing costs. Industry sources report that only 25 percent of California households had sufficient income to purchase the median priced single-family home in California as of June 1988 (see Chart 16 earlier), down from 32 percent one year before. Likewise, rental housing costs in the state's major metropolitan areas are high, and economists are projecting that shortages of affordable rental units may become increasingly common in these areas due to current softness in multi-family housing construction.

The challenges posed by the other problems and policy issues listed in Chart 19 are equally formidable.

Both Planning and Actions Are Needed

Relatively little has been done thus far to respond to the challenges to the state's economic future. Doing so will require *coordinated long-term planning* amongst different branches and levels of government in California, followed by *specific actions* to implement these plans.

Why Is Coordinated Long-Term Planning Needed?

Long-term planning and coordination between different levels of government are needed because tasks like funding and putting into place public infrastructure have *long lead times*, and are the *shared responsibility* of both the state and local governments. Effectively dealing with concerns like environmental problems, adequate housing supplies, water delivery and labor force training also will require long-term planning and coordinated governmental actions.

A certain *sense of urgency* must also be felt about dealing with these concerns, because the state *cannot afford to simply react* to these concerns in a delayed and haphazard fashion once they have already become serious problems. Rather, steps must be taken to meet these challenges "head on," *before* they become unmanageable.

A Variety of Approaches Will Be Required

Given the above, it is important that the Legislature, the administration and California's local governmental entities identify the action agenda they need to plan for and undertake in order to provide for a healthy economy in the future.

In some problem areas the course of action is clear. For example, in the case of infrastructure, a comprehensive multi-year capital outlay planning process needs to be established at both the state and local levels. Among other things, these plans should identify what the public infrastructure needs are, establish project priorities, and develop a plan for financing them over time. In 1988, the Legislature established exactly such a process for state capital outlay projects by enacting Senate Bill 2214. However, because the Governor vetoed this measure, no such process currently exists.

In other areas, however, the appropriate course of action is less obvious. In these cases, part of the task facing the Legislature and other policymakers is determining exactly what can and should be done. Policymakers, for example, will have to grapple with such questions as:

- What type of ***water-pricing policies*** should be adopted in order to provide for the efficient use and allocation of the state's increasingly tight and valuable water supplies?
- Can ***zoning policies and building regulations*** be developed that help alleviate the problem of high housing prices, such as by facilitating high-density residential construction in areas of high land costs?
- Should ***broader regional governmental entities*** be established to effectively deal with problems (such as air pollution and traffic congestion) which spill over the boundaries of existing local governmental entities? The Legislature has recently enacted several significant measures for dealing with air pollution. These measures include Chapter 1568/88 (the California Clean Air Act), Chapter 1544/88 (a new smog-check program to reduce the number of vehicles with faulty emission controls), and Chapter 1301/87 (which established a broader and more powerful regional authority for dealing with air pollution in Southern California). While such measures do not "solve" the state's air pollution problems, they do provide

an improved framework for addressing them and thus are a significant step forward.

- To what extent are there ***cost-effective alternatives*** to simply building more and more public infrastructure projects as the state's population grows? For example, should there be use of portable school facilities and year-round scheduling to relieve classroom crowding? Should increased carpooling and work-scheduling flexibility be encouraged to reduce traffic congestion? Likewise, is it desirable to place greater reliance on the private sector to provide for public infrastructure, through such means as building fees?

Actions Must Follow

Making *plans* for accommodating future economic growth and enhancing the economy's prospects, while an important and necessary first step, becomes little more than an academic exercise unless such plans are actually *used*. Thus, it is important for the Legislature and other state and local government decisionmakers to not only *plan* for the economy's future, but also be committed to take the *actions* needed to implement such plans.

The Time For Responding Is Now

Regardless of the exact actions eventually undertaken, however, one thing is clear -- because California is so rapidly urbanizing and undergoing so many other significant changes, ***now is the time for making and implementing plans for accommodating the state's future economic growth.*** The sooner and more effectively this job is undertaken, the better will be California's future economic performance, living standards and overall quality of life. ❖