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A Study to Develop Statewide and County-Level Economic Projections

Volume I: California County Economic Forecasts

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY



AIR RESOURCES BOARD
Research Division

A Study to Develop Statewide and County-Level
Economic Projections

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Final Report

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Abstract

DRI/McGraw-Hill prepared economic profiles of each California county for use by the California Air Resources Board in their emission forecasting model. Historical data and forecasts of employment and real output by industry were developed using a long-run county forecasting system. Historical data were collected at 2-, 3- and 4-digit SIC detail, as specified by the ARB. History data are annual from 1970 to 1992, forecast data cover 1993 to 2020. Four separate projections (scenarios) were prepared: business cycle, high growth or optimistic, low growth or pessimistic, and best estimate or base case. Six volumes: I - Description of Forecasts; II - Methodology; III -VI - Summary Tables of Employment and Output, by County, by Scenario.

Outlook for California is for slow near-term growth, as the state will not return to its 1990 employment peak until 1997. The state will continue to lag the nation until 1996. In the longer term, California will eventually surpass the nation in growth near the end of the decade, as the state's comparative advantages in industry structure, natural and human resources, and geography will enable it to prosper. Real output will grow faster than employment, as continued competitive pressures from across the nation and around the world will drive productivity gains in California's manufacturing industries.

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Executive Summary

Introduction

The California Clean Air Act (CCAA) requires that districts not attaining State ambient air quality standards must develop plans to demonstrate their progress towards attainment of these standards. These plans require non-attainment areas to show a 15 percent reduction in emissions for each three-year period until they reach attainment. The *emission inventory* conducted in 1987 is used as the base year to measure progress toward the 15 percent reduction.

The Air Resources Board is required by the California Health and Safety Code Section 39607(b) to prepare this inventory of sources of air pollution within *all* air basins of the State and to determine the kinds and quantities of the air pollutants that come from these sources. The ARB maintains an emission forecasting model that is used to project emissions by industry categories for each air basin in California, and to track historical and projected emission trends statewide. To demonstrate that their CCAA plans will achieve the required emission reductions, most of the air pollution control districts use emission forecasts that are derived from the ARB's model.

A major component of the emission forecasting model is the economic activity profiles which are used to project industrial and commercial growth in California. Growth factors, which are dependent on national and state economic conditions, play a crucial role and could be a large source of uncertainty in the forecasts of future year emissions. The air pollution control districts use ARB emission data and projections in developing control strategies to meet the CCAA's emission reduction requirements, so it is important that the ARB use the latest available historical data and the most reliable, credible, and accurate projections of economic activity.

The ARB's present economic activity profiles were last updated in 1988. With so many changes in California's economy, these historical data are clearly outdated, and the overall outlook for the State has been altered dramatically.

The need for updated historical data and accurate forecasts of economic activity has led to the work performed under this contract between *DRI/McGraw-Hill (DRI)* and the California Air Resources Board. The objective of this project was to develop a detailed data base of employment and output projections, by specified industry groupings, for the state and each county in California.

Project Results

Using the DRI *California Long Run County Employment and Output Forecasting System*, developed for the ARB under contract A3-237-32, DRI focused on developing sound statewide and county-level projections of employment and output. Specific tasks included:

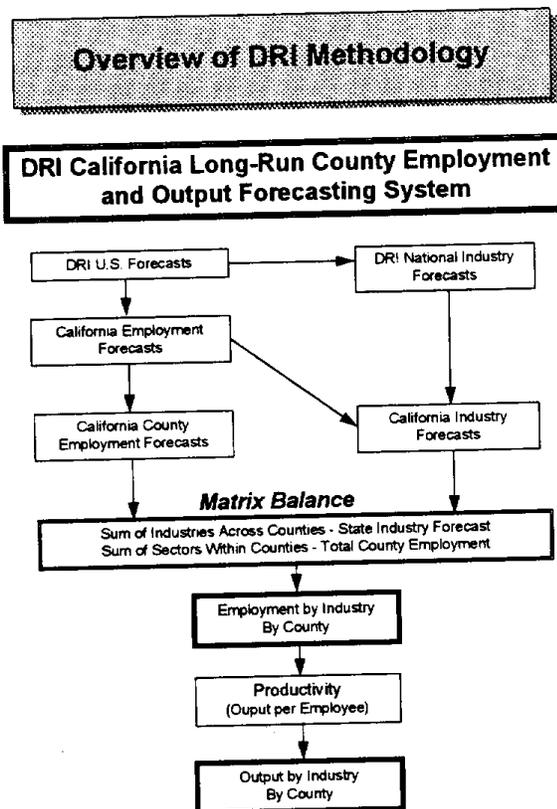
- Preparation of a historical data base of annual production and employment by industries, at the detailed specified by the ARB, for all of California and for each county in the state from 1970 to 1992.
- Projections of these annual production and employment by industries from 1993 to 2020. Four separate projections have been prepared for each of four scenarios: business cycle, high growth or optimistic, low growth or pessimistic, and best estimate or base case.
- Complete documentation of the historical data, forecast methodology, and the employment and output projections in two volumes. This volume, Volume I describes the DRI forecasts at the national, state, metropolitan area, and county levels. Summary tables of employment and output, by SIC code, for each county, have been enclosed in separate volumes. Volume

II is a methodological review that explains the DRI forecasting system and the components required to derive the employment and output projections. Volume II also includes a description of the data collected for this study, and the process undertaken by DRI to ensure the integrity and consistency of the data.

- The complete historical and forecast data base delivered on a magnetic tape for use by the ARB through the State Teale Computer Center.
- On-site presentation of the DRI data and methodology to ARB staff and the constituent users from the regional air quality management districts.

Approach

DRI developed the *California Long Run County Employment and Output Forecasting System* in 1986 in cooperation with the ARB staff, and used the System to successfully prepare updates of the projections in 1988. DRI enhanced the System in 1989 under contract to another State agency to expand the forecast coverage to the four-digit SIC code level for each county. This complete forecasting System integrates DRI's regular national, state and county economic forecasts with our inter-industry analysis to provide projections of county-level industry employment and output. In addition to developing and maintaining this customized forecasting System, DRI maintains and updates all of the data required to prepare the historical data base and produce the annual projections. The structure of this System is diagrammed in below.



The system also provides the structure for analysis of alternative scenarios. A much fuller explanation of the methodology is provided in Volume II of this report.

The end product of this project is forecasts at the county level. The first step to the process is to describe and project the national economic environment, followed by the evaluation of the California state economy and the relative strengths and weaknesses within regions of the state.

Summary of Forecast Results

The DRI National Outlook

Slowing Growth, Low Inflation: The Trend Projection

The trend projection assumes the economy will experience no major mishaps between now and 2020. This projection represents DRI/McGraw-Hill's best estimate of the economy's path over that period. Beyond 1995, the projection should be interpreted as the mean of all possible paths that the economy could follow. By nature, mean-value projections of growth rates calculated between adjoining years are artificially smooth.

The smooth-growth characteristics of the trend projection make it most useful for tasks largely impervious to short-term cyclical fluctuations, such as planning capacity additions and evaluating new markets. This projection is also the best case from which to evaluate the effects of different assumptions about key exogenous elements, such as fiscal policy or energy prices, on the overall economic outlook.

Highlights

- The economy's underlying growth rate will be significantly slower than in the past. Growth in real GDP should average 2.1% between 1992 and 2020, compared with 2.5% between 1967 and 1992.
- Inflation will accelerate only slightly from its immediate post-recession pace, and should run significantly lower than its rates of the late 1970s. The consumer price index is projected to rise 3.6% annually over the next 25 years.
- The federal budget deficit will decline over the next five years, narrowing to around \$230 billion by 1997. Thereafter, the deficit averages 2.9% of GDP.
- The current account deficit also declines, falling to virtually zero early next decade as surpluses on services offset deficits on merchandise trade.
- Oil prices should remain below \$18.00 per barrel this year. Thereafter, market fundamentals cause energy prices to outpace overall inflation, although crises as disruptive as OPEC I and OPEC II are highly unlikely.
- The labor market improves steadily in the near term, as the cyclical recovery pushes the unemployment rate down to 5.7% by early 1998. Over the projection period, the unemployment rate averages 5.8%, somewhat better than the 6.4% experienced since 1967, in part because of demographics.
- While the Federal Reserve will tolerate some acceleration of inflation, it will continue to guard against any significant increase. Hence, real interest rates should remain high by pre-1979 standards.

The economy should post markedly slower economic growth over the next 25 years than during the past quarter-century. To a large extent, the ingredients of this slowdown are already in place: labor-force growth will be constrained by demographic forces that cannot be quickly reversed, while capital-stock growth will be relatively moderate. The growth rate of real, per capita GDP will remain remarkably close to historical levels, as population growth continues to slow. Nevertheless, real (per capita) consumption growth will slow as the trade accounts are brought back into balance and the share of output devoted to business fixed investment expands.

California Overview

Long-Term View

After three decades of very rapid expansion, a combination of factors assure slower economic growth for California through the year 2020. Foremost will be the effects of slower population growth, which in combination with smaller gains in participation rates and the inevitable aging of the population, will translate into slower labor force growth. In order to maintain a growing economy, however, productivity increases will offset the declines in the labor force growth, allowing for continued output growth.

Output Growth Has Consistently Outpaced Employment Growth in California

	1970-80	1980-90	1990-2000	2000-2010	2010-2020
Employment (%)	33.9	25.9	8.4	15.4	10.7
Real Output (%)	50.5	40.4	25.0	31.0	38.9

In addition to this national phenomenon, California's growth will be restrained as the state adapts to a "new world order" in the 1990s and at the same time deals with the problems created by its past growth. Several key factors spurred growth in California during the 1980s: massive defense procurement expenditures, rapid population growth fueled by in-migration, competitive advantages in technology manufacturing and economic infrastructure over much of the nation and the world, and strong domestic and international markets for California's goods. Each of these factors has been altered dramatically over the past few years, reducing their impact on the California economy. The problems caused by past growth -- high wages and rising costs of doing business, congested and aging infrastructure, water shortages, and a perceived decline in the education system and overall quality of life -- pose serious challenges to California for the rest of the decade.

Nonetheless, California's economy retains capacity for future economic growth. Clearly, the state will benefit disproportionately from trade with emerging Asian economies and Latin America. The development of a North American trading bloc will deepen the state's ties to Mexico, boosting California's exports of capital goods and bolstering the distribution and trade sectors. Furthermore, California's large pool of technological resources will enable the state to remain at the forefront of developing and implementing new production in computing, electronics, transportation, and biotechnology. The state remains rich in natural and human resources, and has enviable industry clusters with enormous marketplace. In fact, four of California's ten largest industries will rank in the top 10 industries for growth nationwide over the next decade, with six in the top 20.

In the past, California's job gains have been concentrated in its coastal metropolitan areas, led by the explosive expansion in the five-county greater Los Angeles area. Over the next decade, growth will shift inland to the second- and third-tier metropolitan areas, as restructuring and downsizing, along with higher costs of living and doing business, have limited the prospects for California's major business centers.

Short-Term Outlook

With a host of problems afflicting the state's economy, a discernible recovery will not get under way until the second half of 1994. Indeed, California will measure a 0.2% job loss on an annual basis over 1993, a performance which will rank worse than all but two states. The labor market will slowly return to health, and by 1996, employment growth will finally measure close to the national average. Overall, California will not regain its pre-recession peak until 1997.

Continued weakness in manufacturing, trade, and commercial real estate will drag down the state's economic performance. California will also bear the brunt of the Base Closure Commission's recommendations, accounting for nearly one-half of all civilian and military cuts nationwide.

Despite considerable damage and tragic loss of life, the Northridge earthquake will not have a large impact on the state or Southern California economy. Over the next two quarters, displacement of businesses and disruption of transportation infrastructure will reduce employment and incomes, but the inflow of federal and state dollars will boost construction investment, employment and incomes in the second half of 1994 and into 1995. Overall, the measurable impact on the regional and state economies will be negligible.

Summary of Statewide Employment and Output Projections

California Totals - Base Case Scenario

	1970	1975	1980	1985	1990	1995
Total Non-Agricultural						
Employment (thousands)	7,165.5	7,846.8	9,849.6	10,820.9	12,498.5	12,259.9
Real Output (\$1977 mil.)	235,260	270,383	356,163	416,923	501,289	534,142
Agriculture, Forestry & Fishery						
Employment (thousands)	511.2	411.2	429.2	397.1	443.8	443.3
Real Output (\$1977 mil.)	10,701	10,825	13,902	14,781	18,122	20,219
Total California						
Employment (thousands)	7,676.7	8,258.0	10,278.7	11,218.0	12,942.3	12,703.2
Real Output (\$1977 mil.)	245,960	281,208	370,065	431,705	519,411	554,362
	2000	2005	2010	2015	2020	
Total Non-Agricultural						
Employment (thousands)	13,572.7	14,676.5	15,698.2	16,547.5	17,360.7	
Real Output (\$1977 mil.)	627,272	716,707	824,198	961,793	1,147,595	
Agriculture, Forestry & Fishery						
Employment (thousands)	463.0	477.7	498.9	530.7	571.5	
Real Output (\$1977 mil.)	22,101	23,877	26,240	29,341	33,261	
Total California						
Employment (thousands)	14,035.7	15,154.2	16,197.1	17,078.2	17,932.2	
Real Output (\$1977 mil.)	649,373	740,585	850,437	991,134	1,180,856	

Alternative Scenarios

In addition to the base case forecast, DRI has prepared three alternative scenarios: optimistic, pessimistic, and business cycle. All of these scenarios begin at the national level, and a comparison of the key assumptions shaping each scenario is laid out in the chapter describing the national forecasts. For California, additional assumptions were added to the national scenarios to develop the state projections. These assumptions are discussed at the end of the California forecast chapter. The national- and state-level scenarios were then used to derive alternative projections for the MSAs, and ultimately for each county. By the year 2020, total state employment in the pessimistic scenario is 9.5% below the base case, while the optimistic scenario has employment 12.5% above the base, and 22% above the pessimistic.

DRI National Economic Forecasts

Dynamics Within the Trend

by Christopher Probyn

This *Review* details DRI/McGraw-Hill's latest set of 25-year projections. The long-range outlook should be of particular interest to utilities, which tend to have relatively distant planning horizons.

As usual, four projections have been prepared. The baseline, or trend scenario, depicts the mean of all possible paths that the economy can be expected to follow over the next quarter-century, barring major shocks. In this scenario, the economy evolves smoothly, if un spectacularly, with growth averaging 2.1% per year.

The cyclical scenario incorporates explicit business-cycle behavior. Economic growth, which averages 0.2 percentage point per year lower than in the trend, proceeds in a series of "starts and stops," with periods of rapid growth followed by externally or policy-induced recessions.

As for the remaining two alternative scenarios, growth proceeds smoothly, but at significantly different rates. In the optimistic alternative, annual growth averages 0.4 percentage point higher than in the trend, reflecting more rapid population and labor-force growth, a faster pace of capital spending, and lower energy prices. In the pessimistic alternative, growth averages 0.4 percentage point per year lower than in the trend because of slower population and labor-force growth, lower business investment, and higher energy prices (Table 1).

TABLE 1
A Comparison of the Past and Future

	History		Trend	Cycle	Optim	Pessim
	1966 -1979	1979 -1992				
Average Annual Real Growth						
Potential Output.....	3.2	2.4	2.0	1.8	2.3	1.5
GDP.....	2.9	2.0	2.1	1.9	2.5	1.7
Consumption.....	3.5	2.4	1.9	1.8	2.2	1.6
Business Fixed Investment	3.8	1.1	3.8	3.5	4.3	3.1
Government.....	0.8	2.4	1.0	0.8	1.3	0.8
Exports.....	6.7	5.3	4.9	4.5	5.4	4.2
Imports.....	5.9	5.6	4.5	4.3	5.0	3.9
Average Annual Growth						
Labor Force.....	2.5	1.5	0.9	0.9	1.1	0.7
Productivity.....	1.4	0.9	1.3	1.1	1.6	1.1
Industrial Production....	3.3	1.7	2.4	2.2	2.9	1.9
Average Level						
Inflation (GDP Deflator).	6.4	4.8	3.2	3.8	2.4	4.8
Unemployment.....	5.6	7.1	5.8	6.2	5.7	6.0
Average Percent of GDP						
Fuel Import Bill.....	1.1	1.4	1.3	1.4	1.2	1.3
Trade Balance.....	-0.3	-1.6	-0.1	-0.2	0.5	-0.3
Federal Deficit.....	1.4	3.7	3.0	3.5	1.9	3.4
Fixed Investment.....	11.0	11.5	10.4	10.2	10.5	10.0

Note: Growth rates for the projection period are compound annual growth rates calculated between the years 1992 and 2018. Level variables are averages for the years 1993 to 2018. Interpretation of the historical figures is similar.

Forecast Summary

CHART 1
A Slightly Faster Rate of Economic Growth Is Expected

(Real GDP, annual percent change)

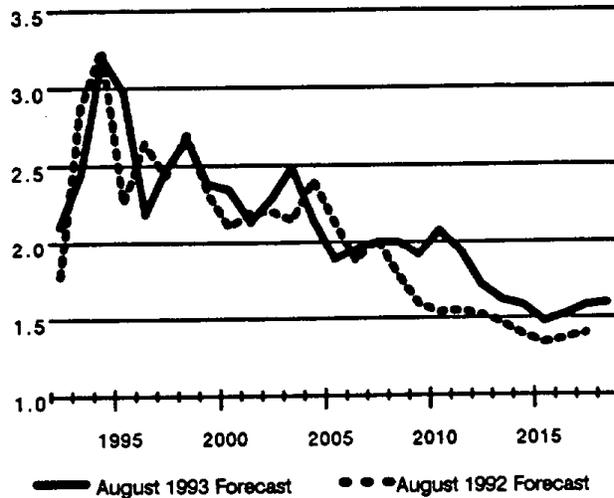
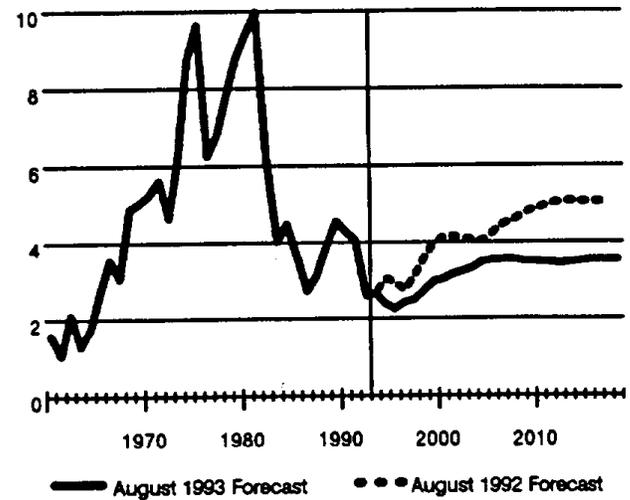


CHART 2
Inflation Now Remains Well Below 4%

(Implicit price deflator, annual percent change)



Growth and Inflation

The current trend projection paints the now-familiar picture of slowing economic growth and continuing moderate inflation. Indeed, the average growth and inflation rates are the same as in last winter's 25-year projection; however, growth is slightly higher and inflation is significantly lower than in the summer 1992 trend projection. The reasons for these changes—which are detailed in the winter 1992–93 forecast summary—reflect new demographic assumptions, as well as a succession of downward revisions to the near-term inflation outlook.

Our new demographic profile is consistent with the “middle series” projection released by the Census Bureau last November. Based on evidence from the 1990 Census, the Bureau raised some key estimates: the fertility rate is now expected to settle at 2.1, rather than 1.8; life expectancy is assumed to reach 82.1 years by 2050, rather than 79.9; and net immigration is forecast to stabilize around 880,000 per year, rather than 500,000. Overall population therefore grows somewhat quicker, especially over the second half of the forecast interval, implying a slightly faster rate of labor-force and economic growth (Chart 1).

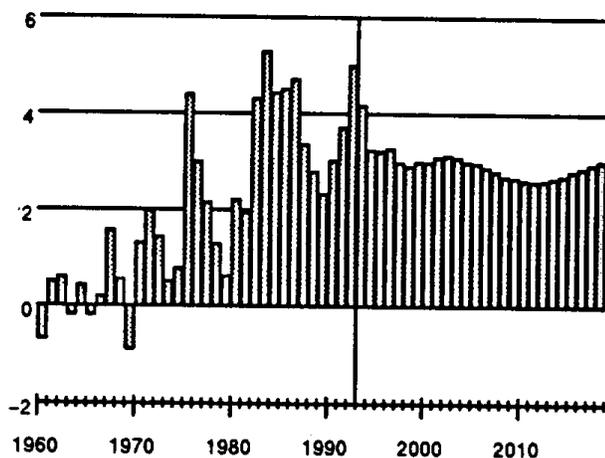
Inflation's new long-term projection is predicated on a revision to the near-term outlook. In our latest short-term forecast, the 1990–91 recession and the ongoing

sluggish recovery roughly halve the rate of inflation, from 4.6% in 1989 to 2.4% in 1995. In last summer's trend projection, inflation averaged 4.0% over the 25-year interval. To maintain the same average, the inflation rate would have to rise substantially—eventually, above 4.0%. While some increase from the immediate post-recession low is likely, such a sharp acceleration is difficult to justify in the shock-free environment of the trend scenario. Hence, the average inflation rate has been lowered by 0.8 percentage point, to 3.2% per year (Chart 2).

Policy Dynamics

The mix of macroeconomic policy shifted radically in the early 1980s. Fiscal policy loosened with the Reagan tax cuts and defense buildup, while monetary policy tightened with Chairman Volcker's determination to wring inflation out of the system. Economists generally agree that this particular policy mix hampers long-term economic growth, by raising interest rates and retarding investment. In explicit recognition of this, the last three Administrations have attempted to restore a better balance by reducing the federal budget shortfall. The Federal Reserve has also played a role, directly, by lowering short-term interest rates and, indirectly, by reassuring bond-market participants that it remains committed to preventing any significant acceleration of inflation.

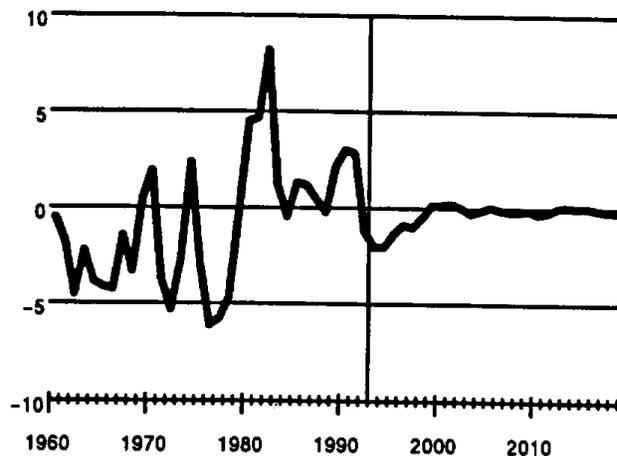
CHART 3
The Deficit as a Share of GDP
(Percent)



The latest Administration effort revolves around the recently passed Budget Reconciliation Act, which aims to reduce the federal deficit by almost \$500 billion (cumulatively) over the next five years. The Act provides for approximately \$250 billion of tax increases, concentrated primarily on higher-income workers and more-affluent retirees, and \$250 billion of expenditure reduction, largely reflecting a discretionary spending freeze and cuts in Medicare entitlements. While DRI estimates that the Act will narrow the shortfall by roughly \$130 billion in 1998, this still leaves the deficit above \$230 billion, or 2.9% of GDP (Chart 3). Moreover, assuming no further significant deficit-cutting measures, the federal deficit widens steadily to \$422 billion by 2011, although the economy's continued buoyancy permits the shortfall to shrink as a fraction of GDP. After 2011, the ranks of retiring baby boomers swell rapidly and government transfer payments surge, pushing the deficit sharply higher both in absolute terms and as a share of GDP.

Hence, fiscal policy remains generally loose, particularly toward the end of the forecast interval. This does not mean that the Budget Reconciliation Act is anything less than a genuine deficit-reduction measure, but, despite all the political rhetoric, it does not come close to eliminating the federal shortfall. Indeed, it does not even significantly alter the current policy mix and, consequently, does not materially affect the long-term growth prospects of the economy. Additional deficit reduction will be needed if real interest rates and the cost of capi-

CHART 4
The Real Short-Term Interest Rate Will Remain High
(Real federal funds rate minus real GDP growth, percentage points)

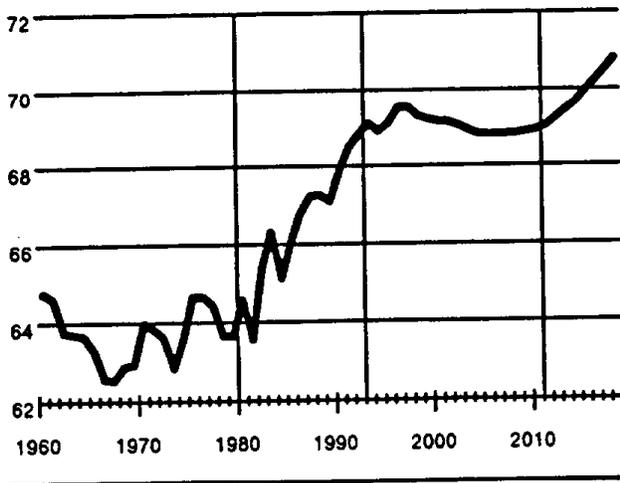


tal are to be lowered sufficiently to stimulate investment—and raise economic growth.

While fiscal policy remains loose, monetary policy remains tight as the Federal Reserve maintains its inflation-fighting stance. There is, of course, no reason for the central bank to tighten as aggressively as it did in the early 1980s—when inflation was running at a double-digit pace—but interest rates will rise as the economy strengthens next year, and remain high in real terms, especially by pre-1979 standards (Chart 4). Although the Fed is eager to maintain its credibility as an inflation fighter, we assume it will be slightly more accommodative over coming years, ultimately accepting a stable 3.5% rate of inflation.

Chairman Greenspan's recent congressional testimony, in which he introduced a real interest rate concept ("R-star"), does not reflect a fundamental policy shift. Most important, it should not be interpreted as a return to the inflationary-biased (nominal) interest-rate targeting of the 1960s and 1970s. Rather, the testimony essentially confirms the operating procedures of the central bank since the mid-1980s. The Fed's strict money or reserve targeting scheme (introduced in October 1979) was quickly abandoned after it created excessive interest-rate volatility, and the relationship between the economy and some monetary aggregates used as intermediate targets broke down. The central bank then switched to a more eclectic approach, weighing a wide variety of evidence on inflation and growth before making gradual policy changes through manipulation of the

CHART 5
The Consumption Share of GDP



federal funds and discount rates. There is no reason to believe that this approach will not continue.

Private-Sector Dynamics

The smooth-growth environment of the trend scenario masks starkly different patterns among various sectors of the economy. There are clear winners and losers over the next quarter-century, allowing well-placed companies to significantly outperform the overall economy.

Consumer companies will face a radically different environment, especially compared with the recent past. During the 1960s and 1970s, the consumption share of GDP was a remarkably stable 64%. Since the early 1980s, however, the consumption share has risen steadily, exceeding 69% by the first half of this year. A number of factors contributed to this dramatic increase, including the passage of baby boomers (those born between 1947 and 1961) into their prime spending years, the Reagan tax cuts, the unwinding of inflationary expectations in the mid-1980s, financial and residential asset price inflation, and the generally high level of consumer confidence.

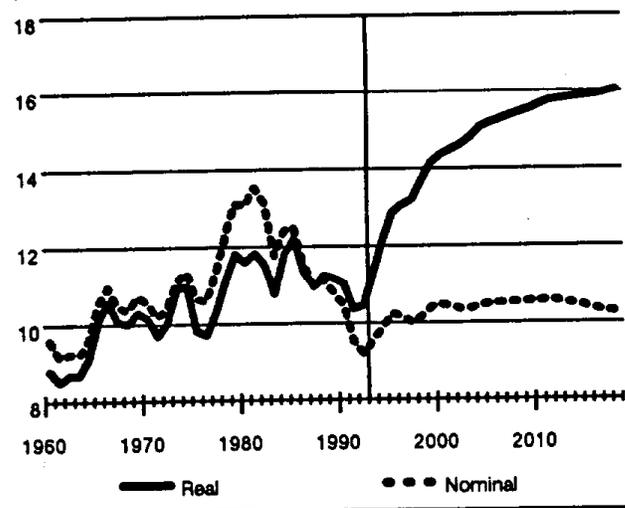
The evolution of consumption's GDP share is shown in Chart 5. The first vertical line marks the initial advance in the early 1980s, while the second vertical line marks the current situation. Clearly, the trend of the recent past will not continue. Indeed, the consumption share is expected to remain near current levels for much of the next quarter-century, primarily because baby boomers

are starting to move from their spending into their saving years. Not until around 2011, when baby boomers start to turn 65 (and retire), will the consumption share begin to rise again. This movement reflects a jump in federal transfer payments, primarily in the form of Social Security and Medicare disbursements, which boost the personal income and hence consumption shares of GDP.

The message for consumer companies in general, and retailers in particular, is clear: do not expand manufacturing capacity and retail floor space at anything close to the pace of the 1980s. The one prominent exception to this rule, however, is health-care providers, who will enjoy further impressive gains in demand for their services. Another, less obvious message is also noteworthy: as the population ages, so the demand for quality goods will rise relative to the demand for entry-level goods. The best example of this may be in the automobile industry, where consumers have already started to trade up to more luxurious cars and trucks, while producers have begun to emphasize larger, better-equipped models. An appropriate overall strategy may therefore be to maintain profits through wider margins, rather than higher volumes.

The outlook for capital goods producers is more ambiguous. Based on the real business fixed investment share of GDP, the next quarter-century should offer unparalleled opportunities in the domestic market. Based on

CHART 6
Investment Will Be Robust, But Margins Will Be Squeezed
(Nonresidential fixed investment as a share of GDP, percent)



investment's nominal share, however, the next 25 years appear solid rather than spectacular (Chart 6). The confusion is largely due to the continuing decline of computer prices. The price index (or deflator) used to convert actual computer expenditures (and, indeed, other items) into 1987 dollars reflects not only purchase prices, but also quality improvements. Because computer technology is improving so rapidly, the price deflator for computers is plummeting, thereby boosting the 1987-dollar share of GDP while retarding the nominal share. Abstracting from these complications, the underlying message is that investment will be robust, but that capital goods prices will increase more slowly than overall prices, keeping pressure on margins.

Both capital and consumer companies should look abroad for opportunities. Overseas markets will become increasingly important to the U.S. economy over the next quarter-century, as the real export share of GDP rises from 11.6% today to 15.6% by 2000 and 23.3% by 2018 (Chart 7). The ongoing internationalization of the U.S. economy depends partly on the relatively rapid growth of foreign markets, especially in the third world, and partly on the steady decline in the real value of the dollar, which helps maintain U.S. competitiveness. The weaker U.S. currency also helps U.S. companies

retain domestic market share by slowing import penetration.

The erosion of trade barriers in North America, and subsequently extending southward, will also help. Analysis performed by DRI suggests that the initial impact of the North American Free Trade Agreement (NAFTA) will be to boost U.S. exports of goods and services to Mexico. Eventually, however, U.S. companies will export capital to Mexico in order to build factories designed to take advantage of that country's lower labor costs. Mexican exports to the U.S.—particularly those goods using a lot of labor in the production process—will then rise, dislocating some U.S. workers, but generally benefiting U.S. consumers through lower prices.

The nature of macroeconomic policy and the changing structure of the U.S. population will affect the distribution of incomes as well as expenditures. The relatively low (nominal) interest-rate environment will benefit the corporate sector—which is a net borrower—at the expense of the household sector—which is a net lender. Hence, a healthy corporate profit share is maintained over the forecast interval (Chart 8), while personal income growth is retarded. Indeed, not until the baby boomers begin to retire, and federal transfer payments increase rapidly after 2011, will the personal income share of GDP rise much above current levels.

CHART 7
Exports Will Become Increasingly Important
(Export share of GDP, percent)

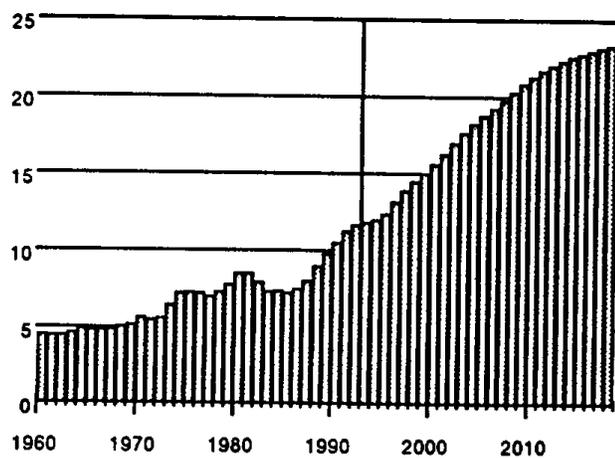
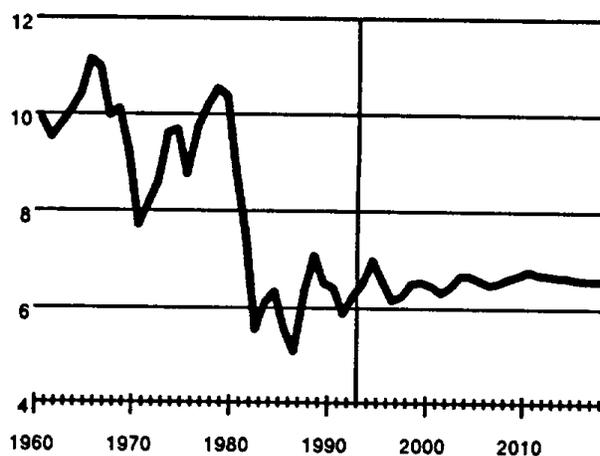


CHART 8
A Healthy Profit Share Will Be Maintained
(Before-tax corporate profits, percent of GNP)



Forecast Summary

TABLE 2
Capsule Summary of the Long-Term Projections

	Trend	Cyclical
General Outlook	The economy exhibits mild variations in growth and approaches its balanced-growth path. Inflation rises slowly, averaging only 3.2%.	Typical business-cycle fluctuations.
I. Principal Exogenous Assumptions		
Demographic	Projections consistent with the Census Bureau's latest middle-growth forecast, which assumes a leveling off of the fertility rate at 2.1 births, an ultimate mortality rate of 82.1 years, and net immigration averaging 880,000 per year.	
Energy imports	Oil prices rise by an average 5.4% per year. No embargoes assumed. Oil import bill exceeds \$350 billion by 2018.	Oil prices rise by an average 6.0% per year. Sharp price hikes occur in periods of peak demand. Oil import bill exceeds \$400 billion by 2018.
Food prices	Wholesale farm prices average 2.9% annual increases.	Wholesale farm prices average 3.6% annual increases.
II. Principal Policy Dimensions		
Tax changes	Small, steady increases in personal income tax rate from 1997 through 2011; rising sharply thereafter.	Similar to trend.
Growth of federal government purchases	Real, -0.5% per year; nominal, 3.2%. Real military purchases fall through 2003, then resume slow growth.	Real, -0.7% per year; nominal, 3.7%. Real military purchases fall through 2003, then resume slow growth.
Transfers	Real growth of 2.6% per year.	Real growth of 2.5% per year.
Budget deficit	The federal budget deficit averages only 3.0% of GDP.	Averages 3.5% of GDP.
Average federal government share of GDP	23.5%	24.2%
Monetary policy	Sufficient funds made available to promote stable credit growth. Money (M2) growth averages 5.7%.	Fluctuations in monetary policy contribute to severity of cycles. M2 averages 6.1% per year growth.
Federal funds rate	Rises from 3.1% in 1993 to 5.5% in 1999. Averages 5.3% between 2000 and 2018.	Annual values range between 3.8% and 9.0% from 1955 through 2018.
Nonborrowed reserves	Growth averages 3.9% per year.	Growth averages 4.3% per year.

TABLE 2
(Continued)

	Trend	Cyclical
III. Behavior of Economic Agents		
Consumers	Stable inflation rate and job security boost consumer confidence.	Cyclical swings in confidence, income, and wealth cause large fluctuations in expenditures, particularly on durable goods.
Average annual real consumption growth	1.9%	1.8%
Business	Decisions made in relatively stable environment.	Fluctuations in output, interest rates, and inflation create greater uncertainty and make investors more cautious.
Average fixed investment share in GDP	10.4%	10.2%
Average share of corporate cash flow in GNP	8.2%	8.0%
State and local government	Real expenditures dictated by demographics and ability to raise taxes. Average real growth in purchases of 1.8% per year.	Average real growth in purchases of 1.6% per year.
Budget position	Deficit grows, rising to \$696 billion in 2018.	Deficit swings from \$210 billion to \$625 billion in 1993-2013, then worsens to surpass \$1 trillion in 2016.
International		
Average annual wholesale price inflation for major trading partners	3.1%	3.6%
U.S. exchange rate	Remains stable through 1994. Small declines occur thereafter.	Remains steady through 1996, then begins to cycle around the trend values.
IV. Other Parameters		
Average annual productivity growth	1.3%	1.1%
Average annual potential output growth	2.0%	Growth averages 1.8% annually because of the impacts of lower investment on the capital stock.
Consumer price inflation	Demand pressures and a return of moderate oil and food price inflation gradually push consumer price inflation from 3.2% in 1993 to 3.9% in 2003-2007. Falls steadily thereafter to 3.6%.	Periodic surges in demand, oil price shocks, and more aggressive wage response boost the average inflation rate.
Consumer price index		
Average annual increase	3.6%	4.2%
Peak annual	3.9% (2003-2007)	5.8% (2004)
Hourly earnings		
Average annual rise	3.8%	4.2%
Peak annual	4.1% (2004-2018)	5.6% (2004)
Housing market	Demographics dictate slower growth of the housing stock after 2000.	Cycles in incomes and in monetary policy affect the housing sector more severely. Demographic pressures keep average level of homebuilding just below the trend.
Median new home price in 2018	\$428,269	\$445,910
Average annual rise	5.0%	5.1%
Unemployment	Remains between 5.6% and 5.9% after 1995.	Annual rates vary between 5.2% and 7.5%.
Average rate	5.8%	6.2%

Forecast Summary

TABLE 2
(Continued)

	Optimistic	Pessimistic
General Outlook	High growth; low inflation. Deviations from trend due to differences in demographic assumptions, productivity growth, and investment.	Low growth; high inflation.
I. Principal Exogenous Assumptions		
Demographic	Projections above the trend are a result of higher net immigration.	Projections below the trend due to lower net immigration
Energy imports	Oil prices rise an average 3.7% per year. Oil import bill rises above \$228 billion by 2018.	Oil prices rise an average 7.3% per year. Oil import bill nears \$480 billion by 2018.
Food prices	Wholesale farm prices average 2.1% annual increases.	Wholesale farm prices average 4.5% annual increases.
II. Principal Policy Dimensions		
Tax changes	Same as trend.	Same as trend.
Growth of federal government purchases	Real, -0.3% per year; nominal, 2.7%.	Real, -0.7% per year; nominal, 4.5%.
Transfers	Real growth of 2.8% per year.	Real growth of 2.3% per year.
Budget deficit	Deficit shrinks to \$170 billion in 2012, then gradually worsens to hit \$202 billion in 2018. Deficit averages 1.9% of GDP.	Beginning in 1995, the deficit continues to worsen in nominal terms, surpassing \$1 trillion in 2018. Deficit averages 3.4% of GDP.
Average federal government share of GDP	22.2%	24.5%
Monetary policy	Real interest rates remain within 50 basis points of trend values throughout projection period.	Real interest rates remain within 50 basis points of trend values after 1996.
Federal funds rate	Holds at or above 4.0% from 1999 through 2010. Thereafter, drops gradually to 3.7% in 2018.	Climbs to 7.2% in 1999 and stays there through 2005. Thereafter, drops gradually to 6.7% in 2018.
Nonborrowed reserves	Growth averages 3.6% per year.	Growth averages 5.1% per year.

TABLE 2
(Continued)

	Optimistic	Pessimistic
III. Behavior of Economic Agents		
Consumers	Stable inflation rate and job security boost consumer confidence.	Lower real incomes depress consumer expenditures, especially on durable goods.
Average annual real consumption growth	2.2%	1.6%
Business	High demand expectations plus low inflation and interest rates enhance the business environment.	Higher inflation, cyclical interest rates, and greater uncertainty make investors more cautious.
Average fixed investment share in GDP	10.5%	10.0%
Average share of corporate cash flow in GNP	8.5%	7.8%
State and local government	Average real growth in purchases of 2.1% per year.	Average real growth in purchases of 1.5% per year.
International		
Average annual wholesale price inflation for major trading partners	2.2%	4.7%
U.S. exchange rate	Peaks at 89% of 1980-82 parity in 1994, then falls to 81% in 2008; and holds through the rest of the forecast.	Peaks at 88% of 1980-82 parity in 1993-94. Declines thereafter as inflation remains a problem. Eventually falls to 66% of 1980-82 parity.
IV. Other Parameters		
Average annual productivity growth	1.6%	1.1%
Average annual potential output growth	2.3%	1.5%
Consumer price inflation	Supply-side growth keeps inflation below 3.0% throughout most of the projection period.	Inflation peaks at 5.7% in 2004. Declines thereafter to 5.0% in 2018.
Consumer price index		
Average annual increase	2.8%	5.2%
Peak annual	3.1% (1993, 2004)	5.7% (2004)
Hourly earnings		
Average annual rise	3.2%	5.3%
Peak annual	3.5% (2004-2006)	5.7% (2004-2006)
Housing market	The higher population projections push housing stock 5.1% above the trend by 2018.	Lower real incomes and high cost of funds depress housing starts.
Median new home price in 2018	\$390,648	\$535,323
Average annual rise	4.6%	5.9%
Unemployment	Moves between 5.3% and 5.8% after 1994.	Averages 7.0% in 1993 and 6.7% in 1994, hovers between 5.8% and 6.3% from 1995-2017.
Average rate	5.7%	6.0%

The Four Scenarios: An Explanatory Note

This *Review* contains analyses of DRI/McGraw-Hill's latest long-term projections of the U.S. economy. The principal trend projection assumes that the economy suffers no major mishaps between now and 2018. The quantitative detail relating to this projection is derived from the TREND simulation of DRI's Model of the U.S. Economy. In this simulation, the economy follows a pattern of smooth growth, with actual output approximately paralleling the path of potential output. This projection is best described as depicting the mean of all possible paths the economy could follow in the absence of major disruptions such as substantial oil price shocks, untoward swings in policy, or excessively rapid increases in demand.

The main alternative projection, CYCLE, explicitly incorporates business cycles. Since the economy does suffer major mishaps in this scenario, the amplitude of the cycles is larger, on average, than those implicit in the trend projection. As a result, the path of capital accumulation is relatively lower and total factor productivity growth is impeded. These conditions imply a permanent lessening of the economy's potential growth relative to the trend projection. By 2018, the loss in potential output is 4.8%.

It cannot be overemphasized that the timing of fluctuations in the cyclical projection is merely suggestive. Because it is clearly impossible to predict the timing of business cycles years in advance, it would be unwise to focus on particular years. For example, compound growth rates could be misleading, particularly if calculated between different points in the business cycle.

In the other alternative projections, OPTIM and PESSIM, the economy grows fairly smoothly but at significantly different rates. These "bandwidth" projections depart from the central trend in both their supply-side assumptions and inflation outlooks. In OPTIM, for instance, the labor force, capital stock, and exogenous technological change increase at a faster pace than in

the trend. Potential output thus grows 0.4% per year more rapidly; because output is primarily supply-determined in the long run, the difference in real GDP growth is similar. OPTIM assumes that inflation never exceeds 2.7% and averages only 2.4%. In PESSIM, growth is reduced by an average of 0.4% annually relative to trend. In PESSIM, the inflation rate rises steadily to around 5.1%, leaving the price level 51% above the trend by 2018.

The underlying rate of growth in TREND25YR0893 is consistent with history as well as conjecture about the economy's unfolding structure. It can therefore be regarded as the best unbiased projection of the economy. Although any probabilities attached to long-run projections must be highly subjective, DRI believes there is only a 10% chance that the economy's underlying path will be outside the range encompassed by the optimistic and pessimistic projections. This implies about a 50% probability that the economy will most closely resemble the trend, a 25% chance that it will resemble the optimistic scenario, and a 25% chance that it will be closest to the pessimistic case.

New Population Projections

The bandwidth alternatives embody different population projections from those in the trend (and cycle). In November 1992, the U.S. Bureau of the Census released its latest population forecast for the United States. Based on the recent fertility rate data and immigration legislation (i.e., the 1990 Immigration Act), the Census' new "middle" projection now represents the most likely course of future population growth. This projection is based on specific assumptions of immigration, fertility, and mortality rates. The ultimate fertility rate is expected to hold at 2.1 births per woman throughout the forecast period, while the mortality rate should continue to improve as life expectancy rises from 75.8 years currently to 82 years in 2050. Meanwhile, net immigration is estimated to average approximately 880,000 annually. Based on these assumptions, the U.S. population will average 0.8% growth per year through 2018, down from the 1.0% pace averaged during the last 25 years. This projection is used in TREND25YR0893.

While this new middle population projection represents the most likely estimate for future population growth, the Census Bureau has prepared a total of 10 projections that incorporate different assumptions about fertility, mortality, and immigration. These alternatives depict the range of possible outcomes, given reasonable upper and lower limits for key assumptions. The lowest possible population projection assumes high mortality combined with low immigration and low fertility rates, while the highest projection incorporates low mortality in conjunction with high immigration and high fertility rates. The ultimate fertility rate ranges from 1.5 births per woman at its lowest to 2.2 births at its highest. The mortality rate improves in all cases, as life expectancy ranges from 75.2 to 88 years by 2050, while net immigration varies from 350,000 to 1.37 million persons annually.

Rather than arbitrarily constructing alternative population projections, we incorporate the middle fertility/high net immigration projection in our optimistic scenario, and the middle fertility/low immigration projection in our pessimistic scenario.

New Methodology over the Near Term

Before the summer of 1992, we made the long-range optimistic projection consistent with the short-term op-

timistic alternative, and the long-range pessimistic projection consistent with the principal downside short-term alternative. This can and does lead to problems if the assumptions underlying the short-term alternatives are inconsistent with those underlying the corresponding long-term projections. This has become increasingly likely in the current short-term environment, as more optimistic near-term growth prospects tend to imply some acceleration of inflation, while continued sluggish growth implies a further deceleration of core inflation. In the winter 1991-92 projections, the inconsistency of assumptions led to a "crossover" pattern in inflation; with inflation in the optimistic projection progressing from above to below that in the pessimistic projection in the mid-1990s.

Several clients requested a change to prevent such "crossovers." And so, beginning in August 1992, the two bandwidth scenarios began from the trend solution. In order to maintain some band of uncertainty over the near term, the optimistic and pessimistic scenarios diverge—according to their own underlying assumptions—immediately from the beginning of the solution interval. This ensures that inflation is always higher in the pessimistic alternative and lower in the optimistic alternative.

California Overview

California Overview

Long-Term View

After three decades of very rapid expansion, a combination of factors assure slower economic growth for California through the year 2020. Foremost will be the effects of slower population growth, which in combination with smaller gains in participation rates and the inevitable aging of the population, will translate into slower labor force growth. In order to maintain a growing economy, however, productivity increases will offset the declines in the labor force, allowing for continued output growth.

Table 3.
Output Growth Has Consistently Outpaced Employment Growth in California

	1970-80	1980-90	1990-2000	2000-2010	2010-2020
Employment (%)	33.9	25.9	8.4	15.4	10.7
Real Output (%)	50.5	40.4	25.0	31.0	38.9

In addition to this national phenomenon, California's growth will be restrained as the state adapts to a "new world order" in the 1990s and at the same time deals with the problems created by its past growth. Several key factors spurred growth in California during the 1980s:

- Massive defense procurement expenditures
- Rapid population growth fueled by in-migration
- Competitive advantages in technology manufacturing and economic infrastructure over much of the nation and the world, and
- Strong domestic and international markets for California's goods.

Each of these factors has been altered dramatically over the past few years, reducing their impact on the California economy. The problems caused by past growth -- high wages and rising costs of doing business, congested and aging infrastructure, water shortages, and a perceived decline in the education system and overall quality of life -- pose serious challenges to California for the rest of the decade.

Nonetheless, California's economy retains capacity for future economic growth. Clearly, the state will benefit disproportionately from trade with emerging Asian economies and Latin America. The development of a North American trading bloc will deepen the state's ties to Mexico, boosting California's exports of capital goods and bolstering the distribution and trade sectors. Furthermore, California's large pool of technological resources will enable the state to remain at the forefront of developing and implementing new production in computing, electronics, transportation, and biotechnology. The state remains rich in natural and human resources, and has enviable industry clusters with enormous marketplace. In fact, four of California's ten largest industries will rank in the top 10 industries for growth nationwide over the next decade, with six in the top 20.

In the past, California's job gains have been concentrated in its coastal metropolitan areas, led by the explosive expansion in the five-county greater Los Angeles area. Over the next decade, growth will shift inland to the second- and third-tier metropolitan areas, as restructuring and downsizing, along with higher costs of living and doing business, have limited the prospects for California's major business centers.

Short-Term Outlook

Forecast Highlights

- *A discernible recovery will not get under way in California until the second half of 1994.*
- *The labor market has stabilized and will slowly return to health. By 1996, employment growth will finally measure close to the national average. California will not regain its pre-recession employment peak until 1997.*
- *Continued weakness in manufacturing, trade, and commercial real estate will drag down the state's economic performance.*
- *California will also bear the brunt of the Base Closure Commission's recommendations, accounting for nearly one-half of all civilian and military cuts nationwide.*
- *Despite considerable damage and tragic loss of life, the Northridge earthquake will not have a large impact on the state or Southern California economy.*

Recent Evidence: Still in Recession

Although the worst of California's recession is over, the state is still far from positive and sustainable economic growth. As 1993 came to a close, statistics revealed continued weakness in the manufacturing, trade, and housing sectors:

- Defense and aerospace-related layoffs continue to shrink durables manufacturing payrolls;
- High-tech and instruments manufacturing employment levels have not rebounded, despite production and sales gains;
- Real estate prices continue to fall, suggesting that the price correction begun in 1990 has not concluded;
- Housing permits for new construction remain at one-third of the 1980's average, while commercial building is down by one-half;
- Total employment has declined consistently during 1993, with losses averaging between 10,000 and 20,000 per month;
- Real taxable sales during the third quarter of 1993 fell by about one percent from the same quarter in 1992.

The drop in real estate prices has made builders and lenders reluctant to commit to new development, erasing the potential boost from the lowest lending rates in years. High housing inventories and slowing population growth have also prevented the housing market from recovering. High unemployment and job uncertainty have kept consumers' confidence weak, leaving little room for gains in discretionary spending.

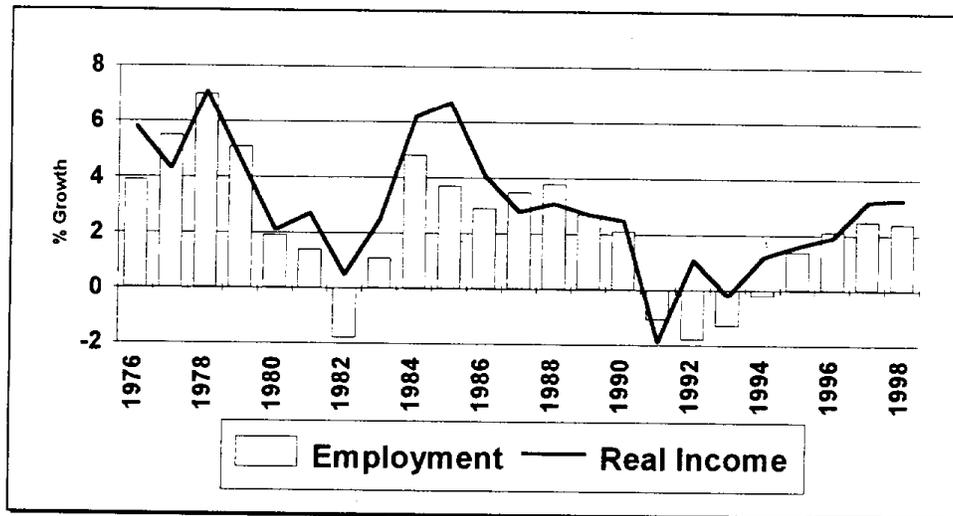
Forecast Profile: Realistic Expectations

Developments in 1993 have highlighted the liabilities that California accrued during the defense buildup in the 1980s. The state will bear the brunt of the Base Closure Commission's recommendations, accounting for nearly one-half of all civilian and military job losses. Furthermore, the Clinton Administration's budget recommendations will pare defense spending to even lower levels over the next five years. Combined with the negative effects of a weakened aerospace industry, declining procurement for electronics, aircraft, and instruments will continue to exact a toll on several of the state's key manufacturing sectors.

In addition, California is faced with several challenging structural issues that will diminish its longer-term performance. High operating costs for businesses, high housing costs, and deteriorating

transportation infrastructure have prompted some firms to seek expansion outside the state. After adjusting for industry mix, California's manufacturing wages are much higher than the national average. Although wages are only one factor that firms base their location decisions on, California's competitive position here has clearly eroded over the past decade. Furthermore, the perception of an overall decline in the quality of life and the educational system has given more and more California residents a reason to migrate to other regions of the United States.

Chart 9
California's Economic Cycle



Nonetheless, California's economy retains capacity for future economic growth, especially in the second half of the 1990s. Clearly, the state will benefit disproportionately from trade with emerging Asian economies and Latin America. The development of a North American trading bloc will deepen the state's ties to Mexico, boosting California's exports of capital goods and bolstering the distribution and trade sectors. Furthermore, California's large pool of technological resources will enable the state to remain at the forefront of developing and implementing new production in computing, electronics, transportation, and biotechnology.

Signs of Stabilization

Some positive developments have emerged over the past year which bode well for California's future. Governor Wilson's recent legislation providing tax credits for new investment, reforming the worker's compensation system, and streamlining the regulatory process have had a positive impact on California's business climate. In fact, there have been several well-publicized announcements of business expansions in the state, attributed in part to these actions.

There is also preliminary evidence that new business incorporations are picking up, and that employment in these new businesses is increasing dramatically. California remains the site of the nation's fastest growing high tech computer and electronics companies, and these firms stand to gain disproportionately as international trade revives.

Through the end of 1994, total employment will measure a decline year-over-year, but quarterly gains will become evident by the middle of the year. With a sluggish recovery slowly taking shape, California's employment growth will not outpace national rates until 1996. In the first half of 1997, California's employment will finally reach its pre-recession peak recorded in mid-1990. The current forecast

incorporates the California ten-year employment revision released in June 1993. The revision shows a smaller job loss during the recession than previously reported.

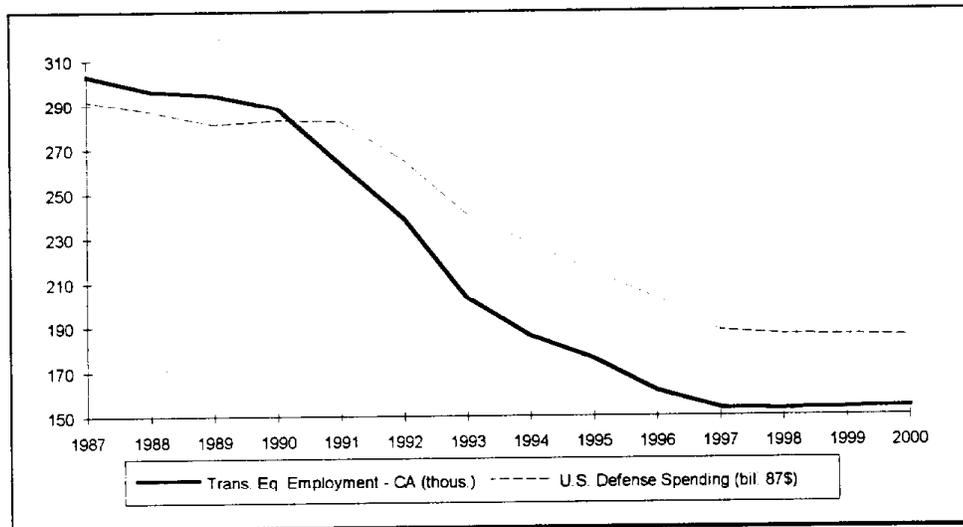
Despite this weak short-term outlook, California's labor markets have begun a slow process of stabilization. A steep reduction in construction and trade jobs has taken place over the last two years, leaving little room for equally devastating declines over the next year. Furthermore, low interest rates and steadily improving conditions in the rest of the nation will help boost demand in the state's services and nondurables manufacturing sectors.

However, key sectors will remain weak over the next several quarters, which will prevent employment from recovering sharply in early 1994. In particular, income growth and tax collections are unlikely to meet expenditures by state and local governments, risking sharper cuts in employment and services. In addition, the outlook for the state's aerospace industry remains bleak, as sharp reductions in commercial aerospace orders compound declines in defense-related production. Finally, the Northridge earthquake will cause initial employment and income declines in the first two quarters of 1994, before re-construction expenditures kick in.

Defense Cutbacks Are By No Means Over

The state's aerospace industry will contribute disproportionately to additional job losses in electrical machinery and instruments. Transportation equipment will be the weakest of California's manufacturing sectors over the next few years. The sector will continue to lose jobs through 1997, reflecting sharply scaled back orders for commercial aerospace equipment and declining defense spending. California, which plays a dominant role in defense procurement for aircraft, missiles, and navigation systems, will see substantially more layoffs in aerospace, instruments, and electrical machinery, as a result of a projected 25% decline in real defense spending between now and the end of 1996.

Chart 10
California's Aerospace Sector Will Halve as Defense Spending Declines



Although the state will eventually overcome the dislocating effects of declining military procurement and base closures, certain communities will experience substantial short-term disruption. Overall, 10% of California's federal military and civilian jobs will be lost by the end of 1996. These actions will put an extra drag on the state's economy as it emerges from recession in 1994 and 1995. Indeed, California will lose federal government jobs at a rate one-third faster than the nation through the end of 1996.

California's Recovery Depends on Strength Outside the State

Most of California's manufacturing improvement will come from stronger growth in nondurables, which will benefit first from stronger demand from other regions. In addition, the strengthening recovery in housing markets nationwide will help boost demand for wood and lumber products, furniture, and other durables. Without a significant increase in California's consumer spending over the next year, however, recovery in all manufacturing sectors will remain modest.

Prospects for stronger growth in non-defense high-technology are brighter, buoyed by strong orders for personal computers, gains in semiconductor equipment manufacturers' worldwide market share, and stronger business investment. While several large computer firms continue to shed jobs, prospects remain relatively strong for several emerging high-tech firms in the Silicon Valley and Anaheim regions.

California has a still-enviable list of competitive advantages:

- World-class university system.
- Extensive venture capital and business & financial services.
- Concentration of high-tech centers with a strong base of technology cooperation.
- Rich in natural and human resources.
- Gateway to fast growth Asian and Mexican markets.
- Well-developed industry clusters with enormous marketplace.

The state is well positioned to prosper in the second half of the 1990s and into the next decade. In fact, four of California's ten largest industries are on the list of DRI's top 10 industries for growth in the U.S. over the next 10 years, with six in the top 20.

Table 4

DRI's Top 10 Industries for Output Growth: 1993-2002	
1. Electronic Components & Accessories	
2. Office, Computing & Accounting Machinery	
3. Miscellaneous Electrical Machinery	
4. Instruments	
5. Finance & Insurance	
6. Drugs	
7. Business Services	
8. Rubber & Miscellaneous Plastics Products	
9. Optical, Ophthalmic & Photo Equipment	
10. Communications, Except Radio & TV	
California's 10 Largest Industries Rank High	
Industry	U.S. Growth Rank
1. Wholesale & Retail Trade	25
2. Real Estate & Rentals	59
3. Business Services	7
4. Miscellaneous Services (Medical, Education)	17
5. Finance & Insurance	5
6. Food & Kindred Products	62
7. New Construction	19
8. Electronic Components & Accessories	1
9. Office, Computing & Accounting Machinery	2
10. Petroleum & Refining Related	73

Labor Markets Will Worsen Before Improving

The positive outlook for *output growth* for California businesses will *not* translate into equally strong employment gains. While output growth over the next decade will nearly match that of the last ten years, gains will come primarily through *productivity*. Responding to intense competitive pressures, California firms will emerge from the recession leaner and meaner, and business revenues and incomes will thrive. Employment gains will lag, holding down growth in personal income.

Due to the persistence of weak labor-market conditions, California's unemployment rate will remain above the national average over the next several years. Since California's labor-market conditions are forecast to worsen before improving with the rest of the nation, the state's unemployment rate will average more than two-and-one-half percentage points higher than the national average in 1994. This differential, coupled with concerns about the state's worsening quality of life and high costs, is likely to hasten out-migration of a large segment of job seekers. California's population growth will converge toward the national average through the end of 1994, before improving with job growth in 1995. Despite the depth of California's employment downturn, relatively high birth rates and international in-migration will continue to push California's population growth upward.

Wage and Income Growth Will Lag

Weak labor markets will also place minimal upward pressure on California's average wages over the next two years, which will further dampen prospects for consumer spending and retail trade. Nationally, average annual wages are forecast to increase by only 3.1% annually through 1995, reflecting lower wage inflation, a further shift toward a more service-oriented economy, and a slow recovery in manufacturing wages. In California, wage increases will average only 2.5% per year over this period. A significant part of California's weakness will come from manufacturing, where wage gains will significantly underperform national averages.

Weak growth in wage and salary disbursements will cause California's real personal income to expand at a 1.5% average annual rate through the end of 1995, lagging well below the national average of 2.7%. As recovery progresses in the state's high-tech manufacturing and construction sectors in the second half of the decade, wage and income growth will improve sharply. Between the end of 1995 and the end of the decade, real income growth is expected to average 2.3% per year, outpacing the nation's 2.1% average annual gains. Clearly, California's growth advantage has diminished relative to other states. In the 1980s, for example, California's 3.2% average annual growth was more than 0.7 percentage point faster than the national average.

On a per capita basis, California's personal income will continue to fall relative to the nation as a whole. Reflecting the state's economic restructuring, per capita income will fall to 103% of the national average by 1996, from 107% in 1992. In addition, continuing population growth is unlikely to prevent the state from reversing this slide during the current decade.

The combination of weak income growth and tepid population gains will prevent California's housing market from returning to the robust times of the 1980s. Slower household formation rates, combined with high inventories of housing available for sale, will also temper California's housing and construction recovery. For 1993, housing starts are expected to trough at 94,000 units. Thereafter, starts will slowly rise to 127,000 units by 1995, as recovering income and population growth fuel stronger demand. By 2000, starts will rise to 160,000 units, still below the long-run average established during the 1960s, 1970s and 1980s.

Growth Shifts Inland

In the past, California's job gains have been concentrated in its coastal metropolitan areas, led by the explosive expansion in the five-county greater Los Angeles area. Fundamental changes in the structure of the California and national economies will shift stronger growth away from the coastal MSAs.

Health care is joining a long list of industries undergoing major restructuring in California and across the nation:

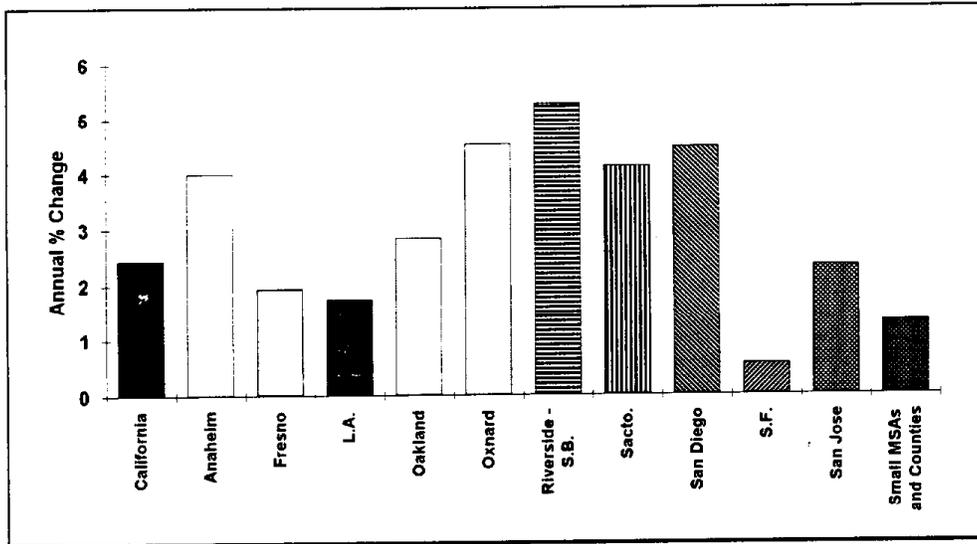
- Aerospace
- Airlines
- Financial Services
- Computing Equipment
- Telecommunications
- Retailing
- Utilities

Intense national and international competition is pushing even otherwise healthy companies and industries into major overhauls. The cost-cutting and efficiency pressures are also shifting to the public sector, with revolutionary upheavals in state budgets common in numerous of states. The Administration has announced lofty plans to re-invent federal government while trimming one-quarter of a million jobs.

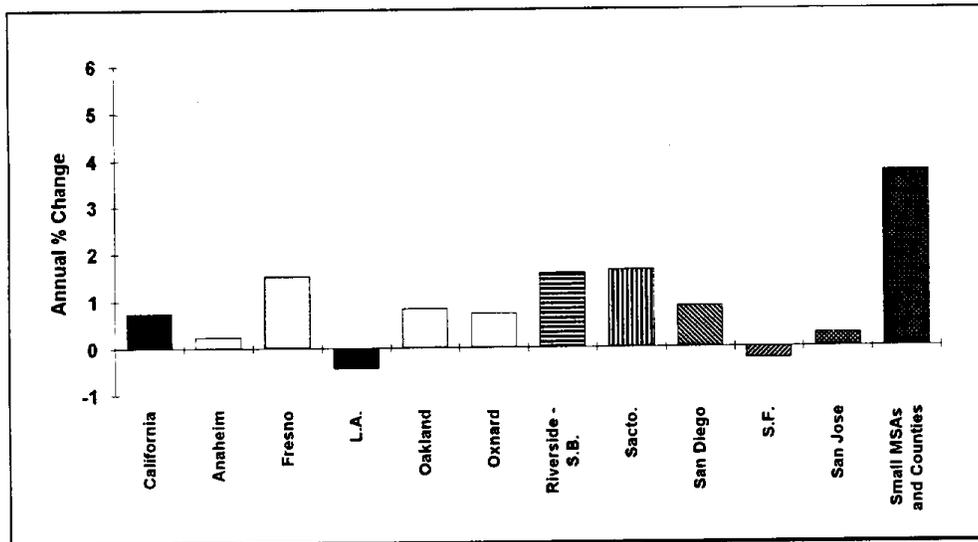
The result of this restructuring has been to greatly diminish the prospects for the major business centers in the nation and in the state. Greater New York, Washington, Los Angeles, and their brethren have taken the brunt of the job losses associated with the waves of downsizing, and the future for job growth in many of the restructured industries is lackluster at best.

Job growth will be strongest in the second- and third-tier metropolitan areas across the nation: West Palm Beach, Tucson, Indianapolis. In California, the central valley MSAs such as Fresno, Sacramento, and Stockton will show the greatest gains. The rates of growth will be dramatically lower across *almost all* MSAs, however, reflecting the slower pace of gains expected statewide (Chart 11).

Chart 11
Growth Varied Dramatically in the 1980s (Average Growth 1980-89)



Growth Shifts Inland (Average Growth 1990-99)



The Northridge Earthquake

Despite considerable damage and tragic loss of life, the Northridge earthquake will not have a large impact on the state or Southern California economy. DRI has conducted a detailed study of the economic impact of the earthquake, including model simulations and comparisons with recent urban-based natural disasters, Hurricane Andrew and the 1989 Loma Prieta earthquake.

Our analysis indicates that the earthquake will disrupt the Southern California economy during the first two quarters of 1994, as dislocated and destroyed businesses, and transportation and distribution problems

lead to job losses, particularly in trade and services, and small proprietors' businesses. Once federal, state and private insurance funds begin to flow into Southern California, rebuilding efforts will boost construction payrolls, along with purchases of materials and furnishings, primarily in the second half of 1994 and through 1995.

While estimates of damage range from \$15 billion to \$30 billion, the amount of funds available for reconstruction is likely to be lower, probably between \$10 and \$15 billion. Using an estimate of \$12 billion, and under the assumption that the large, well-developed Southern California economy will be able to capture and keep almost all of these funds, DRI's simulations result in a gain of 68,000 jobs by the end of 1995. This gain, primarily in construction and transportation, communications, and public utilities, represents the upper end of potential job impacts, and is on a base employment of almost 6 million in Southern California, and 12 million statewide.

Summary of Statewide Employment and Output Projections

Table 5

California Totals - Base Case Scenario

	1970	1975	1980	1985	1990	1995
Total Non-Agricultural						
Employment (thousands)	7,165.5	7,846.8	9,849.6	10,820.9	12,498.5	12,259.9
Real Output (\$1977 mil.)	235,260	270,383	356,163	416,923	501,289	534,142
Agriculture, Forestry & Fishery						
Employment (thousands)	511.2	411.2	429.2	397.1	443.8	443.3
Real Output (\$1977 mil.)	10,701	10,825	13,902	14,781	18,122	20,219
Total California						
Employment (thousands)	7,676.7	8,258.0	10,278.7	11,218.0	12,942.3	12,703.2
Real Output (\$1977 mil.)	245,960	281,208	370,065	431,705	519,411	554,362
	2000	2005	2010	2015	2020	
Total Non-Agricultural						
Employment (thousands)	13,572.7	14,676.5	15,698.2	16,547.5	17,360.7	
Real Output (\$1977 mil.)	627,272	716,707	824,198	961,793	1,147,595	
Agriculture, Forestry & Fishery						
Employment (thousands)	463.0	477.7	498.9	530.7	571.5	
Real Output (\$1977 mil.)	22,101	23,877	26,240	29,341	33,261	
Total California						
Employment (thousands)	14,035.7	15,154.2	16,197.1	17,078.2	17,932.2	
Real Output (\$1977 mil.)	649,373	740,585	850,437	991,134	1,180,856	

Alternative Scenarios for California

DRI's base case forecast for California is consistent with our base case long-term trend U.S. outlook. This forecast includes the latest data available at the state level, and incorporates the recent events, expectations for key sectors, and DRI national and international forecasts for industry as described above.

For the business cycle scenario, DRI based the California forecast on the DRI long-term U.S. business cycle projections outlined in the National Economic Forecasts chapter. In the U.S. business cycle projections, DRI imposes cyclical patterns on the trend forecast projections using past business cycle behavior as initial guidelines. The DRI Model of the U.S. Economy is pushed into recession later in the 1990s, and the model then describes a path of decline and recovery relative to the trend forecast before another cycle is imposed around 2003, and so on. No attempt was made to further tailor the cycle forecasts before the California cycle projections were generated.

For the optimistic and pessimistic scenarios, DRI began with the U.S. optimistic and pessimistic scenarios. After analyzing initial forecasts prepared using the national scenarios, DRI made further adjustments to the California model to incorporate state-specific assumptions. In particular, DRI adjusted the assumptions surrounding the following key variables to shape alternative paths for the California economy.

1. Manufacturing

- Depth of future defense and aerospace-related cuts, California's share of total defense spending.
- California's share of world markets for exports, particularly high-tech manufacturing.

2. Population

- Accelerating in-migration vs. slower growth, loss of residents to other states.

3. Southern California: continued weakness v. recovery.

- Aerospace
- Real estate: housing starts, construction activity, prices.
- Trade
- Finance
- Income

4. Real estate: statewide and regionally

- Construction activity
- Housing stock, population growth
- Impact on financial sector

5. Consumer spending

- Nationally, statewide, locally

6. International trade

- Competitive position of California industry - market share.
- Health of world markets.

7. State government

- The optimistic and pessimistic scenarios frame the base case forecast with a "bandwidth" of possible paths the state economy might follow. Table 2 compares the results of the four California scenarios. By the year 2020, total state employment in pessimistic scenario is 9.5% below the base case, while the optimistic scenario has employment 12.5% above the base, and 22% above the pessimistic.

Table 6

Comparison of Alternative California Forecasts

	1990	1995	2000	2005	2010	2015	2020
Total Employment (thousands)							
Base Case	12,498.5	12,259.9	13,572.7	14,676.5	15,698.2	16,547.5	17,360.7
Cycle	12,498.5	12,259.9	13,380.0	14,309.0	15,610.7	16,571.4	17,666.4
Pessimistic	12,498.5	11,947.5	12,993.4	13,906.5	14,682.0	15,263.6	15,722.8
Optimistic	12,498.5	12,613.9	14,310.9	15,728.3	17,071.5	18,326.1	19,551.4
Manufacturing Employment (thousands)							
Base Case	2,068.9	1,765.8	1,730.6	1,704.3	1,617.5	1,464.4	1,293.3
Cycle	2,068.9	1,765.8	1,707.3	1,619.8	1,553.6	1,430.7	1,336.8
Pessimistic	2,068.9	1,715.5	1,640.7	1,586.8	1,480.7	1,320.5	1,151.5
Optimistic	2,068.9	1,829.4	1,823.0	1,828.6	1,764.0	1,627.0	1,465.3
Housing Starts (thousands)							
Base Case	170.9	127.7	159.3	174.8	199.8	208.5	223.3
Cycle	170.9	127.7	165.3	155.9	153.7	178.0	232.0
Pessimistic	170.9	98.5	137.4	121.5	139.8	143.6	122.6
Optimistic	170.9	262.8	224.3	264.6	274.2	305.6	290.3
Population (millions)							
Base Case	29.9	31.9	33.9	35.7	37.7	39.7	41.8
Cycle	29.9	31.9	33.9	35.7	37.7	39.7	41.8
Pessimistic	29.9	31.5	32.7	33.9	35.2	36.5	37.9
Optimistic	29.9	32.5	35.8	38.2	41.1	44.1	47.2

Short-Term Outlook for California, 1991-96

	1993				1994				1991	1992	1993	1994	1995	1996
	1	2	3	4	1	2	3	4						
Employment (Thousands, seas. adj.)														
Total	12043.9	11989.4	11950.4	11947.1	11961.8	11987.5	12031.6	12091.5	12359.5	12141.2	11982.7	12018.1	12259.9	12312.1
Manufacturing	1842.0	1808.9	1791.8	1784.1	1782.3	1780.8	1777.5	1775.9	1971.0	1889.9	1806.7	1779.1	1765.8	1751.1
Nonmanufacturing	10201.9	10180.5	10158.7	10163.0	10179.5	10206.6	10254.1	10315.5	10368.4	10251.4	10176.0	10239.0	10494.1	10561.0
Transp., Comm., & Util.	605.8	602.5	596.9	597.3	596.3	595.6	595.3	595.7	613.3	606.5	600.6	595.7	597.6	597.6
Trade	2809.3	2788.7	2780.5	2778.7	2780.6	2784.6	2795.2	2809.7	2922.3	2832.8	2789.3	2792.5	2847.5	2847.5
Fin., Ins., & Real Estate	784.5	780.3	776.8	774.4	774.4	775.5	777.3	779.7	799.4	789.8	779.0	776.7	786.4	786.4
Services	3446.0	3450.3	3457.1	3468.6	3488.3	3512.3	3538.9	3568.3	3411.4	3420.3	3455.5	3527.0	3659.5	3659.5
Federal Govt.	336.1	329.9	325.3	323.0	317.8	311.3	308.9	303.8	347.5	342.6	328.6	310.5	296.5	296.5
State & Local Govt.	1730.8	1737.5	1737.6	1735.8	1738.8	1742.4	1747.9	1754.5	1743.3	1748.9	1735.4	1745.9	1776.6	1776.6
Construction	456.4	458.4	452.2	452.8	451.2	452.9	458.4	471.9	514.3	475.5	454.9	458.6	498.6	498.6
Mining	33.1	32.8	32.2	32.4	32.1	32.2	32.1	31.9	37.0	34.9	32.6	32.1	31.5	31.5
Employment (Annual rate of change)														
Total	0.5	-1.8	-1.3	-0.1	0.5	0.9	1.5	2.0	-1.1	-1.8	-1.3	0.3	2.0	2.0
Manufacturing	-0.9	-7.0	-3.7	-1.7	-0.4	-0.3	-0.7	-0.3	-4.7	-4.1	-4.4	-1.5	-0.8	-0.8
Nonmanufacturing	0.7	-0.8	-0.9	0.2	0.7	1.1	1.9	2.4	-0.4	-1.3	-0.7	0.6	2.5	2.5
Transp., Comm., & Util.	3.3	-2.2	-3.6	0.2	-0.8	-0.5	-0.2	0.3	0.2	-1.1	-1.0	-0.8	0.3	0.3
Trade	0.5	-2.9	-1.2	-0.3	0.3	0.6	1.5	2.1	-2.3	-3.1	-1.5	0.1	2.0	2.0
Fin., Ins., & Real Estate	-0.1	-2.1	-1.8	-1.3	0.0	0.6	0.9	1.2	-1.2	-1.2	-1.4	-0.3	1.2	1.2
Services	2.8	0.5	0.8	1.3	2.3	2.8	3.1	3.4	2.1	0.3	1.0	2.1	3.8	3.8
Federal Govt.	-7.5	-7.1	-5.4	-2.8	-6.3	-7.9	-3.1	-6.5	-4.0	-1.4	-4.1	-5.5	-4.5	-4.5
State & Local Govt.	-1.2	1.6	0.0	-0.4	0.7	0.8	1.3	1.5	1.8	0.3	-0.8	0.6	1.8	1.8
Construction	-1.1	1.8	-5.3	0.6	-1.4	1.5	5.0	12.3	-8.5	-7.5	-4.3	0.6	8.7	8.7
Mining	-5.5	-3.0	-7.2	2.8	-4.1	1.5	-1.5	-2.7	-1.8	-5.7	-6.4	-1.7	-1.9	-1.9
Population and Labor Market Measures														
Population (Millions)	31.196	31.285	31.370	31.451	31.531	31.603	31.674	31.744	30.440	30.923	31.325	31.638	31.935	32.232
Labor Force (Millions)	15.330	15.291	15.347	15.397	15.453	15.489	15.528	15.571	14.833	15.187	15.341	15.510	15.680	15.850
Unemployment Rate (%)	9.6	8.8	9.1	9.1	9.0	8.9	8.7	8.4	7.5	9.1	9.2	8.7	8.0	7.8
Population and Labor Market Measures (Annual rate of change)														
Population	1.3	1.1	1.1	1.0	1.0	0.9	0.9	0.9	1.6	1.6	1.3	1.0	0.9	0.9
Labor Force	1.1	-1.0	1.5	1.3	1.5	0.9	1.0	1.1	1.1	2.4	1.0	1.1	1.2	1.2
Income (Billion \$, annual rates)														
Personal Income	663.8	678.6	685.2	690.5	698.9	705.1	712.0	722.0	632.1	659.3	679.5	709.5	747.2	785.9
Wages & Salaries	378.0	389.3	391.6	393.8	396.1	399.1	402.9	407.5	372.3	383.4	388.2	401.4	419.9	438.8
Nonwage Income	280.8	284.8	288.7	292.2	298.0	301.3	305.0	310.3	255.8	271.2	286.8	303.8	323.2	347.1
Farm Prop. Income	5.0	4.5	4.8	4.8	4.8	4.8	4.2	4.3	4.0	4.6	4.7	4.5	4.1	4.1
Prices and Wages (Annual rate of change)														
Consumer Price Index	1.4	2.3	1.5	2.3	3.5	1.7	2.6	3.0	4.8	1.9	1.4	2.5	2.8	2.8
Wages, Manufacturing	-28.2	28.7	4.0	2.3	1.8	2.2	2.6	3.0	4.5	3.0	1.6	3.8	2.7	2.7
Wages, Nonmanufacturing	-9.6	12.4	3.7	2.4	1.9	2.2	2.4	2.5	2.1	5.3	2.9	3.0	2.6	2.6
Median Home Price	13.5	-13.6	-2.1	10.5	5.3	10.5	11.8	6.9	-0.8	-8.9	1.8	5.8	5.2	5.2
Real Disp. Income, (1987=)	-8.6	6.3	1.6	-0.4	-1.4	1.3	2.7	2.7	-0.8	1.6	0.1	0.9	2.5	2.5
Other Activity Measures (Annual rates)														
Housing Starts (Thousands)	84.0	89.2	97.1	106.3	109.4	119.7	122.5	125.2	106.5	98.0	94.1	119.2	127.7	134.6
Single-Family	88.6	74.3	81.2	86.8	88.8	96.1	98.9	99.2	76.9	78.9	77.9	95.2	100.6	106.6
Multi-Family	14.4	14.6	15.9	19.7	20.6	23.6	25.6	26.1	29.6	19.1	16.2	24.0	27.2	28.0

Note: Single- and multi-family housing starts may not equal total starts due to rounding.

Long-Term Outlook for California, 1997-2010

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Employment (Thousands, seas. adj.)														
Total	12837.6	13121.5	13361.5	13572.7	13780.8	13987.7	14231.0	14477.7	14676.5	14885.8	15097.8	15299.9	15492.6	15698.2
Manufacturing	1718.1	1720.7	1728.3	1730.6	1727.1	1722.0	1719.7	1715.7	1704.3	1691.4	1677.0	1659.3	1638.2	1617.5
Nonmanufacturing	11121.5	11400.8	11633.2	11842.1	12053.7	12265.6	12511.3	12762.0	12972.1	13194.4	13420.8	13640.6	13854.3	14080.7
Mining	31.2	31.0	30.8	30.5	30.5	30.8	30.8	30.5	30.1	29.8	29.6	29.2	28.6	28.1
Construction	560.5	574.0	572.7	571.3	576.6	583.6	588.4	616.8	625.7	632.9	644.3	654.5	657.8	662.4
Transp., Comm., & Util.	605.5	610.4	615.0	618.3	620.4	621.7	624.7	627.6	627.8	628.4	628.9	628.8	628.2	627.5
Trade	2963.5	3020.8	3072.5	3118.2	3153.1	3184.4	3226.9	3272.2	3312.6	3357.0	3402.5	3448.2	3493.5	3543.8
Fin., Ins., & Real Estate	814.6	831.4	847.8	864.0	879.9	895.2	912.8	926.8	940.3	955.4	971.8	986.3	1000.1	1013.6
Services	3980.2	4095.4	4209.8	4315.0	4427.7	4547.1	4677.4	4808.4	4918.3	5040.4	5181.1	5282.0	5406.4	5536.2
Federal Govt.	297.6	298.3	298.8	300.2	300.6	300.8	301.0	302.9	304.8	306.8	308.7	310.6	312.5	314.3
State & Local Govt.	1888.5	1939.6	1984.9	2024.7	2065.1	2102.2	2139.3	2176.8	2211.5	2243.7	2274.2	2301.0	2327.2	2354.8
Employment (Annual rate of change)														
Total	2.4	2.2	1.8	1.6	1.5	1.5	1.7	1.7	1.4	1.4	1.4	1.3	1.3	1.3
Manufacturing	-0.9	0.3	0.4	0.1	-0.2	-0.3	-0.1	-0.2	-0.7	-0.8	-0.9	-1.1	-1.3	-1.3
Nonmanufacturing	2.9	2.5	2.0	1.8	1.8	1.8	2.0	2.0	1.6	1.7	1.7	1.6	1.6	1.6
Mining	-0.5	-0.4	-0.6	-1.1	-0.2	0.4	0.6	-0.9	-1.3	-1.0	-0.7	-1.3	-1.8	-2.1
Construction	4.1	2.4	-0.2	-0.3	0.9	1.2	2.5	3.1	1.4	1.2	1.8	1.6	0.5	0.7
Transp., Comm., & Util.	0.8	0.8	0.8	0.5	0.3	0.2	0.5	0.5	0.0	0.1	0.1	0.0	-0.1	-0.1
Trade	2.1	1.9	1.7	1.5	1.1	1.0	1.3	1.4	1.2	1.3	1.4	1.3	1.3	1.4
Fin., Ins., & Real Estate	2.0	2.1	2.0	1.9	1.8	1.7	2.0	1.7	1.2	1.6	1.7	1.5	1.4	1.4
Services	4.0	3.4	2.8	2.5	2.6	2.7	2.9	2.8	2.3	2.5	2.4	2.3	2.4	2.4
Federal Govt.	-0.1	0.3	0.5	0.1	0.1	0.1	0.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6
State & Local Govt.	3.3	2.7	2.3	2.0	2.0	1.8	1.8	1.8	1.6	1.5	1.4	1.2	1.1	1.2
Population and Labor Market Measures														
Population (Millions)	32,853	33,080	33,508	33,894	34,255	34,594	34,936	35,300	35,689	36,084	36,471	36,860	37,258	37,661
Labor Force (Millions)	16,136	16,389	16,676	16,928	17,177	17,394	17,623	17,846	18,071	18,306	18,517	18,696	18,878	19,064
Unemployment Rate (%)	7.3	6.8	6.8	6.7	6.8	6.8	6.6	6.5	6.6	6.7	6.7	6.7	6.7	6.6
Population and Labor Market Measures (Annual rate of change)														
Population	1.2	1.3	1.3	1.2	1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1
Labor Force	1.5	1.6	1.7	1.5	1.5	1.3	1.3	1.3	1.3	1.3	1.2	1.0	1.0	1.0
Income (Billion \$, annual rates)														
Personal Income	829.7	877.9	929.5	983.6	1041.0	1103.2	1172.4	1244.0	1318.7	1397.9	1481.0	1568.0	1659.8	1759.2
Wages & Salaries	465.3	492.9	520.4	549.4	579.4	611.6	648.2	687.4	726.6	768.8	813.3	860.2	908.8	960.7
Nonwage Income	360.6	381.1	405.2	430.2	457.5	487.3	519.9	552.3	587.6	624.8	663.2	703.1	746.4	793.7
Farm Prop. Income	3.8	3.9	3.9	4.0	4.2	4.3	4.4	4.4	4.4	4.5	4.6	4.6	4.7	4.8
Prices and Wages (Annual rate of change)														
Consumer Price Index	3.2	3.5	3.7	3.8	3.8	3.9	4.0	4.1	4.1	4.1	4.0	3.9	3.9	3.9
Wages, Manufacturing	2.8	3.3	3.4	3.8	3.8	3.7	3.8	3.9	4.0	4.0	4.1	4.1	4.1	4.1
Wages, Nonmanufacturing	3.1	3.8	3.8	4.0	3.9	4.1	4.3	4.3	4.4	4.4	4.4	4.4	4.4	4.4
Median Home Price	6.0	4.6	5.6	6.2	4.2	3.8	3.2	5.0	5.5	6.2	4.1	2.3	4.2	6.0
Real Disp. Income, (1987\$)	2.3	2.4	2.4	2.2	2.1	2.1	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.3
Other Activity Measures (Annual rates)														
Housing Starts (Thousands)	148.5	150.8	153.1	159.3	165.4	171.4	177.5	178.0	174.8	180.6	190.0	195.5	195.5	199.8
Single-Family	108.8	108.2	110.0	112.7	115.4	118.0	121.4	120.4	120.1	123.3	128.3	130.9	130.1	132.8
Multi-Family	39.9	42.6	43.2	46.6	50.1	53.3	56.1	55.8	54.7	57.2	61.8	64.6	65.4	67.0

Note: Single- and multi-family housing starts may not equal total starts due to rounding.

Long-Term Outlook for California, Continued, 2011-2020

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Employment (Thousands, sees. adj.)										
Total	15916.9	16081.6	16236.5	16398.0	16547.5	16681.2	16847.6	17015.3	17185.6	17360.7
Manufacturing	1593.7	1562.2	1530.4	1498.1	1464.4	1430.8	1395.8	1360.4	1326.2	1293.3
Nonmanufacturing	14323.2	14519.4	14706.1	14899.9	15083.1	15260.3	15451.7	15654.9	15859.4	16067.4
Mining	27.6	27.0	26.4	25.8	25.2	24.6	23.9	23.2	22.7	22.1
Construction	670.2	673.7	673.1	675.2	674.8	670.1	672.1	677.3	681.8	686.8
Transp., Comm., & Util.	626.8	623.0	617.9	612.3	606.4	600.2	593.3	588.4	579.5	572.7
Trade	3598.6	3640.0	3677.5	3715.7	3750.3	3783.7	3821.7	3862.8	3904.2	3945.3
Fin., Ins., & Real Estate	1027.5	1036.7	1045.2	1052.8	1060.6	1068.0	1073.5	1078.7	1084.1	1089.8
Services	5671.3	5787.0	5903.2	6022.2	6136.2	6248.9	6367.5	6489.5	6611.0	6735.3
Federal Govt.	316.1	317.9	319.8	321.7	323.6	325.5	327.4	329.3	331.3	333.3
State & Local Govt.	2385.2	2414.1	2443.0	2474.4	2506.1	2539.3	2572.5	2607.9	2644.8	2682.0
Employment (Annual rate of change)										
Total	1.4	1.0	1.0	1.0	0.9	0.9	0.9	1.0	1.0	1.0
Manufacturing	-1.5	-2.0	-2.0	-2.1	-2.2	-2.3	-2.4	-2.5	-2.5	-2.5
Nonmanufacturing	1.7	1.4	1.3	1.3	1.2	1.2	1.3	1.3	1.3	1.3
Mining	-1.5	-2.2	-2.4	-2.2	-2.1	-2.6	-2.9	-2.8	-2.4	-2.2
Construction	1.2	0.5	-0.1	0.3	-0.1	-0.7	0.3	0.8	0.7	0.7
Transp., Comm., & Util.	-0.1	-0.6	-0.8	-0.9	-1.0	-1.0	-1.2	-1.2	-1.2	-1.2
Trade	1.5	1.1	1.0	1.0	0.9	0.9	1.0	1.1	1.1	1.1
Fin., Ins., & Real Estate	1.4	0.9	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0.5
Services	2.4	2.0	2.0	2.0	1.9	1.8	1.9	1.9	1.9	1.9
Federal Govt.	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
State & Local Govt.	1.3	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4
Population and Labor Market Measures										
Population (Millions)	38,068	38,471	38,876	39,287	39,689	40,116	40,532	40,947	41,369	41,799
Labor Force (Millions)	19,280	19,396	19,541	19,680	19,807	19,931	20,043	20,154	20,267	20,381
Unemployment Rate (%)	6.5	6.5	6.5	6.5	6.5	6.5	6.4	6.2	6.2	6.1
Population and Labor Market Measures (Annual rate of change)										
Population	1.1	1.1	1.1	1.1	1.0	1.1	1.0	1.0	1.0	1.0
Labor Force	1.0	0.7	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6
Income (Billion \$, annual rates)										
Personal Income	1884.3	1972.7	2087.7	2209.9	2339.5	2476.7	2623.0	2781.1	2947.0	3122.7
Wages & Salaries	1015.8	1070.1	1126.5	1186.2	1248.4	1313.2	1381.8	1455.5	1533.5	1615.3
Nonwage Income	843.6	897.5	956.0	1018.5	1085.7	1157.9	1235.7	1319.7	1407.3	1500.9
Farm Prop. Income	4.9	5.0	5.1	5.2	5.4	5.5	5.7	5.9	6.3	6.5
Prices and Wages (Annual rate of change)										
Consumer Price Index	3.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Wages, Manufacturing	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Wages, Nonmanufacturing	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.4	4.4	4.3
Median Home Price	5.6	4.2	4.3	5.2	4.6	5.2	4.9	4.2	3.4	3.7
Real Disp. Income, (1987\$)	2.3	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2
Other Activity Measures (Annual rates)										
Housing Starts (Thousands)	204.9	208.4	209.3	209.6	208.5	210.0	212.8	215.9	218.8	223.3
Single-Family	136.6	139.1	140.1	141.1	140.8	142.4	144.9	147.8	149.5	152.3
Multi-Family	68.4	69.3	69.2	68.5	67.7	67.6	67.8	68.1	69.3	71.0

Note: Single- and multi-family housing starts may not equal total starts due to rounding.

California Regions: Large Metropolitan Areas

Anaheim, CA

by Mark Gallagher

Forecast Highlights

- *Despite some promising signs in the services sector, Anaheim's economy is still searching for the bottom of its economic cycle. Like the rest of southern California, its performance will lag in 1994.*
- *Anaheim suffers from competitive problems beyond the downsizing of defense and aerospace. AST's plans to relocate facilities draws attention to woes of several local high-tech manufacturers.*
- *Lower population growth over the next two years will temper gains in the MSA's housing market. In 1995, population growth will slow to 0.4%, roughly half the current rate.*

Economic Structure

The Anaheim/Santa Ana MSA, consisting of Orange County, is the third-largest metropolitan area in California and the 15th largest in the nation. Since 1980, Anaheim's population has increased by 28%—almost double the rate for the Top 100 MSAs as a whole. Anaheim is one of the wealthiest regions in the nation: per capita income levels stood at \$24,700 in 1992, the 11th highest of the Top 100 MSAs and almost 16% higher than the state average.

Anaheim has emerged as a major center for finance, business, accounting, and legal services over the last decade. Manufacturing constitutes 20% of the MSA's employment base (compared with 15% for the average Top 100 MSA), with concentrations in high-tech industries such as missiles and aerospace, electronic components and semiconductors, communications equipment, medical instrumentation, and pharmaceuticals. Anaheim also receives a disproportionate share of defense prime contract awards. In 1991, the MSA's per capita prime contract awards were \$1,105, ranking 32nd among MSAs. Hughes Aircraft, FMC Corp., Loral Corp., and Rockwell International are a few of the MSA's largest defense contractors.

Economic Performance Summary

	Level				Annual Percent Change					
	1983:3	Rank	1998:4	Rank	1981:1-1993:3	Rank	1993:3-1994:4	Rank	1994:4-1998:4	Rank
Total Employment (Thous.)	1107.3	14	1201.9	14	-1.6	91	0.2	96	2.0	47
Manufacturing	207.8	10	198.5	10	-4.9	88	-1.8	81	-0.8	75
Nonmanufacturing	899.4	16	1005.4	17	-0.8	84	0.6	98	2.6	32
Population (Thous.)	2486.7	15	2812.7	15	1.0	53	0.8	65	0.8	53
Labor Force (Thous.)	1383.9	12	1459.5	12	1.4	36	1.0	81	1.0	81
Unemployment Rate (%)	6.6	40	5.0	48						
Personal Income (Bl. \$)	84.2	11	84.5	12	3.6	82	4.1	94	5.8	50
Per Capite Income (Thous. \$)	25.7	16	32.4	17	2.6	82	3.3	95	4.8	37
Avg. Annual Wage (Thous. \$)	32.3	18	37.9	16	3.8	77	2.8	92	3.2	86
Housing Permits (Thousands)	7.6	34	11.2	21	13.8	89	2.4	76	9.2	6

Note: Ranks are out of DRI's Top 100 MSAs.

Recent Evidence

Anaheim's recession-plagued economy appears to have stabilized somewhat from its precipitous decline in 1992. However, there are no clear indications that the MSA's economy has turned the corner. After two quarters of stabilization in the first half of 1993, the MSA's employment declined at a 1.9% annual rate in the third quarter. For the year ended in this period, Anaheim's payrolls shrank by 1.1%, ranking 88th among the Top 100 MSAs. Still, Anaheim's weak showing outperformed six of California's Top 100 MSAs.

Weakness in manufacturing accounts for the overall downward trend in the region's economy. In the third quarter of 1993, Anaheim's durables manufacturing payrolls shrank at an alarming 9% average annual rate. Despite a rise during the first half of 1993, nondurables manufacturing has also declined recently. The loss of numerous high-paying manufacturing jobs continues to spill over into the region's trade, housing, finance, and construction sectors. For instance, the finance, insurance, and real estate sector has shed 1,500 jobs, or 1.7% of its total, over the past year. The MSA's unemployment rate stood at 6.5% in the third quarter, slightly below its peak of 7.0% in the fourth quarter of 1992.

The one bright spot in Anaheim's economy is services, which has added over 5,000 jobs during the past three quarters. In addition to expansion in health services, business services has risen by nearly 5% above year-earlier levels. In recent months, hotel and amusement services employment has made gains, a sign that greater tourism spending may help the beleaguered trade sector. On the down side, restructuring continues in the region's professional services sectors, with engineering and management services posting weakness over the past several months.

Anaheim's housing market is likely to remain lackluster for at least another year. Despite sharp national gains and more modest gains in California, Orange County's home sales have not picked up. The California Association of Realtors reports that the MSA's October home sales stood 2.7% below year-earlier levels. Furthermore, median existing home prices deflated to \$217,000 in October, down 6.8% from year-earlier levels.

Forecast Profile

The next year will mark a critical transition period for Anaheim, as the MSA's economy eventually posts tepid gains in employment by the second half of the year. Manufacturing employment will continue to decline during this period, limiting income gains and growth in consumer spending and retail trade. However, with most job cuts in construction completed, and improving prospects for growth in the MSA's services sector, Anaheim's employment will expand by a mere 0.2% in 1994. This growth will be extremely modest by national standards, ranking among the 10 worst Top 100 MSA markets. Over the longer term, Anaheim's employment growth will improve to 1.5% annually through 1998. However, its ranking will only improve to 80th. High costs of doing business, lack of affordable housing, and increasing dissatisfaction with the region's business environment define structural factors that will continue to lessen Anaheim's ability to compete with other regions.

Anaheim's manufacturing markets are facing structural problems that overshadow even the steep declines in aerospace and defense spending. Without significant improvement in the region's manufacturing outlook, overall growth will remain anemic. With more declines in aerospace, high costs, and the further relocation of production activities to other regions, Anaheim's manufacturing sector is forecast to shed more jobs through 1997. Although the rate of decline will begin to slow in 1994, the MSA's manufacturing performance will rank 81st among the Top 100 MSAs over the next five years, with employment declining at a 1.1% annual rate.

Recent layoff announcements highlight Anaheim's weakness. AST Research, one of Orange County's "high-flying" high-tech firms during the 1980s, announced in the last quarter that it would move several hundred jobs to Texas. The cuts include the loss of 450 positions at its Fountain Valley and 200 at its Irvine headquarters. McDonnell-Douglas Space Systems in Seal Beach announced the reduction of 250 workers in late autumn. Beckman Instruments (which manufactures medical equipment) announced an

11% reduction of its work force, which is likely to result in the loss of 500 jobs. Nondurables manufacturers have also been in a retrenching mode: Hunt Foods will close its Fullerton tomato processing plant—a loss of 250 jobs—while Pacific Outlook sportswear announced a 100-job layoff.

Over the next few years, Anaheim's job growth will be heavily weighted toward services. The MSA will benefit from growth in software, management, and engineering services. In addition, the MSA's large recreational services industry could receive an additional boost if Disney's plans for the new \$2.7-billion Westcot Center in Anaheim are realized. Although approval and support have been given by several government agencies, Disney's management is hoping for several hundred million dollars in funding through the development of a state "infrastructure bank" bond proposal in 1994.

With a prolonged slump in Anaheim's labor markets, population growth will deteriorate further before improving. After posting a 1.9% growth rate in 1990, the MSA's population slowed to an estimated 0.9% growth in 1993. By 1995, population growth is expected to decline to 0.4%, or roughly one half of the state rate. As labor market conditions slowly improve over the following two years, growth will improve to 1.5% in 1998.

Weak population gains will sap Anaheim's housing market recovery. Housing permits will rise to only 8,500 units in 1995, up from 6,400 in 1993. Due to the persistence of weak demand in Anaheim's housing market over the next year, further declines in home prices are quite possible.

Short-Term Outlook for Anaheim-Santa Ana, CA; 1991-98

	1993				1994		1991	1992	1993	1994	1995	1996	1997	1998
	1	2	3	4	1	2								
Employment (Thousands, seas. adj.)														
Total Nonfarm	1112.4	1112.5	1107.3	1105.1	1105.2	1105.2	1143.7	1122.5	1108.3	1106.7	1119.0	1138.6	1164.7	11
Manufacturing	213.6	212.1	207.9	207.1	206.1	205.2	229.6	218.4	210.2	204.7	200.8	196.5	195.6	1
Durables	147.1	145.0	141.4	140.6	139.8	138.9	160.1	151.5	143.5	138.4	134.7	130.6	129.3	1
Nondurables	66.6	67.1	66.5	66.5	66.3	66.2	69.5	66.9	66.7	66.2	66.0	65.9	66.4	
Nonmanufacturing	898.8	900.4	899.4	898.0	899.0	900.0	914.2	904.1	899.2	902.0	918.2	942.0	969.1	9
Transp. & Util.	36.0	36.4	36.4	36.0	35.9	35.8	38.4	35.3	36.2	35.8	35.7	35.9	36.2	
Trade	278.1	276.5	274.0	274.6	274.8	274.7	283.3	280.1	275.8	275.1	278.0	282.4	288.2	2
Fin., Ins., & RE	94.0	93.2	92.6	92.5	92.6	92.8	94.2	94.4	93.1	92.9	93.9	95.3	97.3	
Services	320.7	322.8	323.3	323.1	324.5	326.1	318.1	318.3	322.5	327.1	337.1	350.0	362.8	3
Federal Govt.	15.0	14.7	14.9	14.8	14.6	14.2	15.6	15.3	14.9	14.1	13.7	13.5	13.3	
State & Local Govt.	110.6	111.5	114.6	113.5	113.7	114.1	113.1	112.1	112.6	114.1	115.1	117.3	120.2	1
Construction	43.3	44.3	42.5	42.5	41.9	41.4	51.1	47.4	43.2	41.9	43.8	46.6	50.2	
Mining	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.2	1.0	1.0	1.0	1.0	1.0	
Employment (Annual rate of change)														
Total Nonfarm	0.2	0.0	-1.9	-0.8	0.0	0.0	-2.4	-1.9	-1.2	-0.2	1.1	1.7	2.3	
Manufacturing	0.6	-2.9	-7.7	-1.6	-1.8	-1.8	-5.9	-4.9	-3.8	-2.6	-1.9	-2.1	-0.4	
Durables	0.0	-5.6	-9.4	-2.4	-2.2	-2.4	-8.3	-5.4	-5.3	-3.5	-2.7	-3.1	-1.0	
Nondurables	1.8	3.3	-3.7	0.2	-1.0	-0.5	0.3	-3.8	-0.4	-0.6	-0.3	-0.1	0.7	
Nonmanufacturing	0.1	0.7	-0.5	-0.6	0.4	0.4	-1.5	-1.1	-0.5	0.3	1.8	2.6	2.9	
Transp. & Util.	10.2	5.1	-0.1	-4.2	-1.1	-1.3	0.3	-3.2	2.7	-1.2	-0.2	0.5	0.8	
Trade	0.6	-2.2	-3.8	0.9	0.3	-0.1	-5.3	-1.1	-1.5	-0.3	1.1	1.6	2.0	
Fin., Ins., & RE	-2.5	-3.5	-2.5	-0.5	0.4	0.7	-1.9	0.2	-1.4	-0.2	1.1	1.5	2.0	
Services	3.1	2.5	0.7	-0.3	1.8	2.0	2.1	-0.2	1.3	1.4	3.1	3.8	3.6	
Federal Govt.	-10.8	-5.7	4.5	-2.7	-6.2	-10.8	-1.5	-2.3	-2.7	-4.8	-3.3	-1.3	-1.3	
State & Local Govt.	-2.1	3.2	11.5	-3.7	0.8	1.1	2.5	-0.9	0.4	1.4	0.9	1.9	2.4	
Construction	-14.1	8.8	-14.7	-0.2	-6.0	-4.4	-10.7	-7.2	-8.0	-2.8	4.4	6.5	7.7	
Mining	-23.4	-4.0	-2.2	-4.8	1.4	1.6	6.1	-9.7	-14.2	-1.3	-2.2	0.0	0.3	
Population and Labor Market Measures														
Population (Thous.)	2485.6	2490.5	2498.7	2502.4	2509.5	2514.0	2445.2	2470.9	2493.8	2515.6	2526.3	2537.2	2580.1	2
Labor Force (Thous.)	1390.8	1383.2	1383.9	1386.9	1392.0	1395.2	1345.7	1374.0	1366.2	1396.6	1407.1	1415.1	1429.3	1
Unemployment Rate (%)	6.4	6.0	6.6	6.5	6.4	6.4	4.8	6.2	6.4	6.3	6.1	6.0	5.6	
Population and Labor Market Measures (Annual rate of change)														
Population	0.9	0.8	1.0	0.9	1.1	0.7	1.0	1.1	0.9	0.9	0.4	0.4	0.9	
Labor Force	2.6	-2.2	0.2	0.9	1.5	0.9	-1.9	2.1	0.9	0.8	0.8	0.6	1.0	
Income (Annual rates)														
Total (Billion \$)	62.49	63.99	64.21	64.85	65.32	66.06	59.00	61.85	63.88	66.39	68.43	72.99	77.57	
Wages & Salaries	34.92	36.15	36.28	36.42	36.61	36.89	34.54	35.62	35.94	37.07	38.51	40.19	42.46	
Nonwage	27.57	27.84	27.95	28.43	28.71	29.17	24.47	26.24	27.95	29.32	30.92	32.80	35.10	
Residence Adjustment	2.95	2.85	2.97	3.00	3.02	3.06	2.84	2.88	2.87	3.08	3.21	3.33	3.49	
Real Per Capite (Thous. \$87)	19.92	20.23	20.19	20.20	20.12	20.17	20.13	20.21	20.13	20.18	20.38	20.64	21.11	
Avg. Annual Wage (Thous. \$)	30.92	32.02	32.27	32.48	32.66	32.91	29.73	31.26	31.92	33.03	33.95	34.85	36.02	
Housing Permits Authorized (Thousands, annual rates)														
Total Permits	6.70	5.13	7.63	6.43	6.47	7.36	6.44	6.01	6.47	7.30	8.54	9.53	10.67	
Single-Family	3.94	3.93	4.50	3.90	3.94	4.42	3.57	3.62	4.06	4.39	5.10	5.57	6.07	
Multi-Family	2.76	1.21	3.14	2.54	2.53	2.94	2.87	2.39	2.41	2.91	3.44	3.96	4.60	

Note: Single- and multi-family housing permits may not equal total permits due to rounding.

Fresno, CA

by Paul Ross and Mark Gallagher

The downturn crippling much of California the past two years has dealt Fresno only a glancing blow, holding its employment essentially flat, compared with a 4.7% peak-to-trough decline for the state. Similarly, growth here will resume more quickly and be considerably more vigorous than for the state as a whole over the coming five years.

Several factors have helped to spare Fresno a more serious cycle. First, the MSA lacks significant exposure to the electronics and defense industries, which contributed heavily to California's woes. Second, Fresno's manufacturing sector is centered around food processing, normally a very stable industry; although some effects were felt from the drought, these proved modest and transitory. Finally, Fresno's cost structure is more favorable than California's—where California's businesses are saddled with some of the highest labor costs in the nation, wages in Fresno are only slightly above the national average. Consequently, the MSA has avoided a major exodus of jobs to neighboring, low-cost states.

Total employment for Fresno is expected to advance modestly in 1994, before accelerating sharply next year. Growth is projected to average 2.9% during 1995-98, eighth best among the Top 100 MSAs and in line with Fresno's long-term historical trend.

Over the coming year, employment gains will be concentrated in services and state and local government, more than offsetting job cutbacks in federal government and manufacturing. Beginning in 1995, employment growth will become more broad based, with services and construction leading the way. Over the five-year forecast interval, these two sectors will contribute nearly 55% of all new jobs.

Per capita income, while advancing rapidly over most of the forecast period, will remain very low, consistent with Fresno's agricultural roots. Currently second lowest among the Top 100 MSAs, per capita income in Fresno is expected to gain only one notch in the rankings by 1998, but will climb from the current \$17,400 to \$22,400.

Unemployment is projected to remain stubbornly high despite the prospects for vigorous growth, only dipping below 12% by 1998. This pattern partly reflects Fresno's agricultural character and does not deviate markedly from historical norms—unemployment rates have been double-digit since 1980. In fact, significant improvement is expected relative to the drought-induced peak of 16.2% in late 1992.

Economic Performance Summary

	Level				Annual Percent Change					
	1993:3	Rank	1998:4	Rank	1991:1-1993:3	Rank	1993:3-1994:4	Rank	1994:4-1998:4	Rank
Total Employment (Thous.)	228.1	85	259.5	84	-0.2	87	1.0	86	2.9	8
Manufacturing	25.5	84	28.3	84	-0.9	33	0.3	21	0.8	4
Nonmanufacturing	202.6	82	233.2	82	-0.1	73	1.1	89	3.2	8
Population (Thous.)	720.4	70	775.6	70	2.1	11	1.5	27	1.4	23
Labor Force (Thous.)	365.8	70	420.0	69	5.5	1	3.5	3	2.4	8
Unemployment Rate (%)	15.6	1	11.8	1						
Personal Income (Bil. \$)	12.5	76	17.4	76	4.7	86	5.5	59	8.7	11
Per Capita Income (Thous. \$)	17.4	99	22.4	98	2.8	93	3.9	80	5.3	13
Avg. Annual Wage (Thous. \$)	28.0	43	33.2	44	3.6	81	2.8	81	3.4	40
Housing Permits (Thousands)	4.0	61	5.6	49	-6.3	83	17.8	32	3.3	20

Note: Ranks are out of DRI's Top 100 MSAs.

Short-Term Outlook for Fresno, CA; 1991-98

	1983				1984		1991	1992	1993	1994	1995	1996	1997	1998
	1	2	3	4	1	2								
Employment (Thousands, seas. adj.)														
Total Nonfarm	228.3	226.8	228.1	228.9	229.1	229.4	226.8	227.4	228.0	229.9	234.8	241.8	249.5	2
Manufacturing	26.0	25.7	25.5	25.4	25.4	25.5	25.4	25.2	25.6	25.5	25.7	25.7	25.9	
Durables	10.3	10.2	10.0	9.9	9.9	10.0	10.3	9.9	10.1	10.0	10.0	9.8	9.8	
Nondurables	15.8	15.5	15.5	15.4	15.5	15.5	15.0	15.2	15.6	15.5	15.8	15.9	16.1	
Nonmanufacturing	202.2	201.2	202.6	203.5	203.7	203.9	201.4	202.3	202.4	204.4	209.1	216.0	223.6	2
Transp. & Util.	12.1	12.2	12.1	12.0	12.0	12.0	12.1	12.2	12.1	12.0	12.1	12.3	12.5	
Trade	56.9	56.2	55.8	55.9	56.0	56.1	56.4	56.8	56.2	56.2	57.0	57.9	58.8	
Fin., Ins., & RE	12.9	12.8	13.0	13.2	13.3	13.3	13.0	13.2	13.0	13.4	13.6	14.0	14.5	
Services	55.3	58.3	56.5	56.7	57.0	57.4	54.2	55.6	56.2	57.5	58.7	62.5	65.3	
Federal Govt.	11.9	11.3	11.7	11.6	11.5	11.3	10.5	11.4	11.7	11.3	11.1	11.1	11.2	
State & Local Govt.	41.6	41.1	42.1	42.3	42.4	42.6	41.6	41.0	41.8	42.7	43.7	45.2	46.8	
Construction	11.0	10.8	11.0	11.1	11.1	10.9	12.9	11.4	11.0	11.0	11.4	12.6	14.1	
Mining	0.4	0.5	0.4	0.4	0.4	0.4	0.7	0.6	0.4	0.4	0.4	0.4	0.4	
Employment (Annual rate of change)														
Total Nonfarm	2.5	-2.5	2.3	1.4	0.4	0.5	1.4	0.3	0.3	0.8	2.1	3.0	3.2	
Manufacturing	14.0	-5.7	-2.1	-2.1	0.6	1.0	-1.3	-0.8	1.9	-0.5	0.9	0.0	0.9	
Durables	14.0	-4.5	-5.6	-3.1	0.4	0.8	-2.2	-4.0	1.8	-1.3	0.1	-1.5	0.2	
Nondurables	14.0	-6.5	0.2	-1.5	0.7	1.1	-0.7	1.3	2.0	0.0	1.4	0.9	1.3	
Nonmanufacturing	1.2	-2.1	2.9	1.8	0.4	0.4	1.7	0.4	0.1	1.0	2.3	3.3	3.5	
Transp. & Util.	1.0	2.8	-4.4	-1.1	-0.6	-0.8	0.8	0.5	-0.3	-0.9	0.9	1.5	1.6	
Trade	3.1	-4.9	-3.2	1.4	0.2	0.8	-2.6	0.8	-1.1	-0.1	1.6	1.5	1.6	
Fin., Ins., & RE	-6.5	-2.6	6.0	7.7	0.8	1.4	3.0	1.6	-1.9	2.8	1.9	2.7	3.5	
Services	-0.2	7.1	1.5	1.7	2.0	2.4	4.5	2.4	1.2	2.3	3.7	4.7	4.5	
Federal Govt.	-3.2	-19.0	14.5	-2.5	-4.7	-8.4	4.7	8.5	2.6	-3.3	-1.5	0.3	0.6	
State & Local Govt.	4.9	-4.6	10.2	2.1	1.1	1.7	2.1	-1.3	1.8	2.2	2.2	3.5	3.6	
Construction	1.2	-7.6	9.0	5.1	-2.5	-8.3	5.1	-11.5	-4.2	0.1	4.1	10.7	11.4	
Mining	-44.6	24.4	-15.1	-8.7	3.5	1.8	14.9	-13.1	-28.6	-1.5	-0.9	1.1	2.0	
Population and Labor Market Measures														
Population (Thous.)	714.1	717.3	720.4	723.4	726.8	729.2	689.7	704.4	718.8	730.3	739.1	748.4	758.4	
Labor Force (Thous.)	353.4	358.3	365.8	366.5	370.7	374.3	317.7	342.9	361.0	376.2	385.8	391.5	398.7	
Unemployment Rate (%)	14.1	13.7	15.6	15.4	15.2	15.1	12.8	14.7	14.7	15.0	14.3	14.3	13.1	
Population and Labor Market Measures (Annual rate of change)														
Population	2.2	1.8	1.8	1.8	1.9	1.3	2.4	2.1	2.1	1.6	1.2	1.3	1.3	
Labor Force	-1.1	5.6	8.6	0.8	4.6	4.0	1.0	7.9	5.3	4.2	2.5	1.5	1.8	
Income (Annual rates)														
Total (Billion \$)	12.14	12.37	12.51	12.70	12.87	13.03	11.27	11.95	12.43	13.11	13.67	14.77	15.83	
Wages & Salaries	6.19	6.95	6.45	6.51	6.55	6.81	6.02	6.29	6.37	6.65	6.98	7.39	7.89	
Nonwage	5.95	6.02	6.07	6.19	6.31	6.42	5.25	5.66	6.06	6.46	6.89	7.39	7.94	
Residence Adjustment	-0.25	-0.26	-0.26	-0.26	-0.27	-0.27	-0.16	-0.22	-0.26	-0.27	-0.30	-0.32	-0.34	
Real Per Capita (Thous. \$87)	13.47	13.58	13.63	13.69	13.69	13.72	13.83	13.69	13.58	13.73	13.91	14.16	14.54	
Avg. Annual Wage (Thous. \$)	26.86	27.74	27.99	28.18	28.33	28.54	26.29	27.38	27.69	28.65	29.49	30.35	31.43	
Housing Permits Authorized (Thousands, annual rates)														
Total Permits	4.42	4.64	4.03	4.46	4.47	4.74	4.32	4.98	4.39	4.74	5.15	5.34	5.58	
Single-Family	4.10	3.92	3.64	4.08	4.13	4.32	3.44	4.19	3.94	4.32	4.65	4.63	4.60	
Multi-Family	0.32	0.72	0.38	0.38	0.34	0.42	0.88	0.79	0.45	0.42	0.50	0.71	0.98	

Note: Single- and multi-family housing permits may not equal total permits due to rounding.

Los Angeles, CA

by Mark Gallagher

Forecast Highlights

- Los Angeles's economy will continue to contract through most of 1994, before posting modest employment gains in 1995. Improving prospects for the trade, business services, and entertainment industries will be overwhelmed by the steady job decline in durables manufacturing. Los Angeles will rank as one of the weakest large metro economies over the next year.
- Manufacturing payrolls will shed 50,000 more workers by 1997, as aircraft, missiles, and defense electronics payrolls plummet. Unemployment will remain over 8% through mid-1996, as overall employment growth remains weak.
- Slower population growth, due to out-migration, will temper recovery in L.A.'s service and trade sectors. Indeed, population gains will decelerate through 1995, before slowly improving.

Economic Structure

With a population of over nine million people, Los Angeles is the largest MSA in the nation, accounting for over 29% of California's population and 3.5% of the nation's. Since 1980, the MSA's population has seen a substantial increase: over 1.5 million more residents now call Los Angeles County home. This has translated into the 35th-fastest growth rate of the Top 100 MSAs.

As the center of the sprawling metropolis of the Los Angeles Basin, the MSA's economic significance cannot be understated. Los Angeles accounts for close to one-third of California's total nonfarm employment. By virtue of its size, it ranks in the top one-quarter of all MSAs in terms of economic diversity.

Manufacturing accounts for 19.2% of total employment, slightly above the 15.0% average for the typical Top 100 MSA. The MSA's durables manufacturing sector is driven by high-tech manufacturing, with a defense orientation: ordnance and accessories, aircraft and parts, communications equipment, instruments, and electronic components have above-average industrial concentrations. Some of the MSA's largest defense contractors include McDonnell Douglas, Hughes Aircraft, Northrop, Lockheed, and General Dynamics. Apparel and textiles are key nondurables manufacturing industries.

Economic Performance Summary

	Level				Annual Percent Change					
	1993:3	Rank	1998:4	Rank	1991:1-1993:3	Rank	1993:3-1994:4	Rank	1994:4-1998:4	Rank
Total Employment (Thous.)	3740.1	1	4010.5	2	-2.9	99	-0.2	97	1.8	64
Manufacturing	657.5	1	810.3	1	-7.4	97	-2.1	87	-1.2	87
Nonmanufacturing	3082.6	2	3400.1	2	-1.8	98	0.2	98	2.4	49
Population (Thous.)	9099.2	1	9418.4	1	0.6	73	0.4	85	0.7	89
Labor Force (Thous.)	4468.3	1	4845.3	1	0.3	71	0.7	91	0.8	95
Unemployment Rate (%)	8.8	6	6.7	10						
Personal Income (Bil. \$)	200.6	2	259.8	2	2.8	100	3.8	96	5.5	71
Per Capite Income (Thous. \$)	22.0	42	27.6	48	2.1	97	3.2	96	4.7	53
Avg. Annual Wage (Thous. \$)	33.6	11	39.8	12	3.4	89	2.8	90	3.4	47
Housing Permits (Thousands)	6.7	38	22.7	6	-31.1	100	70.3	2	14.8	2

Note: Ranks are out of DRI's Top 100 MSAs.

The nonmanufacturing sector is diverse, with large representations in the entertainment and business services industries. In addition, the growing influence of international trade can be seen in the MSA's high concentration of transportation and warehousing jobs. Indeed, international trade plays an increasingly important role through the large Los Angeles/Long Beach ports. In 1990, the Los Angeles Customs District accounted for over \$100 billion in international trade, leading all other West Coast districts.

To a degree, Los Angeles has become a victim of its own success over the past decade. The MSA benefited greatly from defense contracts and a surging housing and commercial construction market, which lifted construction payrolls. Housing prices were also bid up, significantly limiting affordability. In late 1993, the median existing single-family home price stood at slightly under \$190,000, despite more than two years of deflation.

Recent Evidence

According to the revised data released by the Employment Development Department (EDD) earlier this year, Los Angeles lost 384,000 jobs (or 9.2% of total jobs) between the beginning of 1990 and the beginning of 1993. Previous estimates had pegged the job loss at almost 100,000 higher, at 11.5% of total employment. Nevertheless, recent employment figures continue to show that Los Angeles remains mired in recession. In the second and third quarters of 1993, nonfarm employment declined at a 2.0% plus annual rate, contributing to a cumulative 1.9% decline for the year ended in the third quarter. Only four Top 100 MSAs have performed worse over this period. Despite the persistent weakness in the region's employment base, Los Angeles's rate of job decline has at least slowed from the 4.2% loss registered in 1992.

Manufacturing jobs, especially durables, continue to plummet. Over the past year, durables manufacturing payrolls have dropped nearly 48,000, or 11.7% of its total employment. Los Angeles's imploding aerospace industry has contributed substantially to the decline, as aircraft and parts employment dropped by almost 20%, or 18,000 jobs. Since 1990, the industry has shed over 50,000 jobs, or 40% of its employment. In addition, other defense sectors are shrinking rapidly. Guided missiles and parts has trimmed 1,300 jobs over the past year, while search and navigation equipment has registered a 10,000-job decline. Nondurables manufacturing industries have seen less dramatic declines, as Los Angeles has posted modest gains in apparel employment over the past two years.

The nonmanufacturing sector remains weak, but has shown signs of stabilization. With the exception of the third quarter, the MSA's services sector had posted modest gains in each of the previous five quarters. Gains in business and motion picture services were primarily responsible. Construction and trade continued to post declines over the past several quarters, albeit at smaller rates. Trade employment dropped 1.7% while construction lost 4.9% of jobs for the year ended in the third quarter, after registering, respectively, 4.3% and 12.1% declines in 1992.

Housing activity is near its lowest levels in decades. In the third quarter of 1993, Los Angeles housing authorizations reached 6,700 units, lower than the weakest rates of the 1982 recession. A year earlier, permit activity was almost double its current rates.

Los Angeles's unemployment rate dropped to an 8.8% average in the third quarter of 1993, down from its recession high of 10.7% in first-quarter 1993. The drop resulted from declines in the labor force, though, rather than gains in employment. Clearly, the weak labor markets are forcing job seekers to other, healthier regions.

Forecast Profile

Los Angeles's short-term prospects remain bleak, as the MSA's manufacturing sector steadily shrinks and out-migration saps potential growth in key service and retail trade sectors. Nonfarm employment is forecasted to decline through mid-1994, before posting gains in 1995. Through the end of 1994, Los Angeles's employment and income performance will rank among the five worst markets of DRI's Top 100

MSAs. Thereafter, employment will inch up 0.8% in 1995, before strengthening to a 2.2% annual rate by 1997. Between the end of 1994 and 1998, Los Angeles's performances in both rank and growth will improve, but will remain well below national and California averages. A gradual easing of defense cuts, and improving growth in services and construction markets will help account for L.A.'s slightly higher rankings.

The weak prospects for L.A.'s manufacturing sector will continue to weigh down the MSA's overall performance. By the end of 1997, the local manufacturing sector will have lost an additional 45,000 jobs, which translates into a 1.7% average annual decline. The region's major aerospace firms will continue to trim payrolls rapidly in the response to weakening defense and commercial orders.

Recent and impending aerospace cuts have been dramatic. McDonnell Douglas announced that it had eliminated over 8,500 jobs in southern California in 1993. If the company fails to improve work on its troubled C-17 transport plane, further cuts—in addition to several thousand planned for 1994—will be inevitable. The Pentagon has threatened cancellation of the C-17 program, a move that could account for a direct loss of over 9,000 jobs. Furthermore, ongoing developments in the commercial aerospace market offer little hope for buffering defense-related declines anytime soon. Boeing recently announced further cuts in its production of 737 and 747 jets, a move that will put pressure on several of the region's subcontractors to reduce jobs. As a result, Northrop, which makes fuselages for the planes, has been reducing its commercial work force.

Los Angeles's service sector faces the brightest short-term prospects. Over the next year, this sector will lead all others as the MSA slowly struggles to recover. The opening of new markets under NAFTA should aid the MSA's extensive business services sector, while gains in the entertainment and motion picture industries remain bright spots. Over the past year, employment in Los Angeles's motion picture industry has increased by nearly 12% (or 11,000 jobs), almost twice the national rate. A series of well-received productions, combined with a resurgent national economy, has helped boost industry prospects. Despite the failure of the recent GATT accords to further open European markets to Hollywood entertainment, expanding multi-media entertainment and improving discretionary income gains in the U.S. should continue to move the industry forward.

Longer-term prospects for growth in international trade remain favorable. In addition to ongoing expansions of rail and port facilities in the region, the Port of Los Angeles recently announced plans for a new \$180-million coal export terminal, which is anticipated to create over 2,000 jobs—some temporary, some permanent. However, any resulting gains in trade employment will be overshadowed by further losses in retail sector due to weak consumer confidence and stagnant real income growth. Stiff competition among retail stores and large-scale discounters will keep retail payrolls from expanding until late 1994.

One bright sign is that Los Angeles's tourism industry appears to be finally emerging from its dismal 1992 performance in the wake of the city's civil disturbance. After falling by nearly 9% in 1992, the Los Angeles Convention Bureau reports that tourism from Japan appears to be finally increasing. Furthermore, retailers and hoteliers on the Westside and in Beverly Hills report a rise in tourism-related spending and hotel occupancy. Slowly improving tourism activity, however, will provide only modest relief for certain beleaguered services and retail trade sectors.

Rather, decelerating population growth will be an overriding factor in limiting potential gains services and retail trade. Weak job prospects will continue to force thousands of job seekers to migrate. Population growth will slow to roughly 0.5% in 1994 and 0.4% in 1995, before slowly gaining pace. Los Angeles's population will expand at less than one-half its pace of just two years ago, and will lag the California average by a corresponding factor.

Construction employment will continue to shrink through most of 1994. Industrial space absorption will remain weak as manufacturing and aerospace firms shed more jobs. Despite the sharp fall in commercial starts, weak office-employment gains over the next three years will do little to put a significant dent in Los Angeles's 20% office vacancy rate, or reverse recent declines in downtown office lease rates.

On the residential side, weakening population growth will limit demand for housing. Furthermore, adequate inventories will prevent a dramatic resurgence in new housing construction to anything near the 70,000-unit pace recorded in 1986. With multi-family vacancy rates hovering at close to 12% in Los Angeles County, housing permits will rise to just 14,000 units by 1995, up from 8,000 units in 1993. Thereafter, authorizations will increase to 22,000 in 1998, as income and population growth improves. Part of the short-term gains will reflect the reconstruction of over 1,000 units lost during last fall's wildfires that swept through the county; almost \$950 million in insured losses were tallied.

Personal income gains will underperform state and national averages throughout the forecast interval. High unemployment and the loss of manufacturing wages will limit income gains. Over the next year, Los Angeles's real per capita income growth will be flat, while the nation's expands by 1.7%. Between the end of 1994 and 1998, the measure will continue to underperform Top 100 MSA averages.

Short-Term Outlook for Los Angeles-Long Beach, CA; 1991-98

	1993				1994		1991	1992	1993	1994	1995	1996	1997	1998
	1	2	3	4	1	2								
Employment (Thousands, seas. adj.)														
Total Nonfarm	3785.4	3781.0	3740.1	3733.1	3728.8	3726.4	3982.6	3817.1	3754.9	3728.9	3759.1	3813.5	3896.4	3984.1
Manufacturing	889.8	871.1	857.5	853.4	849.8	846.5	774.9	717.0	667.9	645.0	632.9	616.3	611.7	611.8
Durables	393.9	378.6	366.5	363.3	360.4	357.5	474.7	419.5	375.6	356.0	344.8	329.0	322.8	322.4
Nondurables	295.9	292.5	290.9	290.1	289.3	289.0	300.3	297.5	292.4	289.0	288.2	287.3	288.8	289.5
Nonmanufacturing	3095.7	3089.9	3082.6	3079.7	3079.0	3079.9	3207.7	3100.1	3087.0	3083.9	3126.2	3197.2	3284.8	3372.3
Transp. & Util.	201.2	199.7	198.1	197.8	197.1	196.4	209.6	203.2	199.2	196.2	195.6	196.0	197.3	199.0
Trade	852.8	846.2	838.8	838.7	838.6	838.0	894.3	855.8	844.1	838.9	846.3	856.7	874.6	895.7
Fin., ins., & RE	249.5	248.0	247.3	246.2	246.3	246.7	285.8	254.1	247.8	247.0	249.8	253.6	259.0	264.8
Services	1150.0	1152.7	1151.5	1151.2	1153.9	1158.9	1189.0	1133.5	1151.3	1161.6	1193.9	1236.5	1281.0	1324.5
Federal Govt.	67.7	67.2	66.7	66.8	65.7	63.9	68.7	67.1	63.9	62.0	61.4	60.6	60.2	
State & Local Govt.	464.6	468.3	471.6	471.2	471.2	471.5	471.2	470.1	468.4	471.5	473.6	481.3	493.7	505.8
Construction	101.9	101.9	100.7	100.2	98.5	96.8	121.7	106.6	101.2	97.0	97.4	104.1	111.0	114.6
Mining	8.0	7.9	7.9	7.7	7.8	7.8	7.5	7.9	7.9	7.7	7.6	7.6	7.6	7.6
Employment (Annual rate of change)														
Total Nonfarm	0.4	-2.6	-2.2	-0.7	-0.5	-0.3	-3.8	-4.2	-1.8	-0.7	0.8	1.4	2.2	2.2
Manufacturing	-4.6	-10.4	-7.9	-2.5	-2.2	-2.0	-7.2	-7.5	-6.8	-3.4	-1.9	-2.6	-0.8	0.0
Durables	-8.5	-14.7	-12.1	-3.5	-3.2	-3.2	-9.7	-11.6	-10.5	-5.2	-3.2	-4.6	-1.9	-0.1
Nondurables	1.0	-4.4	-2.2	-1.2	-1.0	-0.5	-2.9	-0.9	-1.7	-1.2	-0.3	-0.3	0.5	0.2
Nonmanufacturing	1.6	-0.7	-0.9	-0.4	-0.1	0.1	-2.8	-3.4	-0.4	-0.1	1.4	2.3	2.7	2.7
Transp. & Util.	0.1	-2.9	-3.1	-0.7	-1.4	-1.4	-0.9	-3.1	-2.0	-1.5	-0.3	0.2	0.7	0.9
Trade	2.1	-3.1	-3.4	-0.1	0.0	-0.3	-5.8	-4.3	-1.4	-0.6	0.8	1.2	2.1	2.4
Fin., ins., & RE	0.7	-2.4	-1.1	-1.7	0.1	0.6	-4.3	-4.3	-2.5	-0.3	1.1	1.5	2.1	2.3
Services	3.9	0.9	-0.4	-0.1	1.0	1.7	-0.8	-3.0	1.6	0.9	2.8	3.6	3.6	3.4
Federal Govt.	-8.3	-3.3	-2.9	0.6	-8.0	-10.5	-4.4	0.3	-2.7	-4.7	-2.9	-1.0	-1.3	-0.7
State & Local Govt.	-1.5	1.5	4.6	0.4	0.0	0.3	0.7	-0.2	-0.4	0.7	0.4	1.6	2.6	2.5
Construction	-3.2	0.1	-4.6	-2.0	-6.6	-6.8	-8.5	-12.4	-5.1	-4.1	0.4	7.0	6.5	3.3
Mining	5.0	-3.5	0.7	-8.5	0.8	1.3	-4.4	5.2	-0.4	-1.9	-2.3	0.1	0.6	0.2
Population and Labor Market Measures														
Population (Thous.)	9071.7	9087.0	9099.2	9113.5	9129.4	9137.5	8981.0	9041.2	9092.9	9140.1	9180.4	9241.6	9318.7	9392.5
Labor Force (Thous.)	4515.9	4534.8	4488.3	4482.9	4483.0	4488.0	4501.9	4534.8	4500.5	4500.3	4528.1	4556.1	4593.2	4630.8
Unemployment Rate (%)	10.7	9.4	8.8	8.7	8.6	8.5	8.0	9.6	9.4	8.4	8.1	8.0	7.4	6.8
Population and Labor Market Measures (Annual rate of change)														
Population	0.5	0.7	0.5	0.8	0.7	0.4	0.9	0.7	0.6	0.5	0.4	0.7	0.8	0.8
Labor Force	0.5	1.7	-5.7	1.3	0.9	0.4	1.7	0.7	-0.8	0.0	0.6	0.6	0.8	0.8
Income (Annual rates)														
Total (Billion \$)	195.37	199.55	200.57	202.46	203.90	205.89	188.85	194.65	199.49	208.75	215.73	226.47	240.06	254.71
Wages & Salaries	123.50	128.74	127.04	127.66	128.20	129.11	125.59	128.30	128.23	128.65	134.45	140.21	148.24	157.60
Nonwage	71.87	72.80	73.53	74.80	75.70	76.79	63.26	66.35	73.25	77.10	81.28	86.27	91.82	97.11
Residence Adjustment	-14.96	-14.90	-14.95	-15.06	-15.17	-15.38	-15.22	-15.15	-14.97	-15.52	-16.48	-17.29	-18.30	-19.73
Real Per Capita (Thous. \$87)	17.06	17.29	17.30	17.32	17.27	17.30	17.54	17.38	17.24	17.30	17.43	17.58	17.95	18.34
Avg. Annual Wage (Thous. \$)	32.28	33.34	33.60	33.82	34.01	34.27	31.21	32.74	33.26	34.40	35.40	36.40	37.69	38.20
Housing Permits Authorized (Thousands, annual rates)														
Total Permits	10.55	6.25	6.71	9.21	9.30	11.86	15.97	11.80	8.18	11.58	14.79	18.00	21.55	22.58
Single-Family	6.43	3.76	4.52	5.87	6.06	7.48	7.47	6.77	5.17	7.32	9.16	10.71	12.27	12.55
Multi-Family	4.12	2.49	2.19	3.24	3.24	4.38	8.49	5.04	3.01	4.26	5.63	7.29	9.28	10.01

Note: Single- and multi-family housing permits may not equal total permits due to rounding.

Oakland, CA

by Jay Kloepper

Forecast Highlights

- Like its neighbors San Francisco and San Jose in the greater Bay Area economy, the Oakland MSA continues to lose jobs. Sluggish state and national markets for Oakland's manufactured goods, along with further layoffs in the MSA's large public sector, reduced employment levels in 1992 and 1993. Through 1994, weakness in manufacturing and federal government will restrict overall job gains.
- The Bay Area—particularly the Oakland MSA—will be hit hard by the closure of several large military bases.
- As transportation and distribution hub and home to a large portion of the Bay Area's work force, Oakland will thrive in the second half of the 1990s, when the Bay Area and state economies revive.
- The construction industry will revive in 1994, with modest gains in residential activity. Commercial and industrial activity will be limited, however, since the restructuring of the regional economy has reduced the MSA's competitive advantage in commercial real estate over rivals San Francisco and San Jose.

Economic Structure

Located on the eastern side of San Francisco Bay, the Oakland MSA includes Alameda and Contra Costa counties. Popularly referred to as the "East Bay," the Oakland MSA is strongly tied to the greater Bay Area economy, with a large industrial base, extensive warehousing, distribution, and transportation facilities, and a huge supply of labor to fill the jobs within the MSA, as well as those in the San Jose and San Francisco metro areas.

Oakland's industrial base ranks as one of the most diverse in the nation, evenly distributed among its manufacturing, research, finance, and business services sectors. Manufacturing industries include fabricated metals, petroleum refining, food processing, instruments, chemicals, computing, and communications equipment. Wholesale trade and distribution activities are highly concentrated in the MSA, reflecting the extensive port, rail and trucking facilities. Some of Oakland's largest employers include the University of California at Berkeley (including Lawrence Livermore Labs), Clorox Companies, New United Motor Manufacturing Co., Chevron, BankAmerica, and Everex Corp. The Oakland MSA is home to a number of large military installations, including the Oakland Army Depot, Oakland Naval Hospital, Oakland Naval Supply Center, Alameda Naval Air Station, Alameda Naval Aviation Depot, and the Concord Weapons Center.

The Oakland MSA is a crucial link in the Bay Area economy, serving as the transportation, warehousing, and distribution center for the entire region, providing thousands of high-tech manufacturing jobs, and supplying the residential communities for the many workers in San Francisco and Silicon Valley. The nine-county Bay Area is officially divided into five MSAs, although the greater region is in many ways the true economic unit. San Francisco County is the compact tip of the San Francisco peninsula, with San Mateo to the south and Marin across the Golden Gate to the north. Silicon Valley is included in the San Jose MSA at the south end of the Bay, and the Oakland MSA is across the Bay. To the north of the Oakland MSA lies the Vallejo-Fairfield-Napa MSA (defined as Napa and Solano counties), which includes the booming bedroom communities of Vallejo, Fairfield, and Vacaville, as well as the Napa Valley. Finally, between Marin and Napa counties lies the Santa Rosa-Petaluma MSA, which includes Sonoma county.

Benefiting from its lower costs relative to San Francisco and more plentiful space for development, the Oakland MSA economy boomed during the 1980s. A plethora of relocations from many of San Francisco's business sectors, including finance (BankAmerica), business services, telecommunications (Pacific Bell), manufacturing (Chevron), and utilities (PG&E) helped broaden Oakland's economic base. Many of these relocations were not complete corporate moves, but the shifting of large back-office operations. The common target locations were along the fast-growing Interstate-680 corridor, stretching from Fremont in the south to Concord. The expanding job base also lured new residents into the region. Oakland's population has increased by 21% since 1980, adding over 368,000 new residents. The bulk of this growth has taken place in southern Alameda county and the I-680 corridor, particularly in the Walnut Creek-Concord region of Contra Costa.

Economic Performance Summary

	Level				Annual Percent Change					
	1993:3	Rank	1998:4	Rank	1991:1-1993:3	Rank	1993:3-1994:4	Rank	1994:4-1998:4	Rank
Total Employment (Thous.)	853.1	28	952.4	25	-1.5	87	0.7	90	2.6	16
Manufacturing	103.5	29	101.1	28	-2.8	89	-0.9	62	-0.3	34
Nonmanufacturing	749.6	24	851.3	24	-1.3	92	0.9	90	2.9	15
Population (Thous.)	2178.0	19	2317.6	20	1.3	36	0.6	74	1.4	27
Labor Force (Thous.)	1122.1	19	1219.5	18	0.9	50	1.3	66	1.7	38
Unemployment Rate (%)	6.9	30	5.3	43						
Personal Income (Bil. \$)	54.4	19	72.8	17	3.9	86	4.3	91	6.2	31
Per Capita Income (Thous. \$)	25.0	19	31.4	21	2.5	94	3.7	84	4.7	56
Avg. Annual Wage (Thous. \$)	33.0	14	38.9	14	4.4	54	2.7	84	3.4	52
Housing Permits (Thousands)	5.7	49	10.9	23	-19.1	88	27.1	16	9.3	5

Note: Ranks are out of DRI's Top 100 MSAs.

Recent Evidence

The revised data for 1983-92 lowered Oakland's 1990 peak employment level enough to reverse the employment plunge previously reported for 1991. On an annual basis, the MSA grew slightly in 1991, but the recession had definitely struck by early in the year, and employment dropped 13,700, or 1.6%, during 1992. Oakland suffered eight consecutive quarters of job losses after employment peaked in the fourth quarter of 1990, but the cumulative decline amounted to only 3.8% of the employment base. The losses have been far less dramatic than those suffered in southern California. The diversity of Oakland's industrial sector has prevented deeper losses. Indeed, the metro area's smaller, diverse manufacturing sector has shrunk 2.8% per year since the start of 1991, much shallower than the declines in Anaheim, Los Angeles, San Diego, and San Jose.

Losses have continued in almost all sectors during 1993, as the both the Bay Area and the state struggle to shake off the lingering recession. Like San Francisco and San Jose, Oakland saw modest growth in the first quarter of 1993 disappear in the second and third quarters. The slump plaguing Silicon Valley has extended into southern Alameda county, with Everex and Apple closing plants. Manufacturing's lone bright spot has been the joint GM/Toyota (NUMMI) plant in Fremont, where 100 new jobs were added to the existing 4,200—and where Toyota is planning a 100% increase in truck production.

The list of the MSA's largest employers is overwhelmingly dominated by government agencies, including the military, public institutions, and not-for-profit health-care organizations—an unfortunate fact given the current fiscal constraints facing these employers. Despite the consolidation of many federal government offices from around the Bay Area in downtown Oakland, the MSA lost about 1,000 federal jobs in 1993. Health-care organizations cut staff sharply in their battle against mounting losses, rising costs, and the coming of health-care reform. Just three such organizations—Kaiser Permanente, Summit

Medical, and Alta Bates—cut their staffs by 28%, 16%, and 9%, respectively, in just one year—a total of 2,875 jobs.

Alameda County will be hit particularly hard by the latest round of base closures, but most of the job cuts have yet to occur. The Navy has eliminated 7,000 positions at the Alameda Naval Air Station since 1992, but most of these jobs were military personnel, with civilian layoffs amounting to about 1,000.

Construction has been a major source of weakness since 1990, particularly in Contra Costa County. Construction employment has fallen by more than 5,000 jobs (or 11%) since its peak in late 1989. A virtual cessation of multi-family construction and very slow nonresidential activity have more than offset the temporary boom in single-family construction due to the rebuilding of hundreds of homes destroyed in the 1991 fire.

The I-680 corridor enjoyed tremendous job growth in the 1980s, when such Bay Area giants as PG&E, PacBell, BankAmerica, and Chevron moved in large numbers of staff. Since 1992, however, the recession and considerable downsizing by each of these companies has resulted in negative net absorption of commercial real estate in Contra Costa for the first time in at least a decade. The restructuring of the Bay Area commercial real estate market has been so complete that rents in San Francisco fell below those in many surrounding areas, erasing much of the competitive advantage of the Oakland MSA, and stemming the tide of relocations. In fact, bargains in Class A space have enticed many tenants to upgrade, dumping increasing amounts of older, Class B space on the East Bay market.

Forecast Profile

Even with no employment growth expected for 1994 and modest 1.6% gains in 1995, Oakland will actually outperform most other California MSAs. The entire Bay Area will be affected by the military base closures approved by the President in July 1993, but the Oakland metro area will be hit particularly hard. Slated to join the Presidio and the Hunter's Point Naval Shipyard on the list of closed bases in San Francisco are Mare Island Naval Shipyard, Treasure Island Naval Station, and Navy Public Works Center. In the Oakland MSA, the closures embrace Alameda Naval Air Station, Alameda Naval Aviation Depot, and the Oakland Naval Hospital. Job losses for the entire Bay Area are projected by the Base Closure Commission to reach 25,600, with at least 6,000 expected to come from the Oakland MSA.

Despite the new federal buildings in downtown Oakland, job losses in the federal government sector, along with continued weakness in high-tech manufacturing and utilities, will hold down near-term employment growth. The coming year will be uneven, with services and trade slowly gaining momentum before taking off in 1995, when finance, insurance, and real estate also jump in. The metro area's manufacturing sector will shrink 2% in 1994 (pulled down by weakness in high-tech and metals durable goods) and decline 0.5% annually through 1998. Nondurables manufacturing will hold steady at 51,000 jobs after 1994, thanks mostly to the MSA's stable food-processing, chemical, and petroleum refining industries.

Local housing activity will rebound over the next five years, but will be concentrated largely in single-family construction (chart). Single-family permits have revived in the last two years, increasing 40% in 1992 (from moribund year-earlier levels) and holding steady through 1993. Total permits are a just a fraction of last decade's boom levels, however, with the 6,000 units authorized in 1993 less than one-third of the peak level authorized in 1986. Multi-family activity will remain very sluggish, because the MSA has yet to absorb the large quantities of multi-family units constructed in the mid-1980s.

The longer-term outlook for the Oakland metro area is encouraging, but neither the MSA nor the Bay Area will expand at the growth rates enjoyed during the 1980s. Manufacturing payrolls will decline gradually over the next five years, yet this performance will rank 33rd among the Top 100 MSAs. The movement of back-office jobs to the eastern half of the MSA appears to have stalled, while downsizing at firms like Chevron, Pacific Bell, and PG&E will limit growth in these sectors. Moreover, the list of the top five employers in Alameda County is hardly suggestive of rapid job growth: the U.S. Navy, Alameda County, Lawrence Livermore Labs, UC Berkeley, and Kaiser Permanente.

Indeed, the success of the Oakland MSA depends on the viability of the greater Bay Area economy. The rapid population and housing gains in the East Bay during the 1980s was the direct result of job creation in all five Bay Area MSAs' manufacturing, trade, service and finance industries. Oakland serves several vital functions for the Bay Area, and is well situated to thrive in the second half of the 1990s. The Port of Oakland is the Bay Area's primary seaport, aggressively competing with ports in southern California and the Pacific Northwest for lucrative container ship activity. With the Bay Area increasingly focused on the Pacific Rim for business opportunities, the Port of Oakland is positioned to reap the rewards of this expanded trade. The MSA also sits in the heart of the Bay Area rail and freeway transportation infrastructure, and will continue to serve as the clearinghouse for goods coming into the region. Alameda and Contra Costa provide the residential communities for many of the workers in San Jose and San Francisco, and the current extension of BART and the freeway system in Walnut Creek and Concord will further enhance this role.

Per capita personal income in Oakland stands 25% lower than that in neighboring San Francisco: \$25,000 versus \$33,200. The difference illustrates the gap between the two MSAs' costs of living, the "front- versus back-office" nature of their jobs, and their fundamentally different mix of industries. Oakland's per capita income nevertheless runs 8% higher than the major MSA average, boosted by 8% higher wages. After advancing sluggishly since 1991, personal income will rise a healthier 4% in 1994, before averaging 6%-plus gains between 1995 and 1998.

Short-Term Outlook for Oakland, CA; 1991-98

	1993				1994		1991	1992	1993	1994	1995	1996	1997	1998
	1	2	3	4	1	2								
Employment (Thousands, seas. adj.)														
Total Nonfarm	863.2	860.7	853.1	854.8	855.5	856.2	879.7	866.1	857.9	857.6	871.6	884.0	920.0	940.0
Manufacturing	106.8	105.4	103.5	103.1	102.9	102.7	109.7	109.3	104.7	102.6	101.9	100.5	100.5	101.0
Durable	54.4	53.1	52.2	51.8	51.8	51.6	57.6	56.3	52.9	51.5	50.8	49.5	49.2	49.5
Nondurable	52.4	52.3	51.3	51.2	51.1	51.1	52.1	53.0	51.8	51.1	51.1	51.0	51.3	51.5
Nonmanufacturing	756.4	755.3	749.6	751.7	752.6	753.4	770.1	756.8	753.3	755.0	769.7	793.5	819.5	839.0
Transp. & Util.	54.1	54.2	53.5	53.5	53.4	53.3	57.8	54.2	53.8	53.3	53.5	54.1	54.8	55.0
Trade	201.4	200.9	199.5	199.7	200.0	200.1	214.2	203.4	200.4	200.4	203.2	206.6	211.0	211.0
Fin., Ins., & RE	57.3	57.0	56.5	56.7	56.8	56.9	54.7	57.4	56.9	57.0	57.9	59.1	60.6	60.6
Services	231.5	231.5	230.3	231.6	232.9	234.3	229.1	228.5	231.2	235.2	244.2	255.3	266.4	266.4
Federal Govt.	29.5	29.1	28.8	28.8	28.3	27.5	30.3	30.1	29.0	27.5	26.5	26.2	25.9	25.9
State & Local Govt.	138.0	138.3	137.2	137.8	138.1	138.7	138.4	138.9	137.8	138.9	141.4	145.9	151.1	151.1
Construction	41.7	41.4	40.7	40.8	40.1	39.5	42.7	40.9	41.1	39.6	38.9	43.4	48.7	48.7
Mining	3.0	3.0	3.1	3.1	3.1	3.1	2.9	3.3	3.1	3.1	3.0	3.0	3.0	3.0
Employment (Annual rate of change)														
Total Nonfarm	2.7	-1.1	-3.5	0.8	0.3	0.3	0.1	-1.6	-0.9	0.0	1.6	2.6	2.9	2.9
Manufacturing	-1.3	-4.9	-7.1	-1.7	-0.7	-0.5	-1.2	-0.3	-4.2	-2.0	-0.7	-1.4	0.1	-0.6
Durable	-3.4	-8.9	-6.7	-3.0	-0.6	-0.8	-0.8	-2.2	-6.1	-2.6	-1.3	-2.7	-0.6	-0.7
Nondurable	1.0	-0.5	-7.6	-0.3	-0.8	0.1	-1.6	1.8	-2.3	-1.3	-0.1	-0.2	0.7	1.3
Nonmanufacturing	3.3	-0.6	-3.0	1.2	0.5	0.4	0.2	-1.7	-0.5	0.2	1.9	3.1	3.3	3.3
Transp. & Util.	4.3	0.7	-5.0	0.5	-0.8	-0.8	-0.7	-6.3	-0.7	-0.9	0.4	1.0	1.3	2.1
Trade	3.2	-0.9	-2.7	0.3	0.5	0.2	-1.5	-5.0	-1.5	0.0	1.4	1.7	2.1	2.5
Fin., Ins., & RE	0.6	-2.3	-3.0	0.9	0.6	1.1	-1.8	4.9	-0.9	0.3	1.6	2.0	4.3	4.3
Services	8.5	0.1	-2.1	2.3	2.2	2.6	3.6	-0.2	1.2	1.7	3.8	4.6	4.3	4.3
Federal Govt.	-10.5	-5.4	-3.8	0.1	-6.6	-10.4	-2.3	-0.7	-3.6	-5.2	-3.7	-1.2	-1.0	-1.0
State & Local Govt.	-1.9	0.9	-3.3	2.0	1.0	1.5	1.0	0.4	-0.8	0.8	1.8	3.2	3.6	3.6
Construction	20.8	-3.2	-6.5	-1.2	-4.7	-6.0	-4.4	-4.1	0.4	-3.7	0.9	8.7	7.8	7.8
Mining	-18.8	-0.2	16.4	-7.6	1.4	1.6	-3.4	13.1	-7.6	0.5	-2.1	0.0	0.3	0.3
Population and Labor Market Measures														
Population (Thous.)	2184.1	2171.5	2178.0	2181.6	2184.6	2187.8	2117.0	2145.3	2173.8	2189.5	2205.4	2227.5	2260.6	2310.0
Labor Force (Thous.)	1131.0	1125.0	1122.1	1126.6	1130.5	1133.8	1098.4	1117.7	1128.2	1135.7	1150.0	1163.7	1182.9	1210.0
Unemployment Rate (%)	8.6	6.2	6.9	6.9	6.8	6.7	5.4	6.5	6.6	6.7	6.4	6.4	5.9	5.9
Population and Labor Market Measures (Annual rate of change)														
Population	1.4	1.4	1.2	0.7	0.6	0.6	1.2	1.3	1.3	0.7	0.7	1.0	1.5	1.5
Labor Force	2.6	-2.1	-1.0	1.6	1.4	1.2	0.1	1.8	0.8	0.8	1.3	1.2	1.6	1.6
Income (Annual rates)														
Total (Billion \$)	53.08	54.24	54.37	55.02	55.45	56.08	49.90	52.40	54.18	56.36	59.17	62.52	66.86	66.86
Wages & Salaries	27.90	28.82	28.81	29.07	29.25	29.47	27.34	28.37	28.65	29.61	30.85	32.37	34.32	34.32
Nonwage	25.18	25.42	25.56	25.95	26.20	26.60	22.56	24.03	25.53	26.75	28.32	30.15	32.54	32.54
Residence Adjustment	4.27	4.27	4.29	4.32	4.35	4.41	4.22	4.22	4.29	4.44	4.88	4.90	5.18	5.18
Real Per Capita (Thous. \$/yr)	19.44	19.87	19.59	19.86	19.62	19.87	19.66	19.72	19.59	19.68	19.90	20.14	20.54	20.54
Avg. Annual Wage (Thous. \$)	31.57	32.71	32.98	33.20	33.37	33.62	30.34	31.98	32.62	33.74	34.68	35.66	36.90	36.90
Housing Permits Authorized (Thousands, annual rates)														
Total Permits	6.09	5.94	5.88	6.57	6.58	7.29	6.88	6.91	6.07	7.23	8.14	8.91	10.04	10.04
Single-Family	5.48	5.15	5.05	5.89	5.94	6.53	6.39	6.64	5.39	6.48	7.29	7.76	8.41	8.41
Multi-Family	0.63	0.79	0.83	0.68	0.64	0.76	2.68	1.27	0.68	0.75	0.85	1.15	1.63	1.63

Note: Single- and multi-family housing permits may not equal total permits due to rounding.

Oxnard, CA

by Mark Gallagher

With Los Angeles's economy remaining in dire straits over the next year, Oxnard will be one of the poorest-performing metropolitan areas in employment and income growth. With Oxnard's short-term prospects closely tied to the fortunes of its commuters, its total personal income growth will expand by only 4.2% through the end of 1994, ranking 93rd among the Top 100 MSAs.

Recent data indicate that Oxnard's economy remains weak. Employment declined at a 1.6% annual rate for the year ended in the third quarter of 1993, ranking 95th in the nation. Trade and state and local government remain quite weak, reflecting weak retail spending and tax revenue collections.

Over the past two years, Oxnard's industrial sector has suffered from reductions at major firms such as Northrop, Unisys, IBM, and Tandem Computer. Further cuts in high-tech defense activities will continue to drag down Oxnard's performance. GTE's recent announcement of dramatic job cuts could have negative implications for business markets—the firm has a large presence in the MSA. Over the next five years, manufacturing employment will post average annual declines of 1.1%, compared with the national average of 0.6% declines.

Weak income growth will prevent a significant rebound in trade employment gains until 1995, when the sector will post a 1.2% rise in employment. In 1994, trade will remain essentially flat.

The implosion of Oxnard's overbuilt commercial and residential construction markets appears to be nearing its end. But a substantial recovery will be limited until 1996. Over the past three years, Oxnard has lost slightly less than one-half of its construction jobs, with more losses coming in 1994. As of September, Oxnard's office vacancy rate remained above 22%, or five percentage points higher than the national average. On the bright side, excess inventories have prompted a significant fall in lease rates for commercial properties, which may prove attractive to firms that wish to relocate from the more expensive areas in Los Angeles.

New housing construction remains quite weak; housing permits reached a 1,100-unit annual rate in the third quarter of 1993, almost one-ninth of its 1986 peak. As growth improves in 1995, Oxnard's housing market will begin to revive. However, 1995's housing unit tally should reach 2,500 units, still well below late 1980s levels.

Economic Performance Summary

	Level				Annual Percent Change					
	1993:3	Rank	1994:4	Rank	1991:1-1993:3	Rank	1993:3-1994:4	Rank	1994:4-1998:4	Rank
Total Employment (Thous.)	221.1	87	246.1	87	-2.0	95	0.4	91	2.6	13
Manufacturing	31.1	61	29.3	82	-1.0	34	-2.4	92	-0.7	67
Nonmanufacturing	190.0	84	216.8	83	-2.2	100	0.8	92	3.1	10
Population (Thous.)	692.7	73	742.0	73	1.0	52	0.5	82	1.6	15
Labor Force (Thous.)	385.2	68	421.7	68	0.8	51	1.3	68	1.9	28
Unemployment Rate (%)	8.9	5	8.8	8						
Personal Income (Bil. \$)	15.2	87	20.6	67	3.5	94	4.2	93	6.5	18
Per Capita Income (Thous. \$)	22.0	43	27.7	46	2.4	95	3.7	85	4.8	39
Avg. Annual Wage (Thous. \$)	28.9	27	35.0	30	4.3	56	2.6	97	3.2	70
Housing Permits (Thousands)	1.2	90	3.9	67	-18.2	97	52.3	3	17.8	1

Note: Ranks are out of DRI's Top 100 MSAs.

Short-Term Outlook for Oxnard-Ventura, CA; 1991-98

	1993				1994		1991	1992	1993	1994	1995	1996	1997	1998
	1	2	3	4	1	2								
Employment (Thousands, sees. adj.)														
Total Nonfarm	223.2	223.2	221.1	221.1	221.1	221.1	230.4	225.4	222.1	221.4	225.1	231.2	238.2	242.1
Manufacturing	31.0	30.9	31.1	30.6	30.5	30.4	30.4	31.6	30.9	30.3	29.8	29.2	29.1	28.7
Durables	22.0	21.6	21.6	21.3	21.2	21.1	22.3	22.6	21.6	21.0	20.6	19.9	19.7	19.1
Nondurables	9.0	9.3	9.4	9.3	9.3	9.3	8.0	9.0	9.3	9.3	9.3	9.3	9.4	9.6
Nonmanufacturing	192.2	192.3	190.0	190.4	190.6	190.7	200.0	193.9	191.3	191.1	195.3	202.0	209.1	213.4
Transp. & Util.	10.6	10.3	10.0	10.2	10.2	10.2	11.6	10.6	10.3	10.2	10.2	10.3	10.5	10.7
Trade	53.2	53.2	52.3	52.8	52.8	52.9	58.2	53.7	52.9	52.9	53.5	54.4	55.5	56.6
Fin., Ins., & RE	12.2	12.2	12.4	12.4	12.4	12.4	11.7	12.1	12.3	12.4	12.6	12.8	13.1	13.4
Services	60.9	61.3	61.0	61.3	61.6	62.0	59.8	60.7	61.1	62.2	64.4	67.2	70.1	73.0
Federal Govt.	11.8	11.4	11.4	11.3	11.1	10.9	12.3	12.0	11.4	10.9	10.6	10.5	10.4	10.3
State & Local Govt.	31.8	31.6	30.7	30.4	30.5	30.6	32.6	32.6	31.2	30.6	31.3	32.5	33.8	35.3
Construction	10.0	10.4	10.3	10.3	10.2	10.0	11.6	10.1	10.3	10.2	11.0	12.6	13.9	15.1
Mining	1.8	1.8	1.8	1.8	1.8	1.8	2.2	2.0	1.8	1.8	1.8	1.8	1.8	1.8
Employment (Annual rate of change)														
Total Nonfarm	-0.2	0.0	-3.9	0.0	0.1	-0.1	0.0	-2.2	-1.5	-0.3	1.8	2.7	3.0	3.3
Manufacturing	-4.6	-1.2	1.9	-5.5	-1.6	-1.7	5.5	3.9	-2.1	-1.9	-1.6	-2.1	-0.3	-0.8
Durables	-7.7	-7.2	0.1	-4.9	-2.2	-2.3	-8.5	1.1	-4.1	-2.8	-2.2	-3.1	-0.8	-1.5
Nondurables	3.5	14.4	6.0	-6.8	-0.1	-0.1	3.9	11.9	2.8	0.2	-0.2	0.3	0.9	1.6
Nonmanufacturing	0.5	0.2	-4.8	0.9	0.4	0.2	0.9	-3.1	-1.3	-0.1	2.2	3.4	3.5	3.8
Transp. & Util.	3.9	-8.9	-11.2	7.2	-0.9	-0.9	-0.9	-8.6	-3.3	-1.3	0.3	1.1	1.5	1.8
Trade	4.4	-0.6	-6.2	3.5	0.5	0.2	0.8	-7.6	-1.8	0.1	1.2	1.6	2.1	2.4
Fin., Ins., & RE	-1.4	2.1	4.6	0.3	0.2	0.6	-3.2	3.5	1.5	1.1	1.3	1.8	2.2	2.5
Services	2.5	2.7	-1.6	1.9	2.1	2.4	6.5	1.6	0.7	1.8	3.5	4.4	4.3	4.2
Federal Govt.	-4.3	-5.9	-2.0	-2.3	-5.5	-10.1	1.5	-2.5	-4.7	-5.0	-2.5	-0.7	-1.0	-1.3
State & Local Govt.	-8.0	-2.5	-10.9	-4.7	1.1	1.5	1.7	-0.1	-4.4	-1.7	2.1	3.8	4.3	4.8
Construction	4.8	18.6	-3.0	-2.2	-4.4	-5.3	-17.3	-13.0	1.8	-1.2	8.0	14.9	10.5	11.2
Mining	-11.5	-5.1	-7.9	1.5	1.5	1.8	-4.7	-9.5	-8.6	-0.9	-2.2	0.0	0.3	0.6
Population and Labor Market Measures														
Population (Thous.)	689.7	690.6	692.7	693.8	694.5	695.5	677.7	684.3	691.7	695.9	700.1	709.0	721.6	734.1
Labor Force (Thous.)	387.9	387.1	385.2	385.9	387.3	388.7	375.9	384.5	386.5	389.4	394.3	400.1	407.7	415.2
Unemployment Rate (%)	8.6	8.6	8.9	8.8	8.7	8.7	7.1	8.4	8.8	8.6	8.2	8.2	7.5	7.5
Population and Labor Market Measures (Annual rate of change)														
Population	1.4	0.5	1.3	0.6	0.4	0.6	0.9	1.0	1.1	0.6	0.6	1.3	1.8	2.1
Labor Force	0.2	-0.8	-2.0	0.8	1.5	1.4	0.0	2.3	0.5	0.8	1.3	1.5	1.9	2.2
Income (Annual rates)														
Total (Billion \$)	14.83	15.23	15.21	15.38	15.47	15.65	14.02	14.72	15.19	15.74	16.53	17.52	18.76	20.15
Wages & Salaries	6.59	6.82	6.82	6.86	6.89	6.94	6.54	6.75	6.77	6.98	7.28	7.67	8.15	8.64
Nonwage	8.34	8.41	8.39	8.52	8.58	8.71	7.49	7.97	8.42	8.76	9.25	9.85	10.61	11.51
Residence Adjustment	2.56	2.56	2.57	2.58	2.60	2.63	2.48	2.48	2.57	2.65	2.79	2.92	3.07	3.24
Real Per Capita (Thous. \$87)	17.16	17.37	17.23	17.28	17.22	17.28	17.26	17.37	17.26	17.29	17.51	17.72	18.11	18.51
Avg. Annual Wage (Thous. \$)	28.81	29.62	29.88	30.06	30.21	30.43	27.45	29.00	29.54	30.54	31.38	32.21	33.27	34.45
Housing Permits Authorized (Thousands, annual rates)														
Total Permits	1.03	1.51	1.19	1.50	1.51	1.83	2.28	1.67	1.31	1.81	2.25	2.75	3.41	4.18
Single-Family	0.77	1.38	1.00	1.26	1.28	1.54	1.05	1.17	1.10	1.52	1.90	2.27	2.74	3.34
Multi-Family	0.26	0.14	0.19	0.24	0.23	0.29	1.22	0.49	0.21	0.29	0.35	0.48	0.67	0.84

Note: Single- and multi-family housing permits may not equal total permits due to rounding.

Riverside, CA

by Mark Gallagher

Forecast Highlights

- Riverside's short-term prospects remain weak, given the continuing recession in the Los Angeles region. However, the MSA will lead the rest of southern California as the recovery takes hold in 1995.
- While local manufacturing payrolls will continue to shrink over the short term, aerospace and defense-related manufacturing losses will be less pronounced than those in Los Angeles. A revival of manufacturing activity tied to the construction sector will help boost payrolls over the longer term.
- Lower housing costs than in neighboring areas of Los Angeles and Anaheim will give Riverside the best prospects for migration and population growth. Over the next five years, population gains will outpace national averages, albeit at rates substantially lower than during the 1980s.

Economic Structure

The Riverside/San Bernardino MSA, encompassing a vast expanse of desert and highlands east of Los Angeles, is now the 10th-largest MSA in the nation. Beginning as a bedroom community for commuters to Los Angeles and Anaheim during the 1980s, its population grew by 70% between 1980 and 1991, the largest gain among the Top 100 MSAs.

Reflecting its commuter ties to neighboring economies, income brought in from outside the MSA accounts for 22% of total income. This is down slightly from the last four years, but higher than the 17.5% recorded in 1980. Riverside's industrial structure reflects its largely consumer-driven economy. Trade employment accounts for 26% of the total, compared with 23.4% for the average Top 100 MSA. The trade sector is supported by the MSA's extensive desert resort and wholesale trade and warehousing facilities.

Riverside's list of key industries highlights the MSA's ties to agriculture, construction, tourism, and manufacturing. They include: agricultural services, motor freight, hotels and lodging places, stone and clay products, aircraft and parts, and recreational vehicles.

Economic Performance Summary

	Level				Annual Percent Change					
	1993:3	Rank	1988:4	Rank	1991:1-1993:3	Rank	1983:3-1984:4	Rank	1994:4-1996:4	Rank
Total Employment (Thous.)	713.2	32	833.8	32	-0.4	71	1.6	72	3.5	2
Manufacturing	82.8	45	84.0	40	-0.3	26	-0.9	64	0.6	5
Nonmanufacturing	630.4	29	749.8	28	-0.4	79	1.9	80	3.8	2
Population (Thous.)	2877.7	10	3218.1	10	2.7	5	2.0	9	2.2	1
Labor Force (Thous.)	1154.9	18	1286.9	16	2.7	9	1.9	38	2.3	9
Unemployment Rate (%)	11.9	2	9.1	3						
Personal Income (Bil. \$)	50.0	21	70.8	19	4.2	80	5.7	52	7.2	4
Per Capita Income (Thous. \$)	17.4	98	22.0	99	1.5	100	3.7	87	4.9	34
Avg. Annual Wage (Thous. \$)	26.4	67	31.1	72	3.2	95	2.7	95	3.4	45
Housing Permits (Thousands)	12.3	47	27.7	2	-3.7	91	42.5	6	9.8	4

Note: Ranks are out of DRI's Top 100 MSAs.

Recent Evidence

Although the state remains quite weak, Riverside is one of the two large California metro areas—with Fresno—where employment has stabilized and shown modest increases. After a string of employment losses in 1992 and early 1993, Riverside has compiled two consecutive quarterly increases. The MSA's household employment survey confirms the uptick in payrolls. Household, or civilian employment, has increased in the first three quarters of 1993.

Services accounted for the vast majority of the increases in employment. In both the second and third quarters, this sector recorded gains of more than 3% (annual rate). Manufacturing remains weak, however. In the second and third quarters, both durables and nondurables manufacturing recorded substantial declines. For the year ended in the third quarter, these sectors recorded jobs losses of 3.6% and 5.1%, respectively. While Riverside's manufacturing losses were less severe than those recorded statewide or in neighboring Los Angeles, they demonstrate the effects of weakening aerospace orders and lackluster consumer spending for nondurables.

The MSA's modest employment stabilization, however, has not lowered its historically high unemployment rate. Due to offsetting increases in the labor force, unemployment soared to 11.9% in the third quarter of 1993, its highest rate since late 1982. Riverside's unemployment rate is the second highest among California's large MSAs, lagging only Fresno's 15%.

Riverside's housing sector has changed little in 1993. In the first three quarters, permits averaged close to 12,500 units. Weak residential and commercial activity have caused construction employment to decline further, at a 4% annual rate in the third quarter. Despite favorable financing rates, weak employment prospects and consumer confidence have quelled home sales and the impetus for new construction. According to the California Association of Realtors, Riverside/San Bernardino's October home sales figures were up only 6.7% over year-earlier levels.

Forecast Profile

Riverside will lead the state as it slowly emerges from recession in 1994. Despite a weak manufacturing sector, construction and services sectors will gradually gain pace, allowing the state's employment to increase by 1.6% through 1994. While this growth rate will outpace all other California Top 100 MSAs, it will remain modest by historical standards. Furthermore, Riverside's growth will lag the national average of 2.1%, ranking only 72nd among the Top 100 MSAs.

Through 1998, however, employment growth will accelerate to average annual gains of 3.1%. Improved prospects for recoveries in the MSA's dominant construction, services, and trade sectors will account for this performance. More affordable housing and business costs will continue to make the metropolitan area the focus of the Los Angeles Basin's employment and income growth in the mid- to late 1990s. Riverside's lagging performance over the short term clearly will be tied to the impact of weak state and federal government sectors, weak residential construction markets, and further shrinkage in both durables and nondurables manufacturing payrolls.

Base closures and defense-related cuts will continue to sap Riverside's economic strength. Both civilian federal and military employment will continue to plummet over the next several quarters, with the impending closure of Norton AFB. Federal government employment will shrink at a 5% annual rate through this year.

Reuse plans for the military bases have slowly taken shape. Although federal agencies are in the process of determining land use status in March AFB, plans for Norton AFB are set. After Norton closes in early 1994, runways and terminals will be converted for larger-scale commercial flights. The newly-named San Bernardino International Airport will relieve congestion at nearby Ontario International Airport, which now handles almost twice its intended volume of air traffic.

Similar to the past few years, Riverside's manufacturing sector will continue to outperform the state as a whole. However, more declines in employment are likely over the next two years. Cutbacks at defense-

related aerospace firms have contributed to a large share of durables manufacturing's weakness. Large firms such as Rohr Industries, General Dynamics, and TRW have cut payrolls significantly over the past two years. According to Rohr company officials, its downsizing is virtually complete. Between July 1991 and late 1993, employment fell from 2,500 to 1,300 at the company's Riverside and Moreno Valley facilities. General Dynamics' sale of its missile systems business to Hughes Aircraft requires the transfer of several hundred positions from its Rancho Cucamonga facility to Tucson. Furthermore, the precipitous downturn in the region's construction industries has accounted for weakness in the MSA's stone, glass, and construction materials industries. With modest recoveries in construction and more declines in the aerospace sector, Riverside's durables manufacturing sector will decline in 1994, before beginning to stabilize in 1995 and 1996. Due to the MSA's relatively strong population growth, nondurables manufacturing will show growth in 1995, outpacing state and region averages.

Despite the MSA's short-term weaknesses, positive developments exist. Anheuser-Busch will build a new metal can processing facility in Mira Loma. Expected to open in 1995, the plant will employ 150. Also, Kaiser Resources will open a new \$20-million recycling facility in Fontana, while Hamilton Fixtures, Excel, and Sweetheart Cup expand facilities in Ontario. Finally, following a move by Toyota, Mercedes-Benz will relocate its West Coast parts distribution facility to Fontana.

However, construction markets will not improve markedly until the second half of 1994. Slower population growth will temper new construction activity. Due to the persistence of weak employment growth through most of 1994, Riverside's unemployment rate is likely to remain above 11% throughout 1994 and 1995. With more plentiful job opportunities elsewhere, in-migration will remain sluggish. After recording growth of 3.9% in 1991, population gains will slow to 2.2% for 1993 and 1.9% in 1994, before improving. Nonetheless, the MSA's 2.4% gains in 1995 will be almost three times faster than the state's average.

Riverside's housing market recovery will remain modest in 1994, as permits rise to 17,000 units. By 1998, permits will rise to nearly 28,000 units—more than double the current levels, but still less than one half of the pace recorded in 1986. Slower employment and population growth will account for the shortfall.

Along with the rest of Southern California, Riverside's short-term outlook for consumer spending remains weak. Although Riverside will post the strongest employment and income growth among the 10 California Top 100 MSAs, the MSA's per capita income growth will still lag national averages over the next five years. High unemployment will keep upward wage pressures down.

Short-Term Outlook for Riverside-San Bernardino, CA; 1991-98

	1993				1994		1991	1992	1993	1994	1995	1996	1997	19
	1	2	3	4	1	2								
Employment (Thousands, seas. adj.)														
Total Nonfarm	710.5	712.3	713.2	713.1	715.7	718.4	718.9	723.2	712.3	721.0	745.8	774.3	801.6	8
Manufacturing	84.7	84.2	82.8	82.4	82.2	82.0	81.7	86.6	83.5	82.0	82.5	82.1	82.7	
Durables	57.5	57.4	56.3	55.8	55.6	55.5	55.9	58.5	56.7	55.4	55.4	54.6	54.7	
Nondurables	27.3	26.8	26.5	26.6	26.6	26.6	25.8	28.2	26.8	26.6	27.1	27.6	28.0	
Nonmanufacturing	625.8	628.0	630.4	630.7	633.5	638.4	637.2	636.6	628.7	639.0	663.3	682.2	718.9	7
Transp. & Util.	36.4	36.4	36.2	36.1	36.1	36.1	34.5	36.3	36.3	36.1	36.8	37.3	37.9	
Trade	184.8	183.7	183.8	183.9	184.6	185.3	188.8	186.3	184.1	186.0	191.7	187.6	204.0	2
Fin., Ins., & RE	30.6	30.6	30.4	30.5	30.6	30.8	31.0	31.0	30.5	30.9	31.7	32.5	33.4	
Services	182.5	184.2	185.7	185.9	187.2	188.7	182.7	184.7	184.6	189.7	198.8	208.7	217.7	2
Federal Govt.	19.0	18.1	17.7	17.8	17.5	17.0	20.6	20.1	18.1	17.0	16.5	16.4	16.3	
State & Local Govt.	134.5	135.2	137.1	137.5	138.4	139.4	134.5	136.8	136.1	140.0	144.9	151.1	157.2	1
Construction	36.6	38.5	38.1	37.7	37.7	37.6	43.7	40.2	37.7	38.1	41.8	47.2	51.0	
Mining	1.3	1.3	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.4	1.4	1.4	1.4	
Employment (Annual rate of change)														
Total Nonfarm	-2.1	1.0	0.5	0.0	1.5	1.5	0.9	0.6	-1.5	1.2	3.4	3.8	3.5	
Manufacturing	1.1	-2.4	-6.6	-2.0	-1.0	-0.8	-4.7	8.0	-3.5	-1.8	0.6	-0.4	0.7	
Durables	3.3	-0.7	-7.4	-3.7	-1.3	-0.8	-5.3	4.5	-2.9	-2.4	0.0	-1.5	0.2	
Nondurables	-3.5	-5.9	-4.8	1.6	-0.2	-0.6	-3.5	9.1	-4.8	-0.7	1.7	1.8	1.5	
Nonmanufacturing	-2.6	1.5	1.5	0.2	1.8	1.8	1.6	-0.1	-1.2	1.8	3.8	4.3	3.9	
Transp. & Util.	1.6	-0.4	-2.6	-1.0	0.0	-0.1	0.7	4.9	0.1	-0.5	1.4	1.8	1.8	
Trade	-0.9	-2.5	0.2	0.3	1.6	1.4	2.4	-1.3	-1.2	1.0	3.1	3.1	3.2	
Fin., Ins., & RE	-0.6	0.3	-2.7	1.3	1.4	1.9	1.6	0.1	-1.5	1.1	2.6	2.6	2.7	
Services	-2.4	3.9	3.2	0.4	2.9	3.3	6.1	1.1	-0.1	2.8	4.8	5.0	4.3	
Federal Govt.	-13.7	-18.0	-8.0	1.1	-6.2	-10.6	-4.5	-2.6	-9.6	-6.4	-2.8	-0.4	-1.0	
State & Local Govt.	-1.6	2.0	6.0	0.9	2.6	3.2	4.5	1.7	-0.5	2.9	3.5	4.3	4.1	
Construction	-14.2	22.0	-4.3	-3.7	0.0	-0.7	-19.2	-8.2	-6.0	0.9	9.8	12.9	8.0	
Mining	15.6	17.1	18.6	1.3	2.2	2.1	-0.7	-2.5	3.7	4.0	-1.4	0.4	0.8	
Population and Labor Market Measures														
Population (Thous.)	2852.4	2865.6	2877.7	2892.2	2904.6	2918.0	2732.0	2811.0	2872.0	2925.7	2994.5	3085.9	3127.5	3
Labor Force (Thous.)	1143.8	1140.3	1154.9	1157.2	1163.4	1169.0	1088.4	1137.6	1149.1	1172.3	1203.1	1233.9	1260.4	1
Unemployment Rate (%)	11.4	10.9	11.9	11.8	11.7	11.6	9.2	11.0	11.5	11.5	11.0	10.9	10.1	
Population and Labor Market Measures (Annual rate of change)														
Population	2.0	1.9	1.7	2.0	1.7	1.9	3.9	2.9	2.2	1.9	2.4	2.4	2.0	
Labor Force	-2.2	-1.2	5.2	0.8	2.2	1.9	2.0	4.5	1.0	2.0	2.6	2.6	2.2	
Income (Annual rates)														
Total (Billion \$)	49.81	49.75	50.03	50.67	51.20	51.97	45.61	48.21	49.81	52.37	56.01	59.98	64.37	
Wages & Salaries	18.68	19.38	19.56	19.70	19.87	20.08	18.58	19.46	19.33	20.21	21.41	22.78	24.33	
Nonwage	30.13	30.37	30.47	30.97	31.33	31.90	27.03	28.74	30.48	32.16	34.59	37.20	40.04	
Residence Adjustment	10.19	10.19	10.24	10.33	10.43	10.60	9.93	9.95	10.24	10.71	11.53	12.22	12.98	
Real Per Capita (Thous. \$87)	13.56	13.67	13.85	13.86	13.63	13.67	13.93	13.84	13.63	13.69	13.87	14.04	14.34	
Avg. Annual Wage (Thous. \$)	25.22	26.14	26.35	26.53	26.67	26.86	24.72	25.77	26.06	26.86	27.70	28.49	29.50	
Housing Permits Authorized (Thousands, annual rates)														
Total Permits	12.45	12.97	12.26	15.36	15.46	18.06	16.06	15.80	13.26	17.71	20.84	23.56	27.09	
Single-Family	11.51	12.06	11.66	15.01	15.19	17.72	12.85	13.80	12.56	17.33	20.22	22.39	24.74	
Multi-Family	0.94	0.91	0.60	0.35	0.27	0.34	3.21	2.20	0.70	0.37	0.41	1.17	2.35	

Note: Single- and multi-family housing permits may not equal total permits due to rounding.

Sacramento, CA

by Mark Gallagher

Forecast Highlights

- Employment statistics indicate that Sacramento leads the rest of California in terms of stabilization and recovery. Over the next year, the MSA's nonfarm employment will advance by 0.8%—still well below national averages, but lagging only Fresno's and Riverside's performance among California's 10 major metro areas.
- Longer-term prospects for Sacramento remain optimistic. Strong in-migration from elsewhere in the state will help boost the local population by 1.9% annually through 1998, to rank among the 10 best of the nation's Top 100 MSAs.
- Durables manufacturing will add a modest number of jobs over the next two years due to expansions by NEC and Intel. Meanwhile, the relocation of national firms' finance and insurance functions to Sacramento will continue to boost this expanding job sector.

Economic Structure

As the state capital of California, the world's seventh-largest economy, Sacramento's job base is almost one-and-three-quarters more concentrated in state and local government employment than the national average, accounting for almost one-quarter of all nonfarm jobs in the MSA. But Sacramento has diversified significantly over the past decade. High-tech manufacturing has expanded with the addition of major manufacturers such as Hewlett-Packard, Apple Computer, Intel, and NEC. In addition, employment in Sacramento's finance, insurance, and real estate sector expanded at almost three times the national rate between 1985 and 1990, as a number of back office and data-processing operations relocated to the MSA. With significant labor and housing cost advantages over the Bay Area and easy access to major distribution centers, Sacramento's growth surged.

Since 1980, Sacramento's population has increased by more than 450,000, to slightly exceed 1.5 million. Income growth here also outpaced the national average over this period. By 1992, residents' per capita income had reached \$19,580, the 58th-highest nationwide, but lagging California's average by nearly 6%.

Economic Performance Summary

	Level				Annual Percent Change					
	1993:3	Rank	1998:4	Rank	1991:1-1993:3	Rank	1993:3-1994:4	Rank	1994:4-1998:4	Rank
Total Employment (Thous.)	622.2	36	711.2	35	-0.8	74	0.8	88	3.1	4
Manufacturing	41.9	73	40.6	72	0.0	20	-0.5	51	-0.6	57
Nonmanufacturing	580.4	32	670.5	32	-0.7	82	0.9	91	3.4	4
Population (Thous.)	1614.5	29	1784.2	27	2.4	6	1.3	32	2.1	4
Labor Force (Thous.)	796.1	31	888.3	29	1.9	22	1.3	69	2.3	12
Unemployment Rate (%)	8.5	9	6.4	12						
Personal Income (Bil. \$)	32.9	33	45.0	32	4.4	77	4.8	85	6.6	14
Per Capite Income (Thous. \$)	20.4	88	25.2	80	1.8	98	3.5	89	4.4	81
Avg. Annual Wage (Thous. \$)	29.7	30	34.3	35	3.3	83	3.1	75	2.7	98
Housing Permits (Thousands)	8.2	32	14.6	13	-0.9	85	25.1	19	7.7	8

Note: Ranks are out of DRI's Top 100 MSAs.

Recent Evidence

Sacramento's economy has stabilized earlier than southern California's, and is poised for stronger expansion in upcoming months. The local economy has been weak over an extended period, but the MSA has avoided the dramatic employment losses plaguing southern California. Although recent gains have been quite modest—the MSA's nonfarm employment inched up by only 0.2% in the third quarter of 1993—its labor market ranks only slightly below Fresno's among California's 10 major MSAs over the past year. Among the nation's Top 100 MSAs, Sacramento's 0.1% job decline during the year ended in third-quarter 1993 ranked 71st. Over the past year, 1.0% gains in the MSA's labor force have outpaced the 0.5% growth in civilian employment, leading to a rise in the unemployment rate. Unemployment here averaged 8.5% in the third quarter, close to the state average.

The construction, services, and finance, insurance, and real estate sectors have provided the foundations for the MSA's stabilization. On the other hand, weakness has appeared during the last few quarters in the MSA's manufacturing, trade, and federal government sectors. Cuts at lumber and food-processing firms have reduced manufacturing payrolls, while the closure of Mather AFB has cost nearly 2,500 civilian Department of Defense jobs since the beginning of 1993.

Housing markets have remained fairly flat over the past six quarters, as permit authorizations hovered at near an 8,000-unit annual average over the period. In October, home sales were 2.5% above year-earlier levels, according to the California Association of Realtors. However, the association's survey indicates that median home prices have also remained somewhat flat—at \$129,000—over the past year, marginally below year-earlier averages.

Forecast Profile

Slowly accelerating gains in Sacramento's durables manufacturing, business services, and finance sectors will allow the MSA to lead the rest of the state toward recovery. Although risks exist for further cuts in government sectors, California's slowly recovering economy and the near completion of federal and military employment cuts associated with the closure of Mather AFB and the Sacramento Army Depot will help brighten these sectors' prospects. Furthermore, Sacramento will continue to enjoy in-migration from the weaker Bay Area and southern California regions. Through the end of 1994, Sacramento's 0.8% employment gains will remain weak by national standards, but will remain better than that of most other California MSAs. Thereafter, growth will accelerate to 3.3% per year by 1997, as most major industrial sectors share in the expansion.

Government sectors, however, are at risk of further weakness. Anemic growth in state revenues may necessitate additional wage freezes for state employees, and will clearly keep a lid on future hiring. Nevertheless, Sacramento's expanding population will continue to demand more educational services. Federal government employment should remain shaky over the next two years, but will stabilize after the closure of Mather AFB.

Durables manufacturing will post modest employment gains in 1994-95, which will help boost the region's service and trade sectors. Intel and NEC have reaffirmed expansion plans that will boost payrolls above current levels. NEC will add approximately 200 jobs to its semiconductor facilities in Roseville over the next few months, while Intel has moved ahead with its multi-million-dollar investment to expand computer chip capacity. Hewlett-Packard will also add nearly 400 to its warehouse staff (from its domestic field operations) in the next year. Offsetting some of these gains will be Aerojet's plan to eliminate an additional 200 jobs in early 1994 due to cuts in NASA's solid rocket program.

On the other hand, nondurables manufacturing will remain weaker over the short term. Sacramento's food-processing industry faces competitive pressures that are likely to reduce employment further. Delta Sugar is closing its Clarksburg plant, dropping 400 workers from payrolls. Increased automation and competition has forced Blue Diamond Almond Growers to trim employment levels. Furthermore, Proctor & Gamble recently announced that it will phase out production of laundry and household chemical

production at its Sacramento facility over the next year. All told, Sacramento's manufacturing sector will post 0.6% average annual job declines through 1998, on a par with the nation.

Finance, insurance, and real estate employment will continue to contribute significantly to the MSA's growth prospects, as Sacramento benefits from a resurgent homebuilding industry and growth in insurance claims and financial-processing activities. Despite consolidations in the banking industry nationwide, employment in Sacramento's financial sector has increased modestly over the past year. Firms such as Kemper and Aetna Life and Casualty have consolidated operations into the region. In addition, Maryland Casualty announced plans to expand its claim-processing facility, a move that would add some 100 employees to Sacramento. Finally, recent economic development proposals include the siting of an insurance industry "incubator" in the closed Sacramento Army Depot. Total job gains in this sector will average 2.4% annually through 1998, easily outpacing national growth of 1.4%.

Sacramento's accelerating job growth and low housing costs will lure new residents from the weaker Bay Area and southern California economies. In turn, these robust population gains will augment growth in the MSA's trade, services, and educational sectors. Over the next five years, Sacramento's population will expand 1.9% per year, sufficient to rank in the top 10 of the nation's major MSAs.

After nearly one year of fits and starts, Sacramento's housing market will finally move forward over the next two years. Stronger employment and population gains will stimulate the need for added housing stock. Housing permits will exceed 10,000 units in 1994, after reaching an estimated 8,200 units in 1993. Thereafter, permit activity will accelerate to 14,500 units in 1998.

Short-Term Outlook for Sacramento, CA; 1991-98

	1993				1994		1991	1992	1993	1994	1995	1996	1997	1998
	1	2	3	4	1	2								
Employment (Thousands, seas. adj.)														
Total Nonfarm	622.2	621.8	622.2	623.9	623.6	624.1	631.0	622.8	622.5	625.5	638.8	659.2	681.8	711.1
Manufacturing	42.6	42.3	41.9	41.8	41.7	41.7	41.4	42.6	42.1	41.6	41.6	40.9	40.6	40.6
Durables	24.2	24.2	23.9	23.8	23.8	23.8	23.9	24.1	24.0	23.8	23.8	23.2	22.7	22.7
Nondurables	18.5	18.1	18.0	18.0	17.9	17.9	17.5	18.4	18.1	17.9	17.8	17.7	17.9	17.9
Nonmanufacturing	579.6	579.5	580.4	582.1	581.9	582.4	589.6	580.0	580.4	583.8	597.2	618.3	641.3	641.3
Transp. & Util.	29.3	29.1	28.8	28.8	28.7	28.6	28.2	29.1	28.0	28.6	28.7	28.9	29.2	29.2
Trade	142.5	142.4	141.7	142.4	141.9	141.9	151.3	142.7	142.3	142.2	144.0	148.0	148.8	148.8
Fin., Ins., & RE	42.8	42.9	43.2	43.3	43.4	43.6	42.4	42.4	43.0	43.7	44.7	45.5	46.7	46.7
Services	151.8	152.1	150.7	151.3	151.6	152.3	147.9	150.1	151.5	152.8	158.4	166.8	176.1	176.1
Federal Govt.	25.5	24.2	23.9	23.8	23.8	23.0	27.7	26.8	24.4	23.0	22.5	22.5	22.3	22.3
State & Local Govt.	159.8	160.5	163.0	163.5	163.7	164.2	156.9	158.6	161.7	164.5	167.9	172.5	178.5	178.5
Construction	27.1	27.7	28.4	28.3	28.2	28.1	33.2	28.6	27.9	28.3	30.9	35.4	39.1	39.1
Mining	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7
Employment (Annual rate of change)														
Total Nonfarm	2.2	-0.3	0.2	1.1	-0.2	0.3	2.0	-1.3	0.0	0.5	2.1	3.2	3.4	3.4
Manufacturing	4.4	-3.0	-4.3	-0.9	-0.6	-0.2	-5.4	2.8	-1.0	-1.2	-0.2	-1.7	-0.7	-0.7
Durables	4.7	0.4	-5.0	-2.2	0.0	0.6	-7.0	0.8	-0.6	-0.9	0.2	-2.6	-2.0	-2.0
Nondurables	4.0	-7.4	-3.2	0.8	-1.4	-1.2	-3.1	5.5	-1.5	-1.5	-0.6	-0.4	1.0	1.0
Nonmanufacturing	2.0	-0.1	0.6	1.2	-0.2	0.4	2.6	-1.6	0.1	0.6	2.3	3.5	3.7	3.7
Transp. & Util.	8.4	-3.5	-3.8	-0.1	-0.7	-1.0	3.5	-0.2	-0.5	-1.2	0.3	0.7	0.9	0.9
Trade	3.1	-0.4	-1.9	2.0	-1.4	-0.1	2.7	-5.7	-0.3	-0.1	1.3	1.4	1.9	1.9
Fin., Ins., & RE	4.6	1.8	2.5	0.5	1.3	1.9	6.8	-0.1	1.5	1.6	2.1	1.8	2.7	2.7
Services	5.8	0.6	-3.7	1.8	0.9	1.7	6.5	1.4	0.9	0.9	3.7	5.3	5.6	5.6
Federal Govt.	-16.3	-20.0	-4.0	-0.1	-5.2	-9.7	-7.5	-3.1	-9.1	-5.6	-2.1	-0.2	-0.9	-0.9
State & Local Govt.	1.9	1.7	6.4	1.1	0.7	1.2	1.6	1.1	1.9	1.7	1.7	3.1	3.5	3.5
Construction	-12.3	9.2	10.3	-0.8	-1.9	-1.8	-6.3	-11.0	-5.7	1.6	9.1	14.8	10.3	10.3
Mining	-22.2	-6.9	0.5	0.8	1.8	1.3	55.9	-18.0	-10.6	-0.1	-2.0	0.1	0.5	0.5
Population and Labor Market Measures														
Population (Thous.)	1803.7	1809.3	1614.5	1618.7	1624.2	1628.6	1537.5	1578.7	1611.5	1631.6	1659.2	1698.1	1734.7	1734.7
Labor Force (Thous.)	795.3	790.6	796.1	796.7	799.9	802.4	764.8	784.4	794.7	804.2	820.4	841.3	861.2	861.2
Unemployment Rate (%)	7.8	7.5	8.5	8.4	8.3	8.2	6.4	7.9	8.0	8.1	7.8	7.8	7.1	7.1
Population and Labor Market Measures (Annual rate of change)														
Population	2.3	1.4	1.3	1.1	1.4	1.1	2.7	2.7	2.0	1.2	1.7	2.3	2.2	2.2
Labor Force	2.0	-2.3	2.8	0.3	1.7	1.2	2.8	2.6	1.3	1.2	2.0	2.6	2.4	2.4
Income (Annual rates)														
Total (Billion \$)	31.95	32.59	32.87	33.28	33.55	33.96	30.00	31.67	32.67	34.18	38.25	38.70	41.32	41.32
Wages & Salaries	18.10	18.59	18.78	18.93	19.04	19.21	17.87	18.48	18.59	19.33	20.38	21.58	22.79	22.79
Nonwage	13.85	14.00	14.11	14.35	14.52	14.75	12.13	13.19	14.08	14.84	15.87	17.14	18.53	18.53
Residence Adjustment	-0.30	-0.30	-0.30	-0.31	-0.31	-0.32	-0.19	-0.26	-0.30	-0.33	-0.37	-0.41	-0.44	-0.44
Real Per Capita (Thous. \$87)	15.79	15.95	15.98	16.03	15.97	16.01	16.28	16.18	15.94	16.02	16.20	16.35	16.59	16.59
Avg. Annual Wage (Thous. \$)	28.61	29.42	29.68	29.86	30.04	30.30	27.82	28.18	29.39	30.43	31.46	32.28	33.04	33.04
Housing Permits Authorized (Thousands, annual rates)														
Total Permits	8.22	7.48	8.21	9.17	9.21	10.20	9.81	9.12	8.27	10.17	11.77	13.01	14.31	14.31
Single-Family	7.91	6.95	7.64	8.68	8.80	9.68	7.60	7.92	7.79	9.65	11.16	11.92	12.55	12.55
Multi-Family	0.31	0.53	0.57	0.48	0.41	0.52	2.21	1.20	0.47	0.52	0.61	1.09	1.76	1.76

Note: Single- and multi-family housing permits may not equal total permits due to rounding.

San Diego, CA

by Mark Gallagher

Forecast Highlights

- San Diego's economic weakness will linger into 1994, with no growth in the first half of the year, and only modest gains later.
- The MSA's economy will expand by 1.7% in 1995, as the worst cuts in commercial construction, defense, and financial services end and San Diego takes advantage of expanding tourist industries, reawakening residential construction markets, and the positive effects of NAFTA.
- The local manufacturing sector will remain weak over the next five years, as aerospace output shrinks and the MSA faces competitive pressures from other regions of the nation.
- Growth in San Diego's rapidly emerging biotech sector will help spur gains in nondurables manufacturing.

Economic Structure

San Diego's climate and location make an attractive setting for both commerce and recreation. Over 35 million tourists visit Sea World, the San Diego Zoo, and nearby Tijuana each year. International trade, especially the maquiladora program with Mexico, has surged over the past decade. In 1990, over \$6 billion in trade passed through the San Diego Customs District. And trade should grow under NAFTA.

Although San Diego still has a large military presence—over 130,000 active duty personnel, including a large contingent of Navy staff—its economic base has diversified substantially over the past two decades. Aerospace, electronic components, instruments, wholesale trade, and business services are key components of the MSA's economic base. San Diego is also home to a growing cluster of biotechnology industries.

Since 1980, San Diego's population has grown by over 700,000, to its present 2.6 million, ranking 11th among Top MSAs. Although San Diego has some high-wage industries, its large military population—with a relatively high number of dependents—places per capita income in the middle of the national average.

Economic Performance Summary

	Level				Annual Percent Change					
	1993:3	Rank	1988:4	Rank	1991:1-1993:3	Rank	1993:3-1994:4	Rank	1994:4-1998:4	Rank
Total Employment (Thous.)	931.1	18	1030.6	18	-1.6	92	0.3	93	2.5	20
Manufacturing	115.3	24	106.1	28	-5.6	95	-2.5	94	-1.3	89
Nonmanufacturing	815.8	19	924.4	18	-1.0	88	0.7	93	2.9	14
Population (Thous.)	2817.2	13	2746.7	13	1.2	42	0.8	59	1.0	49
Labor Force (Thous.)	1203.2	16	1290.6	17	1.0	47	1.4	65	1.3	61
Unemployment Rate (%)	8.3	10	6.4	16						
Personal Income (Bil. \$)	55.2	17	72.8	16	4.0	84	4.3	82	5.8	48
Per Capita Income (Thous. \$)	21.1	53	26.5	62	2.7	90	3.4	91	4.8	47
Avg. Annual Wage (Thous. \$)	28.9	34	33.9	38	4.2	84	2.9	85	3.2	71
Housing Permits (Thousands)	6.4	42	16.9	12	-27.1	99	44.6	5	13.5	3

Note: Ranks are out of DRI's Top 100 MSAs.

Recent Evidence

San Diego's economy remains weak; employment has continued to decline, led by weakness in construction, manufacturing, and trade. In the first two quarters of 1993, the MSA posted modest declines in total employment, followed by a steeper 1.6% annual decline in the third quarter. Since 1992, San Diego's employment has dropped by 1.3%, the ninth-worst performance among Top 100 MSAs. Its dismal performance matches that of several other large California MSAs, including Los Angeles, San Jose, and Oakland. Low employment, coupled with modest gains in the labor force, contributed to an 8.3% unemployment rate in the third quarter—the highest since late 1983.

Declines in durables manufacturing are contributing heavily to San Diego's weakness. With large aerospace firms such as Rohr Industries and General Dynamics aggressively reducing work forces, payrolls have shrunk by 7,200 jobs, or 7.7%, over the past year. Construction and trade—two sectors that have imploded with San Diego's weak commercial real estate market and tepid consumer spending—have fallen by 6.9% and 2.5% over the past year. Despite hopes for a robust recovery in tourism activity in 1993, recent data compiled by the San Diego Chamber of Commerce reveal that hotel occupancies, visits to important sites, and passenger traffic at Lindbergh Field were all slightly below year-earlier levels.

One positive sign for San Diego has been the revival of home sales and residential construction activity. According to the California Association of Realtors, San Diego's home sales were up 8.4% over year-earlier levels in October. Housing permits have risen for three consecutive quarters and are now double their annualized low of 3,200 units in the fourth quarter of 1992. At this level, however, permit activity remains well below the MSA's annual average of 24,000 units in the 1980s.

Forecast Profile

San Diego's economic weakness will linger into 1994, with no growth in the first half and only modest gains late in the year. With further cutbacks to come in aerospace-related durables manufacturing, San Diego's employment performance will rank 93rd among the Top 100 MSAs through the end of 1994. As a result, San Diego's unemployment rate will hover close to 8% through most of 1994.

San Diego's economy will begin to progress in 1995, however, as employment expands by 1.7%. With the worst cuts in commercial construction, defense, and financial services industries ending, the MSA will be poised to take advantage of expanding tourist industries, reawakening residential construction markets, and, most importantly, NAFTA. With the promise of additional trade boosting the demand for transportation, business, and financial services, San Diego's employment growth will accelerate to 2.7% by 1997, outpacing national and statewide averages.

The nonmanufacturing sectors will drive this improved performance. Due to lingering weakness in manufacturing, however, San Diego's expansion will remain below its phenomenal growth during the 1980s. In fact, the MSA's average annual employment growth over the next five years will not exceed its last pre-recession year's growth of 3.1% in 1990.

San Diego's manufacturing sector will remain weak over the next five years, as aerospace output shrinks and the region faces competitive pressures from other regions of the nation. Durables manufacturing will shed an additional 11,000 jobs, or 13% of its total employment, over the next five years. These losses included General Dynamics' transfer of several thousand jobs to Tucson due to the sale of the missile systems division to Hughes Aircraft. In addition, the company's space systems division could be at risk due to a possible sale, a move that would cost over 1,000 jobs. Also, Rohr Industries is likely to reduce its work force by another 400 jobs.

In contrast, San Diego's nondurables manufacturing sector is likely to perform much better over the next five years, as employment rises above current levels. Growth in San Diego's rapidly emerging biotech sector will account for much of that performance.

The shrinking of the manufacturing sector has focused local governments' attention on the plight of firms and their reasons for leaving the region. A new public/private partnership, "Team San Diego," will

attempt to retain and recruit businesses. Officials have been successful in convincing Lego to build a family-oriented theme park in Carlsbad. While this won't affect manufacturing employment directly, it will bolster local tourism, and could provide up to 800 new jobs.

Indeed, the recovery of San Diego's tourism sector will be a key component in driving services and trade employment sectors over the next year. On the other hand, San Diego's construction payrolls will continue to decline through mid-1994, due to lingering weakness in the commercial sector. Gains in housing will translate into higher construction employment.

In line with improving employment and income growth, housing markets will respond to the MSA's expansion in 1994. After reaching 6,300 units in 1993, permits will surpass 11,000 units by 1995, as low mortgage rates and strengthening home sales stimulate new construction activity.

Short-Term Outlook for San Diego, CA: 1991-98

	1993				1994		1991	1992	1993	1994	1995	1996	1997	1998
	1	2	3	4	1	2								
Employment (Thousands, seas. adj.)														
Total Nonfarm	835.7	834.9	831.1	829.9	829.9	830.0	862.6	845.0	832.9	831.6	847.2	869.2	895.2	10.
Manufacturing	119.3	118.8	115.3	113.5	113.0	112.8	131.0	124.0	118.2	112.3	110.8	107.7	106.6	11
Durables	89.1	86.9	85.1	83.6	83.1	82.7	102.5	93.8	88.2	82.3	80.4	77.3	75.7	
Nondurables	30.2	29.9	30.2	29.9	29.9	29.9	28.5	30.2	30.0	30.0	30.3	30.4	30.9	9
Nonmanufacturing	816.4	818.1	815.8	816.5	816.9	817.4	831.7	821.0	816.7	819.3	836.6	861.5	888.6	
Transp. & Util.	35.2	35.0	34.7	34.6	34.5	34.5	35.9	34.7	34.9	34.5	34.6	34.8	35.1	2
Trade	218.1	216.4	213.6	214.3	214.4	214.3	231.7	219.7	215.6	214.6	216.3	217.8	220.1	
Fin., Ins., & RE	60.8	60.8	60.4	60.6	60.6	60.7	62.8	60.9	60.6	60.8	61.5	62.0	62.8	
Services	284.0	286.7	286.9	287.1	288.3	289.7	274.6	282.8	288.2	290.5	300.3	313.9	329.0	3
Federal Govt.	44.7	43.9	43.8	43.7	43.2	42.1	47.1	45.3	44.0	42.1	41.2	41.0	40.8	1
State & Local Govt.	133.3	134.1	136.0	136.0	136.3	137.0	131.8	133.8	134.9	137.2	140.5	146.0	152.6	
Construction	39.8	40.7	40.0	39.6	39.1	38.6	47.0	43.3	40.0	39.1	41.8	45.5	47.8	
Mining	0.5	0.5	0.5	0.5	0.5	0.5	0.8	0.5	0.5	0.5	0.5	0.5	0.5	
Employment (Annual rate of change)														
Total Nonfarm	-0.1	-0.3	-1.6	-0.5	0.0	0.0	-0.4	-1.8	-1.3	-0.1	1.7	2.3	2.7	
Manufacturing	-0.9	-8.1	-5.2	-8.1	-1.7	-1.5	-2.3	-5.3	-8.3	-3.4	-1.5	-2.6	-1.1	
Durables	-0.9	-9.3	-8.2	-8.8	-2.3	-2.3	-3.4	-8.5	-8.1	-4.5	-2.4	-3.9	-2.1	
Nondurables	-0.9	-4.4	4.0	-4.2	0.1	0.8	1.8	5.9	-0.6	0.2	1.0	0.6	1.4	
Nonmanufacturing	0.0	0.9	-1.1	0.3	0.2	0.2	-0.1	-1.3	-0.5	0.3	2.1	3.0	3.2	
Transp. & Util.	8.2	-2.5	-3.8	-0.7	-0.6	-0.7	0.0	-3.5	0.5	-1.1	0.3	0.5	0.9	
Trade	0.9	-3.0	-5.1	1.4	0.2	-0.2	-2.1	-5.2	-1.9	-0.5	0.8	0.7	1.1	
Fin., Ins., & RE	-0.4	-0.4	-2.7	1.3	0.3	0.7	-1.8	-3.0	-0.4	0.3	1.1	0.8	1.3	
Services	2.0	3.9	0.3	0.3	1.6	2.0	3.1	3.0	1.2	1.5	3.4	4.5	4.8	
Federal Govt.	-4.9	-7.0	-1.2	-0.5	-5.2	-8.6	-4.2	-3.9	-2.7	-4.4	-2.2	-0.3	-0.5	
State & Local Govt.	-1.2	2.6	5.8	-0.3	1.1	1.8	2.9	1.5	0.8	1.8	2.4	3.9	4.6	
Construction	-14.1	9.5	-8.8	-3.2	-5.4	-4.6	-9.0	-7.9	-7.6	-2.3	6.8	9.0	5.0	
Mining	7.1	-2.2	-2.5	-7.5	-4.9	1.1	-8.9	-16.7	-0.3	3.4	-1.8	0.4	0.4	
Population and Labor Market Measures														
Population (Thous.)	2688.6	2612.1	2617.2	2621.9	2628.0	2635.1	2553.6	2588.6	2614.9	2636.7	2657.0	2672.9	2694.6	2.
Labor Force (Thous.)	1205.0	1200.7	1203.2	1203.4	1208.7	1214.1	1178.2	1195.6	1203.1	1216.3	1234.8	1247.3	1260.5	1.
Unemployment Rate (%)	7.8	7.5	8.3	8.3	8.2	8.1	6.1	7.4	8.0	8.1	7.7	7.7	7.1	
Population and Labor Market Measures (Annual rate of change)														
Population	1.4	0.5	0.8	0.7	0.9	1.1	1.8	1.4	1.0	0.8	0.8	0.6	0.8	
Labor Force	0.0	-1.4	0.9	0.1	1.8	1.8	0.2	1.6	0.6	1.1	1.5	1.0	1.1	
Income (Annual rates)														
Total (Billion \$)	53.58	54.81	55.16	55.73	56.19	56.83	50.63	53.21	54.82	57.13	60.03	63.29	67.15	
Wages & Salaries	29.18	30.17	30.30	30.47	30.83	30.87	28.90	28.86	30.03	31.03	32.40	33.95	35.88	
Nonwage	24.38	24.64	24.86	25.26	25.55	25.96	21.73	23.34	24.78	26.09	27.63	29.34	31.27	
Residence Adjustment	0.21	0.21	0.21	0.21	0.20	0.20	0.21	0.25	0.21	0.19	0.17	0.15	0.15	
Real Per Capite (Thous. \$87)	18.27	18.52	18.54	18.57	18.53	18.55	18.54	18.59	18.48	18.57	18.75	18.99	17.36	
Avg. Annual Wage (Thous. \$)	27.60	28.61	28.85	29.04	29.21	29.44	28.54	27.96	28.53	29.55	30.43	31.27	32.30	
Housing Permits Authorized (Thousands, annual rates)														
Total Permits	4.17	5.82	6.41	7.74	7.77	9.28	7.87	5.84	6.03	9.17	11.49	13.78	16.20	
Single-Family	3.03	3.71	3.97	4.81	4.97	5.83	5.27	3.75	3.90	5.87	7.41	8.66	9.84	
Multi-Family	1.15	2.11	2.44	2.83	2.80	3.34	2.59	2.10	2.13	3.31	4.09	5.12	6.36	

Note: Single- and multi-family housing permits may not equal total permits due to rounding.

San Francisco, CA

by Jay Kloepfer

Forecast Highlights

- San Francisco continues to lose jobs, as layoffs and weak markets plague the key business and health services, finance, retail trade, and utilities sectors. With further losses expected in 1994, employment growth here will rank last among the Top 100 MSAs, and next-to-last through 1998.
- The service sector, led by the tourism and convention industry, will provide one of the few avenues to growth over the next two years.
- The short-term outlook for San Francisco may be bleak, but the MSA is in the midst of several ambitious new development projects that will change the face of the metro area, and could position it to prosper into the next century.

Economic Structure

The San Francisco MSA, which includes Marin, San Francisco, and San Mateo counties, ranks 21st among U.S. metro areas in employment and 27th in population, with 1.6 million residents. As a long-time West Coast commercial hub and headquarters for many large corporations, San Francisco has high concentrations of employment in finance, business services, tourism, transportation, and communications. In particular, the finance, insurance, and real estate sector accounts for 11.1% of total employment, compared with 6.1% nationally. On the other hand, manufacturing constitutes only 8.3% of the MSA's jobs, or one-half the national share.

San Francisco is the centerpiece of the greater Bay Area regional economy, although more in title and spirit than in reality, since it is no longer the sole economic center of the region. The nine-county Bay Area is officially divided into five MSAs, although the greater region is in many ways the true economic unit. San Francisco county is the compact tip of the San Francisco peninsula, with San Mateo to the south and Marin across the Golden Gate to the north. The Silicon Valley is included in the San Jose MSA at the south end of the Bay, and the Oakland MSA (popularly referred to as the "East Bay") is across the Bay and includes Alameda and Contra Costa counties. To the north of the Oakland MSA lies the Vallejo-Fairfield-Napa MSA (defined as Napa and Solano counties), which includes the booming bedroom communities of Vallejo, Fairfield, and Vacaville, as well as the Napa Valley. Finally, between Marin and Napa counties lies the Santa Rosa-Petaluma MSA, which includes Sonoma County.

The links integrating the five Bay Area MSAs into one larger economy are extensive. The San Francisco MSA serves as the headquarters for an impressive list of large corporations, including Chevron, Bechtel, Southern Pacific, BankAmerica, Wells Fargo, Transamerica, PG&E, Fireman's Fund, Potlatch, Schlage Lock, Levi Strauss, Esprit, and Gap. Many of these corporations have large back-office operations in the Oakland MSA, particularly in the fast-growing Interstate-680 corridor. The southern part of the San Francisco MSA in San Mateo County includes the San Francisco International Airport, the Bay Area's primary passenger and cargo air terminal. The bedroom communities of San Mateo and Marin, along with the Oakland MSA, provide a large portion of San Francisco's work force. The Port of Oakland is the Bay Area's primary seaport, and the Oakland MSA serves as the transportation, warehousing, and distribution center for the entire region. San Jose includes the tens of thousands of high-tech jobs in the Silicon Valley, and draws on the Oakland and southern San Francisco MSAs for workers. The Vallejo-Fairfield-Napa MSA is a rapidly expanding bedroom community for the entire Bay Area, providing open space and affordable housing to a congested region, as well as a home to several large military installations.

San Francisco is one of the nation's most affluent metro areas: its per capita income of \$33,200 ranks second among the Top 100 metro areas, behind only Bridgeport, Connecticut. This amount is 44% higher than the Top 100 MSA average, and 59% above the national level. The area's exceptional income levels compensate for the extremely high costs of living and doing business. San Franciscans' wage rates are 25% above the major metro average, and fourth highest in the nation. Despite three years of essentially flat prices, the median home here is still two-and-a-half times the U.S. median.

Economic Performance Summary

	Level				Annual Percent Change					
	1993:3		1998:4		1991:1-1993:3		1993:3-1994:4		1994:4-1998:4	
		Rank		Rank		Rank		Rank	Rank	
Total Employment (Thous.)	909.3	21	933.8	26	-1.5	88	-0.5	100	0.8	99
Manufacturing	75.4	48	68.5	50	-1.6	42	-2.3	90	-1.7	95
Nonmanufacturing	833.9	18	865.3	23	-1.5	96	-0.4	100	1.1	100
Population (Thous.)	1056.1	27	1078.2	29	0.9	56	0.4	88	0.2	97
Labor Force (Thous.)	885.2	27	905.8	29	0.9	52	0.7	92	0.4	100
Unemployment Rate (%)	6.4	43	4.7	56						
Personal Income (Bil. \$)	54.9	18	68.3	20	4.5	72	3.6	87	4.5	89
Per Capita Income (Thous. \$)	33.2	2	40.7	3	3.6	73	3.1	97	4.3	90
Avg. Annual Wage (Thous. \$)	38.0	4	44.1	5	4.8	32	3.1	78	2.9	87
Housing Permits (Thousands)	1.8	64	3.0	79	-6.8	94	24.2	21	5.3	10

Note: Ranks are out of DRI's Top 100 MSAs.

Recent Evidence

The revised data for 1983-92 show that San Francisco's growth during the mid-to-late 1980s was more moderate than previously reported, with a lower employment peak in 1990 and a significantly smaller job drop during the recession. The MSA lost 23,300 jobs in 1992, following a 7,600 decline in 1991, less than half that previously reported for the two-year period. Although job losses have since eased, the recession persisted into 1993, as strong first-quarter gains across most sectors were reversed by second- and third-quarter declines in trade, public utilities, and services.

While southern California has been battered by defense and aerospace cutbacks and a plunge in real estate values, San Francisco's job losses have been concentrated in nonmanufacturing. The trade, finance, and services sectors accounted for 14,000 lost jobs in 1992, 60% of the MSA's total. Retail sales declined 9% in 1992 and languished through most of 1993, pulling trade employment almost 10% below its 1990 level. Finance, insurance, and real estate has shown mixed results in 1993: banking and insurance remain weak as Bank of America and Fireman's Fund announced layoffs, while brokerage firms such as Charles Schwab report strong earnings and job growth as investors combat low interest rates by moving into the securities markets. With the University of California at San Francisco medical center and a collection of world-class hospitals, employment in the health services sector has expanded to 5.5% of total employment, rising 2.5% annually while the rest of the local economy contracts. Intense cost and competitive pressures have forced numerous layoffs and hospital mergers over the past two years, however, bringing employment growth to a halt in 1993.

While the San Francisco MSA has retained the headquarters of many of its largest corporations, large parts of their operations and staff have migrated to lower-cost locations in the Oakland MSA and farther inland to Sacramento. BankAmerica, PG&E, and Chevron have moved major back-office operations to Concord, Walnut Creek, and San Ramon in Contra Costa County. Fireman's Fund left San Francisco proper, but remained in the MSA when it relocated to Novato, in Marin County. Transamerica keeps only several hundred staff in its signature namesake building in downtown. The high costs and perceived unfriendly business climate have driven away many of San Francisco's long-term corporate tenants. In their place, numerous small businesses and several new industries have moved in, including

biotechnology and the entirely new "multimedia" clusters developing in San Mateo County and South of Market in San Francisco.

Forecast Profile

The San Francisco metro area will suffer further job losses through 1995, ranking dead last nationwide in employment growth through 1994 and next-to-last during 1995-98. In fact, with average annual growth of just 0.9% after 1994, San Francisco will add few net new jobs, and it will be at least until the end of the decade before the MSA recovers its 1990 peak employment level. The financial sector will continue to contract over the next five years, the small manufacturing sector will shrink by almost 10%, and the government sector will reduce payrolls through mid-1995, if not longer. After shedding 2,800 jobs between 1990 and 1992, primarily in business services, San Francisco's huge service sector will provide one of the few avenues of job growth through 1998, supported largely by a strong tourism and convention sector.

San Francisco's finance, insurance, and real estate (FIRE) sector showed signs of stabilizing in the first half of 1993: real estate employment expanded, fueled by the highest rate of home sales since 1990, while stock brokerages have steadily added jobs. Layoffs announced in the second half of the year, however, darken the five-year outlook. Bank of America announced job cuts of up to 3,750 worldwide by the end of 1994, after laying off 8,000 employees since its 1992 merger with Security Pacific; Bank of America operates in 10 states and 37 countries, but about half of its 98,000 employees are in California. Along with cutbacks announced by Fireman's Fund in Novato, weakness in banking and insurance will overshadow the modest gains in real estate and brokerage employment. As such, FIRE employment will slide 0.5% per year from 1994 through 1998.

Three segments are key to San Francisco's service sector: business services, including software; health services; and visitor services, or tourism and conventions. Business services and tourism were responsible for most of the service sector's decline between 1990 and 1992, stemming from the weak state and national economies. The drop in business services was mitigated by the greater use of temporary help firms and consultants, as many of the industries that have downsized now contract out specific tasks or functions once performed by employees. Health services added jobs during the recession, growing at 2.5% per year. Since then, intense cost and competitive pressures have caused a wave of layoffs at hospitals and inspired mergers between hospital networks, dragging employment growth to a halt in 1993. Further consolidations in health care will keep total service employment flat for 1994, before strength in visitor services and recovering business services push employment growth towards 2% by 1998.

Manufacturing was reduced to a minor role in San Francisco's economy decades ago: it currently accounts for just 8.3% of employment, half the national share. Recent weakness in both durables (dominated by high-tech) and nondurables (including layoffs in apparel) will continue to erode manufacturing jobs over the next five years, reducing the total by 10% by 1998.

Two bright spots in the MSA's job picture are the newly emerging clusters of multimedia activity and biotechnology. "Multimedia Gulch" has emerged in San Francisco's South of Market, and along with the growing success of Visual Arts in San Mateo, this new industry has the potential to take off. With the ongoing spread of home computers and ready access to Silicon Valley technology, as well as the sophisticated network of venture capital and other financing available in the Bay Area, San Francisco is positioned to lead this industry into the full-flowering expected in the second half of the decade.

The downtown commercial real estate market firmed up during 1993, as office vacancy rates dropped modestly, while the much smaller Marin and San Mateo markets grew very tight. Part of the reason for these lower vacancies is bargain lease rates, with San Francisco's lease rates now comparable to those in many suburban office parks. The lower vacancy rates have not spurred any commercial construction, however. Financing is very difficult to obtain, property values are down 10-40% from 1990 levels, and many firms that have downsized hold "hidden" vacancies in space leased prior to consolidation, which will seep back into the market as the leases expire. In San Francisco, the City Planning Commission

received no bids in 1993 for the annual "beauty contest" mandated by Proposition M, in which the city awards permits for a total of 475,000 square feet of commercial space.

Several enormous developments will irrevocably change the face of San Francisco and its future employment growth: the Yerba Buena Center, Mission Bay, the Waterfront Transportation Project, and the revitalization of the Civic Center area, as well as the proposed expansion of the airport, 12 miles south of the city. These projects will invigorate the MSA, adding housing, infrastructure, and commercial space, renovating the waterfront and Civic Center, adding jobs, and positioning the metro area for the next century.

The new convention center, part of the massive Yerba Buena Center, has been doubled in size. As a result, San Francisco has entered an elite league, with Los Angeles and Chicago, in its ability to handle the largest conventions, fueling the local tourism and convention business that will propel the metro area's economy. The Center, with its two million square feet of office space, along with the new San Francisco Museum of Modern Art, has completely revitalized the South of Market neighborhood.

Mission Bay is an entire community that will include new housing, parks and recreational facilities, commercial and office buildings, and the potential for up to 5,000 new jobs. Valued at \$2 billion, the project would represent the first substantial additions to San Francisco's housing stock in over 20 years.

The Waterfront Transportation Project will completely renovate a 7.5-mile stretch of prime waterfront between Fisherman's Wharf and the Mission Bay development. Improvements will include new ramps to the Bay Bridge, a new roadway and pedestrian promenade along the Embarcadero, extension of the Muni Metro streetcar lines to the Wharf and Mission Bay, and an expansion of the Muni subway station at Market Street, along with a hotly debated plaza in front of the landmark Ferry Terminal.

Short-Term Outlook for San Francisco, CA; 1991-98

	1993				1994		1991	1992	1993	1994	1995	1996	1997	1998
	1	2	3	4	1	2								
Employment (Thousands, seas. adj.)														
Total Nonfarm	917.5	915.5	909.3	908.1	906.5	904.8	939.6	916.3	912.6	904.6	904.1	911.8	921.7	931.2
Manufacturing	76.8	76.6	75.4	74.8	74.5	74.2	78.0	75.6	75.9	73.9	71.5	69.3	68.8	68.6
Durables	28.7	28.5	27.5	26.9	26.7	26.5	28.8	28.1	27.9	26.3	24.6	23.0	22.5	22.5
Nondurables	48.2	48.1	47.9	47.9	47.7	47.7	49.2	47.5	48.0	47.6	46.9	46.3	46.3	46.1
Nonmanufacturing	840.6	838.9	833.9	833.3	832.0	830.6	861.6	840.7	836.7	830.6	832.6	842.4	852.9	862.6
Transp. & Util.	76.7	76.3	75.9	75.4	75.0	74.7	76.8	77.8	76.1	74.5	73.9	73.8	73.7	73.8
Trade	184.6	182.7	181.4	181.6	181.4	181.2	205.4	198.1	192.6	191.2	191.7	193.4	195.5	198.3
Fin., Ins., & RE	102.7	102.8	102.3	102.3	102.2	102.1	104.8	102.0	102.5	101.9	100.5	99.9	99.7	99.5
Services	307.0	306.5	305.2	305.3	305.1	305.8	304.7	302.9	306.0	306.1	310.0	315.8	321.4	326.6
Federal Govt.	32.4	32.0	31.8	31.7	31.1	30.1	35.7	33.1	32.0	30.0	28.9	28.5	28.0	27.7
State & Local Govt.	98.2	98.9	98.2	98.1	98.0	98.0	103.0	100.1	98.4	97.9	97.9	99.1	100.8	102.5
Construction	28.4	28.9	28.4	28.4	28.5	28.2	30.4	28.1	28.5	28.4	29.2	31.3	33.3	33.6
Mining	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.8	0.6	0.6	0.6	0.6	0.6
Employment (Annual rate of change)														
Total Nonfarm	3.6	-0.9	-2.7	-0.5	-0.7	-0.7	-0.8	-2.5	-0.4	-0.9	0.0	0.8	1.1	1.0
Manufacturing	6.9	-1.1	-8.0	-3.6	-1.5	-1.5	0.0	-3.1	0.4	-2.6	-3.3	-3.0	-0.8	-0.2
Durables	8.0	-2.0	-12.8	-9.0	-2.4	-3.3	-1.7	-2.4	-0.7	-5.7	-6.4	-8.5	-2.2	-0.1
Nondurables	5.7	-0.6	-1.7	0.4	-0.9	-0.6	1.0	-3.5	1.0	-0.8	-1.5	-1.3	-0.1	-0.3
Nonmanufacturing	3.3	-0.8	-2.4	-0.2	-0.6	-0.7	-0.9	-2.4	-0.5	-0.7	0.2	1.2	1.2	1.1
Transp. & Util.	-1.0	-2.1	-2.0	-2.8	-1.8	-1.9	0.8	1.3	-2.2	-2.0	-0.9	-0.1	-0.1	0.1
Trade	2.6	-3.9	-2.7	0.4	-0.3	-0.5	-3.0	-4.8	-1.8	-0.7	0.3	0.9	1.1	1.4
Fin., Ins., & RE	2.3	0.6	-2.2	-0.1	-0.3	-0.5	0.4	-2.7	0.5	-0.6	-1.4	-0.6	-0.2	-0.2
Services	5.6	-0.6	-1.7	0.1	-0.2	0.9	-0.4	-0.6	1.0	0.0	1.3	1.9	1.8	1.6
Federal Govt.	-4.8	-4.8	-2.5	-1.7	-7.4	-11.9	-0.7	-7.2	-3.4	-6.1	-4.0	-1.3	-1.9	-1.1
State & Local Govt.	1.4	3.0	-2.8	-0.4	-0.5	-0.2	0.0	-2.9	-1.7	-0.5	0.0	1.2	1.7	1.7
Construction	17.8	7.6	-7.2	0.2	0.8	-3.4	-3.4	-7.7	1.8	-0.6	3.1	7.0	6.6	0.9
Mining	10.7	-6.7	-1.3	-4.9	1.2	1.6	16.6	-14.3	-0.1	-1.5	-2.2	0.1	0.4	0.1
Population and Labor Market Measures														
Population (Thous.)	1648.2	1652.4	1656.1	1658.9	1661.8	1663.6	1623.5	1637.6	1653.9	1663.7	1663.9	1663.8	1666.8	1674.3
Labor Force (Thous.)	891.9	888.7	885.2	887.8	889.7	891.1	869.3	878.0	886.3	891.5	894.5	895.7	898.8	903.3
Unemployment Rate (%)	6.1	5.8	6.4	6.3	6.2	6.2	4.8	6.1	6.2	6.2	5.9	5.8	5.3	4.8
Population and Labor Market Measures (Annual rate of change)														
Population	0.8	1.0	0.9	0.7	0.7	0.4	0.9	0.9	1.0	0.6	0.0	0.0	0.2	0.4
Labor Force	4.5	-1.4	-1.5	1.1	0.9	0.8	-0.7	1.0	1.2	0.4	0.3	0.1	0.3	0.5
Income (Annual rates)														
Total (Billion \$)	53.38	54.86	54.93	55.42	55.74	56.27	49.73	52.54	54.60	56.53	59.10	62.05	65.08	67.54
Wages & Salaries	33.77	34.61	34.84	34.97	35.05	35.28	32.50	33.75	34.60	35.45	37.00	38.71	40.30	41.29
Nonwage	19.63	19.85	20.08	20.45	20.70	21.00	17.23	18.79	20.01	21.08	22.11	23.34	24.78	26.25
Residence Adjustment	-5.59	-5.63	-5.67	-5.72	-5.75	-5.82	-5.47	-5.36	-5.65	-5.87	-6.23	-6.59	-6.91	-7.23
Real Per Capita (Thous. \$87)	25.67	26.05	26.03	26.04	25.93	25.96	25.55	25.90	25.95	25.98	26.34	26.76	27.20	27.28
Avg. Annual Wage (Thous. \$)	36.47	37.68	37.97	38.17	38.33	38.63	34.26	36.50	37.57	38.84	40.57	42.11	43.37	44.00
Housing Permits Authorized (Thousands, annual rates)														
Total Permits	3.54	1.49	1.84	2.11	2.11	2.31	2.51	1.84	2.24	2.29	2.54	2.72	2.94	2.97
Single-Family	0.81	0.72	0.76	0.88	0.90	1.00	0.96	0.68	0.74	1.00	1.17	1.28	1.41	1.47
Multi-Family	2.93	0.77	1.08	1.23	1.21	1.32	1.55	1.16	1.50	1.30	1.38	1.44	1.53	1.51

Note: Single- and multi-family housing permits may not equal total permits due to rounding.

San Jose, CA

by Mark Gallagher

Forecast Highlights

- Deeper defense and high-tech industry cutbacks will take their toll on San Jose's economy. Over the next year, the MSA will fail to increase employment, as it records the third-weakest labor market among the Top 100 MSAs.
- With many large high-tech firms opting to expand operations outside the MSA, manufacturing employment growth will be subdued. Coupled with defense cuts, manufacturing employment will decline over the next three years.
- After 1995, growth prospects for the high-tech and service sectors improve, with employment and income growth rates approaching national averages.

Economic Structure

The San Jose MSA, which consists of Santa Clara County, ranks as the 30th-largest metropolitan area in the nation and the seventh largest in California. Since 1980, the MSA's population has increased by 15% (or 200,000), ranking 43rd in the nation.

Dubbed "Silicon Valley," San Jose is home to some of the world's most prominent computer and electronics manufacturers: Apple Computer, IBM, Hewlett Packard, Sun Microsystems, Intel, National Semiconductor, and Advanced Micro Devices. Research and software development have taken on a more prominent role, however, in supporting the area's economic activity, as production-intensive manufacturing activities have shifted to lower-cost areas. Defense also supports a significant share of manufacturing activity. The MSA's largest employer is Lockheed Missiles and Space, while FMC Corp., Westinghouse, and Loral comprise almost three-quarters of the MSA's defense prime contract awards. In 1991, per capita defense prime contract awards averaged \$2,360, the eighth highest among MSAs.

With a high concentration of computing equipment, electronics, and instruments, manufacturing accounts for over 31% of the MSA's total employment—the highest share among the Top 100 MSAs. Key services sectors include software and business services. Because of its orientation toward high-tech manufacturing, San Jose's employment base tends to be much less diverse and more volatile than most other MSAs.

Economic Performance Summary

	Level				Annual Percent Change					
	1983:3	Rank	1986:4	Rank	1991:1-1993:3	Rank	1993:3-1994:4	Rank	1994:4-1998:4	Rank
Total Employment (Thous.)	769.3	29	834.1	31	-2.4	96	-0.2	98	2.1	41
Manufacturing	223.4	8	213.7	8	-5.6	94	-2.2	88	-0.4	43
Nonmanufacturing	545.9	35	620.4	36	-0.9	87	0.6	95	3.1	11
Population (Thous.)	1531.5	30	1594.0	30	0.7	71	0.6	77	0.8	63
Labor Force (Thous.)	825.3	29	885.8	30	0.5	64	1.8	53	1.3	64
Unemployment Rate (%)	7.3	21	5.6	33						
Personal Income (Bil. \$)	41.9	26	54.2	28	3.1	98	3.2	100	5.6	62
Per Capita Income (Thous. \$)	27.3	9	34.0	12	2.4	96	2.8	100	4.7	52
Avg. Annual Wage (Thous. \$)	39.4	3	46.0	3	4.3	59	2.5	98	3.1	75
Housing Permits (Thousands)	4.2	55	4.6	59	-4.8	92	-3.0	82	3.4	19

Note: Ranks are out of DRI's Top 100 MSAs.

Recent Evidence

Strong sales of computers, semiconductors, and software have provided little relief for the weak San Jose economy. Defense cuts and restructuring among large computer makers continue to decimate payrolls. Indeed, nonfarm employment fell by nearly 2% for the year ended in the third quarter, the third-worst performance among Top 100 MSAs.

In addition to a 4.2% decline in manufacturing employment during 1993, few positive developments have emerged in the MSA's nonmanufacturing sectors. Unlike Anaheim or Riverside, the services sector remains weak, and losses in the finance, insurance, and real estate sector continue to mount. San Jose has been in a retrenching mode since the end of 1988, the last year that it recorded four consecutive rises in employment. Since then, San Jose has shed 42,000 jobs, or 5.2% of total employment. The unemployment rate reached 7.3% in third quarter 1993, more than double the rate in late 1988.

Although losses for the past year in construction (down 0.8%) and trade (down 2.4%) have eased from sharp declines recorded over previous periods, durables manufacturing remains in a relatively steep downward slide. Over the past year, the sector has dropped over 9,000 jobs from payrolls. Despite improved profitability for semiconductor manufacturers, electrical machinery losses totaled 1,700 jobs over this period, while downsizing at many of the Valley's computer hardware manufacturers, including Apple, IBM, Sun, and Hewlett-Packard, has cost nearly 2,000 jobs. Defense-related cutbacks continue to contribute disproportionately to the losses: guided missiles and aerospace lost 3,200 jobs, or nearly 15% of the sector's total employment, over the past year.

Construction and housing markets remain weak due to the losses in manufacturing, income, and weak consumer confidence. Home sales have yet to revive, according to the California Association of Realtors. In October, the region's home sales stood more than 8% below year-earlier levels.

Forecast Profile

With the continuation of significant cutbacks in San Jose's defense and computer industries over the next year, the MSA's economy will not turn the corner until 1995. Nonfarm employment will decline through the first half of 1994, resulting in the third-worst national performance through 1994. Through 1998, employment and income growth will mirror the national averages. With a large proportion of defense cuts already past, growth in high-tech services, construction, and trade sectors will help boost the MSA's overall economic performance.

In the near term, however, recent announcements in the defense and high-tech sector do not bode well for the MSA. In addition, some of the Valley's healthier firms have shifted production to lower-cost regions of the United States. With the exception of Intel and Applied Materials, most large, expanding firms are either downsizing or holding employment near current levels in the MSA. Small, emerging high-tech companies are providing the bulk of new employment in the MSA.

In an attempt to control costs, Intel has undertaken widely publicized expansions in Sacramento, Albuquerque, and Phoenix. Amtel recently announced that it will expand semiconductor production facilities in Colorado Springs. Apple Computer appears to be accelerating movement of customer service facilities to Texas, adding to the nearly 1,000 jobs already lost in the Valley due to a restructuring announced last year. Apple's relocation underscores the importance of cost factors. At Apple's new site, land costs run nearly one-tenth of those in the Silicon Valley and prevailing wages for skilled personnel can be nearly 10% lower.

In other announcements, mainframe computer maker Amdahl (of Sunnyvale) is in the process of eliminating almost 10% of its work force, which could mean the loss of 1,000 jobs by the end of 1994. Competition in the computer disk drive market could lead to the elimination of 500 jobs at Conner Peripherals over the next year. In addition, two of the county's largest defense contractors, Lockheed Missiles and Space and FMC, continue to slash jobs. Lockheed announced an additional 1,600 job reduction during mid-1993.

With continued downsizing among defense and computer firms, manufacturing employment will keep eroding through the end of 1994 at a 2.2% annual rate (ranking 88th). In fact, further defense cuts and the movement of production to lower-cost regions will erode manufacturing payrolls over the next three years. Thereafter, stronger expansion in high-tech sectors will help lift service and trade sectors at stronger rates.

Population growth will remain sluggish over the next three years, reflecting the combination of a delayed employment recovery and high costs of housing. Over the next year, population gains of 0.6% will rank 77th, with 0.8% average annual gains improving to 63rd between the end of 1994 and 1998. With weak labor markets and the area's prohibitive prices, San Jose's housing sector will fail to make appreciable gains until 1995. Nonetheless, housing permits will average 4,300 units per year over the next three years, only slightly ahead of the 3,800 unit pace over the past three-year period.

Short-Term Outlook for San Jose, CA; 1991-98

	1983				1984		1991	1992	1993	1994	1995	1996	1997	1998
	1	2	3	4	1	2								
Employment (Thousands, seas. adj.)														
Total Nonfarm	778.4	773.6	789.3	788.1	767.2	766.6	805.9	786.0	772.4	767.0	770.6	781.4	803.6	828.9
Manufacturing	229.7	228.7	223.4	221.5	220.6	219.5	251.5	235.0	225.3	218.9	215.2	210.5	210.6	213.2
Durables	203.6	200.7	197.8	196.0	195.1	194.1	224.5	206.6	199.5	193.5	189.8	185.2	185.1	187.6
Nondurables	26.2	25.9	25.6	25.6	25.5	25.4	27.1	28.4	25.8	25.4	25.3	25.3	25.5	25.6
Nonmanufacturing	548.7	547.0	545.9	546.6	546.6	547.1	554.4	551.0	547.0	548.1	555.5	570.9	593.1	613.7
Transp. & Util.	22.9	22.9	22.6	22.6	22.5	22.4	22.6	22.2	22.8	22.4	22.3	22.5	23.2	23.7
Trade	156.2	154.5	153.4	153.7	153.7	153.7	165.0	157.9	154.4	153.8	154.7	155.9	159.4	162.5
Fin., Ins., & RE	31.1	30.7	30.9	30.8	30.8	30.8	31.5	31.5	30.9	30.8	30.8	31.2	32.1	33.0
Services	224.4	224.4	224.2	224.6	225.1	226.2	217.7	223.4	224.4	226.9	233.0	243.1	253.3	266.4
Federal Govt.	12.6	12.5	12.4	12.1	12.0	11.6	12.8	12.7	12.4	11.6	11.3	11.3	11.3	11.3
State & Local Govt.	74.0	74.8	75.0	75.4	75.6	75.8	76.3	75.9	74.8	75.8	76.1	77.5	79.8	82.0
Construction	27.4	27.0	27.2	27.2	26.9	26.5	28.1	27.2	27.2	26.6	27.2	29.0	31.8	34.7
Mining	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Employment (Annual rate of change)														
Total Nonfarm	0.6	-2.4	-2.2	-0.6	-0.5	-0.3	-1.1	-2.5	-1.7	-0.7	0.5	1.4	2.8	2.9
Manufacturing	1.2	-5.2	-5.6	-3.3	-1.7	-1.9	-2.6	-6.6	-4.1	-2.9	-1.7	-2.2	0.0	1.2
Durables	1.2	-5.5	-5.7	-3.7	-1.8	-2.0	-2.9	-7.1	-4.3	-3.0	-1.9	-2.4	-0.1	1.4
Nondurables	0.9	-3.5	-5.1	-0.4	-1.5	-0.9	-0.2	-2.5	-2.2	-1.6	-0.3	-0.1	0.6	0.3
Nonmanufacturing	0.3	-1.2	-0.8	0.5	0.1	0.3	-0.4	-0.8	-0.7	0.2	1.3	2.8	3.9	3.5
Transp. & Util.	18.3	1.2	-5.8	-0.3	2.3	-1.4	1.8	-1.7	2.4	-1.7	-0.5	1.3	2.9	2.3
Trade	0.9	-4.4	-2.7	0.7	0.2	-0.2	-2.3	-4.3	-2.2	-0.4	0.5	0.8	2.2	1.9
Fin., Ins., & RE	-5.4	-4.4	2.7	-2.0	0.1	0.1	-0.4	-0.1	-2.0	-0.3	-0.1	1.6	2.9	2.6
Services	-0.1	0.0	-0.4	0.8	0.9	1.9	1.5	2.6	0.4	1.1	2.7	4.4	5.0	4.3
Federal Govt.	-4.9	-3.1	-3.2	-8.1	-5.6	-10.1	-4.6	-0.9	-2.1	-6.1	-2.6	-0.5	-0.2	0.7
State & Local Govt.	-5.1	4.4	1.1	2.1	0.8	1.2	0.5	-0.8	-1.5	1.3	0.4	1.9	3.0	2.7
Construction	11.1	-5.5	3.7	0.1	5.5	-5.4	-4.9	-3.1	-0.1	-2.1	2.1	6.8	9.5	9.3
Mining	48.5	-7.0	-28.1	-10.7	1.6	2.0	21.1	-33.4	-0.8	-6.4	-2.2	0.1	0.4	0.1
Population and Labor Market Measures														
Population (Thous.)	1525.2	1528.1	1531.5	1535.0	1537.6	1539.5	1508.9	1516.7	1529.8	1540.2	1542.7	1543.8	1559.9	1584.8
Labor Force (Thous.)	832.2	825.4	825.3	827.2	831.0	834.3	814.8	821.9	827.5	836.1	845.8	849.5	859.5	878.1
Unemployment Rate (%)	6.8	6.5	7.3	7.3	7.2	7.1	5.5	6.8	7.0	7.1	6.8	6.7	6.2	5.7
Population and Labor Market Measures (Annual rate of change)														
Population	0.9	0.8	0.9	0.9	0.7	0.5	0.5	0.7	0.9	0.7	0.2	0.1	1.0	1.6
Labor Force	3.5	-3.2	0.0	0.9	1.8	1.6	-0.3	0.9	0.7	1.0	1.2	0.4	1.2	2.2
Income (Annual rates)														
Total (Billion \$)	40.79	41.73	41.88	42.24	42.49	42.85	39.21	40.89	41.66	43.01	44.57	46.66	49.72	53.03
Wages & Salaries	29.77	30.57	30.81	30.75	30.85	31.04	29.55	30.36	30.43	31.15	32.08	33.39	35.47	37.82
Nonwage	11.01	11.17	11.27	11.49	11.63	11.81	9.66	10.53	11.24	11.86	12.49	13.27	14.24	15.20
Residence Adjustment	-3.50	-3.50	-3.51	-3.54	-3.56	-3.60	-3.31	-3.34	-3.51	-3.64	-3.83	-3.99	-4.24	-4.59
Real Per Capita (Thous. \$87)	21.19	21.51	21.47	21.45	21.36	21.37	21.70	21.76	21.40	21.35	21.43	21.68	22.20	22.62
Avg. Annual Wage (Thous. \$)	37.62	39.07	39.36	39.60	39.80	40.06	36.26	38.21	38.86	40.21	41.28	42.38	43.78	45.39
Housing Permits Authorized (Thousands, annual rates)														
Total Permits	2.33	2.94	4.20	3.52	3.56	3.80	3.94	3.04	3.25	3.82	4.31	4.50	4.65	4.64
Single-Family	1.57	2.02	1.97	1.80	1.84	1.78	1.62	1.76	1.79	1.79	2.10	2.16	2.17	2.11
Multi-Family	0.76	0.93	2.23	1.92	1.82	2.02	2.33	1.28	1.46	2.03	2.21	2.34	2.48	2.54

Note: Single- and multi-family housing permits may not equal total permits due to rounding.

California Regions: Small Metropolitan Areas

Short-Term Outlook for Bakersfield, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	177.2	184.5	186.3	181.1	176.2	177.0	182.3	188.0
Manufacturing	11.3	10.9	10.8	10.7	10.4	10.3	10.4	10.2
Durables	6.1	5.7	5.7	5.7	5.4	5.4	5.4	5.2
Nondurables	5.2	5.2	5.1	5.0	5.0	5.0	5.0	5.0
Nonmanufacturing	166.0	173.7	175.5	170.4	165.8	166.6	171.9	177.8
Transp. & Util.	8.4	9.5	9.9	8.8	8.7	8.6	8.8	9.0
Trade	43.4	43.9	45.8	45.6	44.1	44.2	45.6	46.9
Fin., Ins., & RE	7.7	7.6	7.2	6.7	6.6	6.6	6.7	6.9
Services	39.2	41.6	42.8	43.7	43.2	44.7	47.5	49.3
Federal Govt.	12.9	13.1	12.4	11.5	11.2	10.6	10.3	10.7
State & Local Govt.	31.3	32.3	33.3	33.8	33.1	33.4	34.2	35.6
Construction	11.4	12.7	11.4	8.8	8.2	8.1	8.6	9.3
Mining	11.7	12.9	12.6	11.6	10.7	10.4	10.2	10.2
Employment (Percent change)								
Total Nonfarm	4.1	4.1	0.9	-2.8	-2.7	0.5	3.0	3.1
Manufacturing	1.6	-3.5	-0.5	-1.3	-2.5	-0.7	0.4	-1.8
Durables	2.2	-6.4	0.8	-1.1	-4.4	-1.0	0.7	-3.2
Nondurables	1.0	-0.1	-1.8	-1.5	-0.3	-0.4	0.1	-0.2
Nonmanufacturing	4.3	4.7	1.0	-2.9	-2.8	0.5	3.2	3.4
Transp. & Util.	12.4	12.3	4.5	-10.7	-1.4	-1.0	1.5	2.3
Trade	2.8	1.3	4.6	-0.7	-3.4	0.4	3.1	2.7
Fin., Ins., & RE	3.8	-0.9	5.2	-6.6	-1.9	-0.1	1.8	2.4
Services	7.8	6.1	2.8	2.0	-1.0	3.4	6.1	3.8
Federal Govt.	4.7	2.1	-5.5	-7.3	-2.7	-5.6	-2.6	3.8
State & Local Govt.	2.2	3.5	2.9	1.4	-1.9	0.8	2.6	4.1
Construction	2.5	11.3	-10.2	22.8	-7.0	-1.1	6.5	8.4
Mining	0.6	9.9	-2.8	-7.8	-8.0	-2.0	-2.0	-0.5
Population (Thous.)	526.8	548.1	569.5	583.2	586.5	581.2	587.0	605.5
Percent Change	6.8	4.1	3.9	2.4	0.6	0.8	1.0	1.4
Income								
Total (Billion \$)	7.87	8.56	8.95	8.23	9.26	9.81	10.18	10.85
Wages & Salaries	4.47	4.87	5.21	5.35	5.22	5.35	5.83	5.96
Nonwage	3.39	3.68	3.74	3.88	4.04	4.26	4.56	4.89
Real Per Capita (Thous. \$87)	13.86	13.58	13.11	12.81	12.43	12.44	12.71	12.84
Avg. Annual Wage (Thous. \$)	24.24	25.43	26.93	28.46	28.60	29.21	29.91	30.75

Short-Term Outlook for Chico, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	60.3	63.2	60.7	57.7	58.4	60.3	62.8	65.3
Manufacturing	6.0	6.4	5.6	5.0	4.9	4.9	5.0	5.0
Durables	3.6	3.7	3.0	2.7	2.6	2.6	2.7	2.6
Nondurables	2.4	2.7	2.5	2.3	2.3	2.3	2.3	2.4
Nonmanufacturing	54.3	56.8	55.1	52.7	53.5	55.4	57.9	60.4
Transp. & Util.	2.8	3.0	3.0	2.8	2.8	2.9	2.9	2.9
Trade	16.9	17.2	18.6	15.7	15.7	16.3	16.9	17.5
Fin., Ins., & RE	3.5	3.6	3.5	3.3	3.4	3.5	3.6	3.6
Services	16.2	17.2	18.1	17.5	18.0	18.9	20.0	21.2
Federal Govt.	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5
State & Local Govt.	11.2	11.6	10.3	10.4	10.6	10.9	11.1	11.5
Construction	3.1	3.6	3.0	2.5	2.5	2.5	2.8	3.1
Mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Employment (Percent change)								
Total Nonfarm	7.6	4.9	-4.0	-4.9	1.2	3.2	4.2	4.0
Manufacturing	7.0	6.5	-12.7	-10.1	-1.9	-0.3	1.9	0.5
Durables	8.1	2.9	-18.9	-9.9	-4.6	-1.0	2.5	-1.9
Nondurables	5.4	11.9	-7.1	-10.3	1.4	0.5	1.3	1.0
Nonmanufacturing	7.7	4.7	-3.0	-4.3	1.5	3.5	4.4	4.4
Transp. & Util.	-0.7	8.2	2.0	9.0	2.3	1.0	1.5	1.4
Trade	6.2	1.7	-3.4	-5.5	0.4	3.2	3.9	3.5
Fin., Ins., & RE	13.8	4.6	-4.0	-4.7	1.9	2.9	2.6	2.3
Services	10.7	6.1	4.9	-3.1	2.7	5.2	5.8	5.8
Federal Govt.	9.0	-2.3	0.7	-9.3	-2.7	-5.8	-2.6	3.9
State & Local Govt.	4.7	4.2	-11.5	0.8	1.8	2.8	2.5	3.3
Construction	13.5	13.3	-15.9	-16.7	-0.7	2.5	11.4	9.4
Mining	-60.4	462.1	19.8	-4.9	-8.4	-2.7	-2.6	-1.2
Population (Thous.)	178.2	183.7	187.7	187.0	189.6	197.1	202.5	207.3
Percent Change	6.1	4.3	2.2	-0.4	1.4	3.9	2.8	2.4
Income								
Total (Billion \$)	2.52	2.73	2.84	2.89	3.03	3.24	3.48	3.73
Wages & Salaries	1.08	1.18	1.19	1.21	1.23	1.30	1.38	1.48
Nonwage	1.45	1.55	1.65	1.68	1.80	1.94	2.09	2.24
Real Per Capite (Thous. \$87)	13.11	12.83	12.59	12.50	12.58	12.57	12.78	12.99
Avg. Annual Wage (Thous. \$)	17.71	18.52	18.43	20.71	20.86	21.34	21.89	22.51

Short-Term Outlook for Merced, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	47.8	48.5	48.9	48.6	48.0	48.2	49.2	50.3
Manufacturing	9.4	8.9	9.1	8.2	8.2	8.2	8.3	8.4
Durables	2.8	2.5	2.4	2.2	2.1	2.0	2.1	2.0
Nondurables	6.6	6.4	6.7	6.0	6.1	6.2	6.2	6.3
Nonmanufacturing	38.4	39.6	39.7	40.4	39.8	40.0	40.9	42.0
Transp. & Util.	2.0	2.4	2.5	2.5	2.5	2.4	2.4	2.5
Trade	11.4	11.4	12.0	12.4	12.1	12.2	12.5	12.8
Fin., Ins., & RE	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.8
Services	7.9	8.1	8.3	8.8	8.8	9.0	9.4	9.9
Federal Govt.	1.4	1.5	1.3	1.1	1.0	0.8	0.7	0.6
State & Local Govt.	10.9	11.3	11.4	11.5	11.3	11.4	11.5	11.8
Construction	2.2	2.2	1.6	1.4	1.4	1.4	1.6	1.7
Mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Employment (Percent change)								
Total Nonfarm	0.6	1.4	0.8	-0.5	-1.3	0.4	2.1	2.3
Manufacturing	-8.7	-5.1	2.2	-9.7	-0.3	0.1	1.4	0.3
Durables	-7.3	-11.2	-4.1	-9.1	-4.8	-1.1	1.4	-2.8
Nondurables	-9.3	-2.5	4.7	-9.9	1.4	0.5	1.4	1.3
Nonmanufacturing	3.2	3.0	0.4	1.6	-1.5	0.5	2.3	2.7
Transp. & Util.	1.3	18.8	5.4	-0.7	-0.5	-1.4	0.1	0.3
Trade	-5.1	0.1	5.2	3.1	-2.4	0.7	2.5	2.4
Fin., Ins., & RE	6.1	0.6	-0.4	4.0	-1.0	0.4	1.3	1.2
Services	10.8	3.3	2.4	5.8	-0.2	2.6	4.4	4.6
Federal Govt.	6.5	2.0	-7.8	-18.4	-11.6	-16.3	-16.0	-10.4
State & Local Govt.	2.9	3.7	0.3	0.8	-1.0	0.3	1.2	2.1
Construction	25.3	3.3	-29.7	-10.6	-1.0	2.0	11.7	10.0
Mining	4.3	4.7	1.5	-4.1	-7.6	-1.8	-1.7	-0.3
Population (Thous.)								
Total	172.6	178.8	186.0	184.5	201.7	204.6	205.8	207.2
Percent Change								
Total	6.6	4.2	3.4	4.6	3.7	1.5	0.6	0.7
Income								
Total (Billion \$)	2.25	2.40	2.48	2.89	2.76	2.88	3.04	3.22
Wages & Salaries	1.07	1.16	1.23	1.31	1.30	1.33	1.39	1.46
Nonwage	1.18	1.24	1.26	1.39	1.47	1.55	1.65	1.75
Real Per Capita (Thous. \$87)	11.85	11.59	11.12	11.21	10.79	10.78	11.00	11.21
Avg. Annual Wage (Thous. \$)	20.06	21.55	22.52	24.25	24.48	25.18	25.89	26.65

Short-Term Outlook for Modesto, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	126.2	131.1	125.4	125.3	125.9	129.1	134.6	140.0
Manufacturing	26.8	26.9	24.0	23.4	23.5	23.6	23.9	24.0
Durables	7.8	7.4	6.8	6.3	6.1	6.0	6.1	6.0
Nondurables	19.0	19.4	17.2	17.1	17.4	17.5	17.8	18.0
Nonmanufacturing	99.4	104.2	101.4	101.9	102.4	105.6	110.7	116.0
Transp. & Util.	5.1	6.1	5.8	6.1	6.1	6.2	6.3	6.4
Trade	32.1	33.4	33.5	33.5	33.3	34.3	35.9	37.3
Fin., Ins., & RE	5.8	5.4	5.3	5.2	5.3	5.4	5.6	5.7
Services	26.1	27.3	28.9	29.1	29.7	31.1	33.1	35.2
Federal Govt.	0.9	1.0	0.9	0.8	0.8	0.7	0.7	0.7
State & Local Govt.	20.4	21.7	19.8	20.6	20.8	21.3	22.0	22.8
Construction	8.8	9.2	7.1	6.5	6.3	6.4	7.1	7.8
Mining	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Employment (Percent change)								
Total Nonfarm	8.8	3.9	-4.3	-0.1	0.5	2.5	4.2	4.0
Manufacturing	7.4	0.3	-10.7	-2.5	0.5	0.2	1.2	0.5
Durables	9.7	5.1	-8.5	-7.5	-2.9	-1.3	0.8	-1.7
Nondurables	6.5	2.5	-11.6	-0.5	1.7	0.7	1.4	1.2
Nonmanufacturing	8.9	4.9	-2.7	0.5	0.5	3.1	4.9	4.8
Transp. & Util.	1.4	18.3	-4.6	4.8	1.3	0.6	1.9	1.7
Trade	4.5	3.9	0.3	0.1	-0.5	2.9	4.5	4.0
Fin., Ins., & RE	17.8	-6.5	-2.4	-1.8	1.0	2.6	3.2	2.8
Services	11.7	4.8	5.9	0.7	1.8	4.9	6.5	6.4
Federal Govt.	6.4	2.4	-5.0	-14.3	-3.1	-6.0	-3.0	3.9
State & Local Govt.	10.4	6.3	-8.8	4.1	0.9	2.4	3.0	3.7
Construction	13.6	5.2	-23.4	-8.7	-1.9	1.4	11.0	8.9
Mining	4.3	4.7	1.5	-4.1	-7.6	-1.8	-1.7	-0.3
Population (Thous.)								
Population (Thous.)	352.2	373.7	388.4	402.2	421.7	435.5	448.2	458.6
Percent Change	8.6	6.1	3.9	3.5	4.9	3.3	2.4	2.3
Income								
Total (Billion \$)	5.19	5.85	5.89	6.41	6.62	7.00	7.49	8.00
Wages & Salaries	2.61	2.89	2.94	3.12	3.16	3.31	3.53	3.77
Nonwage	2.58	2.76	2.95	3.28	3.47	3.69	3.96	4.23
Real Per Capita (Thous. \$87)	13.48	13.16	12.83	12.89	12.36	12.30	12.50	12.67
Avg. Annual Wage (Thous. \$)	20.51	21.87	23.20	24.73	24.86	25.43	26.05	26.76

Short-Term Outlook for Redding, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	53.1	56.3	58.8	56.1	54.9	55.7	58.2	60.8
Manufacturing	5.2	5.2	5.0	4.5	4.4	4.4	4.5	4.5
Durables	3.4	3.3	3.0	2.7	2.6	2.5	2.6	2.6
Nondurables	1.8	1.9	2.0	1.8	1.8	1.9	1.9	1.9
Nonmanufacturing	47.9	51.1	51.8	51.5	50.5	51.3	53.6	56.3
Transp. & Util.	3.9	4.1	4.0	3.9	3.8	3.8	3.9	3.9
Trade	14.1	15.7	15.5	15.5	15.0	15.3	16.0	16.6
Fin., Ins., & RE	1.8	2.0	1.9	2.0	1.9	2.0	2.0	2.1
Services	13.4	14.0	14.9	15.4	15.3	15.8	16.8	17.9
Federal Govt.	1.4	1.4	1.3	1.2	1.1	1.1	1.0	1.1
State & Local Govt.	9.1	9.5	9.9	10.0	9.8	9.9	10.2	10.6
Construction	4.0	4.3	4.0	3.4	3.3	3.2	3.6	3.9
Mining	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Employment (Percent change)								
Total Nonfarm	4.9	6.0	0.9	-1.3	-2.1	1.5	4.4	4.6
Manufacturing	-2.6	-0.3	-2.9	-10.0	-2.6	-0.4	2.4	-0.4
Durables	-2.2	-3.7	-7.3	-10.3	-5.1	-1.2	3.2	-1.1
Nondurables	-3.1	5.9	4.6	-8.8	1.2	0.8	1.2	0.5
Nonmanufacturing	5.8	8.7	1.3	-0.5	-2.1	1.7	4.6	5.0
Transp. & Util.	6.1	4.3	-1.6	-3.4	-1.2	-0.5	1.9	2.2
Trade	6.2	11.9	-1.7	0.3	-3.1	1.7	4.3	4.3
Fin., Ins., & RE	8.4	8.8	-0.2	1.3	-1.6	1.3	3.0	3.1
Services	4.6	4.3	6.9	3.0	-0.8	3.6	6.2	6.6
Federal Govt.	5.2	-1.3	-6.2	-9.3	-2.7	-5.6	-2.6	3.9
State & Local Govt.	0.5	4.7	4.1	0.8	-1.7	1.2	2.9	4.0
Construction	19.4	6.3	-6.4	-14.5	-5.1	-0.5	10.1	8.4
Mining	59.8	11.6	9.1	-5.2	-8.7	-3.0	-2.9	-1.5
Population (Thous.)	140.7	148.3	154.6	162.1	168.2	168.8	172.3	177.0
Percent Change	6.6	5.4	4.3	4.9	2.5	1.6	2.1	2.7
Income								
Total (Billion \$)	2.20	2.43	2.55	2.72	2.76	2.89	3.12	3.36
Wages & Salaries	1.07	1.18	1.22	1.28	1.28	1.30	1.40	1.50
Nonwage	1.13	1.24	1.33	1.44	1.50	1.59	1.72	1.86
Real Per Capite (Thous. \$87)	14.31	14.22	13.76	13.57	13.06	13.12	13.47	13.73
Avg. Annual Wage (Thous. \$)	20.04	20.83	21.34	22.85	22.80	23.28	23.86	24.53

Short-Term Outlook for Salinas-Seaside-Monterey, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	118.5	121.9	116.8	116.0	111.3	107.1	104.2	104.3
Manufacturing	10.8	10.4	8.8	8.4	8.2	8.2	8.2	8.1
Durables	3.7	3.5	3.0	2.8	2.7	2.6	2.6	2.5
Nondurables	7.1	7.0	5.8	5.6	5.6	5.5	5.6	5.6
Nonmanufacturing	107.7	111.5	108.0	107.6	103.1	98.9	96.0	96.2
Transp. & Util.	5.6	5.9	5.9	5.9	5.8	5.5	5.2	5.1
Trade	32.4	33.5	32.5	32.4	30.7	29.5	28.5	28.2
Fin., Ins., & RE	6.7	6.6	6.8	6.7	6.5	6.3	6.1	6.0
Services	32.5	34.1	32.4	33.1	32.1	31.3	30.9	31.2
Federal Govt.	6.3	8.5	7.9	7.2	6.6	5.7	5.1	5.3
State & Local Govt.	17.0	17.3	17.7	18.1	17.5	16.9	16.2	16.1
Construction	4.8	5.1	4.5	3.8	3.6	3.5	3.7	4.0
Mining	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
Employment (Percent change)								
Total Nonfarm	2.8	2.9	-4.2	-0.7	-4.0	-3.8	-2.7	0.1
Manufacturing	2.0	-3.5	-15.3	-5.4	-1.6	-0.7	0.2	-1.1
Durables	3.3	-6.3	-14.2	-7.5	-3.9	-1.1	-0.1	-3.7
Nondurables	1.4	-2.0	-15.9	-4.3	-0.4	-0.8	0.4	0.2
Nonmanufacturing	2.9	3.5	-3.1	-0.4	-4.2	-4.0	-3.0	0.2
Transp. & Util.	3.1	6.3	0.1	0.1	-2.5	-5.0	-4.3	-2.2
Trade	2.5	3.5	-3.1	-0.2	-5.3	-4.1	-3.1	-1.0
Fin., Ins., & RE	7.0	-1.3	2.1	-0.8	-3.0	-3.5	-3.5	-1.5
Services	6.8	5.0	5.0	2.1	3.2	-2.3	-1.4	1.0
Federal Govt.	-8.7	2.3	-7.7	-7.8	-9.1	-13.0	-11.6	4.0
State & Local Govt.	2.1	1.9	2.2	2.2	3.1	3.7	-3.7	-0.6
Construction	-1.0	4.7	-12.4	-14.2	-5.1	-3.5	5.6	7.1
Mining	6.1	4.1	2.0	-23.7	-9.3	-2.4	-2.4	-0.6
Population (Thous.)	349.1	359.7	364.7	370.0	373.9	367.4	354.6	345.9
Percent Change	4.5	2.8	1.7	1.5	1.0	-1.7	-3.5	-2.4
Income								
Total (Billion \$)	6.33	6.87	7.11	7.59	7.54	7.49	7.51	7.74
Wages & Salaries	3.24	3.49	3.61	3.88	3.78	3.70	3.69	3.80
Nonwage	3.09	3.37	3.50	3.71	3.78	3.79	3.82	3.94
Real Per Capite (Thous. \$87)	18.60	16.65	16.24	16.59	15.87	15.00	15.76	16.17
Avg. Annual Wage (Thous. \$)	22.78	24.03	25.93	28.28	28.65	29.41	30.16	31.10

Short-Term Outlook for Santa Barbara-Santa Maria-Lompoc, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	166.0	167.2	169.2	161.9	154.1	152.6	155.8	159.0
Manufacturing	23.3	22.8	23.7	21.0	19.6	18.9	18.6	17.9
Durables	19.7	19.0	19.6	17.5	16.2	15.5	15.1	14.4
Nondurables	3.6	3.8	4.1	3.5	3.4	3.4	3.4	3.5
Nonmanufacturing	142.7	144.4	145.4	140.9	134.5	133.7	137.2	141.1
Transp. & Util.	8.0	8.2	5.9	5.9	5.7	5.6	5.6	5.6
Trade	38.0	37.0	38.4	36.5	34.2	34.2	35.4	36.1
Fin., Ins., & RE	9.9	9.3	8.7	8.2	7.9	7.9	8.0	8.1
Services	49.4	51.0	51.5	50.5	48.4	48.2	49.6	51.3
Federal Govt.	4.6	4.6	4.3	4.1	4.0	3.8	3.7	3.8
State & Local Govt.	26.0	27.1	28.3	28.6	27.7	27.4	27.8	28.5
Construction	7.6	8.0	7.2	6.1	5.6	5.6	6.2	6.8
Mining	1.3	1.2	1.1	1.1	1.0	1.0	1.0	1.0
Employment (Percent change)								
Total Nonfarm	4.7	0.7	1.2	-4.3	-4.8	-1.0	2.1	2.1
Manufacturing	1.8	-1.9	4.0	-11.7	-6.4	-3.5	-1.8	-3.8
Durables	2.2	-3.3	3.0	-11.0	-7.3	-4.2	-2.3	-4.8
Nondurables	-0.3	5.4	8.6	-14.8	-1.7	-0.5	0.7	0.5
Nonmanufacturing	5.2	1.2	0.7	-3.1	-4.5	-0.6	2.6	2.8
Transp. & Util.	5.2	3.4	-5.1	-0.1	-2.5	-2.5	0.1	0.4
Trade	0.7	-2.8	3.9	-4.9	-6.5	0.2	3.4	1.9
Fin., Ins., & RE	8.9	-6.0	-6.2	-5.9	-3.2	-0.8	1.3	1.5
Services	9.2	3.3	0.8	-1.9	-4.1	-0.3	2.8	3.4
Federal Govt.	6.7	0.6	-6.4	-4.6	-2.7	-5.5	-2.6	3.9
State & Local Govt.	2.7	4.2	4.7	0.8	-3.1	-0.8	1.2	2.4
Construction	7.6	5.8	-10.5	-15.6	-7.1	-1.1	11.2	9.0
Mining	-2.3	-4.8	-5.6	-4.3	-7.0	-1.2	-1.1	0.3
Population (Thous.)	364.9	372.8	375.8	388.3	388.5	385.4	385.1	387.2
Percent Change	6.2	2.2	0.8	3.3	0.1	-0.8	-0.1	0.5
Income								
Total (Billion \$)	7.64	8.02	8.46	8.73	8.80	8.80	9.27	9.75
Wages & Salaries	3.82	4.08	4.40	4.49	4.31	4.35	4.55	4.77
Nonwage	3.81	3.94	4.06	4.24	4.29	4.45	4.72	4.98
Real Per Capite (Thous. \$87)	19.15	18.72	18.77	18.19	17.42	17.48	17.92	18.20
Avg. Annual Wage (Thous. \$)	22.38	23.79	25.30	26.89	27.20	27.82	28.52	29.33

Short-Term Outlook for Santa Cruz, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	88.4	92.2	91.5	91.8	90.3	91.0	93.1	94.5
Manufacturing	13.9	13.9	14.0	12.7	12.4	12.2	12.1	11.8
Durables	7.3	7.0	6.9	6.3	6.0	5.9	5.8	5.5
Nondurables	6.6	6.9	7.1	6.4	6.4	6.3	6.3	6.3
Nonmanufacturing	74.5	78.3	77.5	79.1	78.0	78.8	81.0	82.7
Transp. & Util.	3.0	3.1	3.5	3.5	3.4	3.4	3.4	3.3
Trade	23.9	23.6	24.1	24.7	24.1	24.3	24.8	25.1
Fin., Ins., & RE	4.5	4.0	3.7	3.8	3.8	3.8	3.8	3.8
Services	22.8	24.6	25.4	26.7	26.6	27.3	28.4	29.4
Federal Govt.	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5
State & Local Govt.	15.3	15.7	15.9	16.0	15.8	15.8	16.0	16.1
Construction	4.4	6.6	4.3	3.8	3.7	3.7	4.0	4.3
Mining	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Employment (Percent change)								
Total Nonfarm	4.1	4.3	-0.7	0.3	-1.6	0.7	2.3	1.5
Manufacturing	-0.5	0.0	1.0	-9.3	-2.5	-1.5	-0.8	-2.7
Durables	0.1	-4.6	-1.1	-8.6	-4.8	-2.1	-1.4	5.4
Nondurables	-1.2	5.2	3.1	-9.9	-0.2	-1.0	-0.3	-0.2
Nonmanufacturing	5.1	5.1	-1.0	2.0	-1.5	1.0	2.8	2.2
Transp. & Util.	9.8	4.8	12.5	-1.3	-0.7	-1.5	-0.1	-0.8
Trade	0.8	-0.9	2.2	2.5	-2.6	0.6	2.3	1.3
Fin., Ins., & RE	9.9	-10.7	-8.0	3.5	-1.2	0.3	1.0	0.1
Services	8.8	7.9	3.1	5.2	-0.4	2.5	4.2	3.5
Federal Govt.	3.5	2.5	-6.5	-9.3	-2.7	-5.8	-2.6	3.9
State & Local Govt.	2.5	2.6	1.3	0.8	-1.2	0.2	0.9	1.0
Construction	12.0	49.1	-34.7	-11.9	-3.3	0.2	9.6	7.0
Mining	12.1	-1.0	-9.3	-3.5	-7.1	-1.3	-1.2	0.2
Population (Thous.)	231.0	231.7	230.3	243.6	253.2	256.9	258.9	260.1
Percent Change	8.0	0.3	-0.6	5.8	3.9	1.4	0.8	0.4
Income								
Total (Billion \$)	4.28	4.98	5.17	5.58	5.70	5.94	6.29	6.58
Wages & Salaries	1.83	2.03	2.15	2.29	2.26	2.33	2.44	2.55
Nonwage	2.43	2.95	3.02	3.31	3.44	3.62	3.85	4.03
Real Per Capite (Thous. \$87)	18.87	18.88	18.72	18.58	17.73	17.71	18.09	18.29
Avg. Annual Wage (Thous. \$)	20.54	21.86	23.30	24.74	24.89	25.45	26.10	26.82

Short-Term Outlook for Santa Rosa-Petaluma, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	143.8	151.1	149.6	146.5	142.0	141.3	144.1	146.8
Manufacturing	20.5	21.6	20.5	19.7	19.1	18.8	18.8	18.5
Durables	13.5	13.8	12.9	12.4	11.7	11.4	11.3	11.0
Nondurables	7.0	7.8	7.7	7.3	7.4	7.4	7.5	7.6
Nonmanufacturing	123.2	129.5	129.1	126.8	122.8	122.5	125.3	128.3
Transp. & Util.	6.9	7.2	7.0	6.2	6.1	5.9	5.9	5.9
Trade	38.2	39.7	39.0	38.2	36.9	36.9	37.8	38.6
Fin., Ins., & RE	9.1	9.6	9.9	10.7	10.5	10.5	10.6	10.7
Services	34.5	37.4	39.9	39.3	38.1	38.2	39.2	40.3
Federal Govt.	2.0	2.0	1.8	1.7	1.6	1.6	1.5	1.6
State & Local Govt.	21.2	21.8	21.5	22.2	21.7	21.7	21.9	22.3
Construction	11.0	11.3	9.5	8.0	7.5	7.3	7.9	8.4
Mining	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Employment (Percent change)								
Total Nonfarm	5.9	5.1	-1.0	-2.0	-3.1	-0.4	2.0	1.8
Manufacturing	8.6	5.1	-5.0	-3.7	-3.1	-1.6	0.0	-1.7
Durables	8.3	2.1	-6.9	-3.4	-5.6	-2.8	-0.6	-3.3
Nondurables	9.2	10.8	-1.7	-4.2	1.1	0.2	0.9	0.8
Nonmanufacturing	5.4	5.1	-0.3	-1.8	-3.1	-0.2	2.3	2.4
Transp. & Util.	3.3	5.7	-3.4	-11.8	-1.7	-2.1	-0.1	0.0
Trade	5.3	3.8	-1.8	-2.0	-3.5	0.1	2.4	2.1
Fin., Ins., & RE	6.6	5.5	2.9	8.4	-1.9	-0.1	1.1	0.8
Services	7.1	8.4	6.8	-1.5	-3.1	0.3	2.6	2.8
Federal Govt.	3.4	1.2	-10.8	-7.3	-2.7	5.5	-2.6	3.9
State & Local Govt.	1.4	3.0	-1.4	3.2	-2.1	-0.3	1.0	1.8
Construction	9.9	3.1	-15.7	-16.2	-6.7	-2.3	8.6	6.5
Mining	4.3	4.7	1.5	17.5	-6.4	-1.5	-1.4	-0.3
Population (Thous.)	379.8	391.6	397.5	401.1	405.7	410.2	410.8	412.6
Percent Change	6.9	3.1	1.5	0.8	1.2	1.1	0.1	0.4
Income								
Total (Billion \$)	7.95	8.43	8.77	9.34	9.38	9.68	10.20	10.70
Wages & Salaries	3.11	3.46	3.62	3.80	3.70	3.77	3.94	4.12
Nonwage	4.84	4.97	5.15	5.54	5.68	5.91	6.27	6.58
Real Per Capita (Thous. \$87)	19.16	18.72	18.39	18.83	18.20	18.07	18.49	18.75
Avg. Annual Wage (Thous. \$)	21.35	22.59	23.91	25.57	25.74	26.35	27.01	27.74

Short-Term Outlook for Stockton, CA, 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	162.6	165.5	163.5	160.3	158.8	161.0	166.2	171.5
Manufacturing	25.2	25.6	24.7	22.2	21.9	21.6	22.0	21.8
Durables	11.6	11.7	10.6	10.0	9.7	9.6	9.8	9.6
Nondurables	13.5	13.9	14.1	12.3	12.2	12.2	12.2	12.1
Nonmanufacturing	137.5	139.9	138.9	138.1	136.9	139.2	144.2	149.7
Transp. & Util.	9.5	10.1	9.7	8.3	9.3	9.3	9.4	9.4
Trade	38.7	38.6	40.2	40.7	39.9	40.6	42.0	43.3
Fin., Ins., & RE	11.2	10.6	10.0	9.8	9.8	9.8	10.1	10.3
Services	35.7	36.7	37.6	38.2	38.3	39.7	41.9	44.1
Federal Govt.	6.3	6.1	5.4	4.9	4.7	4.5	4.3	4.5
State & Local Govt.	26.4	27.5	28.2	28.8	28.6	29.0	29.6	30.4
Construction	9.8	10.3	7.8	6.3	6.1	6.2	6.9	7.6
Mining	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Employment (Percent change)								
Total Nonfarm	4.1	1.7	-1.2	-2.0	-0.9	1.4	3.2	3.1
Manufacturing	-1.2	1.7	-3.6	-9.9	-1.5	-0.4	0.8	-1.1
Durables	0.6	0.3	-9.3	-5.8	-3.0	-0.1	1.9	-2.1
Nondurables	-2.8	2.9	1.2	-13.0	-0.2	-0.6	0.0	-0.2
Nonmanufacturing	5.1	1.7	-0.7	-0.5	-0.8	1.6	3.6	3.8
Transp. & Util.	2.3	5.8	-3.8	-4.0	0.0	-0.5	1.0	0.9
Trade	4.9	-0.4	4.3	1.3	-1.9	1.6	3.4	3.0
Fin., Ins., & RE	7.3	-5.7	-5.7	-1.5	-0.4	1.3	2.2	1.9
Services	9.0	2.8	2.3	1.6	0.4	3.6	5.4	5.4
Federal Govt.	4.1	-4.2	-11.3	-9.4	-2.8	-5.8	-2.7	3.9
State & Local Govt.	1.9	4.2	2.5	2.2	-0.5	1.2	2.1	2.8
Construction	2.6	7.8	-24.4	-18.7	-3.4	0.9	12.0	9.7
Mining	4.0	89.1	-2.6	1.7	-7.8	-2.3	-2.2	-0.9
Population (Thous.)	465.8	484.8	494.6	513.2	528.6	539.4	547.4	555.8
Percent Change	5.5	4.1	2.0	3.7	3.0	2.0	1.5	1.5
Income								
Total (Billion \$)	6.82	7.37	7.67	8.15	8.39	8.83	9.41	10.03
Wages & Salaries	3.58	3.86	4.00	4.16	4.16	4.31	4.55	4.82
Nonwage	3.34	3.50	3.67	3.99	4.23	4.52	4.86	5.21
Real Per Capite (Thous. \$87)	13.60	13.21	12.93	12.85	12.50	12.53	12.80	13.04
Avg. Annual Wage (Thous. \$)	21.79	23.13	24.23	25.72	25.93	26.52	27.17	27.91

Short-Term Outlook for Vallejo-Fairfield-Napa, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	142.9	149.5	148.5	146.2	146.1	150.6	156.1	156.4
Manufacturing	13.3	13.6	12.8	12.5	12.6	12.7	12.9	12.9
Durables	3.8	3.9	3.9	4.3	4.3	4.3	4.4	4.3
Nondurables	9.5	9.7	8.9	8.2	8.3	8.4	8.5	8.6
Nonmanufacturing	129.6	136.0	133.7	133.7	133.5	138.0	143.2	143.5
Transp. & Util.	5.3	5.8	5.7	5.9	5.8	6.0	6.0	5.9
Trade	35.3	37.0	37.4	37.5	37.0	38.2	39.6	39.6
Fin., Ins., & RE	5.7	5.6	5.7	5.8	5.9	6.1	6.3	6.3
Services	32.6	35.8	37.7	38.5	38.2	41.6	44.3	45.6
Federal Govt.	18.9	15.9	13.2	12.3	12.0	12.0	11.4	10.2
State & Local Govt.	22.9	23.8	24.0	24.3	24.4	25.0	25.6	25.6
Construction	10.7	11.9	9.6	9.0	8.8	8.9	9.7	10.1
Mining	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2
Employment (Percent change)								
Total Nonfarm	5.5	4.7	-2.1	-0.2	-0.1	3.1	3.6	0.2
Manufacturing	7.2	2.3	-5.8	-2.0	0.3	0.7	1.6	0.3
Durables	8.1	3.3	-0.5	11.8	-2.1	0.6	2.3	-1.5
Nondurables	8.9	1.9	-7.9	-8.0	1.5	0.7	1.3	1.2
Nonmanufacturing	5.3	4.9	-1.7	0.0	-0.1	3.4	3.8	0.2
Transp. & Util.	11.5	9.7	-1.7	2.3	0.6	0.8	1.3	-2.0
Trade	4.9	4.8	1.0	0.4	-1.2	3.1	3.8	0.0
Fin., Ins., & RE	8.6	-2.3	2.2	2.7	1.1	-3.5	3.2	-0.5
Services	8.3	9.9	5.2	2.1	1.9	5.9	6.5	2.9
Federal Govt.	3.2	-6.1	-18.5	-6.7	-2.8	0.0	-5.1	-10.0
State & Local Govt.	3.1	3.8	1.2	1.2	0.2	2.7	2.4	-0.3
Construction	1.2	11.1	-18.1	-8.0	-2.7	1.4	9.2	4.0
Mining	15.8	14.2	13.5	-20.7	-10.0	-3.5	-3.5	-1.8
Population (Thous.)	433.8	455.1	488.2	484.0	500.4	518.7	529.3	531.2
Percent Change	7.9	4.9	2.9	3.4	3.4	3.3	2.4	0.4
Income								
Total (Billion \$)	7.84	8.48	8.80	9.50	9.86	10.52	11.26	11.83
Wages & Salaries	3.44	3.74	3.84	4.10	4.13	4.35	4.61	4.75
Nonwage	4.40	4.74	5.05	5.40	5.73	6.18	6.65	6.88
Real Per Capita (Thous. \$87)	18.55	18.21	15.84	15.89	15.52	15.59	15.84	15.83
Avg. Annual Wage (Thous. \$)	22.06	23.08	24.20	26.01	26.32	27.03	27.77	28.56

Short-Term Outlook for Visalia-Tulare-Porterville, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	83.2	87.7	88.5	89.7	88.3	89.9	93.9	97.8
Manufacturing	12.0	12.9	13.7	12.3	12.0	12.0	12.2	12.1
Durables	5.7	5.8	5.9	5.4	5.2	5.1	5.2	5.1
Nondurables	6.3	7.1	7.8	7.0	6.9	6.9	7.0	7.0
Nonmanufacturing	71.2	74.8	74.8	77.4	76.3	77.8	81.7	85.6
Transp. & Util.	4.7	4.6	4.2	4.3	4.2	4.2	4.3	4.4
Trade	22.3	23.0	23.3	24.5	23.9	24.4	25.6	26.7
Fin., Ins., & RE	3.3	3.7	4.0	4.3	4.2	4.3	4.4	4.6
Services	15.6	17.1	17.1	18.5	18.5	18.2	20.5	21.8
Federal Govt.	1.4	1.4	1.4	1.3	1.3	1.2	1.2	1.2
State & Local Govt.	19.8	20.4	20.4	20.6	20.4	20.7	21.4	22.3
Construction	4.1	4.7	4.4	3.9	3.7	3.8	4.2	4.6
Mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Employment (Percent change)								
Total Nonfarm	4.0	5.3	1.0	1.3	-1.6	1.8	4.5	4.1
Manufacturing	5.0	7.1	6.3	-10.0	-2.6	0.1	1.5	-0.6
Durables	6.1	1.9	2.0	-8.6	-3.5	-0.4	1.8	-2.5
Nondurables	4.1	11.8	9.8	-10.2	-2.0	0.4	1.2	0.9
Nonmanufacturing	3.8	5.0	0.0	3.4	-1.4	2.1	5.0	4.8
Transp. & Util.	2.7	-1.4	-9.4	1.5	0.5	0.2	2.4	2.1
Trade	1.7	2.9	1.3	5.4	-2.5	2.0	4.9	4.2
Fin., Ins., & RE	8.5	12.0	8.9	6.4	-1.0	1.7	3.6	3.0
Services	7.7	9.3	0.2	8.2	-0.2	3.9	6.8	6.5
Federal Govt.	3.7	-2.5	4.8	-9.3	-2.7	-5.6	-2.6	3.9
State & Local Govt.	1.5	3.2	0.2	0.8	-1.1	1.6	3.5	4.0
Construction	10.1	13.5	-6.6	-11.1	-3.4	1.1	11.7	9.5
Mining	4.3	4.7	1.5	-4.2	-7.8	-2.0	-1.9	-0.5
Population (Thous.)	303.8	314.6	324.8	343.7	359.1	366.1	374.4	383.8
Percent Change	5.5	3.6	3.2	5.8	4.5	1.9	2.3	2.5
Income								
Total (Billion \$)	4.14	4.55	4.61	5.07	5.18	5.48	5.92	6.37
Wages & Salaries	1.81	2.00	2.03	2.18	2.15	2.24	2.39	2.56
Nonwage	2.33	2.55	2.58	2.89	3.03	3.24	3.53	3.81
Real Per Capita (Thous. \$87)	12.49	12.59	11.83	11.93	11.36	11.46	11.77	11.99
Avg. Annual Wage (Thous. \$)	21.52	22.63	22.70	24.04	24.16	24.70	25.30	25.99

Short-Term Outlook for Yuba City, CA; 1989-96

	1989	1990	1991	1992	1993	1994	1995	1996
Employment (Thousands)								
Total Nonfarm	33.0	35.3	33.4	33.2	33.5	33.9	35.1	36.8
Manufacturing	3.6	4.8	2.9	3.0	3.0	2.9	3.0	3.0
Durables	1.6	1.9	1.2	1.2	1.1	1.1	1.2	1.1
Nondurables	2.0	2.9	1.7	1.8	1.8	1.8	1.8	1.8
Nonmanufacturing	29.4	30.5	30.5	30.1	30.6	30.9	32.2	33.8
Transp. & Util.	1.4	1.6	1.5	1.4	1.5	1.5	1.5	1.5
Trade	8.8	8.9	9.0	9.0	9.0	9.2	9.6	10.0
Fin., ins., & RE	1.8	1.7	1.6	1.6	1.7	1.7	1.7	1.8
Services	6.2	6.5	6.8	6.8	6.9	7.1	7.5	8.0
Federal Govt.	1.7	1.7	1.6	1.5	1.4	1.4	1.3	1.4
State & Local Govt.	7.4	7.8	6.1	6.1	6.3	6.4	6.7	9.1
Construction	1.9	2.1	1.7	1.6	1.6	1.6	1.8	2.0
Mining	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Employment (Percent change)								
Total Nonfarm	7.7	7.0	-5.2	-0.8	1.1	1.0	3.7	4.7
Manufacturing	22.7	31.9	-39.5	5.0	-1.8	-1.0	1.0	-0.7
Durables	27.6	14.4	-38.3	3.1	-4.6	-1.2	2.8	-1.8
Nondurables	19.0	46.3	-40.4	6.2	0.0	-0.9	-0.1	-0.1
Nonmanufacturing	6.1	3.9	0.2	-1.3	1.4	1.2	3.9	5.2
Transp. & Util.	1.5	10.0	-5.7	-5.3	3.0	-0.5	2.0	3.2
Trade	3.3	1.1	1.5	-0.5	0.8	1.6	4.1	4.8
Fin., ins., & RE	16.8	-7.2	-4.6	-0.2	2.2	1.3	2.9	3.6
Services	9.0	5.2	4.2	-0.7	2.2	3.0	5.3	6.1
Federal Govt.	6.6	3.4	-5.8	-9.3	-2.7	-5.6	-2.6	3.9
State & Local Govt.	5.1	5.7	3.3	0.8	2.3	1.2	2.9	4.9
Construction	10.0	12.7	-16.5	-7.7	-1.0	0.3	10.7	10.0
Mining	-9.2	-4.9	2.5	-3.4	-7.0	-1.2	-1.1	0.3
Population (Thous.)								
Population (Thous.)	119.4	123.7	127.3	128.6	133.1	136.9	139.1	142.6
Percent Change	5.8	3.6	2.9	1.1	3.5	2.9	1.6	2.5
Income								
Total (Billion \$)	1.85	1.76	1.80	2.03	2.07	2.14	2.27	2.43
Wages & Salaries	0.76	0.80	0.84	0.89	0.90	0.93	0.98	1.05
Nonwage	0.89	0.86	1.06	1.13	1.17	1.22	1.28	1.37
Real Per Capita (Thous. \$87)	12.64	12.34	12.46	12.74	12.27	11.97	12.12	12.29
Avg. Annual Wage (Thous. \$)	20.17	20.28	22.56	24.24	24.24	24.88	25.58	26.39

California Counties

California Counties

California County Forecasts

Over 50,000 time series of data were produced at the county level within the scope of this project. Included in that number is information by 2-, 3-, and 4-digit Standard Industrial Classification (SIC) on employment and real value of output for each of the 58 California counties. The magnitude of information precludes a brief summary here. However, the discussion of the events and forces shaping the national, state and MSA forecasts, presented in the previous sections, provide the framework that underlies the individual county forecasts. The detailed county projections are contained in separate volumes.

Population Projections

One set of data not included in the tables of detailed county projections are county population estimates. DRI derives population projections for each county as an integral component of the County Modeling System. Thus, the DRI county population figures are consistent with and are developed as part of our county employment projections. DRI's county population numbers are consistent with DRI's state population projections. The table below summarizes the county population projections developed as part of this forecasting project.

DRI's California County Population Projections

	1990	2000	2010	2020
ALAMEDA	1,284,594	1,457,789	1,636,915	1,788,713
ALPINE	1,123	1,015	1,266	1,772
AMADOR	30,297	43,707	48,737	55,511
BUTTE	183,683	252,878	287,374	335,481
CALAVERAS	32,273	42,128	48,481	57,460
COLUSA	16,415	20,889	22,785	25,866
CONTRA COSTA	807,133	933,726	1,051,770	1,168,224
DEL NORTE	23,661	30,329	31,154	34,475
EL DORADO	127,294	164,660	189,241	219,853
FRESNO	673,654	800,419	900,210	994,052
GLENN	25,011	30,302	31,934	35,414
HUMBOLDT	120,141	145,503	154,736	172,748
IMPERIAL	110,241	149,571	163,445	192,390
INYO	18,438	21,277	24,816	30,615
KERN	548,143	632,264	701,217	826,954
KINGS	102,340	123,648	134,969	156,977
LAKE	51,066	63,946	71,952	86,094
LASSEN	27,835	34,536	38,383	47,148
LOS ANGELES	8,897,526	9,377,440	10,188,409	10,995,651
MADERA	88,846	127,242	141,993	161,783
MARIN	230,899	273,645	317,877	374,292
MARIPOSA	14,425	17,309	21,828	28,574
MENDOCINO	81,035	100,901	109,723	123,169
MERCED	179,935	242,784	271,747	315,458
MODOC	9,761	10,146	11,200	13,939
MONO	10,041	11,096	12,659	16,134
MONTEREY	358,713	337,919	369,997	435,169
NAPA	111,716	132,782	149,321	177,880
NEVADA	79,184	104,970	122,713	139,646
ORANGE	2,420,123	2,691,010	2,993,327	3,233,570
PLACER	174,577	238,793	272,235	290,097
PLUMAS	19,908	24,289	26,703	31,426
RIVERSIDE	1,188,383	1,537,612	1,786,713	2,015,330
SACRAMENTO	1,051,952	1,271,617	1,475,143	1,737,532
SAN BENITO	37,012	41,825	44,109	47,135
SAN BERNARDINO	1,440,157	1,786,269	1,990,439	2,187,735
SAN DIEGO	2,513,254	2,891,578	3,316,408	3,765,948
SAN FRANCISCO	726,486	726,956	761,674	848,922
SAN JOAQUIN	484,754	549,057	601,439	684,595
SAN LUIS OBISPO	219,026	305,070	359,335	429,027
SAN MATEO	651,890	706,503	754,578	791,375
SANTA BARBARA	372,781	361,630	386,816	411,618
SANTA CLARA	1,499,978	1,638,147	1,818,466	1,979,779
SANTA CRUZ	231,706	254,176	270,467	290,591
SHASTA	148,298	200,819	227,291	267,173
SIERRA	3,346	3,980	4,000	4,357
SISKIYOU	43,905	50,114	54,126	63,622
SOLANO	343,343	362,425	419,435	536,223
SONOMA	391,555	399,545	425,564	448,428
STANISLAUS	373,703	481,227	533,576	605,555
SUTTER	64,968	101,352	109,965	125,682
TEHAMA	50,051	72,780	79,876	91,611
TOULUMME	48,872	64,296	72,272	86,241
TRINITY	13,175	15,667	17,153	20,273
TULARE	314,599	413,507	466,151	543,850
VENTURA	671,392	763,344	857,901	934,297
YOLO	142,546	181,097	196,982	214,288
YUBA	58,728	74,530	82,335	100,807
CALIFORNIA	29,945,891	33,894,036	37,661,331	41,798,529

