



San Diego's Regional Planning Agency



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News

Governor Davis Awards \$1 Million to SANDAG to Develop Regional Plan

\$25 Million to Buy More Buses for Interstate 15

\$516 Million for Congestion Relief

Meetings

3/21 Committee on Binational Regional Opportunities (COBRO)

3/22 Board of Directors

3/29 Walkable Communities Advisory Committee

4/4 Integrated Waste Management Technical Advisory Committee (TAC)

4/11 Transportation Committee

Publications

What Works: San Diego County's Breaking Cycles Program [PDF]

Regional Transit Vision (RTV) [PDF]

Arrests in the San Diego Region, 2000 [PDF]

SAN DIEGO Association of Governments *Welcome*

SANDAG serves as the forum for decision-making on regional issues such as growth, transportation, land use, the economy, the environment, and criminal justice. SANDAG is governed by a **Board of Directors** composed of mayors, council members, and supervisors from each of the San Diego region's 19 local governments.

FEATURED PROJECTS

TransNet: Local Tax Dollars for Transportation
More than \$3.3 billion in transportation projects is being funded through *TransNet* - the half-percent sales tax that was approved by the region's voters in 1987.



REGION2020: Creating Livable, Sustainable Communities
The REGION2020 strategy has been developed to deal with the region's current sprawl-inducing development patterns, traffic congestion challenges, lack of adequate infrastructure, and the shortage of housing.



Restoring the Region's Coastline



The Regional Beach Sand Project has restored six miles of our coastline. More shoreline preservation and environmental monitoring efforts are underway.

Programs

- Land Use and Growth
- Transportation
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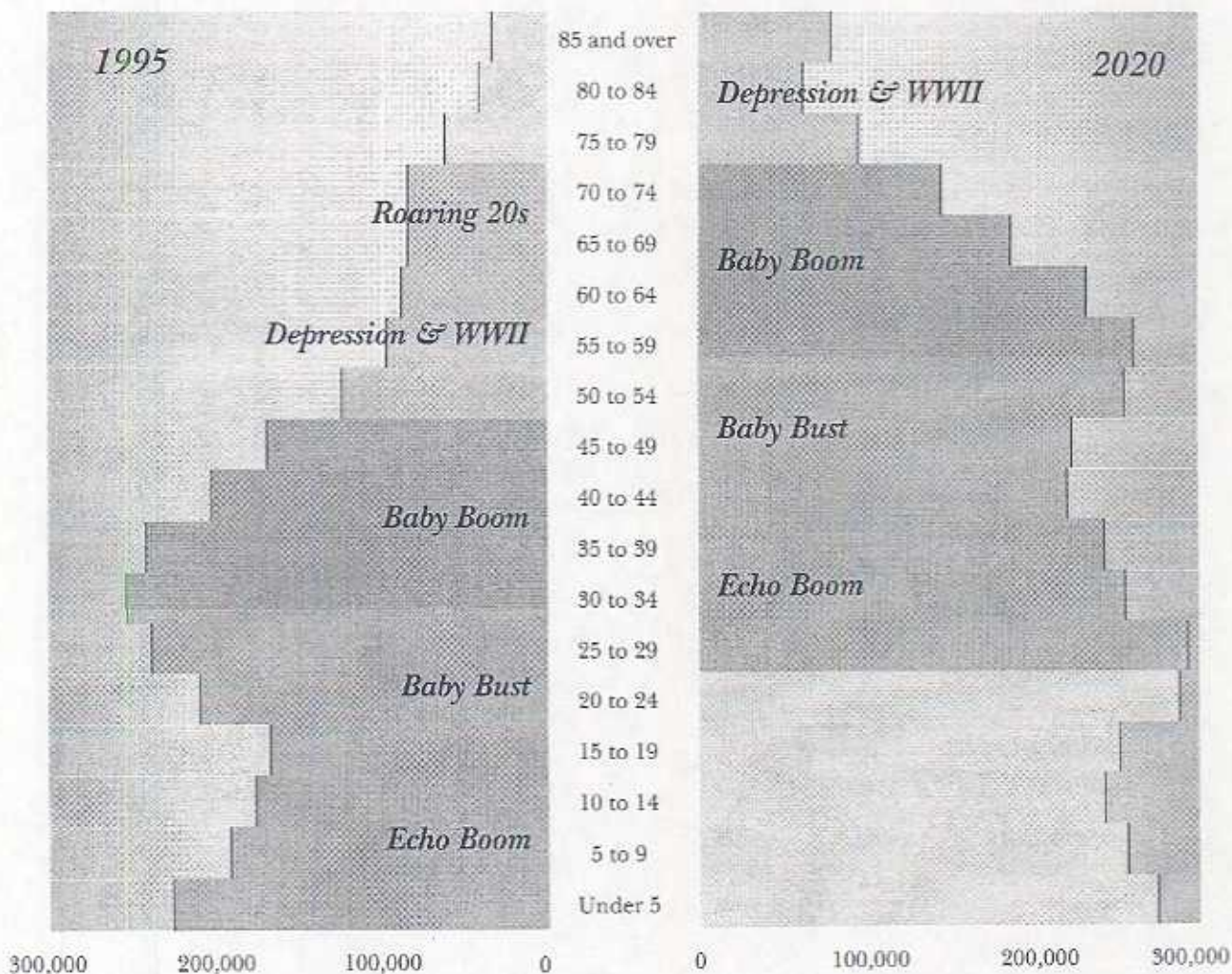
S A N D A G
INFO

MAY - JUNE 1999, NO. 3

THREE DOLLARS

A MILLION MORE PEOPLE IN THE REGION BY 2020

Generations Move Through the Age Pyramid



*How will the region adjust to
the changes to come in the
21st century?*

INTRODUCTION

The San Diego region is a very different place than it was a half century ago. World War II helped transform the region from a small town atmosphere into a true metropolitan environment.

Subsequent military activities and spending, aerospace and other manufacturing employment and increased tourism spawned economic growth and the resulting population increase and demand for housing and services. The local economy became more complex and the local population became more diverse. Economic booms became more pronounced and downturns were more severe. Through it all, the region adjusted. How will the region adjust to the changes to come in the 21st century?

We have witnessed significant changes over the past 25 years, and we likely will see more changes over the coming decades. Our region's future economic prosperity depends upon a timely response to challenges we face and our ability to take advantage of the opportunities they offer.

SANDAG's Regional Economic Prosperity Strategy identifies 10 action steps and the organizations to carry them out. The Strategy's recommended actions call for infrastructure investments and public policy supports in order to strengthen the region's economic foundation. These actions are designed to strengthen our existing industries, emerging growth companies, and universities and research and development institutions that create new enterprises.

The actions defined in the Strategy are embodied into the 2020 Regional Growth Forecast and represent important opportunities for the region. They are part of the foundation on which our future economic prosperity depends. Above all, these actions are designed to create middle-income jobs that will ensure a rising standard of living for the residents of this region.

SANDAG has produced forecasts of population, housing and economic activity for the San Diego region for more than 25 years. The process used to develop the Regional Growth Forecast uses a variety of factors to better understand the future course of change in the region.

INTRODUCTION	2
NATIONAL AND LOCAL SUMMARY	3
POPULATION AND ITS CHARACTERISTICS	5
HOUSING	9
ECONOMIC ACTIVITY	11
CLUSTERS	12
INCOME	14

These factors include birth rates, the ethnic and age profile of the population, job growth, economic restructuring, migration characteristics, and local land use policies. The forecasts are used by SANDAG, its member agencies, and various other public and private sector organizations for planning activities that require information about population, housing, the economy and land use.

The 2020 Regional Growth Forecast is SANDAG's most recent forecasting for the first two decades of the millennium. It was produced in two phases. The first phase forecasts population, housing, employment and related economic data for the entire San Diego region. The second phase, the 2020 Cities/County Forecast, distributes the regionwide forecast to jurisdictions, communities and other geographic areas within the region.

This *INFO* presents the key findings from the regionwide forecast. A future *INFO* will summarize the 2020 Cities/County Forecast.

The 2020 Regional Growth Forecast is available from SANDAG's web site (www.sandag.cog.ca.us). Additional information from this forecast is available from SourcePoint, a nonprofit corporation chartered by SANDAG.

SourcePoint offers customized marketing, economic and demographic information services for specific needs. Some of SourcePoint's services include employment and growth forecasts for any area in the San Diego region, demographic and economic profiles, marketing studies, business site location studies, fiscal and economic impact studies and transportation analyses. For more information about SourcePoint's products and services, call (619) 595-5353.

NATIONAL AND LOCAL SUMMARY

Although the national economy has recently grown at a robust rate, that trend is expected to slow. U.S. economic growth will average 2.2 percent annually in real terms (adjusted for inflation) between 1998 and 2012, falling to about 1.4 percent between 2012 and 2020¹. This compares to a 2.8 percent annual growth rate between 1970 and 1998. Inflation is not a big concern be-

Although the national economy has recently grown at a robust rate, that trend is expected to slow.

¹ Review of the U.S. Economy, Long-Range Focus, Trend Projection, Winter 1997-1998. DRI/McGraw Hill, 1998.

*The 2020 Regional Growth
Forecast for the San Diego
region mirrors the generally
optimistic assumptions about
the national economy.*

tween now and 2020 as the consumer price index rises less than 3.5 percent annually. Over the entire forecast period, the national unemployment rate will remain relatively stable at around 5.5 percent.

As has been the case for many years, the national employment mix will continue to change dramatically. The manufacturing base will continue to decrease in overall significance, falling from about 15 percent of total U.S. employment in 1998 to about 11 percent in 2020. This trend is spread across most manufacturing industries. The exceptions are electrical machinery, instruments and fabricated metal sectors, which will have positive growth rates in the future. Conversely, the service sectors, particularly those dominated by higher technical skills, account for 63 percent of the future increases in national employment.

The 2020 Regional Growth Forecast for the San Diego region mirrors the generally optimistic assumptions about the national economy. Local population, employment and income are expected to grow steadily. The change in the cost of living is modest. The region will see an average annual population increase of 46,400 through 2020 and 39 percent of the growth is due to migration. The majority of the region's forecasted growth will occur through natural increase (births minus deaths). Total population will reach 3.85 million by the year 2020, roughly one million more than in 1998.

The mid-1990s marks the beginning of the recovery from the recession in the early part of the decade. From that point, civilian employment in the region will grow by 21,700 per year, reaching nearly 1.63 million by 2020. The expected local unemployment rate is similar to the forecasted national rate at about 5.5 percent. Due largely to changes in the age structure of the region's residents, there is a projected slowdown in the growth of the labor force. This means that the likelihood of high unemployment rates in the future is greatly reduced.

Real per capita income (income adjusted for inflation) in the region, a commonly used measure of standard of living, stagnated early in the decade. However, following the positive trend of other economic variables coupled with concerted efforts to raise the region's standard of living, real per capita income (in 1995 dollars) will grow by 23 percent, increasing from \$23,700 in 1995 to \$29,200 in 2020.

POPULATION AND ITS CHARACTERISTICS

By 1950, population in the San Diego region was over 500,000 and growing rapidly in response to Korean War activities and the birth of the post-World War II baby boom generation. The decade of the 1950s saw an annual growth rate that exceeded six percent, a rate never approached since that time.

By 1960 the region's population had passed the one million mark. (See Table 1.) The average annual growth rate fell by more than half during the next two decades, but the region still added 800,000 people between 1960 and 1980. The 1990 Census revealed continued strong growth in the 1980s, a decade characterized by expanding job opportunities. During this time, the region added almost 650,000 people, a growth rate of three percent each year.

Population growth slowed considerably in the first part of the 1990s as the worst recession ever recorded racked the region. Between 1990 and 1995, the region's population increased by 157,800. This represents an annual growth rate of 1.2 percent, well under half the annual growth rate of the previous decade.

Population growth during the first half of the 1990s was due to natural increase and a steady flow of international immigrants, which more than offset the significant out-migration of the region's residents. A recovering economy has once again caused the region's population growth to accelerate. In just three years, the population increase has already exceeded that for the entire first half of this decade.

Population in the San Diego region will continue to grow for the foreseeable future, reaching 3.85 million in 2020. This represents a gain of slightly more than one million over the July 1998 population estimate of 2.83 million recently released by the State Department of Finance. This is an increase of 46,400 persons and a growth rate of 1.4 percent each year.

Put another way, the region will add population roughly equivalent to the current size of the City of Poway each year from 1998 to 2020. In the future, the region's population will grow almost twice as fast as the United States. (See Figure 1.) While the San Diego region has historically outpaced the state's rate of growth, future growth rates for the state and region are similar.

Table 1
POPULATION GROWTH BY DECADE
San Diego Region (1950 - 2020)

	Total Population	Previous Decade	
		Average Annual Increase	Annual Growth Rate ¹
1950	560,400	—	—
1960	1,049,000	48,860	6.5%
1970	1,367,200	31,820	2.7%
1980	1,873,400	50,620	3.2%
1990	2,511,400	64,710	3.0%
2000	2,946,500	42,600	1.6%
2010	3,437,700	49,120	1.6%
2020	3,853,300	41,560	1.1%

1. Compound rate of growth.

Figure 1
THE REGION'S POPULATION GROWTH
CONTINUES TO OUTPACE
THE STATE AND THE NATION

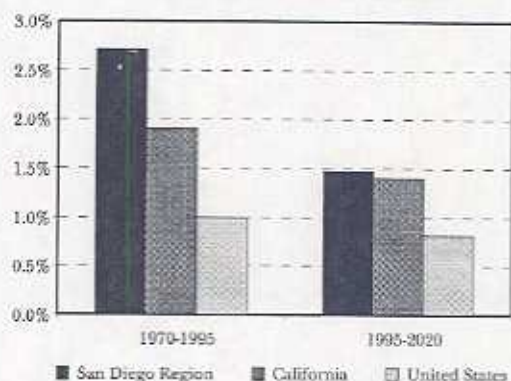
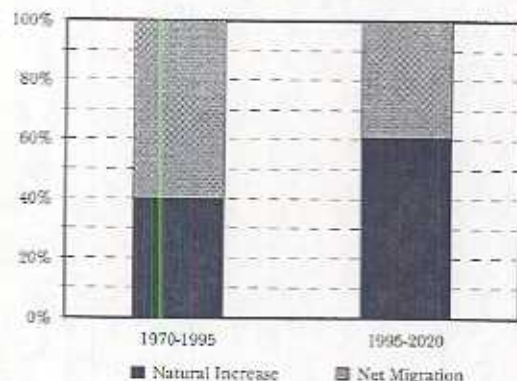


Figure 2
MOST OF THE REGION'S FUTURE GROWTH IS
DUE TO NATURAL INCREASE



Note: Ethnicity is reported for four mutually exclusive groups—Hispanic and non-Hispanic White, non-Hispanic Black and non-Hispanic Asian and Other. These groups are referred to as Hispanic, White, Black and Asian and Other in the text.

While many people may prefer to identify themselves as African-American rather than Black, Latino rather than Hispanic, or as a member of a particular ethnic group rather than White or Asian, SANDAG uses terminology consistent with the 1990 Census questionnaire to ensure comparability with historical data.

Figure 1 also shows that the region's future growth rate is less than that experienced in the last quarter century, a trend also seen in the U.S. and California. The reduced population growth coincides with a reduced rate of job growth starting in the latter part of the next decade, lowering migration into the region. As the baby boom generation starts to retire, fewer jobs are needed to support a slower-growing labor force population. In addition, a slowdown of growth due to natural increase (births minus deaths) is expected to occur. While births increase slightly from their current levels, an aging population will cause a significant rise in the region's deaths.

People moving into the region were the primary fuel behind population growth over the past quarter century. (See Figure 2.) For every increase of 100 persons, 60 persons were added from migration and 40 were added from natural increase. The roles of natural increase and migration will reverse in the future, with natural increase accounting for 61 percent of the region's future population growth.

Significant changes in the demographic composition of the region have occurred over the past 25 years and continued diversification is expected in the years ahead. (See Tables 2 and 3 on pages 16-17.) Foreign and domestic migration and differences in birth rates have helped to create the diverse and vibrant population that we see today and will continue to see in the future.

Total population in the region will increase by 44 percent by 2020. The White population grows at the slowest rate, increasing by just 13 percent. The Black population also grows slower than the overall population, but more than twice as fast as Whites. Hispanic and Asian and Other populations continue to grow rapidly, more than doubling by 2020. Because of the change in the mix of the region's ethnic composition, the share of the region's population that is White drops from 62 percent to 49 percent in 2020. (See Figure 3.) While the share of the Black population stays constant at six percent, the combined share of Hispanics and Asian and Others rises from 32 percent to 45 percent.

Significant changes also are in store for the region's age profile. The simple fact is that the region is getting older as the median age rises from 31.6 years to 35.4 years in

2020, an increase of 12 percent. As Figure 4 shows, the aging of the baby boom generation and the continued fast growth of the senior population creates major shifts in the age groups.

The region's population age 65 years and older increases 87 percent by 2020, double the rate of increase of the overall population. (See Table 3.) Conversely, the population increase of 22 percent for ages 18 to 34 is half the overall population growth rate. As a result, in 2020, 15 percent of the region's population is 65 years and older, up from 11 percent today, however, the share of the region's population 18 to 34 drops from 29 percent to 24 percent.

The dynamics of the composition of the region's population is even more evident when looking at the age profile for each ethnic group. (See Figure 5.) The White population has proportionately fewer children and more seniors than any other ethnic group. Consequently, this population has the highest median age, both now and in the future. By 2020, half of the White population will be 43 years or older.

Hispanics have the youngest age structure and the largest share of children of any ethnic group. Currently, their median age of 24.2 is 11 years below that of Whites. This gap widens over time because of the relatively high birth rates of the Hispanic population.

Even with a 15 percent decline in birth rates that causes a drop in the percent of the Hispanic population under age five, Hispanic birth rates are still the highest of any ethnic group in 2020. Hispanic birth rates drop in response to a continuation of the 20-year decline in Mexican birth rates, which impact the region because of future in-migrants from Mexico. In addition, birth rates of future generations of recent Hispanic migrants will likely be lower than the rates of their parents and grandparents.

The presence of the region's military population, which concentrates in ages 15-29, is evident in all ethnic groups, but it is most pronounced in the Black population. One-third of the Black population 15-29 is either in the military or a military dependent compared to 16 percent for people in all ethnic groups. Moreover, 31 percent of the total Black population is 15-29, the highest

Figure 3
CONTINUING THE TREND TOWARD A
DIVERSE POPULATION

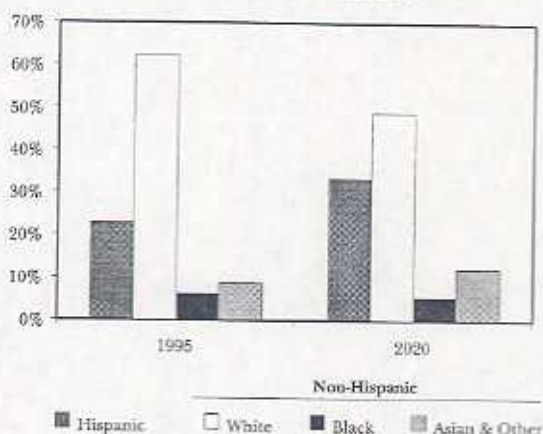


Figure 4
THE REGION GROWS OLDER

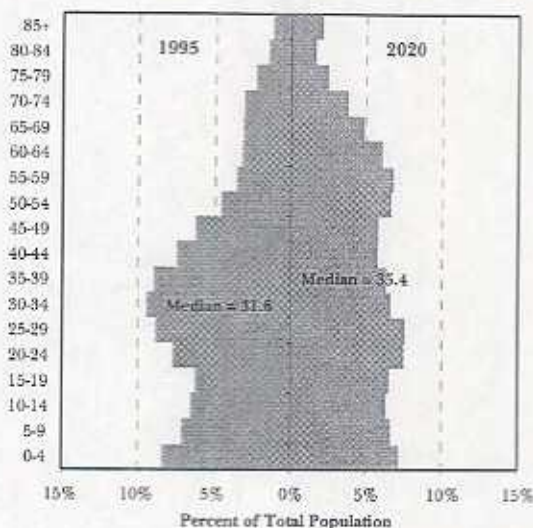
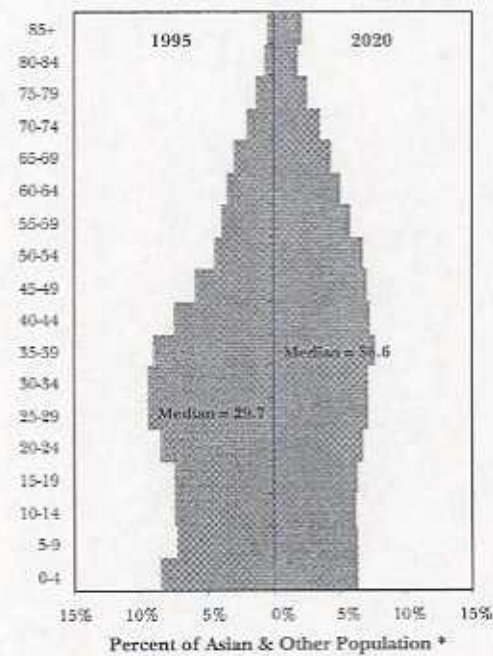
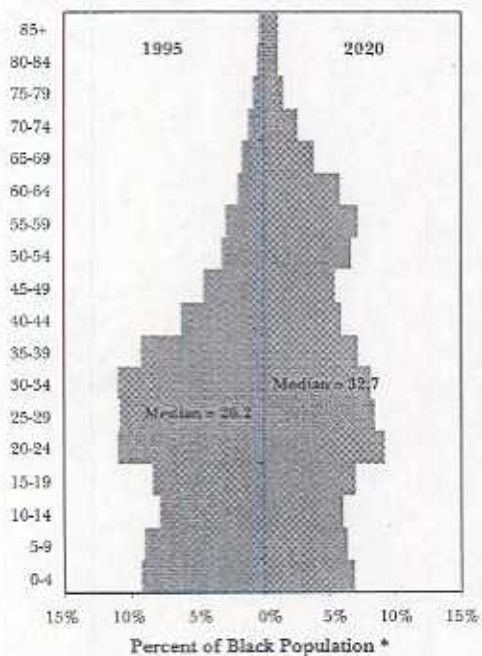
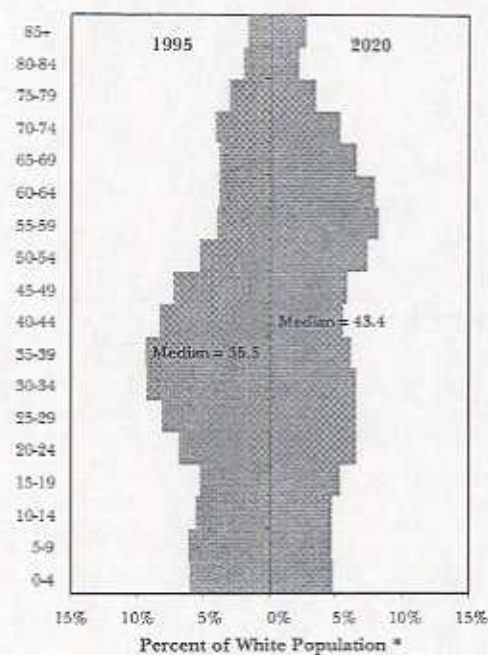
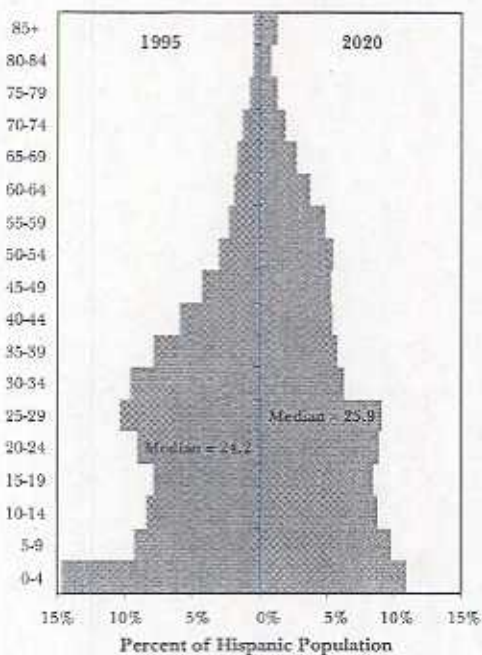


Figure 5
AGE PROFILES DIFFER BY ETHNIC GROUP



* Non-Hispanic

share of any ethnic group. This along with the second highest birth rates causes the median age for the Black population to be below both Asian and Others and Whites.

The current and future age composition of the Asian and Other population most resembles that of the overall population. Notable in this group is the rapid increase in the senior population, whose share almost doubles to 14.2 percent by 2020. This trend reflects the fact that Asian and Others live longer compared to the other ethnic groups.

HOUSING

Economic swings have governed the demand for housing throughout the region's history. An abundance of jobs during the 1980s attracted people who demanded new housing. Conversely, housing construction slowed during the early 1990s as the region experienced a recession, economic restructuring and, at times, net out migration. The forecast shows a significant turnaround in housing demand in the next few years, reflective of the upbeat economic forecast and continued demand from population growth. (See Figure 6.)

Currently, the region contains just over one million housing units. To accommodate the one million addi-

Figure 6
THE REGION WILL ADD 17,000 HOUSING UNITS PER YEAR

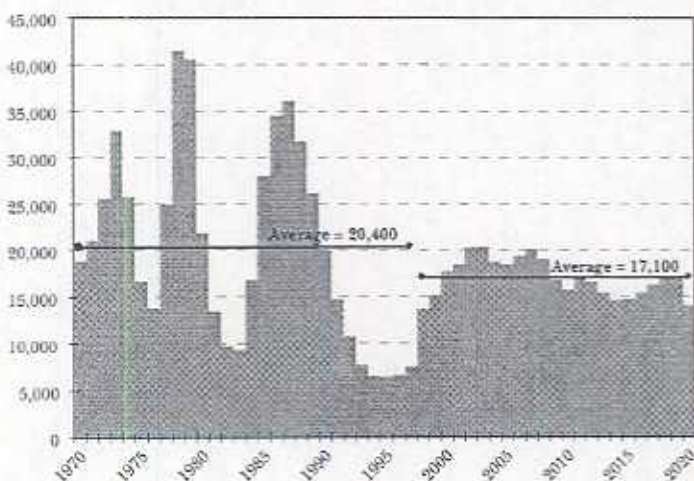
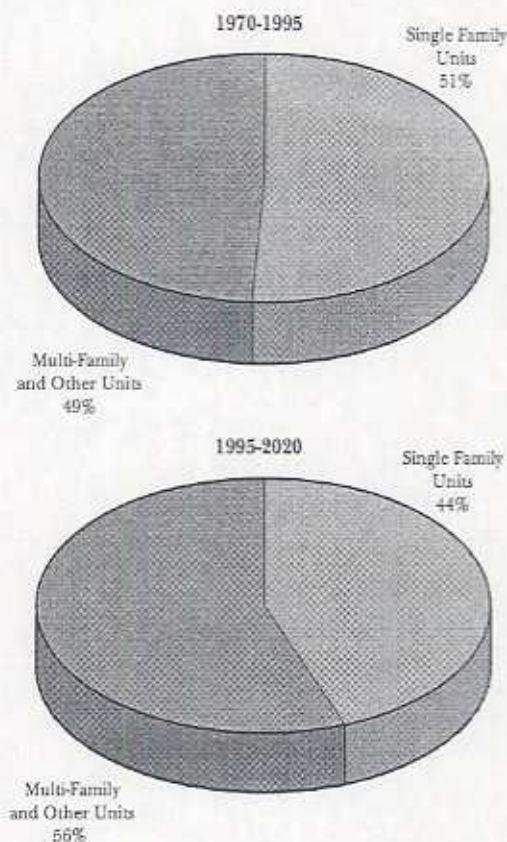


Figure 7
A SHIFT TO MORE MULTIPLE FAMILY UNITS



NOTE: The regionwide forecast of housing units, released in July 1998, has been revised to be consistent with the 2020 Cities/County Forecast, which incorporates higher residential densities within walking distance of existing and potential transit stations and in certain town centers. For the years 2006 to 2020, the revision lowers the forecast of single family units and raises the forecast of multiple family units, and slightly lowers the forecast of all housing units in 2020.

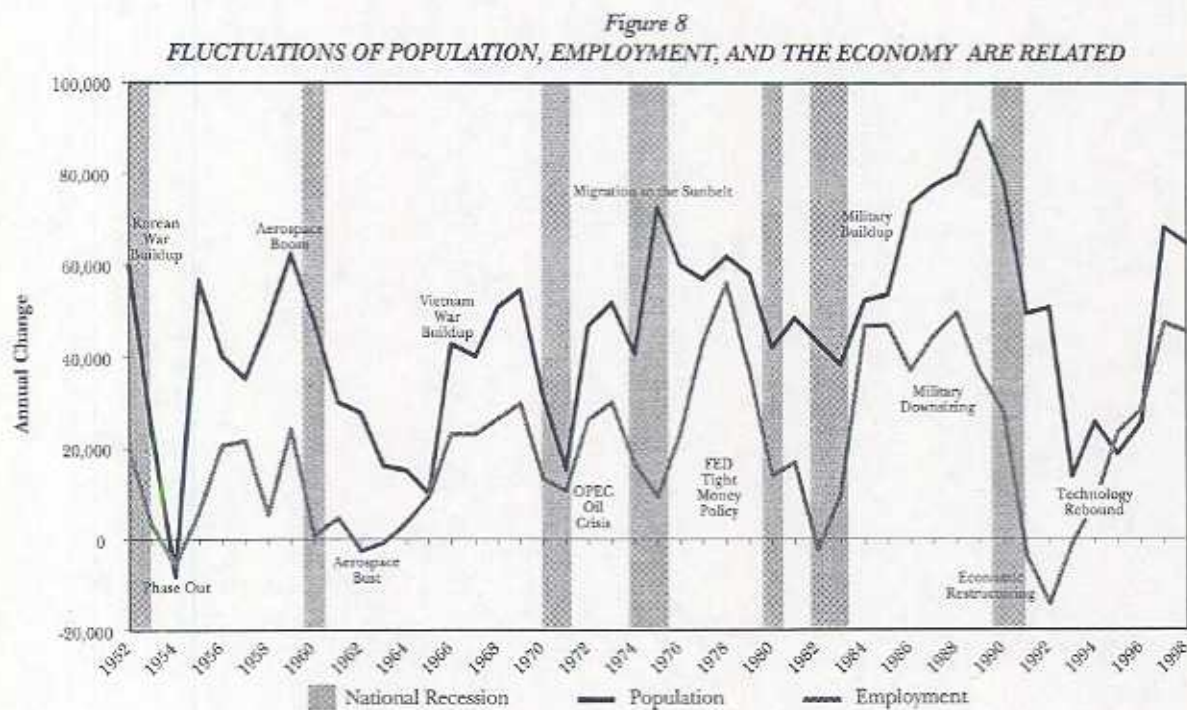
Between 1960 and 1980, the average household size dropped from 3.60 to 2.62.

tional residents forecast by 2020, the region should build around 400,000 housing units, an average of 17,100 each year.

For the past quarter century, demand for single family units accounted for about half of the total housing unit change. However, the 2020 Cities/County Forecast reflects a land use strategy that focuses development around transit centers and light rail stations, much of which is multiple family oriented. Consequently, single family units account for 44 percent of the change in housing units between now and 2020. (See Figure 7.)

Housing unit vacancy rates determine the number of occupied households. In general, long-term vacancy rates for the region do not vary widely over time, although they do vary across housing unit types. Accordingly, the trend in occupied units parallels the change in total housing stock.

More significant are changes in the average number of persons in a household (household size). Between 1960 and 1980, the average household size dropped from 3.60 to 2.62 due primarily to declines in the birth rate and baby boomers creating independent households.



Since then, household size has risen steadily and now stands at 2.83. Factors contributing to this rise include an increase in births due to baby boomers starting their own families, migrants from other countries forming larger households and, more recently, the production of housing not keeping pace with demand. Household size continues to rise to 2.86 by 2005 and gradually declines to 2.81 by 2020 as the baby boom generation ages.

ECONOMIC ACTIVITY

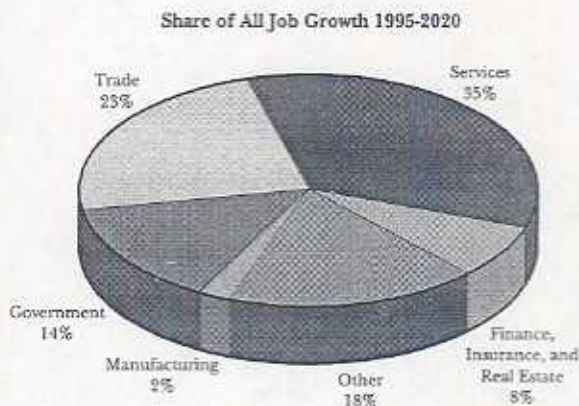
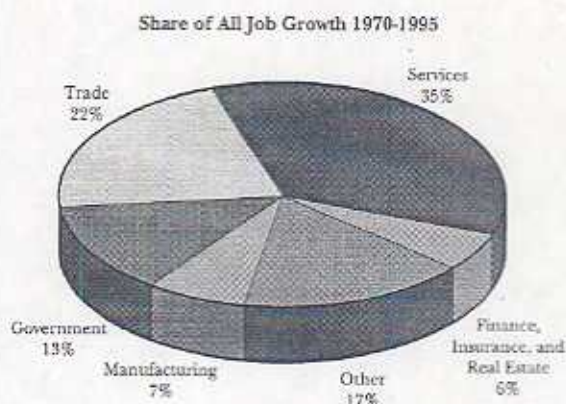
For most of the last half century, much of the region's manufacturing employment base was related to defense industry expenditures. On the positive side, military employment and jobs supporting military procurements brought billions of dollars into the region.

Unfortunately, this dependence on military spending also was responsible for several economic downturns in the local economy. Since the end of World War II, the region routinely experienced the dichotomy of the dependence on these expenditures. Although benefiting from the Korean War buildup, the aerospace boom, the Vietnam War buildup and the Reagan era military spending increases, the region subsequently suffered through the inevitable post-war phasing out, aerospace busts, general military downsizing, and more recently national recessions. (See Figure 8.)

Apart from the direct effect on employment, the defense expenditure decreases of the 1990s heralded more significant changes in the region's economy. As defense contractors laid workers off, transferred unfinished contracts outside of the region and eliminated entire divisions, the economy also was being forced through a structural change. Between 1990 and 1993, 19,500 wage and salary jobs were lost, many in the higher paying manufacturing and related sectors. The region has rebounded from the recession, but with different economic sectors driving the change.

The region will add 542,800 civilian jobs by 2020 (21,700 jobs per year), representing a 50 percent increase. (See Table 4.) However, Figure 9 shows that the composition of those jobs differs from the historical pattern dominated by the manufacturing sector. Only two percent of the increase in the region's employment is in manufacturing. Conversely, more than 58 percent of the new jobs

Figure 9
SERVICES AND TRADE
LEAD THE REGION'S JOB GROWTH



are in wholesale trade, retail trade and services. These sectors account for 53 percent of all civilian employment in 2020, up from 50 percent currently.

Clusters are concentrations of **CLUSTERS**

complementary,

interdependent,

internationally competitive

firms in related industries that

may straddle traditional

industrial sector definitions.

Because of the length of the most recent local recession and evidence that the local economy was undergoing a change in its basic structure, SANDAG re-examined the way that regional economies change. The region is exhibiting characteristics of a maturing economy that include decreased reliance on traditional durable goods manufacturing and increased reliance on other wealth-generating activities. In particular, business services, skilled trades, research and development and highly technical sectors become the driving forces behind the region's economic growth. These are often new, rapidly developing industries, such as biotechnology, computer software and telecommunications.

These new economic drivers can combine industries and skills from many employment sectors and, therefore, do not fit the traditional definitions of industrial categorization. An analysis based solely on the traditional industrial sector mix may not adequately express important relationships and may mask the true factors driving the region's economy.

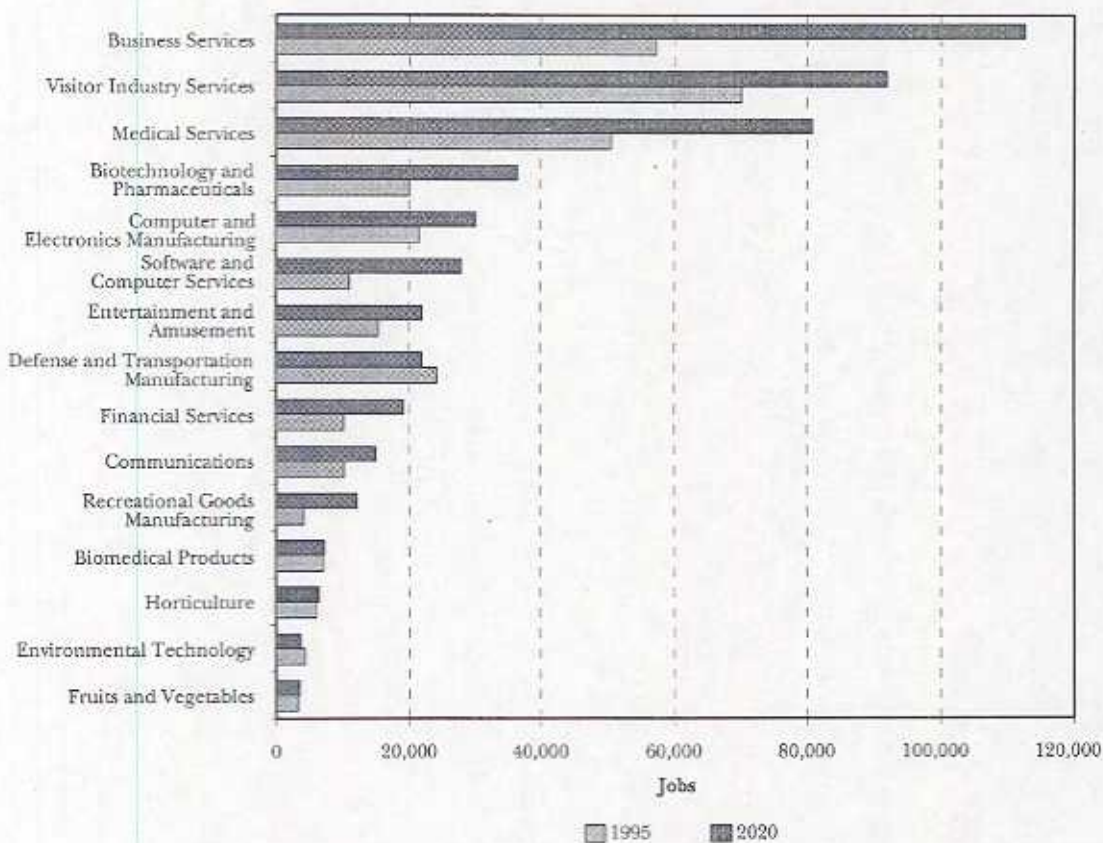
During the evolution of the 2020 Regional Growth Forecast, SANDAG in collaboration with other agencies researched and promoted the concept of economic clusters as means to identify changing economic forces. Clusters are concentrations of complementary, interdependent, internationally competitive firms in related industries that may straddle traditional industrial sector definitions.

In the San Diego region, 15 civilian employment clusters have been identified as the fuel for the region's economic engine. They currently represent about 30 percent of the region's employment and regional output (the total value of goods and services produced in the San Diego region). A 16th cluster represents the uniformed military. (The May-June 1998 issue of *INFO, San Diego Regional Employment Clusters: Engines of the Modern Economy* discusses the components and characteristics of each cluster.)

Figure 10 shows that the size and growth patterns of the civilian employment clusters are diverse. Currently, the five largest clusters in terms of employment size are the visitor industry, business services, medical services, defense and computer and electronics manufacturing clusters.

By 2020, the list changes to business services, visitor industry, medical services, biotechnology, and software. Computer electronics and manufacturing drops to sixth and defense drops from fourth to a tie for seventh with the entertainment cluster. The fastest growing clusters are recreational goods, software, business services, and biotechnology. Two clusters, defense and environmental technology, show employment declines of 10 percent and 14 percent, respectively. (See Table 4.)

Figure 10
THE REGION'S INDUSTRIAL CLUSTERS ARE DIVERSE

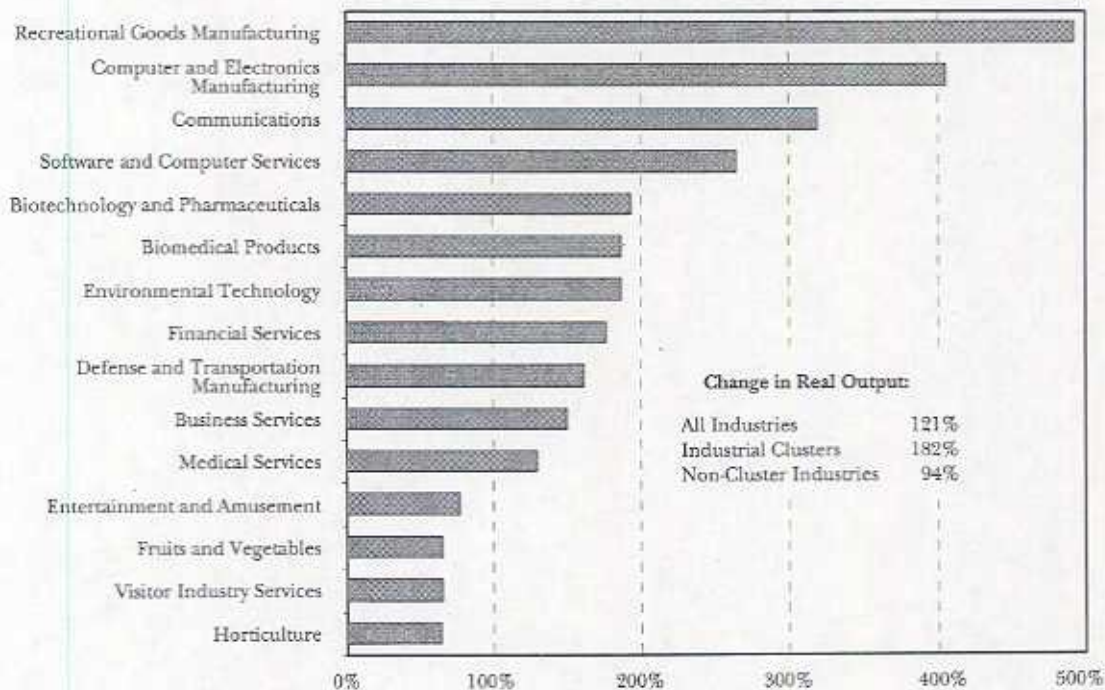


Real output is another way to examine the impact of the clusters on the future regional economy. While civilian employment in the 15 civilian clusters increases by 55 percent over the next 25 years, real output increases by 182 percent – double the increase for the rest of the economy. (See Figure 11.) Although the economic clusters account for a relatively constant percent of the regional civilian employment (29% now and 30% in 2020), by 2020 real output from the clusters increases to more than 40 percent of the regional output, up from 30 percent today.

INCOME

As a result of successive wars and the associated expansions in military and aerospace spending, the local economy was transformed from the agricultural base of the 1930s to one heavily dependent on manufacturing. By the early 1970s, the economic expansion had stabilized and provided a strong mix of relatively high paying jobs. At this time, real per capita income in the region was 25 percent higher than the nation.

Figure 11
1995 TO 2020 CHANGE IN REAL OUTPUT
VARIES BY INDUSTRIAL CLUSTER



As Figure 12 indicates, our relative income advantage has disappeared. By 1995, real per capita income in the San Diego region was the same as it was nationwide. This was due largely to lower-waged service sector jobs becoming an increasingly larger share of the region's employment base.

Between 1980 and 1990, for example, the number of service jobs increased 61 percent making services not only the fastest growing but the largest employment sector. Service jobs are among the lowest paying, with average wages 40 percent lower than the average for manufacturing. (The February 1997 issue of *INFO Update, Employment, Average Wage/Salary and Payroll by Industry* contains a comparison of average wages by industry.)

The economic turnaround of the late 1990s has somewhat reversed that trend. The region's real per capita income between now and 2020 is expected to increase at the same rate as the nation. This reverses a 25-year trend in which the region's income growth lagged the national income growth. The 23 percent increase in the region's real per capita income to \$29,200 in 2020 exceeds the 20 percent increase that occurred over the past quarter century. Most of this increase occurred between 1980 and 1985 when the Department of Defense budget in the region tripled, rising from three billion dollars to nine billion dollars.

As noted earlier, these favorable changes in real per capita income are dependent upon the successful attainment of the goals and objectives outlined in the Regional Economic Prosperity Strategy. The Strategy's recommended actions call for infrastructure investments and public policy supports to strengthen the region's economic foundation and ensure a rising standard of living.

Figure 12
INCREASING PROSPERITY IN THE REGION

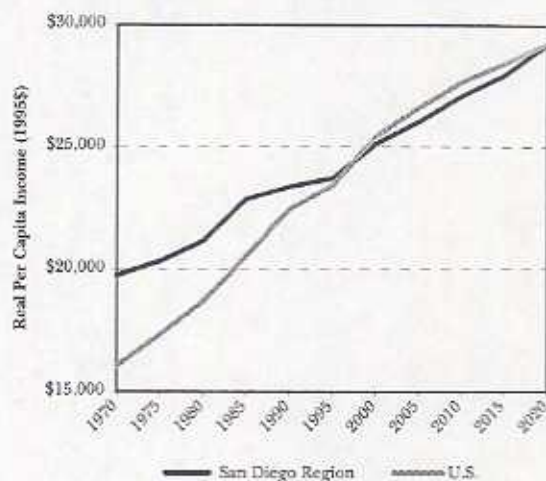


Table 2
DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS¹
San Diego Region, 1970-1995

	1970	1980	1990	1995	Change 1970-1995	
					Numeric	Percent
Total Population	1,367,200	1,873,300	2,511,400	2,669,200	1,302,000	95%
Hispanic	n/a	280,500	513,500	607,000	n/a	n/a
Non-Hispanic						
White	n/a	1,394,500	1,642,000	1,665,300	n/a	n/a
Black	n/a	103,000	150,700	164,800	n/a	n/a
Asian & Other	n/a	95,300	205,100	232,100	n/a	n/a
Under Age 18	437,200	478,700	613,200	684,500	247,300	57%
Age 18 to 34	408,700	658,300	841,400	769,600	360,900	88%
Age 35 to 64	402,200	543,400	782,200	912,900	510,700	127%
Age 65 and Over	119,100	192,900	274,600	302,100	183,000	154%
Uniformed Military	129,100	118,900	111,000	101,900	-27,200	-21%
<hr/>						
Total Housing Units	459,300	724,000	950,300	996,700	537,400	117%
Single Family	308,800	440,800	556,400	581,900	273,100	88%
Multiple Family	128,300	245,300	347,900	368,200	239,900	187%
Mobile Homes	22,200	37,900	46,000	46,500	24,300	109%
Occupied Housing Units	426,900	673,900	891,300	934,400	507,500	119%
Household Size	2.94	2.62	2.69	2.75	-0.19	-6%
Vacancy Rate	7.1%	6.9%	6.2%	6.3%	-0.8%	-11%
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Civilian Labor Force	467,100	775,300	1,201,800	1,233,900	766,800	164%
Unemployment Rate	6.0%	6.8%	4.7%	6.3%	0.3%	5%
Civilian Jobs	421,700	697,600	1,074,100	1,085,000	663,300	157%
Agriculture & Mining	12,500	14,100	11,500	11,100	-1,400	-11%
Construction	21,300	36,000	51,600	43,600	22,300	105%
Manufacturing	67,400	108,100	134,200	114,900	47,500	70%
Transportation, Comm- unication, Utilities	20,500	28,800	35,900	37,400	16,900	82%
Trade	86,100	148,700	236,600	229,500	143,400	167%
Finance, Insurance, Real Estate	17,900	38,600	63,900	55,800	37,900	212%
Services	74,500	148,400	266,300	310,900	236,400	317%
Government	97,900	141,200	177,300	186,100	88,200	90%
Self-Employed & Domestic Workers	23,600	33,700	96,800	95,700	72,100	306%
Real Per Capita Income (95\$)	\$19,700	\$21,100	\$23,400	\$23,700	\$4,000	20%

1. All information is for July 1 of each year; therefore, 1970, 1980, and 1990 data do not match previously published April 1 census figures.
Source: 2020 Regionwide Forecast, SANDAG, July 1998

Table 3
DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS
San Diego Region, 1995-2020

	<u>1995</u>	<u>2005</u>	<u>2010</u>	<u>2020</u>	<u>Change 1995-2020</u>	
					<u>Numeric</u>	<u>Percent</u>
Total Population	2,669,200	3,223,500	3,437,700	3,853,300	1,184,100	44%
Hispanic	607,000	871,900	1,000,000	1,287,000	680,000	112%
Non-Hispanic						
White	1,665,300	1,829,600	1,858,100	1,877,900	212,600	13%
Black	164,800	187,000	196,300	210,900	46,100	28%
Asian & Other	232,100	335,000	383,400	477,400	245,300	106%
Under Age 18	684,500	829,600	850,900	914,900	230,400	34%
Age 18 to 34	769,600	776,100	831,900	942,000	172,400	22%
Age 35 to 64	912,900	1,269,100	1,365,000	1,431,000	518,100	57%
Age 65 and Over	302,100	348,700	389,900	565,400	263,300	87%
Uniformed Military	101,900	93,900	93,900	93,900	-8,000	-8%
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Total Housing Units	996,700	1,153,700	1,245,100	1,404,200	407,500	41%
Single Family	581,900	671,200	704,200	761,900	180,000	31%
Multiple Family	368,200	435,400	493,300	594,200	226,000	61%
Mobile Homes	46,500	47,200	47,500	48,100	1,600	3%
Occupied Housing Units	934,400	1,088,700	1,170,700	1,325,700	391,300	42%
Household Size	2.75	2.86	2.84	2.81	0.06	2%
Vacancy Rate	6.3%	5.6%	6.0%	5.6%	-0.7%	-11%
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Civilian Labor Force	1,233,900	1,594,600	1,649,600	1,839,400	605,500	49%
Unemployment Rate	6.3%	5.3%	5.1%	5.8%	-0.5%	-8%
Civilian Jobs*	1,085,000	1,419,400	1,472,000	1,627,800	542,800	50%
Real Per Capita Income (95\$)	\$23,700	\$26,000	\$27,100	\$29,200	\$5,500	23%

* See Table 4 for employment by industry.

Source: 2020 Regionwide Forecast, SANDAG, July 1998

Note: The regionwide forecast of housing units, released in July 1998, has been revised to be consistent with the 2020 Cities/County Forecast, which incorporates higher residential densities within walking distance of existing and potential transit stations and in certain town centers. For the years 2006 to 2020, the revision lowers the forecast of single family units and raises the forecast of multiple family units, and slightly lowers the forecast of all housing units in 2020.

Table 4
INDUSTRY AND CLUSTER EMPLOYMENT (Civilian)
San Diego Region, 1995-2020

	1995	2005	2010	2020	Change 1995-2020		
					Numeric	Percent	
Industry Groups							
Agriculture & Mining	11,100	12,400	11,900	11,700	600	5%	
Construction	43,600	64,900	68,000	77,200	33,600	77%	
Manufacturing	114,900	139,200	131,600	126,900	12,000	10%	
Transportation, Communication, Utilities	37,400	48,100	49,000	52,700	15,300	41%	
Trade	229,500	304,000	318,600	356,100	126,600	55%	
Finance, Insurance, Real Estate	55,800	76,500	82,300	96,800	41,000	73%	
Services	310,900	422,500	441,300	499,400	188,500	61%	
Government	186,100	229,900	242,200	264,600	78,500	42%	
Self-Employed & Domestic Workers	95,700	121,900	127,100	142,400	46,700	49%	
Total Civilian Jobs	1,085,000	1,419,400	1,472,000	1,627,800	542,800	50%	
Industrial Clusters							
Biomedical Products	7,100	7,600	7,400	7,300	200	3%	
Biotechnology & Pharmaceuticals	20,200	29,700	31,500	36,400	16,200	80%	
Business Services	57,400	92,300	97,900	112,700	55,300	96%	
Communications	10,300	14,700	14,500	15,000	4,700	46%	
Computer & Electronics Manufacturing	21,600	31,300	29,800	30,100	8,500	39%	
Defense & Transportation Manufacturing	24,300	24,100	22,900	21,900	-2,400	-10%	
Entertainment & Amusement	15,600	20,400	20,600	21,900	6,300	40%	
Environmental Technology	4,400	4,300	3,900	3,800	-600	-14%	
Financial Services	10,200	14,500	15,800	19,300	9,100	89%	
Fruits & Vegetables	3,300	3,800	3,600	3,600	300	9%	
Horticulture	6,000	6,800	6,500	6,500	500	8%	
Medical Services	50,600	65,800	69,500	80,900	30,300	60%	
Recreational Goods Manufacturing	4,200	10,300	10,800	12,200	8,000	190%	
Software	11,000	20,900	22,900	28,000	17,000	155%	
Visitor Industry Services	70,100	84,800	86,200	91,900	21,800	31%	
Total Jobs in Clusters	316,300	431,300	443,800	491,500	175,200	55%	
Percent of Civilian Jobs	29%	30%	30%	30%	n/a	n/a	

Source: 2020 Regionwide Forecast, SANDAG, July 1998

The Regionwide Forecasting Process

SANDAG has produced short-range and long-range forecasts of growth in the region since 1971. The 2020 Regional Growth Forecast is the agency's most recent forecasting effort. This forecast covers the period 1995 to 2020 and is based on 1995 land use, population, housing, income, and employment data. The SANDAG Board of Directors approved the 2020 Regionwide Forecast for use in July 1998. The subregional allocation, known as the 2020 Cities/County Forecast, was released in early 1999 and will be discussed in a future *INFO*.

The forecasting model used to produce the regionwide forecast is the Demographic and Economic Forecasting Model (DEFM), developed in the late 1970s. With minor modifications, the model structure was used successfully for almost 20 years. A major update was done to the modeling framework, associated software, and database structure in 1997 to reflect advances in computer technology and to reconfigure and enhance parts of the model.

DEFM provides annual forecasts for more than 1,000 demographic and economic variables using a synthesis of two widely accepted techniques. Its demographic component relies heavily on the cohort-survival method that uses trends in birth and death rates. To complete the population forecast, DEFM produces future levels of migration as a function of the region's economic conditions and demographic profile and U.S. immigration policy. On the economic side, time-series econometric methods provide forecasts of employment, income, output, and other economic variables based on national, state, and regional growth patterns and interindustry relationships derived from an input-output table.