

**GROWTH TRENDS
&
METHODOLOGY**

Riverside County Projections – 2006

I. Introduction

Riverside County Projections 2006 (RCP-06) is a five-year incremental forecast of population, housing, and employment for Riverside County, California for the years 2005 through 2035. The RCP-06 was approved by the Executive Committee of Western Riverside Council of Governments (WRCOG) on December 4, 2006, the Executive Committee of Coachella Valley Association of Governments on January 29, 2007, and by the Riverside County Board of Supervisors on March 14, 2007. The RCP-06 is the first projections series developed by the Riverside County Center for Demographic Research.

Riverside County Councils of Governments Boundaries



The Riverside County Center of Demographic Research was established in 2005 as a joint effort between CVAG, WRCOG, the County of Riverside and the University of California, Riverside. RCP-06 was developed to provide County agencies and departments, the councils of governments, the universities and other entities a consistent and standard set of population, housing, and employment forecasts for use in their operational and planning activities. The requirements of local and regional planning efforts including transportation, land use, infrastructure and environmental planning, have all emphasized the importance of and need for accurate projections for use by all jurisdictions, agencies and programs. In addition to the above, a major objective for

developing RCP-06 was to provide the Southern California Association of Governments (SCAG) with a set of projections for inclusion in their regional growth forecasts, which are used for both the Regional Transportation Plan update and the Regional Housing Need Assessment program.

The tables in this document present data by three geographic levels of detail. These include the two Councils of Governments, the twenty five Riverside County jurisdictions (24 cities and unincorporated County), 343 whole census tracts, and 603 partial Census Tracts defined in the 2000 Census. Maps of these areas are also included for reference. It should be noted that the jurisdictional boundaries are as of the July 1, 2005.

Immediately following is an analysis and presentation of the County's growth trends for population, housing, and employment. The reader is encouraged to review section III, IV and V also, so as to understand the process used in developing the projections and the demographic methodologies employed, as well as the overall assumptions.

II. Growth Trends

A. Population

During the period of 2005 to 2035, Riverside County's population is expected to grow from 1.9 million to 3.6 million residents, an addition of more than 2 million people during the projection time span. This represents an annual average increase of 4%, which is 4 times greater than the average expected growth in the State of California during the same projection period.

Table 1. Riverside County Population 1990-2035

<u>Year</u>	<u>Population</u>	<u>Change</u>	<u>Percent</u>
1990 (1)	1,170,400	-	-
1995 (2)	1,365,500	195,100	17%
2000 (1)	1,545,400	179,900	13%
2005 (2)	1,931,300	385,900	25%
2010	2,242,700	311,400	16%
2015	2,509,300	266,600	12%
2020	2,809,000	299,700	12%
2025	3,090,000	281,000	10%
2030	3,343,800	253,800	8%
2035	3,596,700	252,900	8%

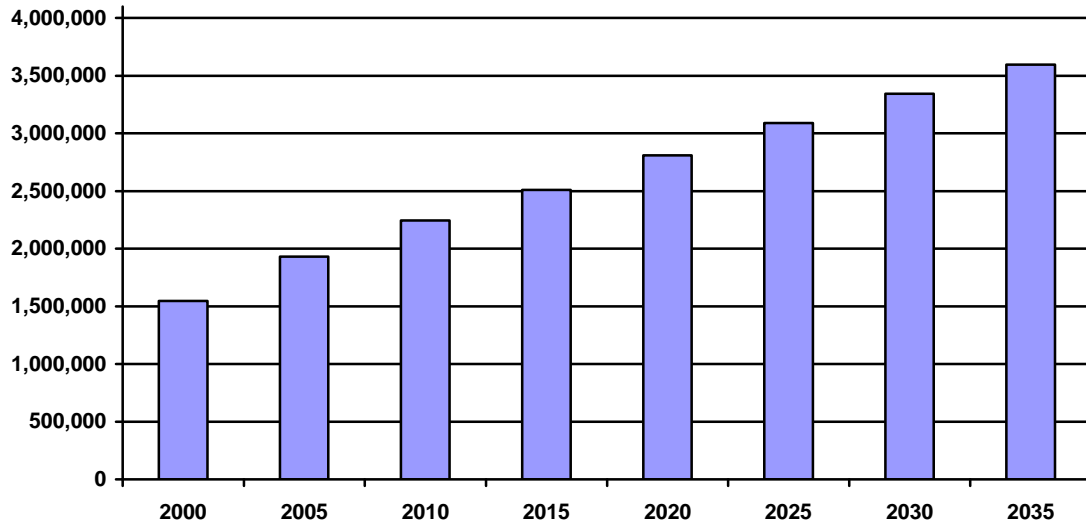
1. Decennial Census, US Census Bureau
2. California Department of Finance

Table 2. California Population 1990-2035

<u>Year</u>	<u>Population</u>	<u>Change</u>	<u>Percent</u>
1990 (1)	29,558,000	-	-
1995 (2)	31,617,000	2,059,000	7%
2000 (1)	34,043,200	2,426,200	7%
2005 (2)	36,854,200	2,811,000	8%
2010 (2)	39,246,800	2,392,600	6%
2015 (2)	41,570,900	2,324,100	6%
2020 (2)	43,851,700	2,280,800	5%
2025 (2)	46,040,800	2,189,100	5%
2030 (2)	48,110,700	2,069,900	4%
2035 (2)	49,875,300	1,764,600	4%

1. Decennial Census, US Census Bureau
2. California Department of Finance

Figure 1. Riverside County Population Projection 2000-2035



Riverside County will experience sustained growth from 2005 to 2035 although the growth rate will diminish over time, from an annual average of 5% the first years of the projection to an annual average of 2% by 2035. In terms of absolute numbers, for each decade between 2000 and 2030, the County will experience an addition of as many residents, if not more, than were added during the decade of the 1980, when Riverside County experienced an unprecedented boom. In light of recent trends, the projected growth rates are reasonable. Between April 2000 and July 2006 there was an addition of 408,000 persons in the County. In July 2006 the county surpassed the two million residents mark. The County added 456,000 residents from July 2000 to July 2006, an average of 74,300 residents a year. The annual average growth rate during this period was 4.8%.

As in the past, net migration in 2006 contributed most of the County's population growth (75%). Natural increase, which is the sum of births minus deaths in a time interval, accounted for the remainder of the growth. This population growth trend will continue in the future but the rate of net migration will decrease over time to reach 54% of the growth in 2035. As available land for residential development is used, housing

construction will slow down, housing cost will probably increase, and County's attractiveness to migrants will diminish.

Over the next decades, the county's population will experience profound transformations due to shifts in growth rates of different ethnic groups. Hispanics will probably migrate to the County from other counties in the region in greater numbers. The higher than average birth rates of Hispanic women will also be a factor in the proportional increase of this ethnic group. The following figure shows that the proportion of the Non-Hispanic White population will decline from 51 % in 2000 to 28% in 2035, while Hispanics who constituted 37% of the population in 2000 will increase to 57% in 2035. The proportion of Non-Hispanic Asians will double from 4% in 2000 to 8% in 2035, mostly due to migration. The other ethnic group proportions will remain essentially the same over the projection timeline.

Figure 2. Components of Population Changes, Riverside County, 2000-2035

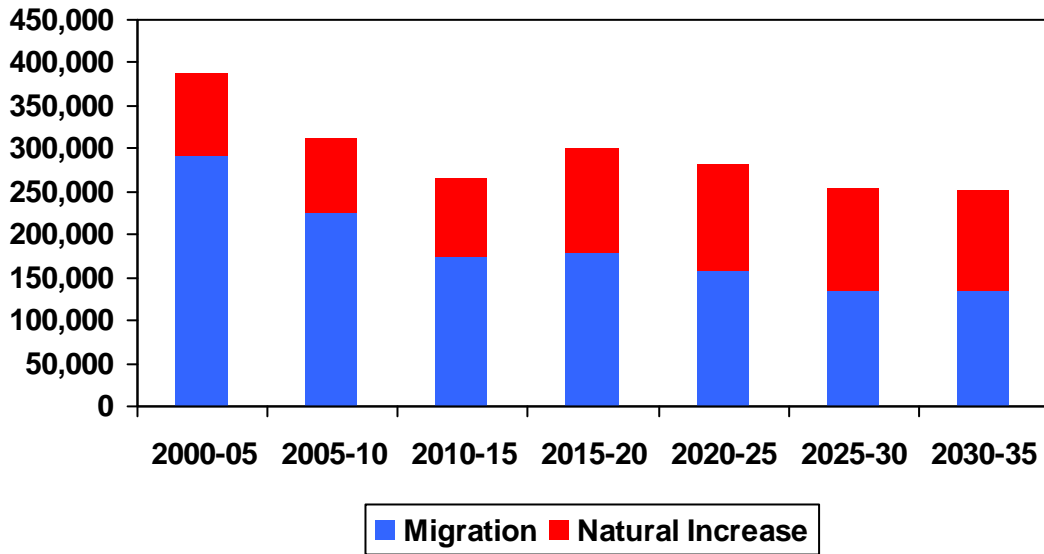
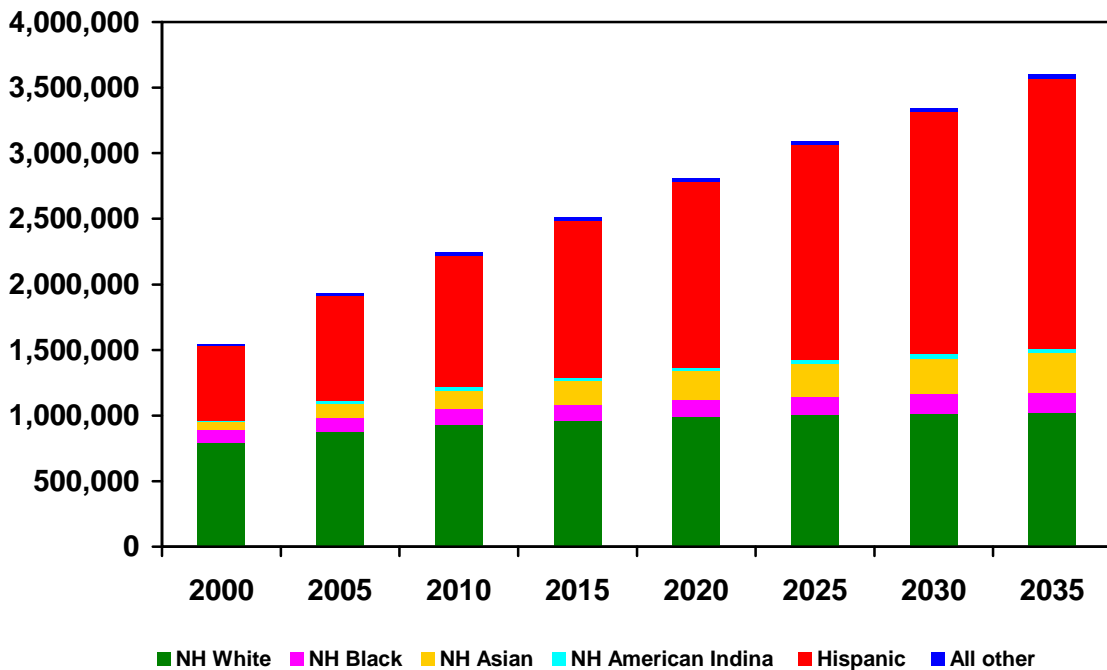


Figure 3. Ethnic Composition of the Population, Riverside County, 2000-2035



B. Housing

By 2035, approximately 629,000 dwelling units will be added onto the existing 706,000 from the 2005 base housing stock. Two thirds of the added units will be located in western Riverside County. Over time, available land designated residential will diminish and it is expected that, as a consequence, housing density will increase.

Figure 4
Riverside County Housing Projections 2000-2035

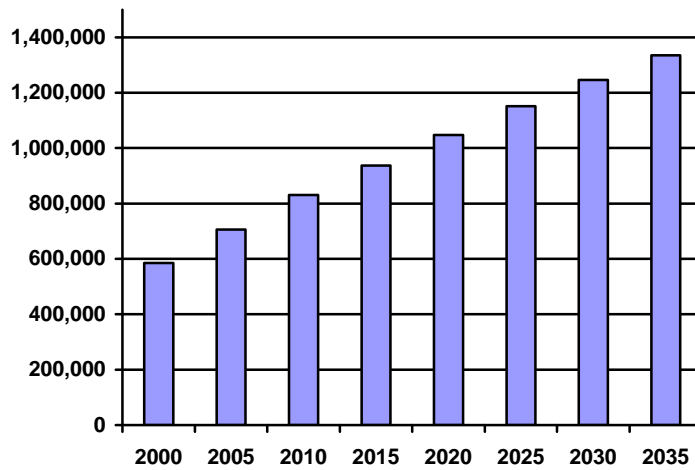


Table 3. Riverside County Housing Units 1990-2035

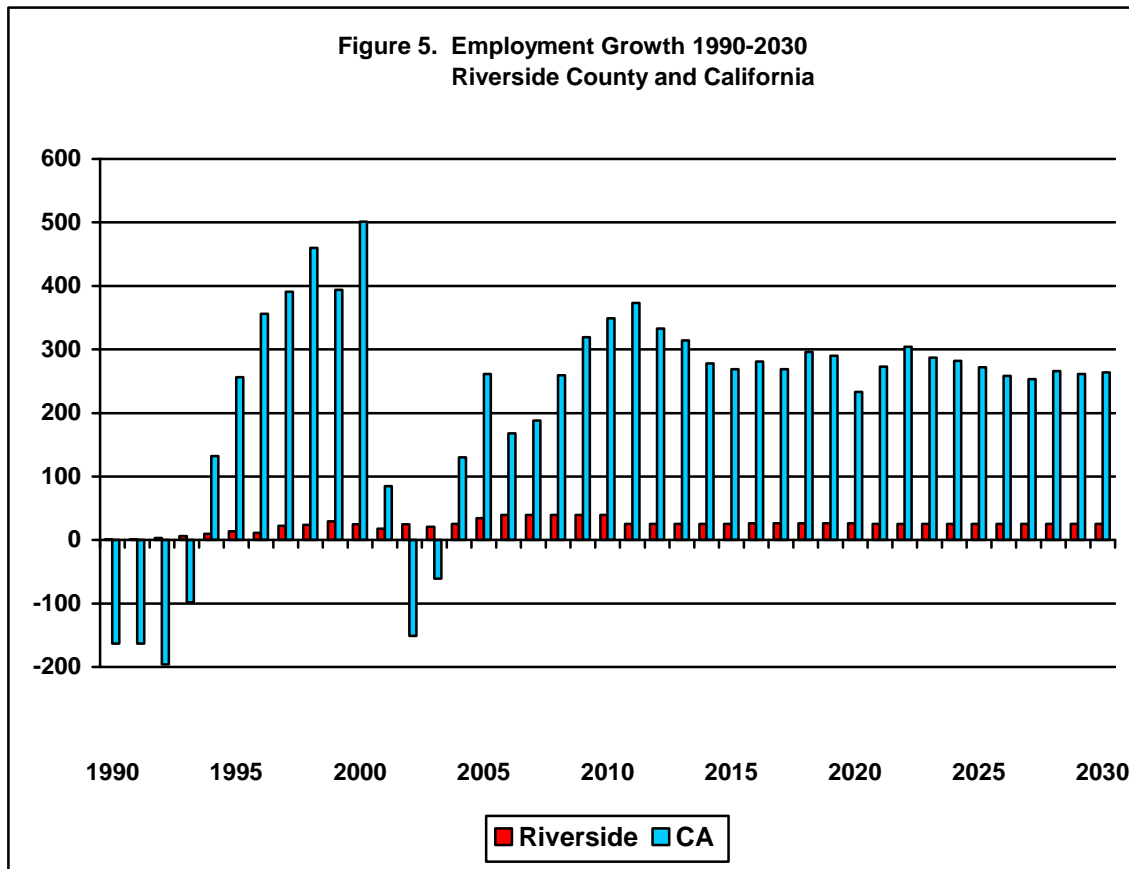
<u>Year</u>	<u>Housing Units</u>	<u>Change</u>	<u>Percent</u>
1990 (1)	483,800	-	-
1995 (2)	538,300	54,500	11%
2000 (1)	584,700	46,400	9%
2005 (2)	706,100	121,400	21%
2010	831,000	124,900	18%
2015	936,400	105,400	13%
2020	1,047,600	111,200	12%
2025	1,151,100	103,500	10%
2030	1,245,700	94,600	8%
2035	1,334,800	89,100	7%

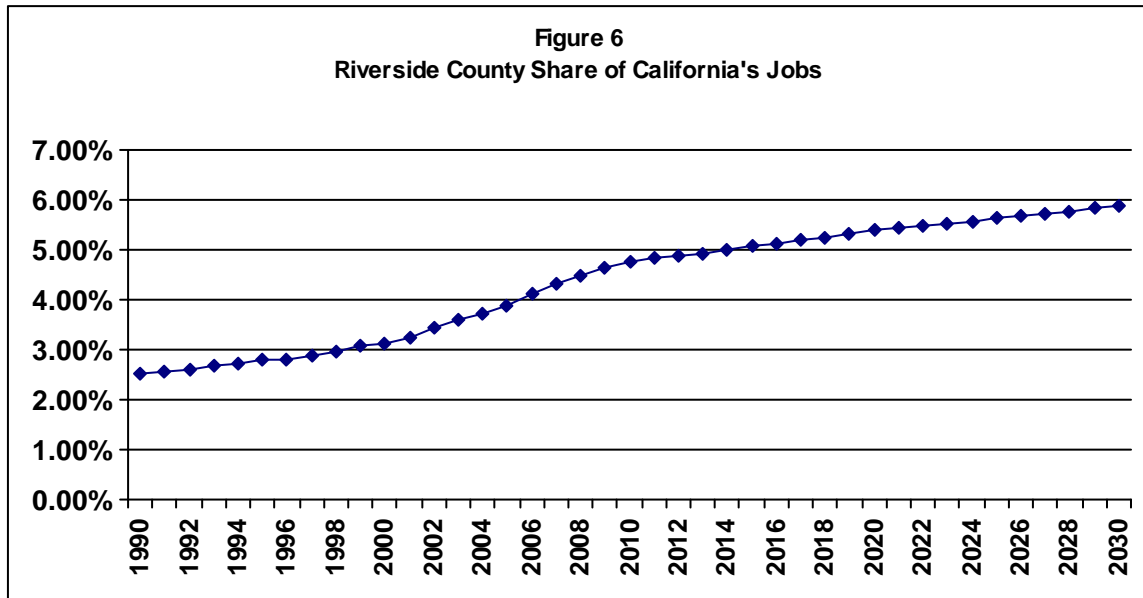
1. Decennial Census, US Census Bureau

2. California Department of Finance

C. Employment

From 1990 to 2000, Riverside County’s share of California’s job growth increased steadily, from 2.5% to 3.13 %. It is expected that this percent will continue to increase from 2005 to 2035 when it will reach close to 6%. Unlike the State of California experienced job losses during the early 1990s and 2000s, Riverside County has posted a positive job growth every single year since 1990.





Employment in Riverside County will increase by approximately 763,000 jobs which represents an annual average growth rate of 4% between 2005 and 2035. As the County population grows, population-serving industries will expand. These jobs are primarily serving the County residents and are often referred to as population serving jobs, that usually is a function of local population growth. Retail, construction, financial activities, health care services, social services, local governments which include school districts, police, fire departments, etc. will increase to keep pace with the County population growth.

Unlike population serving jobs, the job growth in basic sectors is a function of larger market economy growths, such as regional, national and global economy. Example includes manufacturing and high tech industries. In RCP-06, all jobs in the basic sectors will experience positive growth except agriculture. The county will lose agriculture jobs as agriculture land converted to non-agriculture uses. Leisure and hospitality will experience strong growth contributed primarily by casino entertainment businesses on Tribal lands, which is a characteristic feature of the Inland Empire region. A strong percentage growth in transportation and warehousing industries will also be expected due to the County's close vicinity to the busy LA and Long Beach ports.

Figure 7
Riverside County Employment by Sector 2005

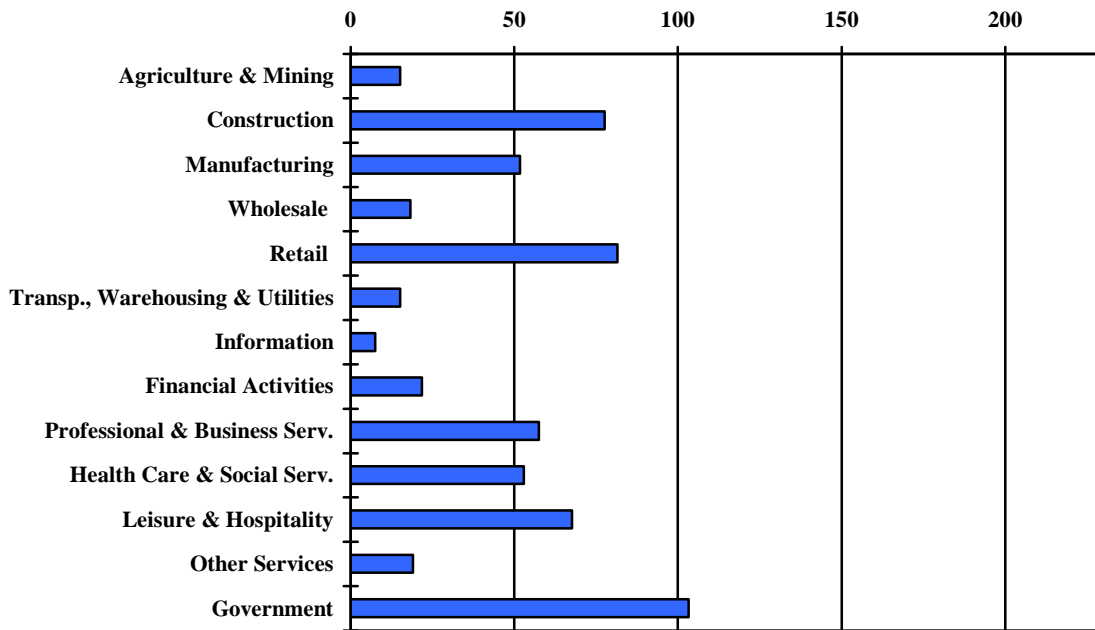


Figure 8
Riverside County Employment by Sector 2035

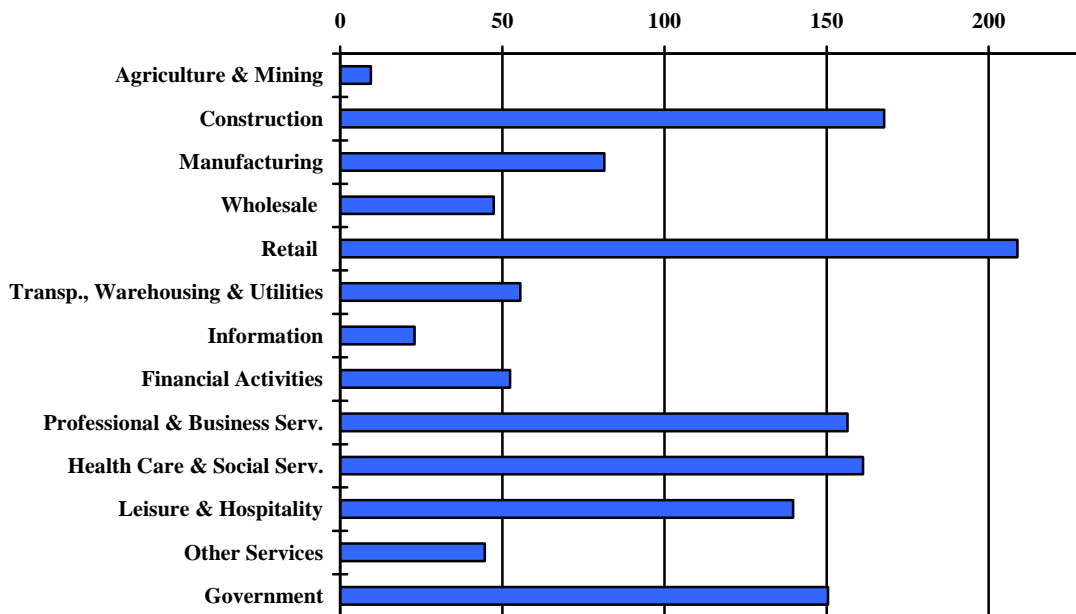
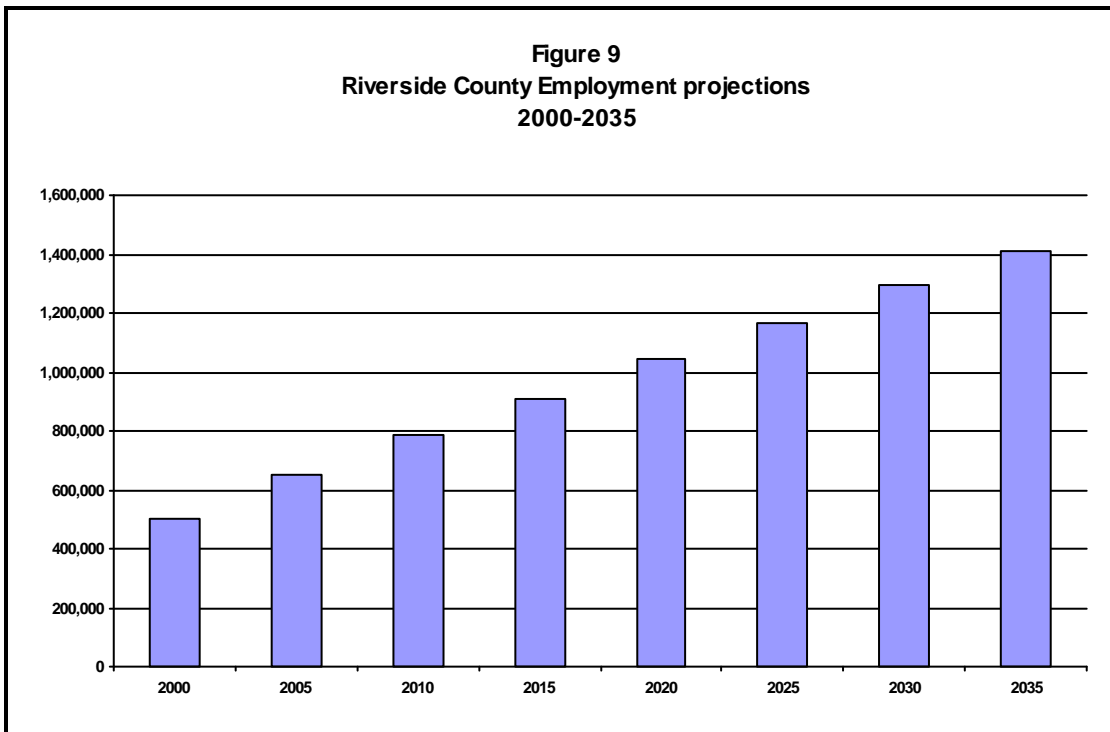


Table 4. Riverside County Employment 2000-2035

<u>Year</u>	<u>Employment</u>	<u>Change</u>	<u>Percent</u>
2000 (1)	526,500	-	-
2005 (1)	650,300	123,800	24%
2010	785,000	134,700	21%
2015	911,400	126,400	16%
2020	1,042,100	130,700	14%
2025	1,168,800	126,700	12%
2030	1,295,500	126,700	11%
2035	1,413,500	118,000	9%

1. Wage and salary jobs are from California Economic Development Department, and self employment jobs are estimated based on the 2000 census information.



III. RCP-06 Development Process

Technical work on the projections began in the fall of 2005 with the development of 2005 baseline estimates of population, dwelling units and employment. Estimates of each of these variables were developed initially in a working data set by the 28,286 census blocks that make up Riverside County and then were aggregated to partial census tracts. The partial tracts incorporate all the annexations from April 1, 2000 to July 1, 2005.

County level projections of population, dwelling units and employment were developed between 2005 and 2006. The projected county level data was then allocated to 603 partial census tracts. Workshops were held at CVAG on August 30, 2006 and at WRCOG on September 5, 2006 to initiate the official start of the review and revision process. During the workshops, the local review and revision process was discussed, as was the schedule for completing the projections. Draft population, dwelling unit and employment numbers by partial census tracts along with corresponding maps were distributed to staff representing the jurisdictions for their review. The same packages were transmitted to those jurisdictions that did not attend the workshops. Follow up meetings were scheduled with each city and the County to discuss the draft forecasts. If the draft numbers were adjusted based on the input from city and County staff, a revised set of forecasts were provided for additional review and comment. This process continued until the technical staff was satisfied that the forecasts accurately represented growth in their jurisdiction.

On December 4, 2006, the draft RCP-06 projections at the jurisdictional level were presented to the WRCOG Executive Committee for approval. The WRCOG Executive Committee approved the data for WRCOG jurisdictions and forwarded them to SCAG. On January 29, 2007, the draft RCP-06 projections at the jurisdictional level were presented to the CVAG Executive Committee and also were approved. On March 14, 2007 the Riverside County Supervisors approved the entire forecast, including

countywide and the County unincorporated portion that is not in the area covered by either CVAG or WRCOG.

IV. Overall Approach: RCP - 06 Methodology

The Riverside County Projection series used a multistage process that combined several procedures and methodologies. In broad terms, total population, housing and employment were projected for the entire County from 2010 to 2035 with 2005 serving as the baseline year. These County-level forecasts were then allocated to smaller geographic areas based on an analysis of local policy, land use capacity, demographic changes, and assumed market forces. Small area projections were developed for each of the 603 polygons formed by overlaying Census Tracts, the incorporated city boundaries and the Councils of Governments boundaries. These polygons are the basic geographic units that provide the ability to aggregate the projections to census tracts, SCAG traffic analysis zones, jurisdictions, unincorporated communities, Council of Governments and County totals. The final stage reconciled the results of each approach to ensure internal consistency across levels of geography.

A. County Control Totals

County control totals were developed for population, housing, and employment to provide a guideline for developing the RCP–2006. The underlying rationale was that changes to the County's future population, housing, and employment occur within a matrix of state, national, and even international forces and trends, and in part by processes unaffected by local policy. For example, the County's migration patterns have historically been influenced by factors such as the policies of the federal government on immigration, housing costs, highway construction, demand for housing in the coastal counties, and the relative attractiveness of the area to residents of other states and other parts of California. Factors, such as lower housing costs and cost of living as well as personal preferences such as weather, lifestyle and proximity to friends and family have played a role in drawing people to Riverside County. Another factor contributing to

population growth has been natural increase, the difference between births and deaths. The overall fertility rate has in turn been influenced by a combination of demographic factors including the population age structure, racial and ethnic composition, fertility rates in the immigrant source nations, education and income levels and personal preferences.

Although these macro level forces may have major influences on future levels of population, dwelling units and employment, it is important to recognize that local policies and trends can also have an influence. The control totals were not controls in the strictest sense, they could be modified if modifications were warranted based on local input and did not result in a significant change from the starting controls.

B. Population

Population was projected using a cohort-component model. The Riverside County model baselines the County's population to the 2000 Census counts. Cohorts were defined by 5 year age groups by sex and race/ethnicity which included the following categories: Non-Hispanic White, Non-Hispanic Black, Non-Hispanic Asian, Non-Hispanic Native American, Hispanic, and Non-Hispanic All Other. The model simulates population change from births, deaths, and migration in and out of Riverside County. Each cohort was first aged and survived based on the appropriate age/sex/ethnic specific survival rates. For example, the population between the ages 0-4 in 2000 who survive from 2000 through 2004 is the starting population ages 5-9 in 2005. The survived population by age, sex, and race/ethnicity was then adjusted for total net migration. The population 0-4 in the years from 2005 through 2035 is calculated first by projecting births by sex and race/ethnicity during the prior five year period, for example all births between 2000 through 2004. Age-specific fertility rates were applied to the cohorts of females in child bearing ages to project these births. The final step is to adjust this population is also adjusted for migration.

C. Housing

Housing was projected using a two stage process. The first step was to project total households. These were projected by first determining headship (or household formation) rates by age cohorts and racial/ethnic categories using the 2000 Census results. These rates were applied to the population by selected adult age cohorts by race and ethnicity to derive households.

The second step involved converting the households to housing units. Households occupy a certain portion of the housing units (occupied housing units as defined in the Census) the rest of the units are assumed vacant. Vacancy rates from the 2000 Census were computed and projected between 2000 and 2035 in 5 years intervals based on assumptions concerning future vacancy trends. Each projected household category was augmented by a factor representing the appropriate projected vacancy rate.

D. Employment

Total County employment was projected using a shift-share model. Employment was projected for 15 employment sectors: Agricultural, Natural Resources and Mining, Construction, Manufacturing, Wholesale Trade, Retail Trade, Transportation Warehousing and Utilities, Information, Financial Activities, Professional and Business Services, Education and Health Services, Leisure and Hospitality, Other Services, and Governments including federal, state and local level. The basic assumption of the model is that changes in Riverside County's employment are a function of its share of the State's employment changes. Additionally, Riverside County will have certain advantages for growth in certain sectors but not in others. Thus, as shifts occur in each employment sector at the State level, Riverside County's share of the growth or decline, will be a function of its economic strengths or weaknesses. The basis for determining these shifts and shares is historical trends of Riverside County's share of employment in each of the sectors. For this model, the shares were based on data going back to 1990. These trends also reflected shifts in the market and Riverside County's relative advantage or

disadvantage. Capture rates for each of the fifteen sectors were calculated based on these historical rates.

The California employment forecast was taken directly from the most current UCLA forecast. Employment was projected for single years by the fifteen sectors starting with 2005 and ending with 2035. Riverside County's employment was then projected by applying the capture rates to the California forecast.

V. Small Area Estimates and Projections

Partial census tract units were created using a hierarchy from County to Sub-regions (including CVAG, WRCOG and outside COG area), to the 2005 city boundaries, and then to census tracts. Each jurisdiction boundary was updated with LAFCO annexation information. Population and housing for the 2005 baseline were estimated originally at the census block level using the Riverside County Assessor's database to identify new housing. The 2005 employment estimates at the census block level were initially developed using the Dunn and Bradstreet database which was geo-coded to census block. The new partial census tract level estimates were then developed from these block level estimates. An Iterative Proportional Fitting (IPF) procedure was used to control to the partial census tract level population and housing estimates to the California State Department of Finance Population and Housing 2005 estimates published in their report E-5. The partial census tract level employment estimates were controlled to the California Economic Development Department estimates of wage and salary employment for 2005. The 2005 employment estimate was also adjusted to include self employed and unpaid workers as defined and enumerated in Riverside County during the 2000 Census of Population and Housing.

For the 2005 - 2035 projections, the RCP-06 population and housing growth was allocated to each partial census tract based on the over all county growth trend, the land use, specific plan, general plan zoning, and most recently adopted SCAG growth forecast distribution. The allocated population, housing and employment were controlled to the

RCP-06 controls. These projections at the partial census tract level were distributed to each jurisdiction for review and comment.

A major step in the process of developing these projections was the collection of data from each jurisdiction in Riverside County. The draft 2005 – 2035 population, housing and employment projections at the partial census tract level were distributed to each jurisdiction. Staff representing the jurisdictions was asked to evaluate the draft projections in light of data, policies, significant trends or anticipated policy changes, or projections the jurisdiction itself may have developed. Meetings were conducted with each jurisdiction to discuss the projections and solicit comments. Standard supportive documentation such as the general plan and its housing and land use elements, annexation plans, and development phasing schedules was also solicited. The projections were adjusted by incorporating the jurisdictions' feedback that was supported by data and documentation. This process went through several iterations until a consensus was achieved. In this way, a large amount of information was collected for small geographic areas across the county.

VI. Countywide Growth Assumptions

Many assumptions were made to develop population, housing and employment for Riverside County. Key assumptions include:

A. Demographics

- The 2006-RCP series is consistent with SCAG 2007 Regional Transportation Plan projections and the most recent California State Department of Finance population projections.
- Fertility rates will decline over time for females of all ethnic groups but will remain higher than average among Hispanic females.

- Migration will increase the pool of females in childbearing ages. As a consequence, although fertility rates will drop, the number of births in the County will increase from 157,000 births between 2005 and 2010 to 233,000 between 2030 and 2035.
- Residents of the County will live longer but the total number of deaths will increase over time as the population ages. Total deaths will increase from 57,000 between 2005 and 2010 to 138,000 between 2030 and 2035.
- International migration to Riverside County will remain the same as in the recent past.
- Net Migration from other places within the United States will remain high but decline over time. An estimated 60,000 persons a year migrated to Riverside County since the 2000, this number will decline to 22,000 in 2035.

B. Land Use, Public Services and Public Facilities

- There will be a declining amount of land available for development by the end of the projection years.
- The Countywide and city level projections will not exceed that which would be allowed under the cities' and County's current general plan, their elements, and related identified city and County Land Use and development policies as of 2005.
- As in the past, single detached residential units will constitute a major portion of future residential development.
- Net densities of newly developed single and multiple family developments will increasingly become higher than the densities of the past.
- Land set aside for open space and parks will remain as such.
- Indian tribal lands were identified as they are under their own separate jurisdiction but will experience residential and economic development.
- The Riverside County Multi-Species Habitat Conservation Plan stipulations regarding open land were respected.

- The Circulation Element of the General Plan, the Regional Mobility Plan, and the Regional Transportation Implementation Plan will be implemented through such mechanisms as developer dedications, growth visioning plans and local state and federal highway funding.
- There will be an adequate supply of water necessary to sustain continued residential, commercial, and industrial development.

C. Economics

- The 2006 RCP, State Employment Development Department, and SCAG's Regional Transportation Plan employment forecasts are all consistent. Near time forecasts are also consistent with forecasts from the A. Gary Anderson Center for Economic Research at Chapman University, and the UCLA Anderson forecast.
- While there may be recurring recessions, there will be no prolonged national or regional depressions.
- There will be a continued market of homebuyers of an appropriate income range to sustain demand for housing Riverside County
- Riverside County's share of California's jobs will increase over the timeline of the projection.
- In the past the County of Riverside exported labor to the coastal counties. This trend will not be reversed but will diminish over time.