The 2013-2018 Comprehensive Economic Development Strategy

Presented by

County of orange

ORANGE COUNTY WORKFORCE INVESTMENT BOARD

March 29, 2013

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About This Document

The County of Orange and the Orange County Workforce Investment Board (OCWIB) developed the Comprehensive Economic Development Strategy (CEDS) to support and grow Orange County's economic strengths and propose solutions and investments to address its opportunities and weaknesses. Through the development of the 2013-2018 CEDS, the OCWIB will position the County to apply for, and utilize, resources to address these needs. The Orange County Business Council (OCBC) is Orange County's leading voice of business conducting a high profile, proactive advocacy program for business interests throughout the County, the State and the nation, focused on four core initiatives: infrastructure, workforce development, workforce housing, and economic development. Working together, the OCBC and the OCWIB provide and develop the tools necessary to address Orange County's economic competitiveness needs.

The CEDS provides a blueprint and roadmap for how the Orange County economy can move forward over the next five years. The process provides a means for all stakeholders to begin to cooperate and orient their individual efforts to arrive at commonly accepted, countywide goals. Partnerships between business, government, non-profits, and academia can be galvanized through commonly agreed upon set of goals and actions strategies based on current economic data and best projections. Together, the process of creating together this CEDS will serve as the framework to update future versions of this living document, thereby ensuring the relationships forged here can be maintained.

State and Local Plans, Reports, and Strategies Referenced In This Document

Orange County WIB 5-year Strategic Plan
2012-2013 State of the County Workforce Indicators Report
2013 Orange County Community Indicators Report
2012 Orange County Workforce Housing Scorecard
2010 State of Orange County's Infrastructure Report Card
State of California Workforce Investment Board 2-Year Strategic State Plan

Acknowledgments

THE ORANGE COUNTY WORKFORCE INVESTMENT BOARD

The Orange County Workforce Investment Board oversees the Comprehensive Economic Development Strategy (CEDS). Each of the five County Supervisors appoints members to the OCWIB from nominations made by the Chamber of Commerce or business associations. These appointed members are identified below in Table 1.

Table 1: Orange County Workforce Investment Board

WIB Member Name	Sector	Title	Organization/Business	Community Represented
Jim Adams	Public	Counsel Representative	L.A./Orange County Building Trades Council	Los Angeles
Bob Bunyan	Private	Principal	The Arlington Group	Irvine
Maria-Jean Caterinicchio	Public	Director	Memorial Care Health System	
Euiwon Chough	Private	President	Chough & Associates	Anaheim
Rob Claudio	Public	Manager, OC Regional Job Services	Employment Development Department	Santa Ana
Jim Clouse	Private	Branch Manager	Manpower	
Janelle Cranch	Public		California School Employees Association	
Nancy Davis	Public	Deputy Director	OC Social Services Agency	
Ronald DiLuigi	Private	VP, Community Benefits and Advocacy	St. Joseph Health System	Orange
Jerry Fitch	Private	President and Chief Executive Officer	Teridian Semiconductor Corporation	
Fred Flores	Private	President	Diverse Staffing Solutions	Fullerton
William M. Habermehl	Public	County Superintendent of Schools	Orange County Department of Education	Costa Mesa
Lauray Holland Leis	Private	Manager, Human Resources	The Irvine Company	Newport Beach
Kenneth Howe	Private	Senior Construction Manager	BRE Properties Inc.	
Alireza Jazayeri	Private	President	3P Consulting	
Sherrie Kline	Private	Human Resource Consultant	Sherrie Kline	
June Kuehn	Public	District Administrator	State Department of Rehabilitation	Anaheim
Kevin Landry	Public	President/CEO	New Horizons	

Darlene LeForte	**Public**	**Superintendent**	**Coastline Regional Occupational Program**	
Barbara Liddy				
John Luker	**Non-Profit**	**Executive Vice President**	**Orange County Rescue Mission**	**Tustin**
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Gary Matkin	**Public**	**Dean, University Extension and Summer**	**University of California – Irvine**	**Irvine**
Ernesto Medrano	**Non-Profit**	**Political Coordinator**	**OC Labor Federation**	
Scott McKenzie	**Public**	**Dean of Technology**	**Fullerton College**	**Fullerton**
Bonny Perez	**Private**	**Director of Operations**	**Patina Group**	**San Juan Capistrano**
Enrique Perez	**Public**	**Assistant Vice-Chancellor**	**Rancho Santiago Community College District**	
Julio Perez	**Public**	**Political Director**	**OC Labor Federation**	
Tom Porter	**Private**	**President**	**The Tom Porter Group, Inc.**	**Irvine**
Adalberto J. Quijada	**Public**	**District Director**	**U.S. Small Business Administration**	**Santa Ana**
Clarence (Buddy) Ray	**Non-Profit**	**Executive Director**	**Community Action Partnership of O.C.**	
Michael Ruane	**Public**	**Executive Director**	**Children & Families Commission of Orange County**	**Santa Ana**
Richard Sandzimier	**Private**	**Principal**	**RI Consult**	
Paula Starr	**Public**	**Director**	**Southern California Indian Center**	**Garden Grove**
Tod Sword	**Private**	**Project Manager**	**Southern California Edison**	
Thomas Tassinari	**Private**	**Director**	**Synergy Solutions**	**Irvine**
Ed Tomlin	**Public**	**General Manager**	**Renaissance ClubSport**	
Kay Turley-Kirchner	**Private**	**Consultant**	**Kirchner Consulting**	
Yasith Weerasuriya	**Private**	**President**	**Stanbridge College**	
Alan Woo	**Public**	**Representative**	**Orange County Board of Supervisors/ County of Orange**	
Ruby Yap	**Private**	**President/CEO**	**Yap & Little CPA, Inc.**	**Cypress**

CEDS Executive Summary

Every five years, the Orange County Workforce Investment Board (OCWIB) develops the Comprehensive Economic Development Strategy (CEDS), which provides valuable information on Orange County's economic environment along with potential plans for developing and growing the economy. The CEDS:

- Presents the current condition of the Orange County economy and its impact on those who live and work in Orange County.
- Identifies economically vulnerable areas in which to invest in economic improvement activities.
- Proposes action on issues involving advancing red-zone residents' lives; world-class education and workforce opportunities; state-of-the-art infrastructure; competitive and growing clusters; and improved economic competitiveness.
- Provides the framework required for Orange County region to be eligible to receive U.S. Department of Commerce, Economic Development Administration funding.

Since the previous CEDS in 2008, the County has experienced permanent shifts in economic and social trends, as a result of the recent Great Recession such as:

- global competition for jobs and economic growth;
- industries that traditionally created large numbers of jobs -- construction, financial services, and manufacturing -- were particularly hard hit and just starting to recover; and
- due to the combination of the housing market crash and severe recession, a large proportion of Orange County's cities, neighborhoods, and households faced severe economic hardships that will take years to recover from.

As a result, this report adopts a special focus on the County's Red-Zone areas (geographic locations within the County experiencing high unemployment and substantially lower levels of income relative to the rest of the County) in order to recommend economic development projects. The following cities are identified as "Red-Zone" cities: Anaheim, Buena Park, Costa Mesa, Fullerton, Garden Grove, Huntington Beach, Irvine, La Habra, Orange, Placentia, Santa Ana, Stanton and Westminster.

The CEDS details five overarching goals designed to achieve a thriving, balanced, and sustainable economy in Orange County:

- Goal One: Advance Lives of Red-Zone Residents
- Goal Two: Provide World-Class Education and Workforce Opportunities
- Goal Three: Plan for and Develop State-of-the-Art Infrastructure
- Goal Four: Promote Competitive and Growing Clusters
- Goal Five: Improve Orange County's Economic Competitiveness in a Global Economy

These five goals are part of the five-year strategic plan that creates the framework for classifying Orange County as a separate regional economy with unique demands and specific issues to be addressed by evaluating current needs, economic realities resulting from the Great Recession, and future challenges and opportunities. Overall, the 2013-2018 Comprehensive Economic Development Strategy provides local, regional and statewide stakeholders with the necessary tools to ensure that Orange County grows and eventually sustains itself as a competitive regional and national economic leader.

Purpose of the Strategy

This Comprehensive Economic Development Strategy (CEDS) is a tool created to provide guidance for economic development projects in distressed areas of Orange County while fostering a relationship between the County, its jurisdictions, and the United States Economic Development Administration (EDA). Through the creation of a CEDS, Orange County is eligible for federal grant awards that support the economic development efforts of certain areas. Once approved, Orange County, its cities, special districts, and nonprofit organizations become eligible to apply for EDA assistance.

In order to assure that the CEDS is carried out as intended, the OCWIB was appointed to oversee the successful revision and implementation of the document. The decision to appoint the OCWIB as the general overseer of the document was made by the Orange County Board of Supervisors.

An integral aspect of the continued economic growth of Orange County is the understanding of its current economic climate so that effective policies can be drafted to address its changing needs. In order to make this new 5-year CEDS plan, the OCBC and OCWIB have engaged in a comprehensive reevaluation of the former CEDS that includes the analysis of current and future trends, economic conditions, and workforce needs. This CEDS will also provide a plan of action to address the current and future needs of the County to ensure that its resources are used efficiently.

Diversifying and Strengthening Regional Economy

The County of Orange prepared the CEDS in order to support Orange County's economic strengths and propose solutions to address its weaknesses. Through the CEDS process, the County highlights a strategy which provides information on where and how to spend resource dollars from funding sources to address these needs. The CEDS is developed to determine the economic drivers and highlight the needs in high poverty, distressed parts of Orange County ("Red-Zones"). These areas are census tract populations with income that is 80 percent of the U.S. median family income and an unemployment rate that is greater than 2 percent above the national unemployment rate as determined by data from the American Community Survey (ACS).

The purpose of this document is to develop a ***regional economic plan***, one that will be a tool for highlighting needs and opportunities in order to strategize how funding could be deployed. This document does not contain a listing or description of itemized funding resources for individual goals and objectives as it is too early in the process to narrow the goals and objectives to particular funding resources. Instead, the CEDS remains open-ended in hopes that identification of needs, goals and objectives will attract funding resources to help address issues raised by this document.

Overview of CEDS Goals

Key research findings along with action strategies will be presented for each of the following five overarching goals of the CEDS: advance lives of Red-Zone residents; create world-class education and workforce opportunities; plan and develop state-of-the-art infrastructure; promote competitive and growing clusters; and improve Orange County's economic competitiveness.

GOAL ONE: ADVANCE LIVES OF RED-ZONE RESIDENTS

Key Action Strategies

- Pursue policies, projects, and programs to help create jobs in Red-Zones and foster full-time employment:
  - Develop EDA project proposals in economically distressed Red-Zone areas to spur revitalization and job opportunities
- Promote future economic opportunities through increased educational opportunities
  - Improve educational outcomes in Red-Zone communities
  - Further pursue strategies to improve language skills among residents
  - Implement programs to motivate Red-Zone students to strive for higher education
- Increase the reach of programs similar to the Latino Educational Attainment Initiative[1]
  - Increase student access and involvement by teaching and motivating parents to be meaningfully engaged in their children's educational success; educating parents and students on career opportunities and readiness requirements; and increasing access to scholarships, loans and grants for education
- Develop, expand and upgrade the skills of the existing workforce
  - Form public-private partnerships with businesses to improve the skill-set of the current workforce
  - Create programs that expand the existing Red-Zone workforce skill-base by connecting under-skilled residents to educational and training opportunities
  - Focus on the expansion of Career Technical Education programs for adults

[1]Latino Education Attainment (LEA) is a coalition of businesses, non-profits, and educators dedicated to implementing a community based program assisting Latino, Asian and other parents in minority and low income communities to effectively guide their children as successful students. The program aims to lower the achievement gap and increase college enrollment, with the eventual goal of increased college graduation rates, or the successful acquirement of technical skills for manufacturing jobs.

GOAL TWO: PROVIDE WORLD-CLASS EDUCATION AND WORKFORCE OPPORTUNITIES

Key Action Strategies

- Ensure that businesses have enough skilled workers to meet their workforce needs
- Support a quality education system at all levels that ensures college-readiness and career-readiness
- Attract and retain highly-skilled graduates, in particular, graduates of science and engineering programs
- Support and create collaborative educational programs that address specific under-employed populations and workforce needs in targeted Red-Zone areas
- Support linked programs that align high schools with community colleges and four-year institutions
- Prepare, train, and educate job seekers and incumbent workers to find and advance in high-value, high-wage jobs with built-in career ladders
- Collaborate with the private sector to identify growing workforce needs and link training initiatives to the needs of target industries
- Support programs for building English language fluency and literacy
- Support continued advances in minority college prep
- Support career and technical education, with emphasis on STEM (Science, Technology, Education, Math) disciplines, cluster specific education and training action plans

GOAL THREE: PLAN FOR AND DEVELOP STATE-OF-THE-ART INFRASTRUCTURE

Key Action Strategies

- Develop an expanded and improved infrastructure system, including workforce housing, to support economic growth and development
- Develop infrastructure that facilitates the efficient movement of goods, energy, information, and people
- Support the expansion of communication networks, such as broadband connectivity, telecommunications and wireless technologies
- Secure an adequate water supply for OC businesses, including water technology innovations, desalination, recycling, groundwater replenishment, and clean-up and conservation
- Support protection and implementation of Measure M2 provisions
- Obtain State and federal government matching funds to subsidize Measure M2 funds approved by County taxpayers so that Orange County residents and workers (including those who live in Red-Zones) have enhanced transportation options for work

- Focus potential CEDS investments on infrastructure sectors receiving a "C" grade or less on the Orange County Infrastructure Report Card
- Coordinate infrastructure investments with economic development opportunities in unincorporated parts of the County so that Orange County residents and workers (including those who live in Red-Zones) have enhanced transportation options for work
- Support the use of public-private partnerships to develop, fund, and deliver critical infrastructure

GOAL FOUR: PROMOTE COMPETITIVE AND GROWING CLUSTERS

Key Action Strategies

- Promote Orange County's key industry clusters
- Conduct ongoing research and analysis on critical drivers of Orange County's key industry clusters
- Encourage expansion and retention of targeted key industry clusters
- Form Red Teams to retain "at risk" companies in Orange County's key industry clusters
- Develop a cluster-based economic development and workforce development culture
- Develop and promote targeted education and training programs in Orange County's key clusters
- Promote continued recovery in the high-multiplier manufacturing, construction, and financial services sectors
- Expand customized, cluster-based education and training programs

GOAL FIVE: IMPROVE ORANGE COUNTY'S ECONOMIC COMPETITIVENESS IN A GLOBAL ECONOMY

Key Action Strategies

- Establish and promote a positive, business-friendly environment to sustain Orange County's economic competitiveness while increasing its ability to create and retain high quality jobs
- Retain and expand the existing job base while pro-actively attracting new businesses, industries, jobs and investments
- Identify opportunities to lower the costs of doing business in the County
- Promote the County as a national and international center for business, global trade, and development

- Implement strategy to classify Orange County as a separate federal economic reporting area (Metropolitan Statistical Area)
- Align local and Statewide tax incentive policies with local and regional economic development priorities
- Establish, renew, implement, manage, protect, and/or expand Enterprise Zones, and other programs that facilitate community development and rehabilitation
- Develop sector-specific value propositions and strategies to attract firms including incentives for businesses seeking to capitalize on opportunities
- Promote projects and programs that encourage small business, start-ups, and entrepreneurship, including increased coordination with the SBA
- Provide quality, responsible, and business-friendly municipal services to attract and retain businesses and employees
- Ensure sufficient supply of workforce housing to meet housing demand arising from new job creation
- Streamline the permit review process and other entitlement processes for businesses and industries

With these above listed goals and action strategies, Orange County can take steps to understand its weaknesses and recognize potential strengths and opportunities within the new economic environment. Growing our existing companies, jobs and future workforce is the means for ensuring perennial economic success in Orange County relative to attracting talent from other locations around the State and country.

The CEDS Committee will support the following activities for the implementation of the CEDS:

- Engage stakeholders countywide by conducting stakeholder discussions with the local economic development community; seeking continued partnerships for projects that meet the stated goals of the CEDS in the next five years; and making technical assistance available for partners in project applications, with an initial focus on Red-Zone projects.
- Advise Orange County's policy makers, legislative delegation and other elected officials on the CEDS process and benefits of the CEDS.

CEDS Strategy Committee

A Comprehensive Economic Development Strategy (CEDS) serves as a roadmap for government, business, and the nonprofit community to collaborate more effectively in ensuring Orange County's quality of life is improved in identified Red-Zones and qualified census tracts. Through the development of the CEDS, the Orange County Workforce Investment Board (OCWIB) acts as the CEDS Committee. All members of the OCWIB are appointed by the Orange County Board of Supervisors and represent the constituency, local businesses, community leaders, education entities, labor organizations, community-based organizations, economic development agencies, One-Stop partners, and others as designated by Local Elected Officials. More than half the members represent the private sector including business owners, chief executive officers, operating officers or other executives with optimum policymaking or hiring authority.

The OCWIB (CEDS) members represent the main economic interests of Orange County, including majority membership from private sector and community representatives.

Current members of the OCWIB / CEDS Committee are as follows:

WIB Member Name	Sector	Title	Organization/Business	Community Represented
Jim Adams	Public	Counsel Representative	L.A./Orange County Building Trades Council	Los Angeles
Bob Bunyan	Private	Principal	The Arlington Group	Irvine
Maria-Jean Caterinicchio	Public	Director	MemorialCare Health System	
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Rob Claudio	Public	Manager, OC Regional Job Services	Employment Development Department	Santa Ana
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Ruby Yap	**Private**	**President/CEO**	**Yap & Little CPA, Inc.**	**Cypress**

The Comprehensive Economic Development Strategy (CEDS) Process

Introduction

The County of Orange along with the Orange County Workforce Investment Board (OCWIB) administers the regional CEDS Committee for Orange County. The OCWIB designated the CEDS committee on September 12, 2006. The Committee acts as a facilitator and a technical resource for eligible entities seeking federal Economic Development Administration (EDA) funding.

In order to provide a well-rounded and comprehensive analysis, the CEDS used a wide-array of data analysis software and information sources. These include, GIS mapping software to identify "Red-Zone" census tracts of economic needs based upon American Community Survey (ACS) data; IMPLAN and REMI software to identify high impact, high multiplier economic sectors; survey feedback from Orange County economic development stakeholders and policy makers; and baseline datasets (such as EDD employment and cluster data), research, and analysis derived from reports such as the Workforce Indicators, Community Indicators, and Workforce Housing Scorecard reports.

Using valuable insights and information drawn from these sources, the CEDS provides substantial analysis on how the Great Recessions has changed Orange County's economic climate. Namely, the County's businesses and organizations have adopted innovative and forward-thinking methodologies to increase efficiency and remain economically competitive. It is of paramount interest that Orange County builds on the drive to be economically competitive by fostering innovation, addressing key social and economic shifts resulting from the Great Recession, and ensuring continued drive for a stronger regional economy. These topics will be elaborated in detail in the following sections and through the course of the document.

Creating Job Growth by Understanding Key Economic and Workforce Drivers

Economic markets and societal trends have permanently shifted in the last five years. Orange County is well-placed to respond to and take advantage of these changes.

The Great Recession of 2007-2009 devastated the nation, California, and Orange County. Massive job losses, industry contractions, revenue shortfalls, and an explosion in housing foreclosures had serious negative effects on regional, state, national, and global economies. With many industry segments struggling to recover, economic progress has been uncertain and uneven across sectors and geographical regions. Out of necessity, industry trends have

responded by shifting away from reliance on traditional business practices to new, innovative strategies which have emerged and grown. In order to adapt and become more competitive, the private sector has become "lean and mean." Our education and workforce systems must also adapt to remain competitive and relevant.

Orange County entered the Great Recession slightly earlier than most counties and states due to a concentration of mortgage lender employers and construction and real estate development firms. In December of 2006, Orange County had an unemployment rate of 3.1 percent, peaking in January 2010 at 10.0 percent before falling to 6.8 percent in December 2012. Yet, Orange County has been able to survive the recession with minimal consequences relative to surrounding counties and the State because of its diverse economy, competitive business environment, skilled workforce, and job growth in new and innovative emerging industries.

Competing Successfully by Keeping Up with Shifting Trends

Fallout from the Great Recession is widespread, ongoing, and still a moving target. Even so, it is critical to attempt to make sense of the forces impacting Orange County's economy post Great Recession, because it has permanently shifted many economic and societal trends. New trends that have resulted include: the impact of the recession may have been much deeper than previously understood, and the recovery much more tenuous than anticipated; the fundamental nature of labor markets, and work itself, seems to have changed permanently; majority of traditional industries have failed to endure the recession and therefore, jobs within these sectors are unlikely to emerge again.; and due to economic uncertainty, both consumers and the general business community continue to be apprehensive about spending and investing.

Despite the emergence of several negative economic and social shifts, not all of the new trends are detrimental. Namely, businesses and industries that reacted to the downturn by being nimble, innovative, and striving to become "lean and mean" not only survived the downturn, but have begun to thrive. Those parts of the economy that have demonstrated a laser-like focus on productivity and execution of business operation efficiencies have prospered. Many firms have flourished by addressing new, international markets, driving a surge in international trade. Even as some traditional industries continue to struggle, new, emerging industries have surpassed expectation in business performance.

Orange County is no exception to these shifting trends. Though many jobs lost in the County will not be returning emerging industries such as high-tech sectors and those associated with international trade are providing much-needed economic growth and job creation. To remain on a pathway of recovery, and expedited continued job creation, it is more important than ever that Orange County be diligent in keeping up with, and even ahead of, constantly shifting economic trends, while capitalizing on its unique and innovative culture. Even though the State as a whole struggles to recover, Orange County remains an attractive place for businesses due to its innovative spirit, high quality of life, skilled workforce, and attractive geographic location.

Innovation Leads to Job Creation and Wage Growth

While the Great Recession put forth substantial challenges for Orange County to overcome, it has also created a variety of new opportunities and pathways for increasing economic activity and employment. This report identifies the most significant opportunities for economic growth and expansion, while highlighting the challenges Orange County currently faces. Understanding the dynamics of the economic changes brought on by the recession and taking creative measures to exploit benefits and minimize detrimental effects, will be crucial in ensuring Orange County's future economic viability.

Drive for Innovation

Orange County has never lacked the building blocks for innovation. Orange County is:

- home to a large number of high-tech industries
- populated by global corporations
- a leader in new industries such as advanced transportation, alternative fuels, medical devices, and computer gaming
- a creative and problem-solving workforce exemplified by Disney's Imagineers
- home to large concentrations of research and higher education institutes, business incubators, and venture capital investments

These attributes have provided Orange County with the necessary tools to successfully adapt to shifting demographic and economic landscapes. Yet, as demographics and industries within the County evolve, it is crucial that Orange County not lose its innovation and competitive edge. Continuing to develop economically innovative mechanisms to adapt to shifting trends will rest on elected officials, the business community, policymakers, and decision-makers within the County. Ensuring a collective understanding of economic projections and employment trends will effectively determine how successfully Orange County will continue to recover. Comprehension of evolving markets and understanding of demographical changes, and the subsequent change of the workforce composition, will allow for a proper assessment of the required levels of educational attainment, focused workforce development training and programs, and areas of opportunity for local and regional economic development.

As part of the drive for innovation, creating a strong workforce will also require bold ideas and concerted actions among business leaders, policy-makers, educators, workforce professionals, researchers, and, most importantly, parents and students. Attainable but ambitious short-term goals must be paired with a vision and an understanding of the County's long-term prospects. The Orange County Workforce Investment Board's (OCWIB), Comprehensive Economic Development Strategy (CEDS) provides a strategy for qualified "Red-Zone" locations in Orange County to diminish poverty and chronic economic issues.

GROWING ORANGE COUNTY

Over the last fifty years, Orange County has re-branded its image from a suburban bedroom community to Los Angeles, to an urbanized hub of global importance. From Disneyland to business service venues, from high-tech conglomerates to unparalleled real estate opportunities, Orange County is on the forefront of economic opportunity for over three million people. However, as we approach the end of the first decade of the 21st Century, Orange County is in a much different place in its economic development life cycle than it was fifty, twenty or ten years ago. Orange County is no longer about attracting people and businesses from outside the County to move into a new territory, but is instead becoming a place where success is dependent on retaining and growing existing businesses and economic clusters. Growing our own companies, jobs, and future workforce is how Orange County will succeed, rather than working to attract the resources from outside the County. Because of this, the action strategies of workforce development for Orange County should be focused on the tangible drivers of economic growth and the reduction of risk factors in the local economy. As part of this drive to grow Orange County, the County has officially placed priority of services for veterans and homeless persons for all County programs and services.

The CEDS is one part of the necessary steps required to build Orange County to respond properly to the future. Through these actions, Orange County will maintain the economic advantages that have made it a high quality place to live.

Planning Organization: The Board of Supervisors

The five Board Supervisors are elected by the voters of their district to four-year terms. Each district varies in geographical size; however, the populations are equal with approximately 600,000 residents. Community members may contact their Supervisor via phone, in writing or during public comments at a Board meeting. The Board oversees the management of County government and many special districts. The Board's legislative and executive activities are conducted at public meetings with certain personnel and legal matters discussed in closed sessions. The Board of Supervisors aims to make Orange County a safe, healthy and fulfilling place for its residents to live, work, and play by providing outstanding, cost-effective regional public services.

The Comprehensive Economic Development Strategy process is aligned with the stated Board of Supervisors vision, of a high quality, model governmental agency, delivering services to the community, while leveraging available resources through partnering with regional businesses and other governmental entities.

The Board of Supervisors, as the planning organization for the entire Orange County region, is responsible for the following:

- Appointing members to the Workforce Investment Board/Comprehensive Economic Development Strategy Committee;
- Appointing the WIB/CEDS Committee to develop and submit to EDA a CEDS that complies with 13 CFR § 303.7;
- Making a new or revised CEDS available for review and comment by the public for a period of at least thirty (30) days prior to submission of the CEDS to EDA;
- Obtaining approval of the CEDS from EDA;
- After obtaining approval of the CEDS, submitting to EDA an updated CEDS performance report annually;
- Ensuring that any performance report that results in a change in the technical components of the EDA-approved CEDS must be available for review and comment by the public for a period of at least thirty (30) days prior to submission of the performance report to EDA;
- Submitting a copy of the CEDS to any Regional Commission if any part of the EDA-approved EDD region is covered by that Commission;
- Submitting a new CEDS to EDA at least every five (5) years, unless EDA or the County determines that a new CEDS is required earlier due to changed circumstances.

Orange County's Board of Supervisors in 2013 is comprised of the following elected members:

- Shawn Nelson - Board Chair (4th District)
- Patricia C. Bates - Vice Chair (5th District)
- Janet Nguyen - Supervisor (1st District)
- John M. W. Moorlach - Board Chair (2nd District)
- Todd Spitzer - Supervisor (3rd District)

CEDS Review Process

Public Review and Comment of CEDS Process

The CEDS Strategy Committee is subject to the Ralph M. Brown Act (California Government Code sections 54950-54963). Pursuant to the Brown Act, the WIB conducts the following for all CEDS Strategy Committee sessions:

- **Post a notice and an agenda** for any regular meeting; mail notice at least three days before regular meetings to those who request it; post notice of continued meetings; deliver notice of special meetings at least one day in advance to those who request it; and deliver notice of emergency meetings at least one hour in advance to those who request it.
- **Notify the media** of special or emergency meetings if requested; allow media to remain in meetings cleared due to public disturbance.
- **Hold meetings in the jurisdiction** of the CEDS Committee and in places accessible to all, with no fee to attend.
- **Not require a "sign in"** for anyone.
- **Allow non-disruptive recording** and broadcast of meetings, and let the public inspect any recording made by the County of the CEDS Committee meetings. The County may destroy recordings it made after 30 days.
- **Allow the public to address the CEDS Committee** at regular or committee meetings on any item in the jurisdiction of the CEDS not addressed at an earlier open meeting.
- **Conduct only public votes**, with no secret ballots.
- **Treat documents as public** without delay if distributed to all or a majority of members of the CEDS before or at the meeting, unless exempt under the Public Records Act.

The timeline of public review and stakeholder comment for the 2013-2018 CEDS is as follows:

Date	Item
February 19, 2013 – March 15, 2013	**CEDS Survey of Orange County cities and economic development professionals**
April 4, 2013	**Orange County Regional Workforce and Economic Development Network**
April 12, 2013	**Public Release of draft CEDS Executive Summary to OCWIB Executive Committee**
April 19, 2013	**Public Release of draft CEDS to OCWIB**
June 25, 2013	**CEDS presented to Orange County Board of Supervisors**
July 1, 2013	**Finalization and submission of CEDS**

CEDS Goals and Objectives

The CEDS addresses the following five main goals:

- **Goal One: Advance Lives of Red-Zone Residents**
- **Goal Two: Provide World-Class Education and Workforce Opportunities**
- **Goal Three: Plan for and Develop State-of-the-Art Infrastructure**
- **Goal Four: Promote Competitive and Growing Clusters**
- **Goal Five: Improve Orange County's Economic Competitiveness in a Global Economy**

To attain an accurate understanding of how each of the five goals can best facilitate Orange County's economic climate, first it is imperative to have an assessment of current social and economic standings. To achieve this, the CEDS used the latest research from the Orange County Workforce Indicators Report (produced annually by the Orange County Workforce Investment Board), the Orange County Community Indicators (produced annually by the County of Orange), and other reports attached as appendices and referred to throughout the CEDS. Action strategies are designed to ensure success through the analysis of key issues in focus areas and by working with decision makers on improving impacted communities.

Key information on each of the five goals along with actions strategies, catered to address the overall purpose of the goals, will be presented in the following sections, commencing with brief details on each goal.

Strategic Projects, Programs, and Activities

The following recommendations and action steps, presented in the remainder of this section, will lay the foundation for future prosperity. "Goals" are established with the long-term vision of improving Orange County. "Action Strategies" are designed to be the immediate next steps for all stakeholders involved, such as the Orange County Workforce Investment Board, the Orange County Business Council, and the County of Orange, to take in fulfilling each of the Goals.

GOAL ONE: ADVANCE THE LIVES OF ORANGE COUNTY'S RED-ZONE RESIDENTS

Economic Policies that stimulate business and foster a strong, skilled workforce are crucial to job creation in Orange County's Red-Zones.

Orange County's Red-Zones represent areas of great need and opportunities for attention and investment. Orange County's economic recovery is proceeding, but slowly -- over 100,000 Orange County residents remain unemployed, and more workers are

underemployed or have left the labor force. Creating jobs and increasing full-time employment is crucial to enhancing Orange County's recovery, especially for Red-Zone residents. Economic policies that stimulate business and foster a strong, skilled workforce are crucial to job creation in Orange County's Red-Zones. Acknowledging that addressing Red-Zone concerns requires a multi-dimensional approach, Orange County has placed priority of services for veterans, homeless, and high-need populations for all County programs and services. Additionally, education is essential to Orange County's economic well-being. Highly educated workers were somewhat protected from the impact of the Great Recession and are likely to do better during future boom and bust cycles. Thus, promoting education is an important strategy for ensuring economic opportunity across the income spectrum and addressing income inequality; because the new economy demands a highly skilled workforce, education has a crucial role in helping Orange County remain economically competitive.

Key Action Strategies

- Pursue policies, projects, and programs to help create jobs in Red-Zones and foster full-time employment:
  - Develop EDA project proposals in economically distressed Red-Zone areas to spur revitalization and job opportunities
- Promote future economic opportunity through education opportunity
  - Improve educational outcomes in Red-Zone communities
  - Further pursue strategies to improve language skills among residents
  - Implement programs to motivate Red-Zone students to strive for higher education
- Increase the reach of programs similar to the Latino Educational Attainment Initiative
  - Increase student access and engagement by teaching and motivating parents to be meaningfully engaged in their children's educational success; educating parents and students on career opportunities and readiness requirements; and increasing access to scholarships, loans and grants for education
- Develop, expand and upgrade the skills of the existing workforce
  - Form public-private partnerships with business to improve the skill of the currently operating workforce
  - Create programs that expand the existing Red-Zone workforce skills base by connecting under-skilled residents to educational and training opportunities
  - Focus on the expansion of Career Technical Education programs for adults

GOAL TWO: PROMOTE WORLD-CLASS WORKFORCE TRAINING AND EDUCATION OPPORTUNITIES

Even with a high performing education and training system, Orange County faces a skills gap.

A thriving Orange County economy is the best route to future employment growth in the short and long run. Given the current economic crisis, investing in our education and workforce systems will give both communities the edge in the race toward economic recovery. In order to adapt and become more competitive, the private sector has become "lean and mean". Orange County's education and workforce systems are also adapting to remain competitive and relevant. Many jobs lost in the County will not be returning, yet emerging industries such as high-tech/Information Technology sectors and those associated with international trade are providing much needed economic growth and job creation. To remain on the pathway to recovery, it is more important than ever that Orange County be diligent in keeping up with, and even ahead of, constantly shifting economic trends, while capitalizing on its unique, innovative culture.

In terms of education, Orange County's education system is not keeping up with the changing demands of the region's economy, resulting in a shortage of skilled workers in the near future. Projections to 2025 suggest that the economy will continue to increasingly demand more highly educated workers. Substantial improvements in educational outcomes are needed to meet the demands of tomorrow's economy and to ensure Orange County's economic prosperity. Failure to make improvements will result in a less-productive economy, lower incomes for residents, less tax revenue for the State, and more resident dependence on social services.

Orange County's economy increasingly demands highly educated workers.

For decades, Orange County employers have needed more workers with college degrees. This shift towards more highly educated workers has occurred as a result of changes both within and across industries.

The supply of college graduates will not keep up with demand.

Two current demographic trends will impede future increases in the number of college graduates. First, the baby boomers—a well-educated group—will reach retirement age, and for the first time large numbers of college graduates will leave the workforce. Second, the population is shifting toward groups with historically lower levels of educational attainment. In particular, Latinos—who now make up the largest group of young adults—have historically had low rates of college completion. And there will not be enough newcomers to Orange County—from abroad or from other states—to close the skills gap.

In light of these findings, a greater intentional effort in curriculum development and promotion is necessary. Orange County's high-technology economy is dependent on the future workforce being well trained in these disciplines. Without high achievement in math and sciences, Orange County's high-technology businesses will have to recruit from elsewhere or move to where they can find a mathematically and scientifically inclined workforce.

Educational efforts and workforce training programs should be oriented around the growing clusters of Orange County (see Goal Four). Growing clusters are where Orange County's "jobs of the future" will be. Educational programs in K-12 grades and post-secondary institutions should be designed to cater to occupations in the growing clusters. In addition, efforts should be made to create training action plans so trained graduates are in place when occupations in the growing clusters are demanding workers in their fields.

Key Action Strategies

- Ensure that businesses have enough skilled workers to meet their workforce needs.
- Support a quality education system at all levels that ensures college-readiness and career-readiness
- Attract and retain highly-skilled graduates, in particular, graduates of science and engineering programs
- Support and create collaborative educational programs that address specific under-employed populations and workforce needs in targeted Red-Zone areas
- Support linked programs that align high schools with community colleges and four-year institutions
- Prepare, train, and educate job seekers and incumbent workers to find and advance in high-value, high-wage jobs with built-in career ladders
- Collaborate with the private sector to identify growing workforce needs and link training initiatives to the needs of target industries
- Support programs for building English language fluency and literacy
- Support continued advances in minority college prep
- Support career and technical education, with emphasis on STEM disciplines, cluster specific education and training action plans

GOAL THREE: PLAN FOR AND DEVELOP STATE-OF-THE-ART INFRASTRUCTURE SYSTEMS WITH AN EYE FOR ECONOMIC DEVELOPMENT SUPPORT

Orange County needs infrastructure that facilitates the efficient movement of goods, energy, information, and people.

Orange County needs to continuously attract State, local, and private investments in infrastructure to sufficiently meet the expanding needs of a growing population and a dynamic and healthy economy. Further, the County needs to ensure that its infrastructure is able to: protect public health; increase access to affordable healthcare and housing;

facilitate a well-educated public and workforce; support a robust economy with reliable, multi-modal transportation systems; provide sound water and waste management systems; provide reliable natural gas and electric transmission and distribution systems; and finally, support sufficient "green" and open space infrastructure to promote quality of life.

Infrastructure needs to be created so that the physical assets for economic growth are in place throughout the County. In order to ensure economic prosperity it is important for Orange County to instill mechanisms to support its growing population. Namely, the County must facilitate the access to affordable healthcare and housing for the growing population. With the renewal of Measure M, the half-cent sales tax increase, originally approved in 1990 and renewed until 2040, almost $12 billion will be available for transportation-oriented infrastructure. Continued investment such as the Measure M renewal needs to occur so that the tools for economic growth in the County are in place.

In regards to infrastructure development and investment, particular emphasis should be placed on Orange County's transportation and water supply systems:

Transportation

The smooth flow of people, goods, and services into, out of, and within the County is critical to Orange County's expanding economy. Employees must be able to get to and from work efficiently, as personal mobility is integral to a thriving economy and community. It is important that government not constrain citizens' movements in a way that diminishes their quality of life.

Equally important is the efficient regional movement of goods throughout Southern California. The ports of Los Angeles/Long Beach comprise the fifth largest seaport complex in the entire world, and are the largest and second-largest container ports in the U.S. The Ports of Los Angeles and Long Beach receive and then distribute 35 percent of the nation's imported goods, and Los Angeles International Airport handles 78 percent of the region's air cargo. Efficient regional goods movement is dependent upon a well-maintained, well-coordinated, and safe transportation system, including a variety of transportation alternatives; and adequate access to air cargo, air travel, and ground shipping facilities.

Water Supply

Orange County's economy, jobs, and water are inexorably linked. Job growth cannot continue without an adequate and reliable water supply to support the economy. Orange County's economic viability as a highly desirable location for homes, commerce, industry, and tourism depends on the availability of a safe, reliable, and affordable water supply. The County's ability to address its water needs and manage its water supplies as efficiently as possible are key determinants in Orange County's economic prosperity.

Key Action Strategies

- Develop an expanded and improved infrastructure system, including workforce housing, to support economic growth and development
- Support infrastructure that facilitates the efficient movement of goods, energy, information, and people
- Support the expansion of communication networks, such as broadband connectivity, telecommunications and wireless technologies
- Secure an adequate water supply for OC businesses, including water technology innovation, desalination, recycling, groundwater replenishment, clean-up and conservation
- Support protection and implementation of Measure M2 provisions
- Focus potential CEDS investments on infrastructure sectors receiving a "C" grade or less on the Orange County Infrastructure Report Card
- Obtain State and federal government matching funds to subsidize Measure M2 funds approved by County taxpayers so that Orange County residents and workers (including those who live in Red-Zones) have enhanced transportation options for work
- Coordinate infrastructure investments with economic development opportunities in unincorporated parts of the County so that Orange County residents and workers (including those who live in Red-Zones) have enhanced transportation options for work
- Support the use of public-private partnerships to develop, fund, and deliver critical infrastructure

GOAL FOUR: PROMOTE ECONOMIC CLUSTER GROWTH, DEVELOPMENT AND COMPETITIVENESS

Orange County needs to leverage the region's diverse set of industry cluster assets and industrial bases to transform its economy and stimulate the growth of new clusters, companies, and jobs.

The economic downturn evolved the industry landscape dramatically - strengthening some clusters, while weakening others. As the economic recovery is taking hold, the industry clusters of yesterday have transformed, consolidated, gone offshore, or disappeared entirely. Current economic development strategies must stay ahead of the curve for their communities to be competitive in an increasingly interconnected global economy.

Orange County needs to be better equipped in leveraging the region's diverse set of industry cluster assets and industrial bases to transform its economy and stimulate the growth of new clusters, companies and jobs. Multiplier effects mean that some jobs have a higher return on investment in terms of their ability to ripple throughout the economy.

Creating a job in a key high multiplier industry creates 2 or even more jobs throughout the rest of the economy, while service sector jobs typically have much lower multiplier effects.

World-class "center of excellence" clusters are those with high-location quotients. Location Quotients (LQs) are ratios that compare an industry's employment concentration in a region compared to the national average. If an LQ is equal to 1, then the industry has the same share of cluster employment compared to the national concentration. An LQ greater than 1 indicates an industry cluster with a greater share of employment compared to the nation. Clusters with LQ's above 1.5 are especially concentrated in Orange County compared to other regions and the nation.

The strongest Orange County industry clusters concentrations as measured by location quotient are:

Industry Cluster	Location Quotient (LQ)
Analytical Instruments	**3.1**
Sporting, Recreational and Children's Goods	**2.9**
Biomedical	**2.6**
Information Technology	**2.5**
Hospitality and Tourism	**2.0**
Aerospace	**1.9**
Fashion	**1.6**
Power Generation and Transmission	**1.6**
Communications Equipment	**1.5**

Key OC High-Tech Sectors	LQ	Employment Multiplier
Audio and video equipment manufacturing	**1.96**	**5.07**
Medical equipment and supplies manufacturing	**1.37**	**4.30**
Semiconductor and electronic component mfg.	**1.55**	**3.05**
Computer and peripheral equipment mfg.	**2.41**	**2.78**
Electronic instrument manufacturing	**2.67**	**1.67**
Telecommunications (Other)	**2.43**	**2.20**
Medical and diagnostic laboratories	**2.25**	**1.48**
Commercial and service industry machinery	**1.61**	**2.03**

Large Economic Sectors

Orange County's large economic sectors are providing a significant amount of employment opportunities. Services will continue to grow, but business and professional services, manufacturing, financial services, construction, and tourism are important drivers of Orange County's future economic vitality, competitiveness, and success due to the sheer size of employment in these sectors.

Economic Importance of Manufacturing and Construction

Orange County's manufacturing and construction industries present several key advantages to the County's unique economy and diverse workforce. For example, both sectors provide high-wage job opportunities for the workforce with lower education requirements and combined high multiplier effects. Orange County manufacturers are lean and mean and continue to drive the Orange County economy forward with high multiplier effects that ripple positively throughout the economy. "On-shoring" trend means Orange County manufacturers, already highly competitive and efficient, will continue to thrive if the state and regional regulatory environment improves.

During the recession, the construction industry contracted sharply. As the housing market rebounds and the existing housing stock is being absorbed by Orange County's growing population, construction employment has rebounded as well. Over the past year, construction employment grew about 5 percent and is predicted to continue to grow, although not to the previous peak of 2004-2007.

Key Cross-cutting Clusters

Orange County is in the midst of transitioning into a knowledge based, post-Great Recession economy. Because of the Great Recession, many of the traditional high wage jobs of the past have disappeared and will not be coming back. New opportunities, however, are creating high wage jobs as a result of social and economic changes in the last decade due to international trade, information technology (IT), creativity and green/cleantech—four emerging industries that are blurring traditional cluster boundaries by overlaying and crosscutting traditional clusters.

The two cross-cutting clusters that combine growing employment and increasing salaries are:

INTERNATIONAL TRADE

Orange County's geographic location provides it with distinct advantages regarding international trade. Some of these advantages include proximity to the ports of Long Beach and Los Angeles; a well-connected freeway and road system for trucking; rail lines providing national trade linkages; proximity to international and domestic airports; and a large and growing presence of an ethnically diverse population. Combined, these significant trade factors with Orange County's large and competitive manufacturing base, namely in computer software, electronics and transportation equipment. The County continues to

rapidly cultivate trade relationships with growing economies such as China, Japan, South Korea, Mexico and Canada. These economic and employment opportunities emerge to drive the County's robust global trade industry.

INFORMATION TECHNOLOGY (IT)

Orange County has long been a leader in computer and electronic software, along with service and product manufacturing; this presents a significant advantage to the County as these products and sectors are a major portion of international exports. A highly skilled information technology workforce is essential to driving economic growth in a fast growing knowledge-based economy. Specialized skills–often requiring education or experience in science, technology, engineering and mathematics are critical to supporting innovation in fields ranging from computers to medicine and communication.

Information technology occupations, namely those that connect businesses and provide computer software products and services, have aided in driving employment of various industries in the County, relying greatly on information technology for day-to-day operations with features such as email, video conferencing, cloud technologies and various computer software programs. These new technologies have allowed businesses to become more connected to their customers and promote business-to-business connections, which allow for increased collaborations and subsequently the expansion of this industry.

Key Action Strategies

- Promote Orange County's key industry clusters
- Conduct ongoing research and analysis of critical drivers of Orange County's key industry clusters
- Encourage expansion and retention targeted to key industry clusters industries
- Form Red Teams to retain "at risk" companies in Orange County's key industry clusters
- Develop a cluster-based economic development and workforce development culture
- Develop and promote targeted education and training programs in Orange County's key clusters
- Promote continued recovery in the high-multiplier manufacturing, construction, and financial services sectors
- Expand customized, cluster-based education and training programs

GOAL FIVE: IMPROVE ORANGE COUNTY'S BUSINESS COMPETITIVENESS IN A GLOBAL ECONOMY

Orange County should be promoted as a national and international center for business, global trade, and development.

While the State as a whole struggles to recover, Orange County remains an attractive place for businesses to thrive due to its innovative spirit, high quality of life, skilled workforce and attractive geographic location. As Orange County emerges from the Great Recession and seeks to join a highly competitive global economy, the County needs to consolidate its resources and efforts to promote key competitive advantages. This requires the successful linking between workforce groups, educational leaders, community organizations, and businesses that unite in a common vision to ensure a strong economic future for Orange County.

Orange County's Economy is on the mend, but showing increasing strength

By many measures, Orange County is seeing a consistent pattern of economic recovery following the Great Recession. Orange County's unemployment rate has fallen more than 2 full percentage points from its recession-era peak. However, a large share of Orange County's residents are still unemployed or underemployed. In order to increase employment rates and promote a strong economy, Orange County needs to take measures such as increased investment for entrepreneurship and small business start-ups, especially in key industry clusters such as Information Technology and Healthcare.

Looking ahead -- Orange County's long-term economic prospects are fundamentally strong

Orange County's long-term economic trends reflect strengths but also create pressures that policy must respond to. The most effective economic policies require accurate assessments of Orange County's economic performance, a balanced view of the State's competitiveness, and a realistic sense of the State's strengths and weaknesses.

California's "business climate" issues understates, and often hampers, Orange County's strengths

California consistently scores poorly on many business climate rankings that focus primarily on taxes and other costs of doing business. Orange County's economic performance is stronger than these business climate rankings alone would indicate. Businesses located in Orange County face higher costs but they also enjoy many benefits, such as the skill level of the workforce, the availability of capital and support for new business, and the amenities that make Orange County an attractive place to live.

Key Action Strategies

- Establish and promote a positive, business-friendly environment to make Orange County competitive and create and retain good quality jobs
- Retain and expand the existing job base while pro-actively attracting new businesses, industries, jobs and investment
- Identify opportunities to lower the costs of doing business in the County

- Promote the County as a national and international center for business, global trade, and development
- Increase investment in small business start-ups and for entrepreneurship
- Increase coordination between small businesses and the Small Business Administration (SBA)
- Implement strategy to classify OC as a separate federal economic reporting area (Metropolitan Statistical Area)
- Leverage intellectual property as a commodity for Orange County
- Align local and statewide tax incentive policies with local and regional economic development priorities
- Establish, renew, implement, manage, protect, and/or expand Enterprise Zones, and other programs that facilitate community development and rehabilitation
- Develop sector-specific value propositions and strategies to attract firms including incentives for businesses seeking to capitalize on opportunities
- Promote projects and programs that encourage small business, start-ups, and entrepreneurship, including increased coordination with the SBA
- Provide quality, responsible, and business-friendly municipal services to attract and retain businesses and employees
- Ensure sufficient supply of workforce housing demand arising from new job creation
- Streamline the permit review process and other entitlement processes for businesses and industries

Analysis of economic Development Problems and Opportunities

A Comprehensive Economic Development Strategy (CEDS) provides the roadmap for government, and the nonprofit community to collaborate more effectively in ensuring Orange County's quality of life is available to everyone, particularly in qualified Red-Zone census tracts (as determined by data from the American Community Survey (ACS)). Additionally, the report presents economic and social indicators to create targeted economic development goals and objectives. The remainder of this section will be dedicated to addressing the said economic goals and objectives, commencing with a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis, followed by detailed information on Red-Zones, including economic, housing and population demographics.

Orange County: Major Strengths, Weaknesses, Opportunities and Threats

Part of creating comprehensive economic development strategies involves the development of SWOT analysis for Orange County. SWOT analysis is a technique for identifying and analyzing strengths (S), weaknesses (W), opportunities (O) and threats (T) as it is applied to a community or geographic region. SWOT analysis is an important element of strategic planning and for the task at hand of determining economic development priorities and strategies.

SWOT analysis needs to look at both internal and external regional factors. Typically, Strengths (S) and weaknesses (W) refer to internal factors that the community or region has some control over while opportunities (O) and threats (T) refer to external factors that are likely to influence outcomes from initiatives, projects or programs undertaken as a result of the CEDS Report.

Strengths produce an advantage or benefit for the region while weaknesses produce obstacles or limitations for regional economic development. Opportunities are factors that can favorably impact or spark regional economic development, but are not necessarily under the direct control of the community. Finally, threats refer to external factors that can limit economic development and under limited community control.

Additionally, a SWOT analysis can offer helpful perspectives for economic development by exploring possibilities for new efforts or solutions to regional problems and by making decisions about the best path for regional/joint initiatives, projects, and programs. It can also help to determine where change is possible since SWOT can reveal priorities as well as possibilities. Further, a SWOT analysis is a simple way of communicating about initiatives, projects or programs, and to organize information about the community or region.

The OCBC and OCWIB staff developed the following tables that provide an initial analysis of SWOT for Orange County. This table will be refined based on comments received at from the CEDS Steering Committee and public forums surrounding the CEDS planning process.

Orange County SWOT Analysis

Strengths	Weaknesses

▪ **Diversified industry makeup**
  ▪ **Diverse High-Tech**
  ▪ **Business & Professional Services**
  ▪ **Advanced Manufacturing**
  ▪ **Tourism**
  ▪ **Culture of entrepreneurial small-medium sized businesses mixed with large Fortune 500 global companies.**
▪ **Excellent Pacific Rim geographical location at center of world-class Southern California market**
  ▪ **Strong capabilities in logistics and distribution**
  ▪ **Excellent Transportation Infrastructure and Access**
  ▪ **Geographic Center of Southern California Market**
▪ **Stellar Quality of life:**
  ▪ **Pacific Coast**
  ▪ **Abundance of outdoor recreation**
  ▪ **Diverse interesting culture**
  ▪ **Climate**
  ▪ **Exceptional Community Healthcare**
▪ **Arts & Entertainment**
▪ **Premier tourism and sports facilities/events**
▪ **Low Crime Rate**
▪ **High Quality, Well-Funded Infrastructure**
▪ **Steady, Accelerating Recovery from Great Recession**
▪ **High Quality K-12, Community College, and University educational institutions**
	▪ **Workforce Skills Gaps**
	▪ **Workforce Housing Supply and Affordability**
	▪ **Lack unified regional vision**
	▪ **Environmental and regulatory obstacles**
	▪ **English language challenges**
	▪ **Few industrial, commercial, and residential development sites**
	▪ **Lack of MSA designation**

Opportunities	Threats

▪ Grow and develop existing industry clusters
▪ Strengthen Global Connectivity/International Trade
▪ Facilitate more high-tech start-up development
▪ Raise educational and language attainment
▪ Retention of key workforce talent
▪ Work together to create a unified workforce development and economic development regional vision
▪ Facilitate small business development
▪ Cultivate and promote bilingual workforce
▪ Creative arts culture
▪ Promote development of workforce housing options
	▪ State business climate worsens
	▪ State economic recovery stalls
	▪ Environmental challenges and regulations
	  ▪ Water supply uncertainty
	  ▪ Planning and zoning barriers to new investment
	▪ Loss of young talent (due to high cost of living)
	▪ Limited economic development tools and financing options
	▪ Lack of economic development resources and incentives

COOPERATING AND INTEGRATING CEDS WITH CALIFORNIA'S ECONOMIC DEVELOPMENT PRIORITIES

Excerpt from California Workforce Investment Board's "Shared Strategy for a Shared Prosperity – California's Strategic Workforce Development Plan: 2012 – 2017"

Regional Sector Strategy

California's regional sector strategy builds on regional workforce and economic development networks and industry-specific sector partnerships that are focused on career pathway programs. These career-centric programs have emerged over the past decade in regions throughout the state.

Regional workforce and economic development networks

Existing regional networks were formed for different purposes with a variety of organizations designed to assume leadership roles. The California Strategic Workforce Development Plan envisions continued diversity but encourages regions to bring together all major stakeholders, guided and sustained by a "backbone" organization that has the

trust of all partners. One key purpose of the regional networks is to develop and support industry-specific partnerships and career pathways. Roles of the regional network include:

- Identifying key competitive and emerging industries in the region;
- Aligning, coordinating, and integrating a region's resources to support the development of industry-specific partnerships in those targeted industries;
- Removing local policy and administrative barriers to the alignment of multiple public programs and funding streams; and
- Identifying and accessing additional federal, state, private and philanthropic resources to sustain the network, invest in specific programs, and to seed sector partnerships.

Industry sector partnerships

In industry sector partnerships, workforce practitioners work closely with employers and labor organizations to develop education and training curriculum and programs to meet business demands for skilled labor. Partnerships include the range of stakeholders needed to address employers' pipeline needs and build robust career pathways. The geographic reach of a sector partnership is typically regional, with the specifics driven by how labor markets operate within a given industry. Lead organizations may be a local board, industry association, formal labor-management partnership, regional non-profit, or community college.

The roles played by effective industry sector partnerships include:

- Identifying and articulating current and anticipated skill needs within the industry;
- Mapping out and establishing career pathways in the targeted industry sector;
- Integrating programs and "braiding" funding streams along career pathways, and providing supportive services for underprepared students and workers;
- Developing training curriculum and/or adjusting existing curriculum;
- Developing common systems to track participant success;
- Providing students and workers with industry valued skills certifications, credentials, and degrees at multiple points along career pathways; and
- Developing other strategies to support industry workforce needs and worker career advancement.

Orange County Workforce Investment Board's Draft Executive Summary of the 5-Year Strategic Local Workforce Plan (2012 - 2017)

The Orange County Workforce Investment Board (OCWIB) oversees Orange County's workforce development activities funded by the federal Workforce Investment Act (WIA) and establishes programs in response to the workforce needs of Orange County, including labor market information, employment and training services, and business assistance. With

significant input from business and community partners, the OCWIB has developed this 5-year Strategic Local Workforce Plan. The Plan describes the OCWIB's commitment to building and maintaining a comprehensive workforce development system for Orange County that is sector-focused, business-responsive and fosters the development and delivery of training and services along career pathways that bridge the gap between skills currently available in the workforce and the needs of growing and emerging sectors of the local economy.

Vision

- The OCWIB's vision emphasizes strategies fostering collaboration across a wide range of stakeholder interests.
- Our vision for workforce development centers on stakeholders' working together to address the skills development and training needs of priority sectors, while ensuring that workers have access to career pathway training to meet those needs.
- As such, the OCWIB has established the Orange County Economic and Workforce Development Network ("the Network") as the vehicle for bringing businesses, labor, education, economic development and others to identify and address that regional workforce challenges, especially as they relate to the key industry clusters of the County.
- The Plan focuses on promising and emerging industry sectors. The OCWIB will initially focus intensively on three industry clusters as part of our sector strategy; information technology, manufacturing; and healthcare.

Economic and Workforce Information and Analysis

The principal economic and workforce analysis used as OCWIB's basis for determining workforce development strategies and sector priorities is the 2012/2013 Workforce Indicators Report and the 2013-2018 Comprehensive Economic Development Strategy (CEDS).

Business Services

Partnerships with business are central to OCWIB's purpose – developing a job ready workforce. In concert with this sector focus, our business services plan is built on five foundational tenets:

The Orange County Economic and Workforce Development Network will serve as a principal resource for identifying sectors of focus for system stakeholders.

- ✓ For each priority sector, Partnerships comprised of business representatives and other stakeholders will focus on developing career pathways that contain entry points for low-skilled workers and those with more advanced skills.
- ✓ Career pathway strategies will address skill requirements expressed by employers.
- ✓ Business services will be delivered as part of a unified approach, reflecting collaboration of the WIA-funded One-Stop system with other systems/programs that provide businesses assistance and support.
- ✓ Identifying and securing financial resources to ensure that stakeholders can meet the training and services needs of businesses in targeted sectors are a priority.

Adult Strategies

We must prepare to address further needs for change in order to make certain that services for adult job seekers continue to reflect the demands of the local economy. The system must be able to offer workers training through career pathways programs that result in industry-recognized credentials reflecting skill sets needed to address workplace requirements. For OCWIB, developing career pathways will require efforts to redesign the delivery of education, training, and employment services to be much more integrated, aligned, and participant-centered. OCWIB's plans for improving upon existing strategies for meeting the needs of adult job seekers are focused on current and future efforts to increase the availability, quality and relevance of occupational and foundational skills training in the County.

Youth Strategies

The OCWIB's strategies and approaches to delivering workforce development services to youth have evolved significantly over the more than a decade that has elapsed since our implementation of WIA. In support of the overarching goal to increase the number of youth who graduate from high school prepared for work or career education, two priorities are reflected in this Plan:

- ✓ Increase the number of high school students who complete a challenging education, including math gateway coursework and industry-themed pathways that prepare them for college, "earn and learn" training through apprenticeships, On-the-Job (OJT), and other postsecondary training; and
- ✓ Increase opportunities for high school students and disconnected youth to transition into postsecondary education and careers.

A connection with the WIB's commitment to ensuring that a pipeline of workers is available to support industry needs, we plan to use the career pathways development engagement process as a mechanism to work with schools. By design, the WIA Youth program is focused on youth who are most in need of support, including those who are: from low income families; homeless/runaway; pregnant or parenting; foster youth; offenders; disabled; or high school drop-outs.

Administration

Effective, high performing workforce development delivery systems require strong administrative support. The board and leadership of the OCWIB are committed to ensuring that the Orange County workforce programs and services go beyond simply meeting the requirements established under WIA's compliance structure. The OCWIB relies on the following approaches to direct strategy, as well as build momentum and support for programs:

- Collaboration with Education Partners
- Engagement of Key Stakeholders
- Resource and Funding Development and Leveraging External Resources
- Continual Enhancement of the One-Stop System

- Strategies to Support Small Businesses
- Continuous Improvement of Training Providers and Programs
- OCWIB Services for Unemployment Insurance Claimants and Trade Adjustment Act (TAA) Service Recipients
- Preparing Workers for "Green Jobs"
- Integrating Apprenticeship Programs and Job Corps in the One-Stop System
- Integrating WIA Service Delivery with EDD Programs and Services
- Data Collection and Analysis
- Messaging and Broadcasting
- Service Delivery

Analysis and Comparison of Red-Zone Demographics (Census Tract Level)

At the countywide level, Orange County is generally perceived as a highly affluent County. However, this perception has masked the underlying economic distress occurring within the County's borders, especially since the onset of the Great Recession which hit Orange County particularly hard due to massive layoffs in the construction and financial services industries, as Orange County was a center of subprime and Alt-A mortgage lenders. Particularly north of the SR-22 and in some areas to the south of SR-22, there are clear pockets of economic distress at the census tract level (See map below). Census tracts that demonstrate severe economic distress due to low income and high unemployment are defined as Red-Zones. In order for a census tract to qualify as a Red-Zone, the Census tract must have an unemployment rate 2 percent over the national average *and* have a per capita income of no more than 80 percent of the national average.

The data for eligibility was based on the most recent 2007-2011 5-year American Communities Survey (ACS) released by the U.S Census Bureau. In order to take the next step toward improving the economic conditions within these economically distressed communities, these Red-Zones must be identified and analyzed, so that underlying sources and indicators of distress can be identified. It is important to recognize that these Red-Zones have an impact at the city level as well, with some cities that contain more Red-Zones facing widespread economic distress. This is particularly true for the cities of Anaheim, Santa Ana, Garden Grove, Westminster and Stanton, which according to their two year averages (or three year average for Stanton) would qualify as Red-Zones (See Appendix A). Below is a list of the Red-Zone census tracts by city:

RED-ZONE CITIES 2013	
ANAHEIM	**LA HABRA**
BUENA PARK	**ORANGE**
COSTA MESA	**PLACENTIA**
FULLERTON	**SANTA ANA**
GARDEN GROVE	**STANTON**
HUNTINGTON BEACH	**WESTMINSTER**
IRVINE	

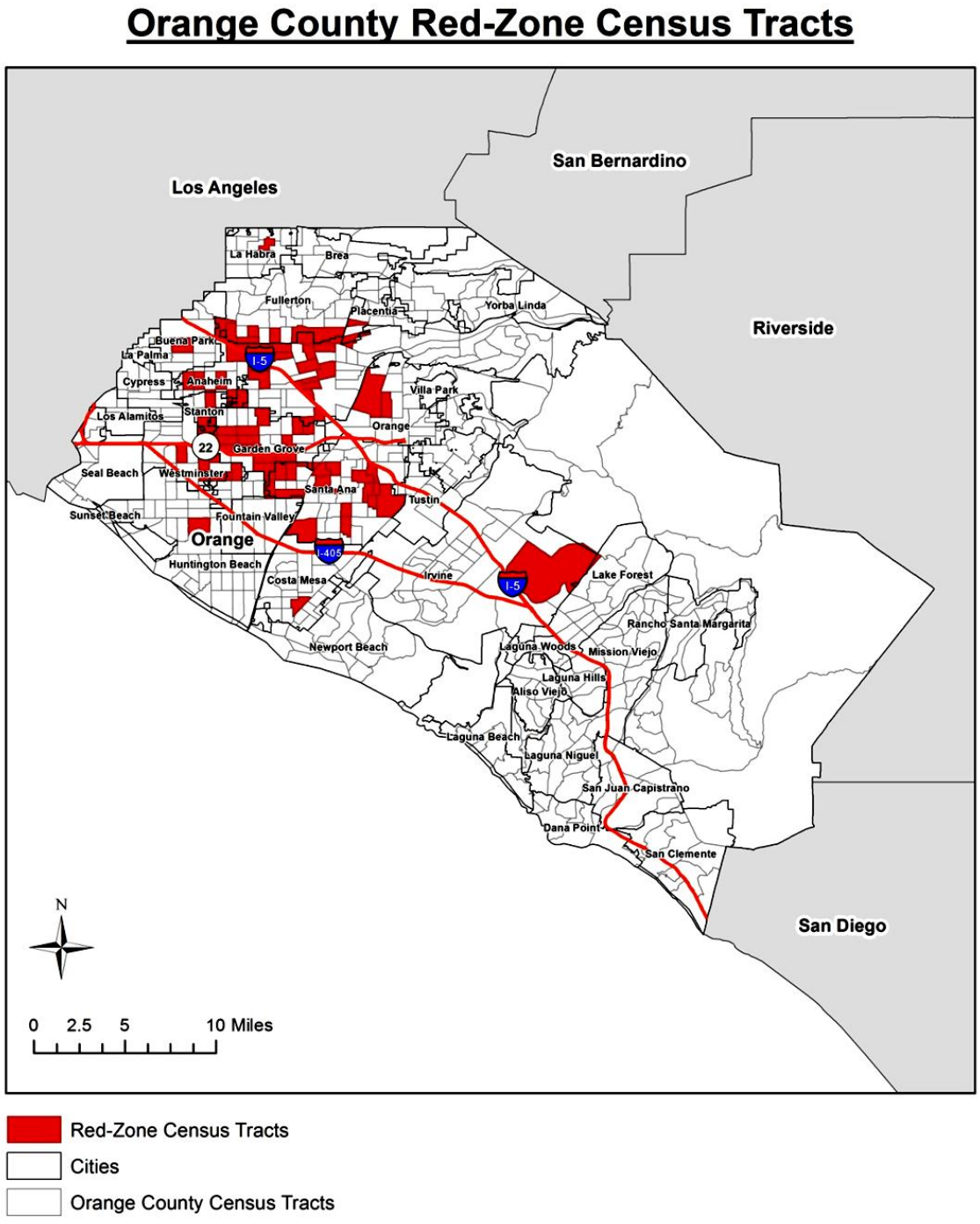
The next step in understanding how to improve the economic situation of Orange County is identifying and mapping the Red-Zones of Orange County. Red-Zones are US Census tracts that demonstrate economic need due to low income and high unemployment. Red-Zones are census tracts noted as having high economic need as determined by data from the American Community Survey (ACS). Red-Zones allow Orange County to address areas of economic need that can benefit from increased levels of investments. This analysis is performed through examining each of the major cities of Orange County and highlighting particular census tracts and key economic characteristics within each city that qualifies it as arid-Zone.

Each of the thirteen cities within the County are highlighted for examination based on their size and presence of Red-Zones. The summary for each city briefly describes key socio-economic statistics with respect to the Red-Zones and how they relate to overall findings in Orange County.

Red-Zone Cities and Census Tracts 2012				
City	Census Tract(s)	Unemployment	Per Capita	
Anaheim	863.01	18.8%	$	16,251
	864.04	14.2%	$	17,675
	865.02	14.7%	$	11,533
	866.01	15.3%	$	12,509
	866.02	15.6%	$	18,469
	867.01	11.6%	$	21,103
	867.02	12.0%	$	19,403
	868.02	15.6%	$	18,520
	869.01	14.4%	$	19,001
	869.02	13.4%	$	21,532
	870.01	13.1%	$	17,483
	871.02	13.1%	$	17,355
	871.03	12.1%	$	20,267
	873.00	13.5%	$	14,912
	874.03	17.8%	$	13,275
	874.04	14.4%	$	11,985
	874.05	13.9%	$	12,154
	875.04	12.2%	$	12,540
	877.03	13.3%	$	20,448
Buena Park	1103.02	10.9%	$	20,520
Costa Mesa	637.02	13.4%	$	21,762
Fullerton	18.01	11.2%	$	17,916
	18.02	10.9%	$	14,620
	19.02	10.7%	$	19,199
	19.03	13.7%	$	21,372
	111.02	13.8%	$	21,641
	116.02	10.8%	$	19,816
Garden Grove	881.05	10.8%	$	20,729
	881.07	12.7%	$	20,610
	882.03	17.1%	$	21,050
	883.01	12.8%	$	19,897
	884.03	15.2%	$	21,165
	885.01	12.0%	$	18,867
	887.01	15.3%	$	18,746
	887.02	10.8%	$	17,983

	888.01	12.6%	$	19,027
	889.02	13.3%	$	17,995
Huntington Beach	994.02	12.9%	$	18,239
Irvine	524.04	38.9%	$	17,285
La Habra	12.02	12.9%	$	17,498
Orange	762.04	12.3%	$	19,350
	762.05	11.5%	$	19,973
Placentia	117.20	15.1%	$	10,680
	117.21	11.4%	$	16,531
Santa Ana	740.05	12.1%	$	15,048
	741.03	11.3%	$	17,061
	741.06	11.8%	$	19,938
	744.03	13.3%	$	10,060
	744.05	12.9%	$	12,327
	745.01	12.0%	$	10,297
	745.02	12.3%	$	11,528
	746.02	12.0%	$	13,399
	748.02	12.2%	$	11,725
	748.06	12.9%	$	12,683
	750.02	11.6%	$	14,759
	752.01	11.4%	$	12,329
	752.02	13.9%	$	15,848
	890.01	12.4%	$	17,332
	890.04	10.7%	$	14,880
	891.04	16.1%	$	12,767
	992.02	12.9%	$	17,430
	992.03	11.1%	$	21,442
Stanton	878.03	14.0%	$	13,880
	878.06	10.9%	$	16,510
	879.02	12.3%	$	17,460
Westminster	889.05	15.9%	$	18,329
	997.01	11.7%	$	18,711
	998.01	14.0%	$	20,982
	998.02	15.3%	$	16,853
	999.03	11.5%	$	17,629

Orange County Red-ZoneRed-Zone Census Tracts



Population Demographics

While the County as a whole has begun to see the impact of the economic recovery with unemployment continuing to fall and incomes once again rising, many of the economically distressed areas are experiencing opposite trends. From 2010 to 2011 the number of Orange County census tracts that qualified as Red-Zones increased from 61 to 70, which coincided with the population located in Red-Zones increasing by over 39,000, going from 358,346 to 397,349 residents. While many census tracts were added, leading to the significant increase, some tracts were removed from the Red-Zone classification, due to the fact they no longer qualified. However, this section will show many of the census tracts that were removed still experience severe economic distress. These tracts continue to suffer from extremely low per capita incomes, but only fail to qualify due to their unemployment rates, which remain higher than the County rate.

Listed below are the groups of census tracts which this section will analyze. Understanding the difference between these groups will assist in acquiring valuable insights about the underlying sources of economic distress.

1. **Orange County as a whole**
2. **All Red-Zone census tracts 2013 CEDS**
3. **Red-Zone tracts with no eligibility change between 2008 CEDS and 2013 CEDS**
4. **Census tracts that were formerly Red-Zones in the 2008 CEDS but removed from the Red-Zone classification in 2013 CEDS**
5. **Census tracts that were added to the Red-Zone classification in 2013 CEDS**

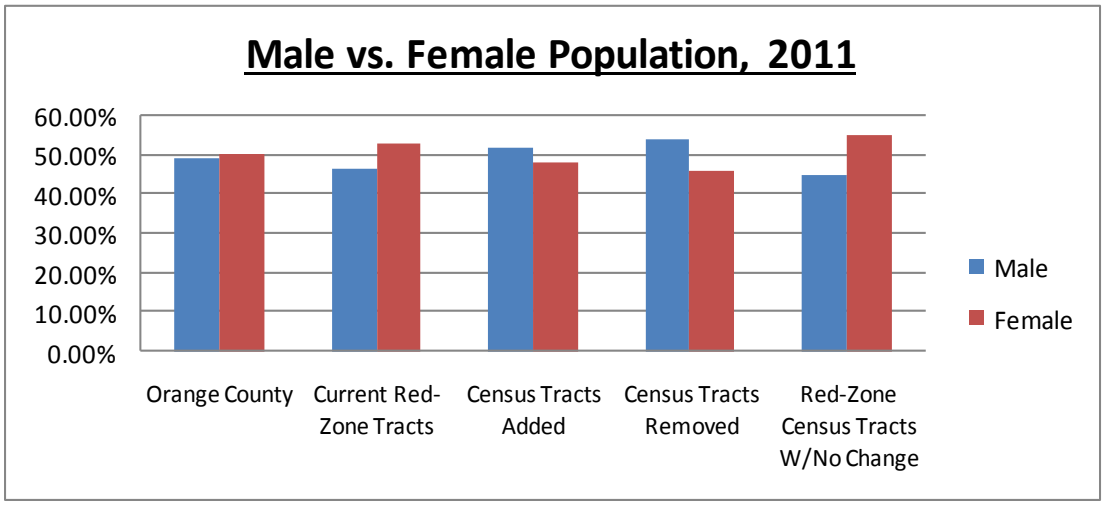
Population Characteristics

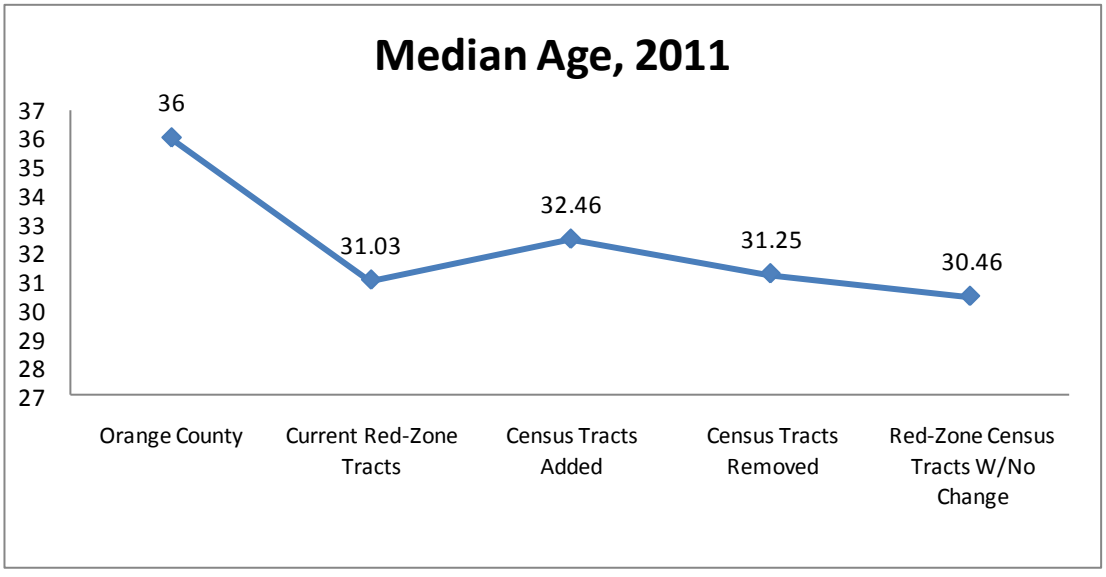
When analyzing population demographics within Red-Zones, it is important to compare how compositions has changed over time and as Red-Zones are added or removed; because it assists in identifying key signs of progress. These findings are presented here:

Age & Gender

The first notable difference is in the increased number of female residents living in Red-Zone areas. Among the Red-Zone tracts, females made up 53.2 percent of the population, which is considerably higher than the County level of 50.5 percent. This points to census tracts with a higher percentage of women being more likely to be classified as a Red-Zone. Additionally, among Red-Zone census tracts, those that contained higher concentrations of women saw no change in their Red-Zone status, while those that were reclassified as non-Red-Zones contained a higher percentage of males with an average of 53.9 percent. The trend toward higher concentrations of women in Red-Zone census tracts continues as

census tracts that were added to the Red-Zone classification had higher concentrations of women than those that were removed. Aside from the difference in the gender makeup of the residents in the Red-Zones, there was also a significant difference in the median age of residents. Among census tracts that are currently or were previously classified as a Red-Zone the median age of residents was just over 31, significantly higher than the average for the County at 36.

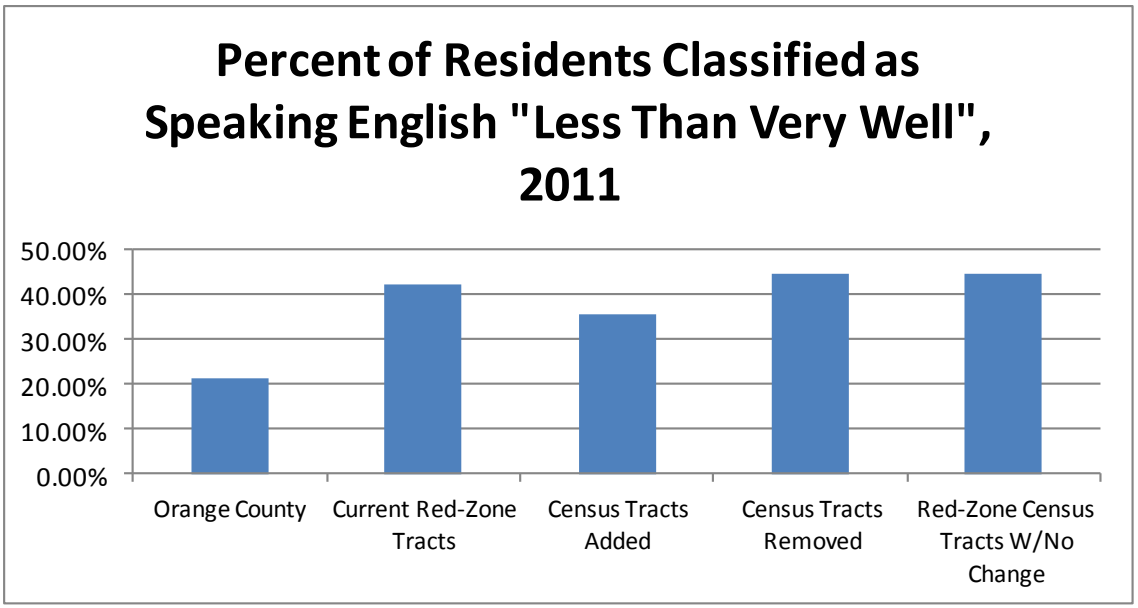




*Based on 2007-2011American Community Survey data

Language Gap

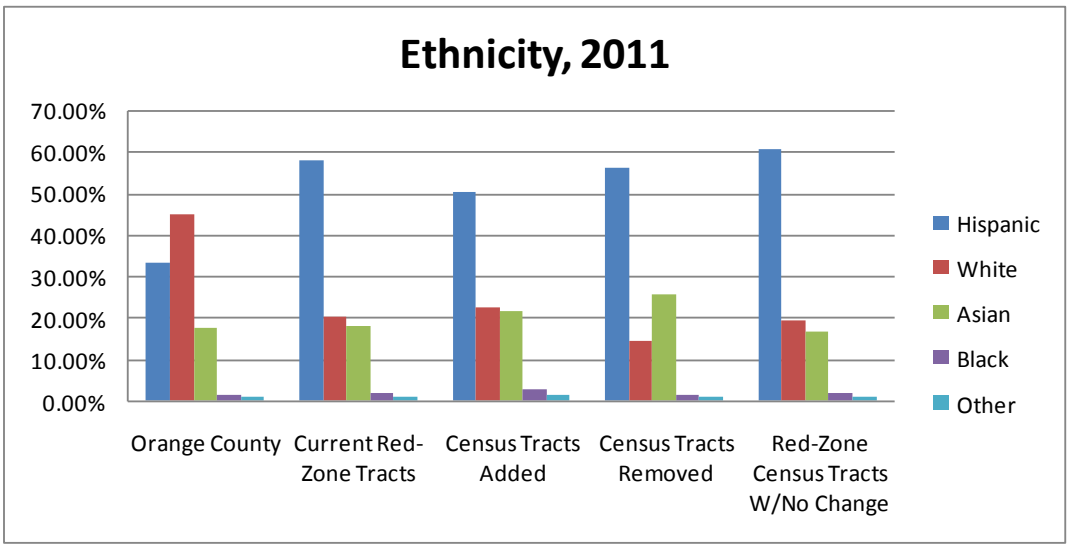
Current and former Red-Zone census tracts also showed a significantly larger language gap when compared to the County, which coincides with a large foreign born population. Within census tracts currently classified as Red-Zones, over 42 percent were identified as not being able to speak English "very well"; this is more than double the County rate. However, the 42.2 percent does represent a decrease from previous years, mostly because the census tracts removed from the Red-Zone classification had a higher percentage of poor English speakers (44.8 percent) than census tracts added (35.7 percent).Similarly the percent of foreign born resident in the census tracts were strongly correlated with the percent that spoke English less than "very well". Among current and former Red-Zone census tracts, the foreign born residents accounted for over 40 percent of the population, notably higher than the 28.6 percent in non-Red-Zone tracts.

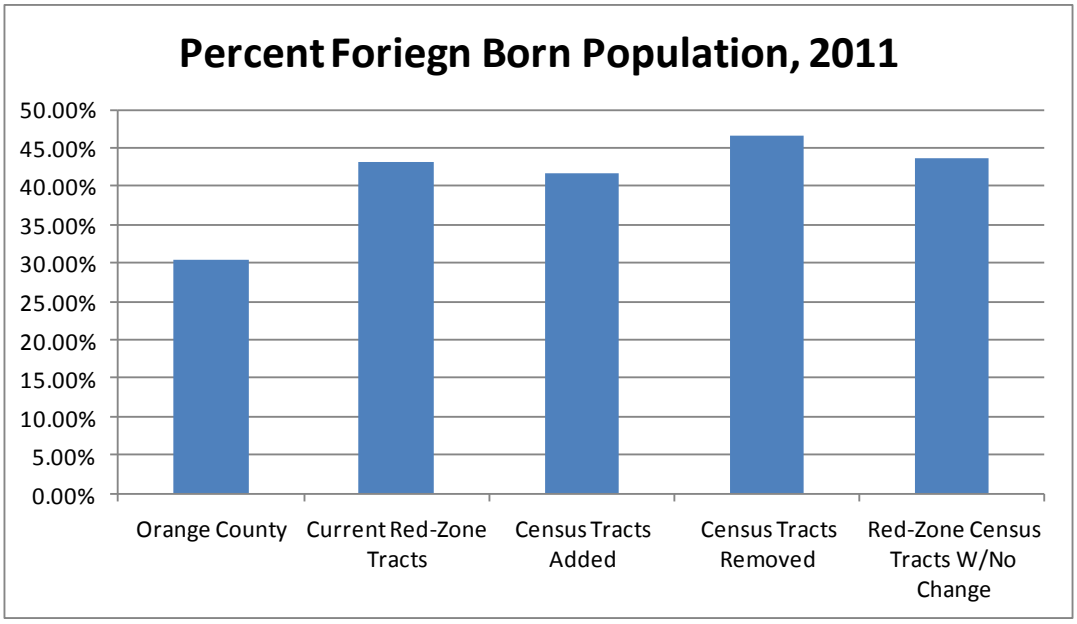


*Based on 2007-2011American Community Survey data

Ethnic Composition

Ethnic differences are also apparent between the census tract groups. Minorities, most notably Hispanics and Blacks, account for a disproportionate percent of current or prior Red-Zone census tracts. The ratios for Hispanics and Blacks are 73.7 and 28.1 percent higher, respectively, in current Red-Zones than they are in the County as a whole. Due to the overall increase in the population of Red-Zones, each ethnic group saw an increase in their respective Red-Zone populations. As a result of their larger size, the greatest increases were seen among the Hispanic and White populations with increases of 15,451 and 14,557, respectively.





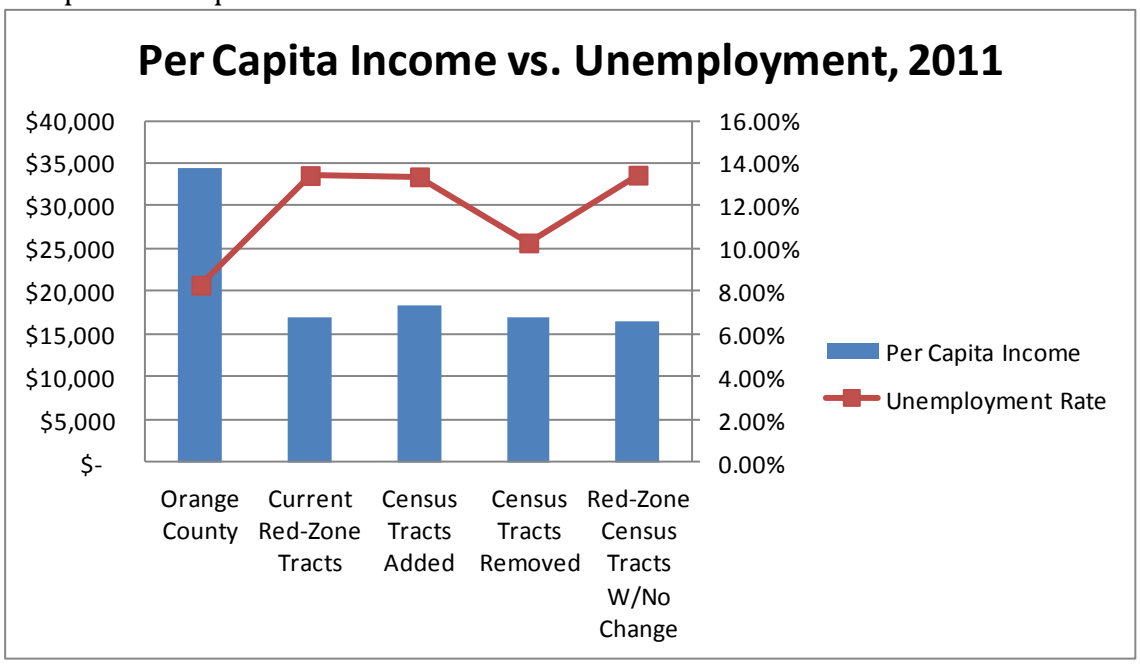
*Based on 2007-2011American Community Survey data

Economic Demographics

Aside from changing population characteristics, Red-Zones are experiencing economic shifts as well. Namely, when comparing Red-Zones that were added to those removed, there are notable changes to per capita income, unemployment, and educational attainment, as detailed below.

Per Capita Income and Unemployment

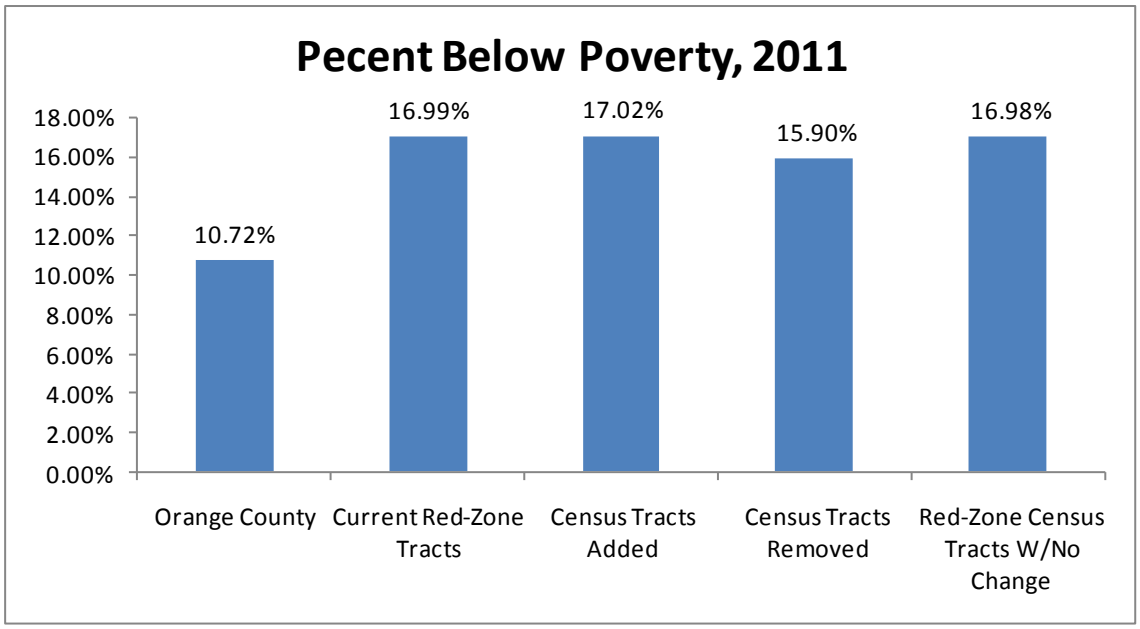
As previously indicated, Red-Zones are defined by their unemployment rates and their per capita incomes. The average per capita income for current Red-Zones was 50.6 percent lower than the County average. This difference signifies the large gap in the quality of life between Orange County residents. In comparing, census tracts that were removed from the Red-Zone designation to those that were added, it would be expected that those added would have a lower per capita income. However, that is not the case as the tracts removed from the Red-Zone designation had a per capita income of $16,964, 7.3 percent lower than the per capita of the census tracts added. This trend is due to the relatively lower average unemployment rate of 10.28 percent for the census tracts that were removed. This rate, almost 2 percentage points higher than the County, meant that many tracts failed to meet the 10.7 percent required to be classified as a Red-Zone.



*Based on 2007-2011American Community Survey data

In a more direct measure of quality of life, the population defined as below poverty is significantly higher within the current and prior Red-Zone areas. Overall 21.1 percent of those in Orange County below the poverty level live within Red-Zone communities, which

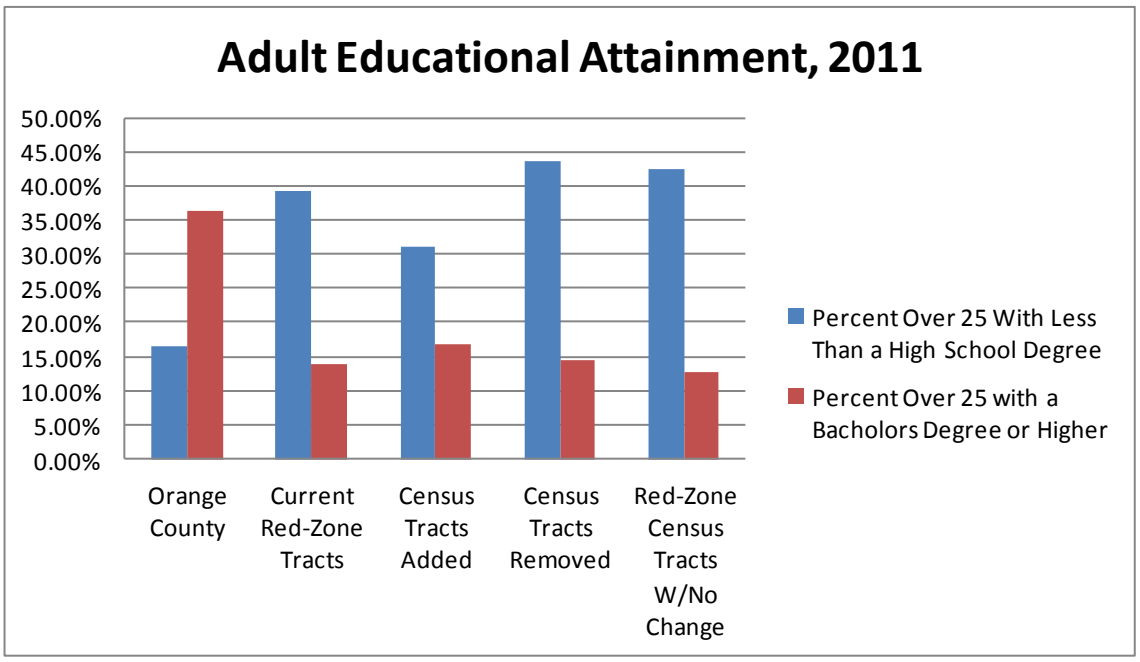
only account for 13.3 percent of Orange County's total population. This creates the issue of concentrated poverty, which has been linked to higher levels of many social problems, including crime. Compared to current Red-Zone tracts, those census tracts that were removed have a slightly lower poverty, though they still suffer from economic distress.



*Based on 2007-2011American Community Survey data

Educational Attainment

Current and prior Red-Zones are significantly behind in terms of educational attainment. When comparing the current Red-Zones with the County, residents in Red-Zone areas are more than 2 times as likely to not have a high school degree, and more than 3 times less likely to have at least a bachelor's degree. This gap in educational attainment significantly reduces the ability of Red-Zone residents to improve their economic conditions. On the other hand, the average adult educational attainment was significantly higher for census tracts that were added compared to those that were removed. This trend though is likely due to the worsening conditions among the educated lower middle class which has occurred as a result of the recession. The highest percentage of adults with less than a high school degree is seen in the group of census tracts that were removed from the Red-Zone designation.



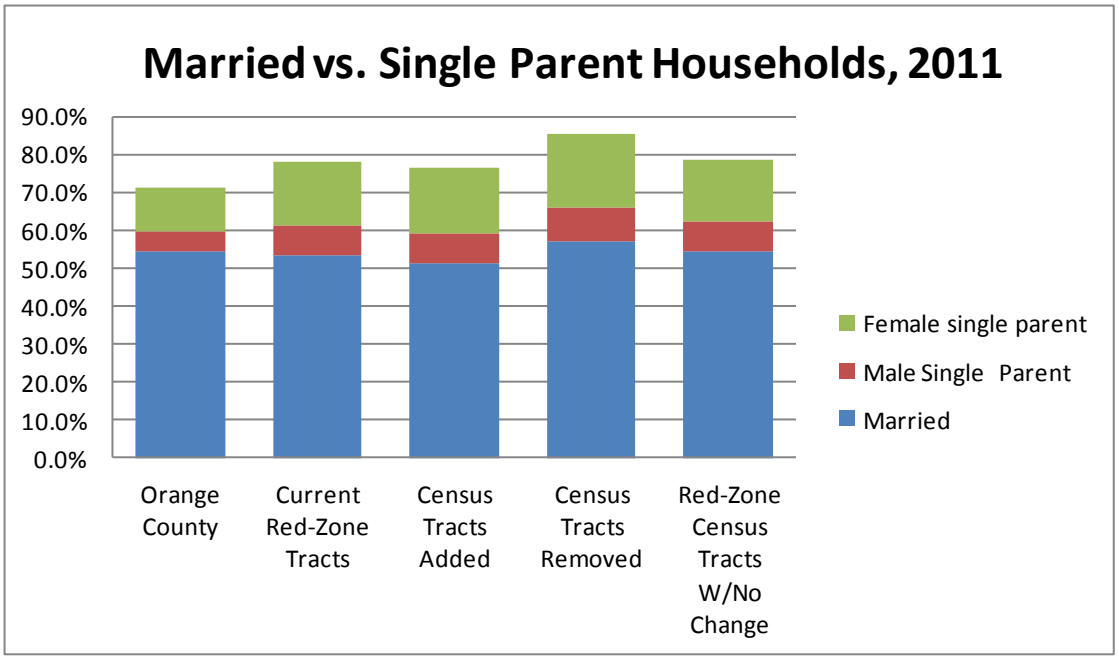
*Based on 2007-2011American Community Survey data

Housing Demographics

As a result of the recent economic climate, housing demographics within Red-Zones exhibit key variations as well. These factors which include married vs. single parent households, household size, and home ownership, provide key insights into the economic health of Red-Zone areas.

Married vs. Single Parent Households

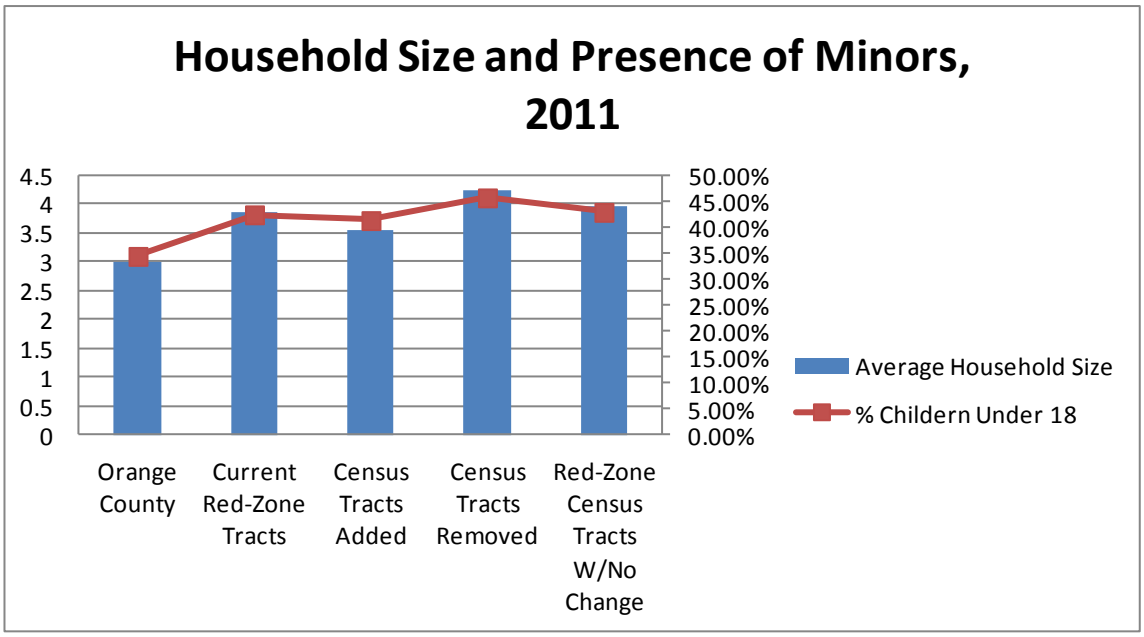
According to the 2007-2011 American Communities Survey, 10.7 percent of Orange County households live in Red-Zone census tracts. Among these households, single parent households make up approximately a quarter of all Red-Zone households compared to only about 17 percent of total Orange County households. As expected, these single parent and likely single income households suffer from higher levels of economic distress. This is particularly true of female households, which make up 67.4 percent of the single parent households in the Red-Zone. Between Red-Zone tracts added and those removed there was a significant difference in the percentage of two person/married households. Among tracts that were added, the percentage of married households was 51.3 percent, while those removed had an average of 57.1 percent.



*Based on 2007-2011American Community Survey data

Household Size

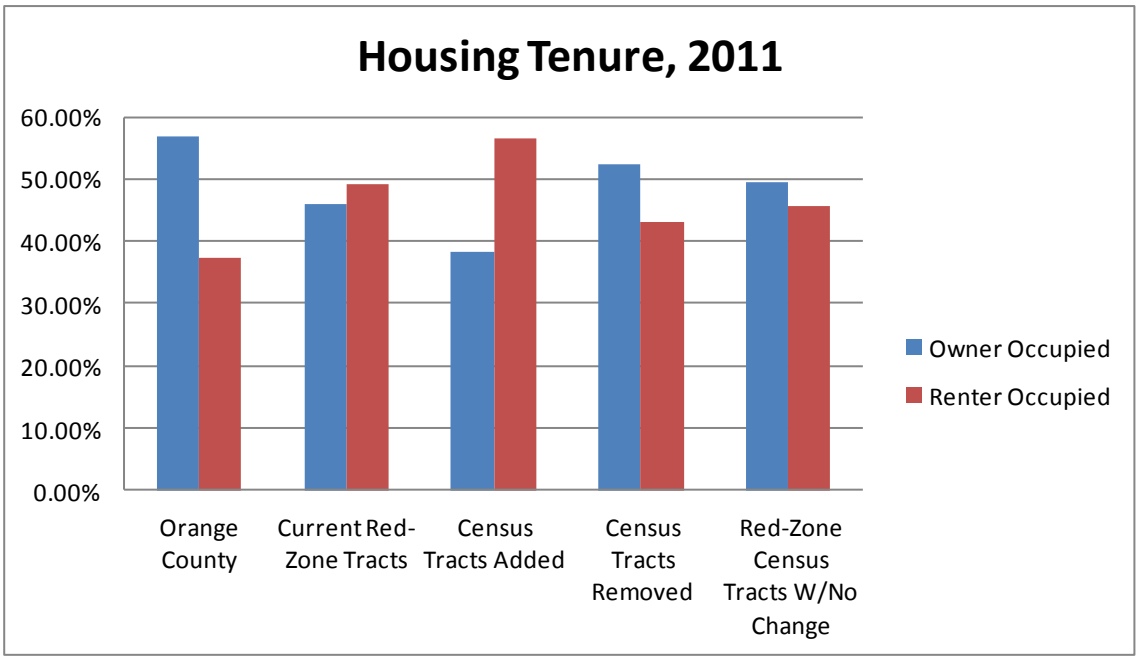
Average household size was also significantly larger for current and prior Red-Zones. While the County average was 2.99 persons per household, Red-Zone groups were between 3.84 and 4.25, with the exception of the census tracts added to the designation. Among those census tracts added the average household size was 3.55. Household size is a clear factor that contributed to lower per capita income among census tracts that were removed relative to the higher per capita income among tracts added; this becomes especially apparent when considering that the average household size for census tracts removed was 4.25. As shown in the chart below, large household sizes correlated with an increased number of children under 18 in the household.



*Based on 2007-2011American Community Survey data

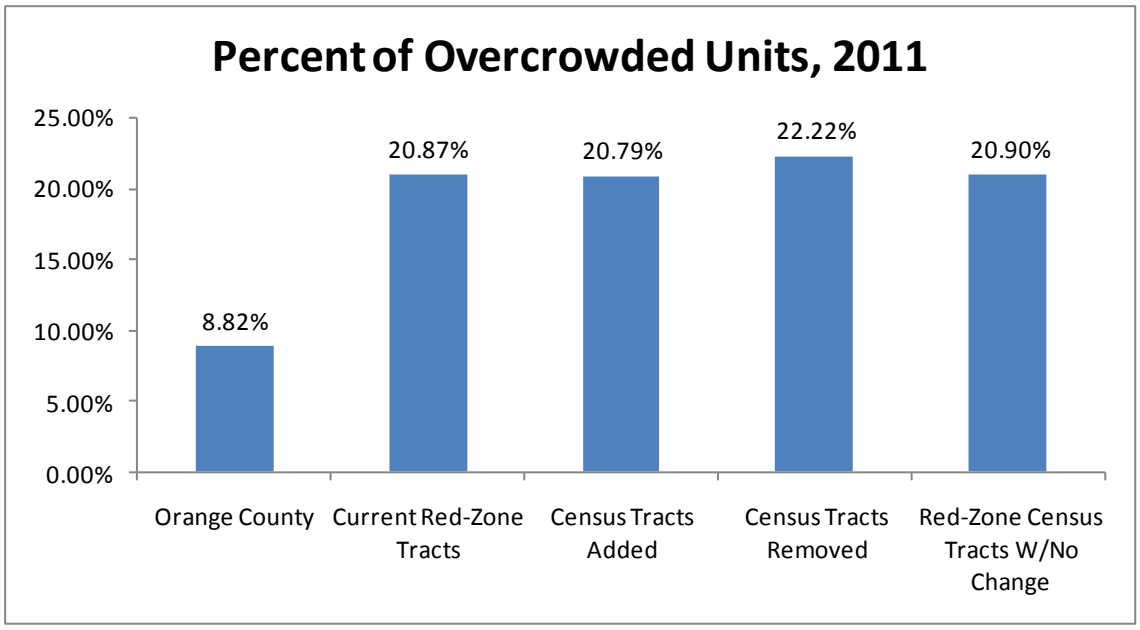
Home Ownership

Housing tenure or homeownership was one of the strongest indicators between Red-Zones and non-Red-Zones, with Red-Zones having a significantly higher percentage of renters. The percentage of renter occupied units among Red-Zones was just over 49 percent, more than 10 percentage points higher than the County average of 37.5 percent. The highest percentage of renters was seen among census tracts added to the Red-Zone with over 56 percent of household being renters. Census tracts that were removed from the Red-Zone had a significantly lower percentage of renters, compared to the current Red-Zone census tracts at only 43 percent. Census tract groups that showed the lowest percentage of renters also had the highest levels of homeownership. The County and census tracts removed from the Red-Zone designation had homeownership levels of over 50 percent. On the other hand, Red-Zone census tracts added had the lowest percentage of home ownership with only 38.2 percent owner occupied units.



Overcrowding

Overcrowding was a major issue for occupied Red-Zones units. Within Red-Zone areas, resident units were more than twice as likely to be overcrowded. At the County level only 8.8 percent of occupied units were considered to be overcrowded, while in Red-Zone census tracts over 20 percent of units were overcrowded. The highest occurrence of overcrowding was experienced by the census tracts that were removed from Red-Zones, with 22.2 percent of households being overcrowded.

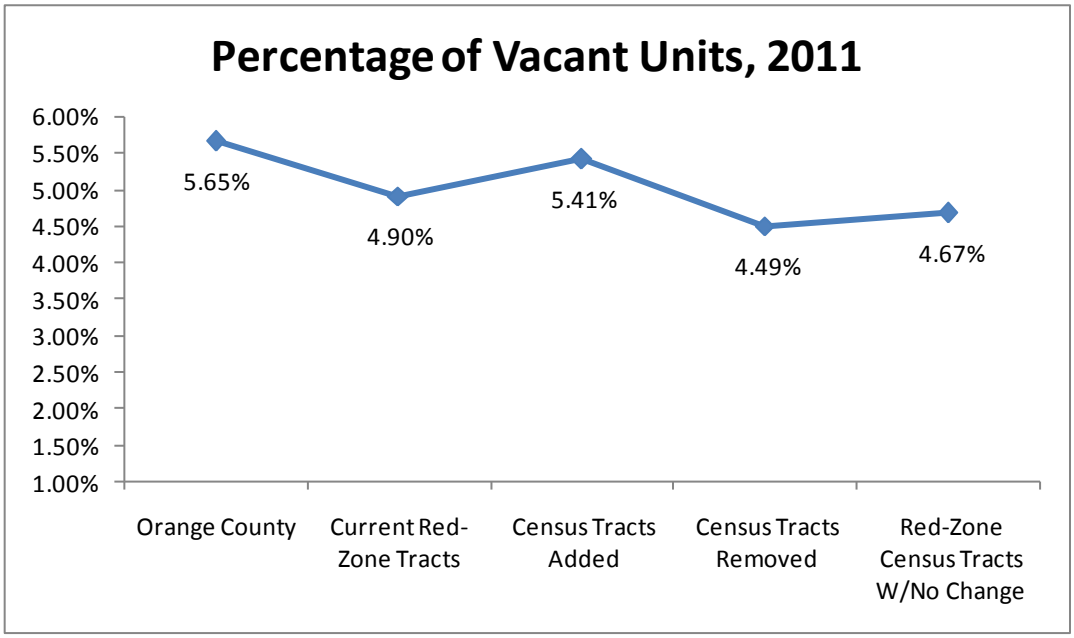


*Based on 2007-2011American Community Survey data

Vacant Units

Despite the higher vacancy rates expected for current and prior Red-Zones, the percentage of vacant units was slightly lower due to the tighter housing market in lower income areas of the County. This can be largely attributed to the low cost of housing in these areas, caused by the current economic downturn, which attracted many new residents.

As explicated by the data, there is a substantial difference between the County and areas that are currently or were considered to be Red-Zones in the previous year. Even census tracts that were removed from the Red-Zone designation due to signs of improvement were still considerably worse off relative to the County in many categories. While not all of the categories discussed above directly correlated with increased levels of economic distress, they do indicate deeper levels of social and economic problems. Additionally, there are many census tracts that marginally missed being classified as a Red-Zone, and other households within non-Red-Zone census tracts which still suffer the same social and economic problems. Understanding these problems, in both Red-Zones and non Red-Zones, represents the first step toward improving the conditions in these communities and households.



*Based on 2007-2011American Community Survey data

CEDS Community and Private Sector Participation Process

Survey of Economic Needs

Through the course of the CEDS development process, valuable insights and feedback were drawn from a range of interested parties including city managers, economic development directors, and workforce training professionals. Due to the purpose of this document, these stakeholders were asked to place special emphasis on the County's Red-Zone areas when providing any type of commentary. Their participation required the completion of an internet survey to identify key stakeholder opinions on significant economic issues within Orange County's Red-Zone areas. The survey used a wide array of questions and question types, including open ended questions that were used to allow participants to provide accurate and straightforward responses.

The answers to the questions were as follows:

First, how would you rate the overall business climate in Orange County?	
	Response Ratio
Excellent	**9.7%**
Good	**80.6%**
Fair	**9.7%**
Poor	**0.0%**
No Responses	**0.0%**
Total	**100%**

The first question was aimed at obtaining how the respondents perceived Orange County's current business climate. About ninety percent of the respondents believed that Orange County is doing "Excellent" or "Good." This is considerable progress from the previous 75 percent, indicating that respondents have increased faith in Orange County's business climate. No respondent rated the economy as "Poor."

What do you think Orange County's business climate will look like over time?	
	Response Ratio
More attractive	**38.7%**
Equally attractive	**58.1%**
Less attractive	**3.2%**
Don't Know	**0.0%**
Total	**100%**

The second question rated whether the respondents believed Orange County is becoming better or worse in terms of its business climate. Close to 60 percent of respondents believe that the County's business climate will remain equally attractive, while approximately

39percent of respondents said that the business climate will become more attractive over time. Only about 3 percent believed that Orange County will become less business friendly over time.

From a business development or economic standpoint, which of the following has the greatest impact in reducing Orange County's overall competitiveness? (Rank 1-10, using each number once; 1 greatest impact, 10 least impact)		
	Highest	**Ranking Score**
Land and construction costs	**28.0%**	**4.28**
Government regulations	**28.0%**	**4.36**
High cost of labor	**8.0%**	**4.8**
Employee housing costs	**12.0%**	**4.8**
Healthcare costs	**0.0%**	**5.28**
Energy costs and reliability	**0.0%**	**5.72**
Traffic congestion and commute times	**4.0%**	**5.8**
Difficulty in hiring a skilled labor force	**0.0%**	**6.12**
Overall business climate	**8.0%**	**6.52**
Other	**12.0%**	**7.32**

Land and construction costs and government regulations are cited as being the most significant issues in reducing Orange County's overall competitiveness. This was followed by high costs of labor, employee housing costs, healthcare costs, energy costs and reliability, traffic congestion and commute times, difficulty hiring a skilled labor force, and overall business climate. Some of the other factors likely to reduce Orange County's overall competitiveness were changing demographics, technology infrastructure, government corruption, and fiscal issues at the state level.

Which of the following categories are the most important to address in a comprehensive economic development strategy for Orange County? (Rank from 1-6 using number once; 1 most important, 6 least important)							
	Highest Priority	2	3	4	5	Lowest Priority	Ranking Score
Workforce training and education	20.0%	32.0%	32.0%	8.0%	8.0%	0.0%	2.52
Infrastructure and transportation	20.0%	32.0%	20.0%	16.0%	8.0%	4.0%	2.72
Innovation, opportunity clusters, access to capital	28.0%	12.0%	8.0%	44.0%	8.0%	0.0%	2.92
Workforce housing	12.0%	12.0%	28.0%	12.0%	28.0%	8.0%	3.56
Healthcare and social services	0.0%	8.0%	12.0%	20.0%	40.0%	20.0%	4.52
Other	20.0%	4.0%	0.0%	0.0%	8.0%	68.0%	4.76

The highest economic development priorities for the survey respondents are workforce training and education, followed by infrastructure and transportation. Additional comments submitted by respondents placed heavy emphasis on government and environmental regulation to consider for Orange County's Comprehensive Economic Development Strategy.

Which of the following industry clusters are most important to maintain and enhance Orange County's long-term competitiveness? (Rank from 1-12, using each number once; 1 most important, 12 least important)		
	Highest Priority	Ranking Score
Information Technology/High-Tech	34.8%	3.74
Tourism	13.0%	4.91
Healthcare	0.0%	5.61
International Trade	13.0%	5.83
Manufacturing	17.4%	5.87
Finance, Insurance, Real Estate	4.3%	6.04
Business and Professional Services	4.3%	6.3
Green/Cleantech	0.0%	6.96
Construction	0.0%	6.96
Logistics and Distribution	0.0%	7.52
Management and Administration	4.3%	7.74
Other	8.7%	10.52

According to the survey respondents, the most important industry clusters are information technology/ high-tech, tourism, healthcare, and international trade sectors. Additional responses mentioned included the necessity for Orange County to attain regional competitiveness.

Which industry clusters do you consider to be the fastest-growing for Orange County? (Rank from 1-12 using each number once; 1 fastest growing, 12 slowest growing)

	Highest Priority	Ranking Score
Healthcare	**20.0%**	**3.7**
Information Technology/High-Tech	**35.0%**	**4**
Tourism	**10.0%**	**5.2**
Business and Professional Services	**10.0%**	**5.8**
Finance, Insurance, Real Estate	**0.0%**	**5.95**
Green/Cleantech	**5.0%**	**6.25**
Management and Administration	**0.0%**	**6.8**
International Trade	**5.0%**	**7.2**
Construction	**0.0%**	**7.5**
Manufacturing	**5.0%**	**7.55**
Logistics and Distribution	**0.0%**	**7.7**
Other	**10.0%**	**10.35**

In terms of future outlook, survey respondents identified the healthcare sector and the information technology/ high-tech as key economic clusters. Respondents also commented on the importance of emerging high-technology fields such as Biotechnology, Aerospace, and Defense.

Do you know of any open/under-utilized land parcels that could be used for economic development opportunities?

There were a total of six open/under-utilized land parcels mentioned by respondents. These sites were:

- The Tustin Legacy (former Marine Air Corps Station)
- 303,000 square-foot building located in Jeronimo, Mission Viejo
- Several aging/industrial office buildings in North Laguna Hills
- City of Rancho Santa Margarita has a 55 acre parcel of undeveloped land along a large arterial
- Alta Vista and Rose in Placentia
- Randall Lumber Site

Please list any planned Capital Improvement Projects that will impact your city or region's long-term economic competitiveness and could be highlighted for possible EDA funding opportunities.
Capital improvement projects that will affect a city's or the region's long term economic competitiveness and prosperity were: • Tustin Ranch Road extension from Walnut Avenue to Tustin Legacy • Newport Avenue extension • Santa Ana Regional Transportation Authority – One Broadway • Avery interchange improvements on I-5 • Town Center • Cross city water supply project • Santa Ana fixed guideway • Development of city-owned land parcels along Antonio Parkway • North Orange County – Grade separation projects • ARTIC - Anaheim Regional Transportation Intermodal Center

Does your city have a formal economic development strategy?	
Yes	3
No	8
Evolving/Developing Strategy	2

Additional responses regarding other issues that were considered in developing the CEDS were as follows:

- "Evaluation of the 2008 CEDS Goals and Action Strategies. While stakeholder participation was key to developing the 2008 CEDS, how broad-based and effective was stakeholder participation in implementing the 2008 CEDS goals and what steps were taken to maintain stakeholder participation? Strategies to insure stakeholders' involvement in the implementation of the 2013 CEDS Goals."
- "New funding sources for affordable housing/ economic development, i.e. matching grants from county. Funding for planning grants to help cities study & rezone obsolete properties/ developments. Improve the availability of information from the County to local agencies such as data that could be used in GIS. It's ridiculous that the County assessor doesn't make that information available for free. Take a cue from LA County!"
- "Major changing demographic profile of Orange County."
- "A strategic plan based on industry and location."

- “Actual programs with funding opportunities; how we can work together to create clusters“
- “Reform legislation tax abatement circulation improvements.”

Survey findings conclude that Orange County needs a Comprehensive Economic Development Strategy that addresses the key issues of Housing, Infrastructure, Workforce development, and Healthcare/Social Services. Key emerging industries within Orange County, such as healthcare technology, high-technology sectors, logistics, and manufacturing and construction, are identified as Orange County’s economic future. Recognizing that Orange County’s current economic landscape focused on Business and Professional Services, Information Technology, and tourism will shift, the County needs to take necessary steps to ensure that the region will remain economically competitive over the coming years. It is essential that the County channel any investment into sectors, industries, and projects that can provide the highest return on investment so that the economy can continue to recover and eventually flourish.

CEDS Plan of Action

Implementing the CEDS: A County-wide Effort

The 2013-2018 Orange County CEDS is a blueprint for economic development investments throughout the County with particular emphasis on economically deprived residents of "Red-Zones". The five year strategic plan presents the current condition of the Orange County economy and the impacts on those who live and work in Orange County; identifies economically vulnerable areas in which to invest economic improvement activities; proposes action on issues involving advancing Red-Zone residents lives, world-class education and workforce opportunities, state-of-the-art infrastructure, competitive and growing clusters, and improved economic competitiveness. Implementation of the CEDS will take place in the next five years; the CEDS Committee will strategically prioritize the goals stated under each area and undertake planning and developing activities in order to support projects that will help Orange County reach its stated CEDS goals.

The CEDS Committee will implement the following activities as a part of reaching CEDS goals:

- Engage stakeholders countywide by conducting stakeholder discussions with the local economic development community; seeking continued partnerships for projects that meet the stated goals of the CEDS in the next five years; and making available technical assistance for partners in project applications, beginning with a focus on projects in Red-Zone areas.
- Expand legislative advocacy by advising Orange County's legislative delegation and other elected officials of the CEDS process and benefits.

In addition, the following specific CEDS Committee activities, with the support of staff, will complement the Action Strategies:

The CEDS Committee plans to report on the progress made on each of the strategic priorities and associated goals in Annual Reports to the EDA, including new projects undertaken and new or renewed partnerships with other development agencies to benefit Orange County. The Annual Reports will also provide updates on the Performance Measures (see next section) achieved by Orange County through the CEDS Committee's activities.

Workforce and Economic Development Nexus

The economic issues ailing Orange County is not unique. The Great Recession has left a global economy that is still struggling to ground itself, though positive signs of recovery are beginning to emerge slowly but surely. Specific to Orange County, the current aging workforce presents several challenges including: lack of skilled workers who can fill available vacancies as employees retire; educational and training needs for high-wage and high-growth occupations; home ownership and rental affordability; and economic development challenges. Orange County must constantly strive to anticipate and respond to changes in the economy, business structure and design, population factors, educational and training needs, and services that impact the workforce development system. In being proactive through development and implementation of programs and services, the entire County will reap the benefits.

The positive correlation between economic development and workforce investment is both significant and evident. As a Local Workforce Investment Area, the OCWIB has aligned its regional priorities with that of the state-wide Workforce Investment Act, whenever feasible. The CEDS aims to further solidify and refine the connection between Orange County's workforce and economic development priorities with the state's workforce priorities. In addition, to strengthening the connection between the interconnected priorities, the Orange County WIB annually presents a study of workforce investment indicators, the State of the County Workforce Indicators Report(Appendix E), which reveals the trends influencing and affecting economic development and workforce needs. It serves as a gauge for strategic planning and implementing programs that will best serve the industries, organizations, and people who live and work in Orange County. This report includes population projections, employment trends, educational requirements for occupations, and the widely used economic indicators.

Performance Measures

Number of jobs created after implementation of the 5-year CEDS Plan:

In fulfillment of the CEDS goals, the following projects and activities are proposed. During the 5 year time period from June 2013 through June 2018, Orange County will create 50,000 cumulative new jobs in the region. Particular effort will be made towards ensuring that residents in qualified Red-Zone areas obtain a significant portion of these created jobs.

Key performance indicators, that will measure success rates for the 5-year CEDS plan, will involve job creation, job retention, job growth, and public and private investments. In order to ensure that the above mentioned performance measures are effectively met, the 5-year CEDS plan addresses key competitive challenges currently facing Orange County through the use of five main goals:

- **Goal One: Advance Lives of Red-Zone Residents**
- **Goal Two: Promote World-Class Education and Workforce Opportunities**
- **Goal Three: Plan for and Develop State-of-the-Art Infrastructure**
- **Goal Four: Promote Competitive and Growing Clusters**
- **Goal Five: Improve Orange County's Economic Competitiveness in a Global Economy**

Together, these goals and the key action strategies, outlined in previous sections, are designed to ensure the successful implementation of the CEDS, while progressing Orange County towards a brighter economic future. Prior to providing detailed descriptions of the specific performance measures used for the CEDS, pertinent information on how the County's economic environment has changed will be presented first.

Changes in the economic environment of the region

When the CEDS was finalized in July 2008, the unemployment rate in Orange County was 5.7 percent, based on information from the State of California Employment Development Department (EDD). In December 2012, the last month data was available for this 5-year CEDS plan, Orange County's unemployment rate was 6.8 percent. This rate is down from Orange County's peak of 9.9 percent in January 2010, the highest rate of unemployment experienced during the Great Recession.

Between December 2011 and December 2012, total non-farm employment increased by 13,700 jobs, or one percent (Source: California Employment Development Department, 2013):

- Financial activities recorded the largest overall gain with the addition of 7,500 jobs. Almost 60 percent of the growth was in real estate and rental and leasing (up 4,400 jobs).
- Leisure and hospitality picked up 6,600 jobs with 60 percent of the gain in arts, entertainment and recreation.
- Educational and health services added 5,100 jobs over the year, led by growth in the health care and social assistance (up 5,500 jobs) which was offset by a drop in educational services (down 400 jobs).
- Construction increased by 3,200 jobs with 60 percent of the rise in specialty trade contractors.
- Other year over expansions were reported in trade, transportation and utilities (up 2,200 jobs) and in information (up 800 jobs).
- Government posted the largest year-over decline with the loss of 7,100 jobs. About 98 percent of the job losses occurred in local government.

The following Performance Standards will measure the success of the implementation of the CEDS strategies:

Number of jobs created after implementation of the 5-year CEDS Plan:

During the 5 year time period from June 2013 through June 2018, Orange County will create 50,000 cumulative new jobs in the region. This reverses the trend of job losses of more than 150,000 between 2007-2010, with particular effort in concentrating job growth for residents who live in Red-Zones.

Number and types of investments undertaken in the region:

Orange County will undertake at least two (2) economic development investments around Red-Zones, with particular emphasis on infrastructure and transit-transportation centers, such as the last CEDS investment in Anaheim–the Anaheim Canyon Development Project.

Number of jobs retained in the region:

In the next five (5) years, through economic development and workforce development investments, Orange County will grow at least 5,000 jobs in each of the Construction, Manufacturing, and Financial Services clusters which have collectively lost a significant amount of jobs during the Great Recession.

Amount of private sector investment in the region after implementation of the CEDS:

If economic development investments are successful around transit-transportation centers, it is anticipated that private investment will be at least $50 million County-wide (with substantial effect for the benefit of the residents of Red-Zones) after implementation of the CEDS.

CEDS Project Evaluation Process By The Committee

The CEDS Committee evaluates all projects and provides a recommendation to the Planning Organization to approve the application for submission to the Economic Development Administration (EDA). An informational booklet (Appendix l) which contains a summary of eligibility information is provided to aid applicants in planning their project.

Once the applicant has decided to apply for EDA gap financing, the CEDS Committee reviews the project, makes recommendations for improvements, provides assistance on developing performance measures such as job creation, and scores the project using a preset of weighted questions. (See Appendix J for a copy of the score sheet.) The project is scored on the following questions:

1. A clear proposal?
2. Ability to promote diverse economic growth (including multiplier effect)?
3. Will project promote growth in an identified cluster(s)?
4. Flexibility to anticipate economic changes?
5. Investment and/or leveraging from other investment sectors (Research, Education, Business and/or Capital)?
6. Potential for skill/high wage job creation (sustainable jobs and career advancement potential entry-level through management)?
7. How well will project leverage investment? How much matching funds?
8. Does the project benefit unemployment in the region? How many jobs created? Does the project benefit a high unemployment area? How many jobs created?
9. Does the project benefit regional income levels? What are the new wage levels? Does the project benefit a low per capita income area? What are the new wage levels?
10. Is there a plan to evaluate degree to which project achieves outcome?
11. Consistency with CEDS Committee's current goals and objectives?

After the CEDS committee scores the project on a scale of 1-100, the project is deemed either eligible or ineligible by vote of the committee. If approved by the CEDS Committee (OCWIB), the project is then submitted to the Board of Supervisors for approval and support. If approved by the Board, the applicant is advised to submit a pre-application to the EDA.

Potential CEDS Projects and CEDS' Goals Supporting Activities

CITY OF SANTA ANA

1. Fixed Guideway Project/Go Local Funding

The cities of Santa Ana and Garden Grove in cooperation with the Orange County Transportation Authority (OCTA) are proposing to build a Fixed Guideway (Streetcar) Transportation system between the Santa Ana Regional Transportation Center (SARTC) and a new transportation center in Garden Grove. The system would provide transit service for commuters traveling from the train station to employment and activity centers in the heart of Orange County and to residents and visitors wanting to circulate throughout the area. The proposed streetcar project would service Santa Ana's historic downtown which includes government offices, federal, state and local courthouses, unique businesses, and artists' village, several colleges and a variety of organizations that cater to the community's needs. The most recent cost estimate assumes the street car alternatives would cost up to $212 million to build and the TSM/best bus alternative would cost roughly $14.5 million. Funding would come from a variety of sources including Renewed Measure M, Orange County's half-cent tax for transportation, as well available state and federal transportation funding sources.

2. Continue to support SARTC Master Plan

The Santa Ana Regional Transportation Center (SARTC), known to many as the Santa Ana train station or depot, serves more than 500,000 rail trips each year and is one of the busiest train stations along the Los Angeles to San Diego rail line. It is a key focal point of transportation in Orange County, combining Amtrak and Metrolink rail services, local, regional, interstate and international bus service and taxi services all in one location. SARTC is close to four freeways and only minutes from John Wayne Airport, Disneyland, Main Place Mall, Bowers Museum, Historic Downtown Santa Ana and more.

The existing train station is marked by a beautiful building with historic inspirations, however, the building which was constructed in 1985 isn't able to effectively serve the higher level of demand expected in the future. Across from the existing site on the east side of the tracks is County-owned land offering the possibility to expand the station and its services, with the objective to blend existing and new uses.

The objectives of the SARTC expansion are to:

- Provide a transportation center where people can easily transfer between services
- Fit in well with the surrounding community, history and culture
- Create an attractive, sustainable transportation center with low maintenance costs
- Provide parking and support facilities for each service offered at SARTC
- Include supporting commercial, retail and/or residential uses, if feasible
- Ensure that passenger safety and security are adequately addressed
- Support and encourage pedestrian and bicycle use

In order to accommodate the growing transportation demand tied to the current and future services at SARTC, conceptual designs have been developed to:

- Accommodate planned Metrolink service increases
- Improve bus circulation
- Incorporate the proposed streetcar project
- Facilitate transit-oriented development
- Integrate well with the surrounding community, the city's history and its cultural setting

The SARTC Master Plan improves access to the station, updates the station's facilities and creates convenient linkages among Metrolink and Amtrak rail services, buses, and the proposed streetcar. It also improves access for cars, pedestrians and bicyclists and creatively incorporates the planned Santa Ana Boulevard grade separation into a multi-modal corridor.

3. Bristol Street Widening- Utilizing State and federal funding sources for remaining segments

The Bristol Street Widening project is estimated to have a total investment of $300 million. The first segment spanned from St. Andrew Place to McFadden Avenue was completed in 2002 for a total cost of $44.9 million. The second segment spanned from Elm Street to Memory Lane was completed in 2003 for a total cost of $4.3 million. The third segment spanned from Pine Street to Third Street was completed in 2009 for a total cost of $19.8 million. Phase I of the project funded as part of the OCTA cooperative agreement which spans from McFadden Avenue to Pine Street increased the street from four to six lanes was completed in 2011 and had a total cost of $52.6 million. Phase II under this agreement which spans Third Street to Civic Center Drive is currently under construction and has an estimated cost of $47 million.

4. Grand Avenue Widening

The City of Santa Ana is proposing to widen Grand Avenue between First and Fourth Streets to improve traffic operations in the project area and to provide for a provide a curb-to-curb pavement width consistent with the City of Santa Ana General Plan Circulation Element and County of Orange's Master Plan of Arterial Highways Widening of Grand from First to Seventeenth streets is a long-term priority that will be carried out in phases. For the first phase, the Public Works Agency is acquiring property between First and Fourth streets, with acquisitions expected by June 2013 and construction expected in summer 2013, The project includes widening from two to three lanes in each direction, raised landscape medians and sidewalk improvements.

5. Continued development of the Station District

The project calls for development of approximately 114 rental units and 24 for sale units on a total of approximately six acres of land. Of the rental units, all but two (manager units) will be available to persons at or below 50% of the adjusted median income (AMI); and of those, 20% of the units will be offered to residents at 30% below AMI. This amount of affordability exceeds that required by State law, as well as the requirements imposed for state tax credit financing. The term of affordability will be for 55 years. Additionally, five of the for-sale units will be offered at 120% AMI.

Both phases of the rental components are expected to be completed by first quarter 2013. The first phase of the Station District affordable housing project (R1) includes 74 podium apartment units (including retail and child care components). The second phase of the rental project (R2) includes 25 new construction units and approximately 10 rehabilitated structures, containing 15 units. The 24 unit for-sale project is anticipated to commence construction in 2013, and be completed within 18 months.

6. Creation of Free Wireless Internet Network for City

Municipal wireless network is a concept that has been introduced in Santa Ana in the past. An in-depth evaluation study of the City's current internet connectivity shows the City with several "dead spots" that receive limited or no service to that area. A citywide or regional wireless network would help alleviate several of these dead-spots and help residents and businesses in the City.

The City is in support of partnering with other Orange County cities to create a regional wireless internet network.

7. **Development Opportunity of city owned parking structure on Third and Broadway by the Artists Village.**

The City constructed the 440-space parking garage located on 3rd Street and Broadway in the early 1980s. The three-level garage is situated on approximately 61,243 square feet of land area and encompasses approximately 146,000 square feet of building area. The 3rd Street Garage is not currently encumbered by any debt.

The construction costs for this public parking garage were funded by a tax-exempt bond. A portion of the bond debt service payment obligations on the bond were funded with assessments imposed on property owners within a defined district.

The City's Planning and Building Agency has determined that the parking garage is at the point of functional obsolescence. In turn, the City's Community Development Department and Public Works Agency have been evaluating the costs associated with making the necessary design, drainage and structural improvements versus the costs associated with demolishing and replacing the existing garage. However, this effort has been constrained by the lack of available funds to take on the improvements.

The land value supported by vacant land is estimated at $2.25 million. However, any developer of the property will be required to replace the 440 existing parking spaces, and the costs are estimated at $13.3 million. Thus, the replacement parking costs are estimated to exceed the property's fair market value by $11.08 million.

It should be noted that it may be possible for a prospective developer to create a joint use plan for some of the parking spaces. However, unless the developer is relieved of the obligation to provide any parking spaces to serve the new development, the replacement parking costs for the existing spaces far exceed the costs a developer would be willing to incur to reuse the site.

Based on the preceding analysis, a third party analysis of the site concluded that the City cannot currently anticipate receiving any proceeds from the sale of the 3rd Street Garage Building property. In fact, in order to attract development to the properties it would be necessary to provide financial assistance to prospective developers in the following approximate amount:

The 3rd Street Garage Site would require direct financial assistance in the range of $11.08 million to render the property financially feasible for new development.

8. **YMCA Building development opportunity**

The YMCA Building is located on approximately 27,331 square feet of land area. The main building includes 44,468 square feet of gross building area (GBA) and there is a secondary building that includes 1,250 square feet of GBA. The total GBA equals 45,718 square feet.

The YMCA Building is listed on the National Register of Historic Places. This designation imposes limitations on the exterior physical modifications that may be undertaken. In addition, the YMCA Building can only be demolished if no feasible alternatives to demolition are identified during a 240-day environmental review.

The YMCA Building does not currently meet the City's Building Code standards for occupancy. As such, this City-owned property is currently unoccupied. Studies commissioned by the City in the past have concluded that substantial improvements would be required to bring the building back to a usable condition.

The value supported by the YMCA Building in turnkey condition is estimated at $5.58 million. Comparatively, the cost to retrofit the building is estimated at $7.3 million. Thus, there is an approximately $1.72 million gap between the building's value and the costs required to bring the building to a usable state.

Based on the preceding analysis, a third party analysis of the site concluded that the City cannot currently anticipate receiving any proceeds from the sale of the YMCA Building property. In fact, in order to attract development to the properties it would be necessary to provide financial assistance to prospective developers in the following approximate amount:

The YMCA Building Site would require approximately $1.72 million in direct financial assistance to render the building financially feasible for reuse

<u>The following are CEDS supportive activities:</u>

9. Continue to Support Investment in the Santa Ana Enterprise Zone

The City's business attraction and retention efforts rely heavily on the support and continuation of the City's Enterprise Zone program. Businesses that locate in the City's Enterprise Zone can take advantage of State tax credits and deductions that are not available to businesses located outside of an Enterprise Zone. Elimination of the City's Enterprise Zone would further hurt economic investment in the City.

10. Continue to support education with emphasis on STEM (Science, technology, engineering, and mathematics) through WORK Center programs.

The City would like to continue to support the 2008-2013 CEDS goal to support education with an emphasis on STEM (Science, technology, engineering, and mathematics) through the City's workforce training one-stop center (WORK Center)

11. Focus WORK Center Job training efforts on emerging clusters, such as Energy, Environment and Green Technologies, and Biotechnology/Nanotechnology.

The City would like to continue to support the 2008-2013 CEDS goal to focus training efforts on emerging clusters through the City's workforce training one-stop center (WORK Center).

12. Continue to support training of City's youth to obtain careers in digital media (Seeds to Trees Digital Media Academy)

This initiative serves 20 Santa Ana youth per year who are in need of academic and/or professional development and provide them with opportunities to grow through training, mentoring, employment, and workshops. The focus is on gaining knowledge and experience of the following digital media: Digital Music, Graphic Design, Marketing, Script Writing, Video Production, and Website Design. Training of the youth is done by qualified instructors from the Rancho Santiago Community College District.

13. Expanding the City's Government Access Channel in order to train youth to develop skills in video production and broadcasting as well as produce video content promoting small business development.

This proposed concept is to take advantage of the opportunity to produce video content and broadcast on the City's government access channel 3 (CTV3) which is accessible to 25,000 cable subscribers. CTV3 is also streamed via the Internet and available to any with web access. The opportunity would be for Santa Ana youth interested in developing skills in video production and broadcasting.

14. Promote and support the City's Climate Action Plan

The City of Santa Ana is developing a comprehensive Climate Action Plan. The goal of the Plan is to create an environmentally friendly future and to make the City a better place in which to live and work. Many of the strategies and measures that will be implemented will

reinvest in the community through benefits such as improved air quality, reduced energy and water use, reduced traffic congestion, and other environmental improvements.

CITY OF WESTMINSTER

1. Regional Park and Trail System

The Department of the Navy recently abandoned a railway spur that served as a connecting supply line between the Union Pacific line that runs along Hoover Street and the Naval Weapons Station in Seal Beach. This now vacant corridor, approximately three miles long and 70 feet across, provides an excellent opportunity to increase the City's open space by developing this area as a linear park. By incorporating this area in the City's already planned park improvements, this open space would complete a planned loop of connecting bike paths and walking trails, providing a regional park bordering three Orange County cities.

2. Westminster Water System Replacement/Storm Drain System

The City of Westminster is requesting funding to retrofit and expand the City's drainage system to be able to effectively reach the County's regional flood control channels. In addition, funds are also needed to replace some of our aging major Water Distribution System lines, which have caused water main breaks throughout the year. Funds are also needed to better equip our drinking water wells to properly function during emergencies and power outages. These elements are essential to the City's efforts to ensure the availability of clean drinking water to area residents in the event of emergencies, and to ensure the structural integrity and capacity of the City's storm drain system. This project will also have a large impact on the quality of water at our local beaches by relining existing aged drainage system (Corrugated Metal Pipes) and screening off trash before it enters catch basins which lead to the ocean.

3. Regional Arterial Reconstruction

Bolsa Avenue, within Little Saigon, is one of the busiest major arterials in the County. Servicing over three million visitors each year, it connects unincorporated County business areas with the well-known Little Saigon region of Westminster, Garden Grove, and Santa Ana. The Little Saigon area is an international tourist destination that attracts visitors from as far away as Southeast Asia and Europe. This area is also frequently visited by State tourists coming from as far north as San Jose and as far south as San Diego. This coupled with its close proximity to and use as a cut through for traffic from the I-405 and SR-22 freeways seeking neighboring cities, denotes this thoroughfare's importance as a vital regional arterial. The City is requesting funding in order to complete needed improvements to alleviate congestion of the nearby freeways and to ensure the continued safe operation of this arterial which serves over 40,000 vehicles per day.

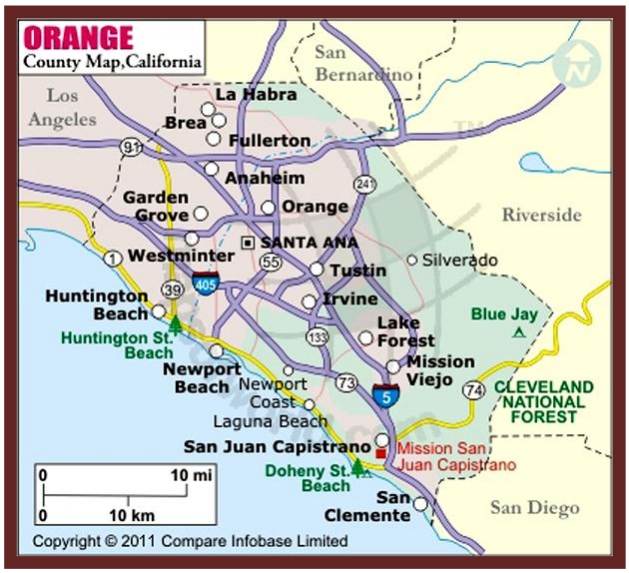
OCWIB CEDS Project Management Plan

OCWIB CEDS Project Management Plan							
Task Name		**Resources/Staff**	**Year Ending**				
			2013	**2014**	**2015**	**2016**	**2017**	**2018**
Prepare 2013-2018 CEDS Draft		**OCBC Staff, OCWIB**						
	Background	OCBC Staff, OCWIB						
	Analysis of ED problems & opportunities	OCBC Staff, OCWIB						
	CEDS Goals & Objectives	OCBC Staff, OCWIB						
	Community & Private Sector Participation	OCBC Staff, OCWIB						
	Strategic Projects, Programs, & Activities	OCBC Staff, OCWIB						
	CEDS PMP	OCBC Staff, OCWIB						
	Performance Measures	OCBC Staff, OCWIB						
	Short-term & Long-term job creation strategies	OCBC Staff, OCWIB						
	Red-Zone maps	OCBC Staff, OCWIB						
	CEDS Recommendations and Next Steps	OCBC Staff, OCWIB						
	Plan, review, approval by OCWIB	OCBC Staff, OCWIB						
Submit 2013-2018 CEDS Draft to EDA		**OCBC Staff, OCWIB**						
EDA Approval of 2013-2018 OC CEDS		**OCBC Staff, OCWIB**						
Draft Annual Update of 2013-2018 CEDS		**OCBC Staff, OCWIB**						
	Update Red-Zones & Map	OCBC Staff, OCWIB						
	Update Key Industry Clusters	OCBC Staff, OCWIB						
	Update CEDS Survey	OCBC Staff, OCWIB						
	Update Project List	OCBC Staff, OCWIB						
	Update ED problems & opportunities if necessary	OCBC Staff, OCWIB						
	Short-term & Long-term job creation strategies if necessary	OCBC Staff, OCWIB						
	Plan, review, approval by OCWIB	OCBC Staff, OCWIB						
Finalize CEDS Annual Update		**OCBC Staff, OCWIB**						
Submit 2013-2018 Annual Update to EDA		**OCBC Staff, OCWIB**						
EDA Approval of 2013-2018 OC CEDS Annual Update		**OCBC Staff, OCWIB**						
Prepare 2018-2023 CEDS Draft		**OCBC Staff, OCWIB**						
	Background	OCBC Staff, OCWIB						
	Analysis of ED problems & opportunities	OCBC Staff, OCWIB						
	CEDS Goals & Objectives	OCBC Staff, OCWIB						
	Community & Private Sector Participation	OCBC Staff, OCWIB						
	Strategic Projects, Programs, & Activities	OCBC Staff, OCWIB						
	CEDS PMP	OCBC Staff, OCWIB						

	Performance Measures	OCBC Staff, OCWIB						
	Short-term & Long-term job creation strategies	OCBC Staff, OCWIB						
	Red-Zone maps	OCBC Staff, OCWIB						
	CEDS Recommendations and Next Steps	OCBC Staff, OCWIB						
	Plan, review, approval by OCWIB	OCBC Staff, OCWIB						
Finalize CEDS Annual Update		**OCBC Staff, OCWIB**						
Submit 2013-2018 Annual Update to EDA		**OCBC Staff, OCWIB**						
EDA Approval of 2013-2018 OC CEDS Annual Update		**OCBC Staff, OCWIB**						

Milestone	
Task/Subtask	
Meeting/Recurring	●

Appendix A: BACKGROUND INFORMATION AND KEY RESEARCH FINDINGS



Orange County is a large, urbanized region in Southern California. With nearly 3.1 million people, Orange County is the third largest county in California and the fifth largest county in the United States. The following sections describe various elements of Orange County's economy, population, workforce development and use, transportation access, and environment. For a more detailed review of Orange County's current condition regarding the economy, population, geography, workforce development, transportation access, resources, and the environment, please see Appendix E: Orange County Community Indicators, the County's annual self-assessment report.

Please see Appendices A (2013 Orange County Community Indicators) & B (2012-2013 Orange County State of the County Workforce Indicators) for a thorough discussion of the following topics.

PROFILE OF ORANGE COUNTY

Orange County is located in Southern California, with Los Angeles County to the north, San Diego County to the south, and Riverside and San Bernardino counties to the east. There are 34 cities within the County and several unincorporated areas.

Demographics and Socioeconomic Data

(See Appendix A: *2013 Orange County Community Indicators* for an extensive review and analysis of each of the following subjects.)

Population Characteristics

Orange County is the third largest county in California. Some highlights of Orange County's Population characteristics include:

- With a population of 3,071,933 in July 2012, Orange County falls behind Los Angeles (9,911,665) and San Diego (3,147,220) counties.
- Orange County is the sixth largest county in the nation, with more residents than 20 of the country's states, including Mississippi, Arkansas, Kansas, Utah, and Nevada.

- At its peak, Orange County's population increased rapidly – an average of 22 percent per year in the 1950s and 10 percent per year in the 1960s.
- The average annual increase slowed considerably to 1.7 percent between 1990 and 2000, and further to 0.6 percent between 2000 and 2010.
- Between 2010 and 2012, the population growth rate was 0.9 percent.
- Orange County ranks sixth out of more than 3,000 counties nationwide in terms of the number of people added to the County between 2010 and 2011.However, Orange County's already high base population combined with slowing growth, places it 346th in the nation in terms of the percentage of change between 2010 and 2011.
- The County's population growth is projected to continue at an increasingly slower rate over the next 20 years, reaching little over 3.4 million by 2035.

While the populations of California and Orange County have grown sharply toward the end of the 20th century, projected growth toward the middle of the 21st century is expected to level off to more reasonable rates. This leveling off is due in large part to stabilization in the rate of immigration throughout the State and majority of growth resulting from natural increases.

Table 2. Population Trends 2005-2035

	Orange County		California	
	Total	**Decennial % Change**	**Total**	**Decennial % Change**
2000	**2,853,893**	**18.39%**	**34,000,835**	**14.25%**
2010	**3,008,855**	**5.43%**	**37,253,956**	**9.57%**
2020	**3,220,788**	**7.04%**	**40,817,839**	**9.57%**
2030	**3,385,762**	**5.12%**	**44,574,756**	**9.20%**
2040	**3,509,352**	**3.65%**	**47,983,659**	**7.65%**
2050	**3,565,648**	**1.60%**	**51,013,984**	**6.32%**

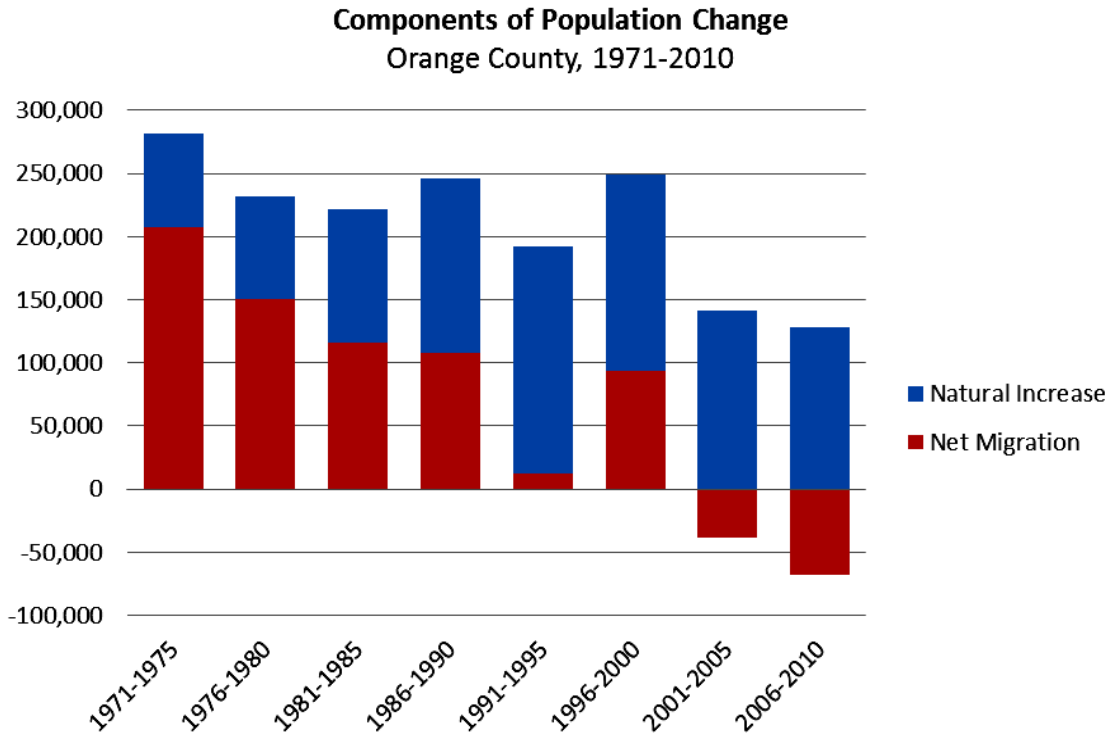
Source: California Department of Finance, May 2012

While the population of Orange County is not expected to change greatly, its composition is expected to change in regard to age and ethnicity.

Components of Population Change

Since the 1980s, natural increase (births minus deaths) has outpaced migration as the County's principal source of growth:

- From the 1950s through the 1970s, much of the County's growth stemmed from migration into the County from within the State as well as from other states (domestic migration).
- International immigration – largely from Asia and Latin America – has also contributed to Orange County's growth in the last 30 years, shifting the County's proportion of foreign-born residents from 6 percent in 1970 to 31 percent in 2011.
- Between 2011 and 2012, Orange County added 20,970 residents through natural increase, and 8,805 through international immigration.
- At the same time, the County lost 4,962 residents through domestic out-migration, for a net domestic migration increase of 3,843.
- Long-range projections suggest this pattern will continue, with natural increase becoming the sole contributor to growth.



Source: Demographic Research Unit at California Department of Finance, Table E-6

Migration

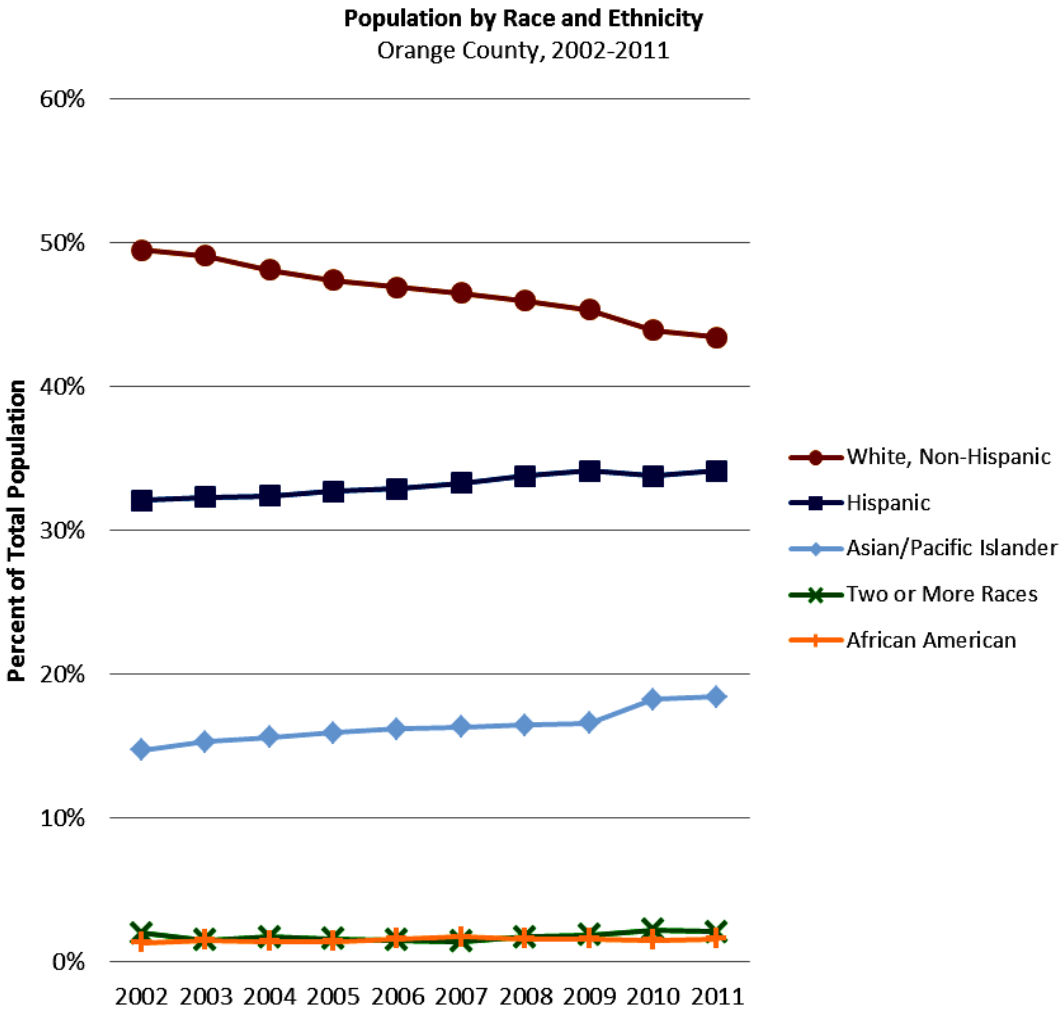
Since 1990, California has been sending more people away from its State than it has been receiving. During this period, California's net domestic out-migration has been almost 3.4 million people, losing an average of 225,000 people a year of the domestic population over the past ten years. In particular, the southern California region has seen the majority of this migration loss, as 65 percent of all out-migration from California since 2000 has come from the southern portion. The first reason given for this outward migration is chronic economic adversity, particularly job availability. The lure of jobs has driven Californians primarily to Texas, Nevada, and Oregon. Another cause of out-migration is the high density of coastally located counties; this level of density is driving people away in search of more space to California's interior as well as other states. Finally, the fiscal instability of California counties and cities has driven away businesses and individuals:

- the inability to provide essential services in a cost effective manner;
- lack of economic development incentives;
- likelihood of future increased taxes. (Source: Manhattan Institute for Policy Research)

Ethnicity and Age

Orange County is a racially and ethnically diverse region:

- 43 percent of Orange County residents self-identify as Non-Hispanic White, followed by 34 percent Hispanic (who may be of any race), and 18 percent Asian/Pacific Islander.
- 1.6 percent of residents are African American, another 2.1 percent are two or more races, and the remaining 0.3 percent are American Indian/Alaska Native or any other single race.



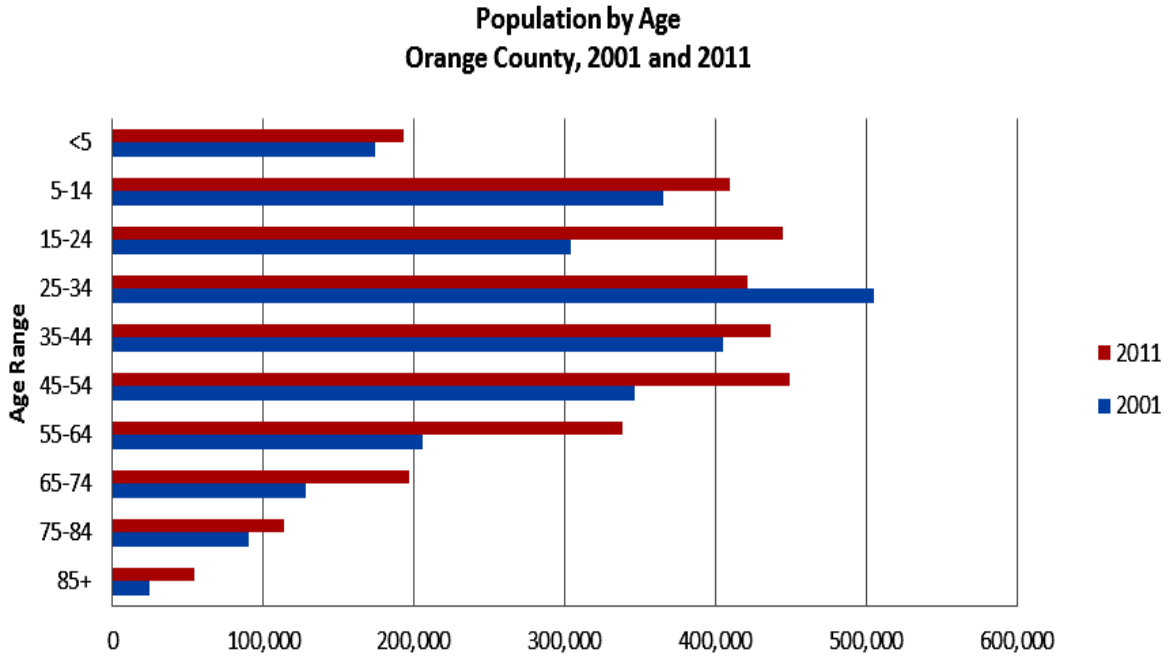
Source: U.S. Census Bureau, American Community Survey, 2002-2011
Note: All other races (American Indian/Alaska Native and any other single race) total less than one percent annually over the period showed.

Orange County has a substantially higher proportion of foreign-born residents (31%) than the nationwide average (13%) and only slightly higher than the statewide average (27%):

- Among Orange County residents at least five years of age or older, 46 percent speak a language other than English at home.
- Of those, the majority speak Spanish (58 percent) followed by Asian/Pacific Islander languages (30 percent), and other Indo-European languages (9 percent). The remaining 2 percent of the population speaks a language other than those mentioned here.
- 21 percent of the total population report that they do not speak English "very well."

In 2011, the median age in Orange County was 36 years:

- This is slightly younger than the national median age of 37 years.
- In 2001, the County's median age was 35 years, indicating the County's population is slowly aging.
- In 2011, 24 percent of Orange County's population was under 18 years (compared to 27 percent in 2001) and 12 percent were 65 years and older (compared to 10 percent in 2001).
- Between 2001 and 2011, Orange County's population grew in all age groups except 25-34 year olds.



Source: U.S. Census Bureau, 2001 Supplementary Survey and 2011 American Community Survey

HOUSING

Note: See Attachment D: 2012 Orange County Workforce Housing Scorecard for a full discussion of current housing trends in Orange County.

Housing Market Trends

Between November 2011 and November 2012, the Orange County median priced home (single family residences and condos) remained relatively unchanged at $435,000. This level of home price is reflective of the effects of the housing market collapse in 2008; during this collapse home values in Orange County decreased almost an entire third from their peak value in 2006. When compared to the rest of the State, the California Association of Realtors (CAR) values the median sales price of an existing single–family detached home in Orange County at $565,020 as of November 2012, more than $215,000 than the State median price for a comparable home. Additionally, this reflects a 15.9 percent increase in home values from the previous year, indicating that the worst of the housing crash is over. This lessened effect of the housing market collapse in Orange County when compared to the rest of the State is due to the County's economic competitiveness, labor market strength, and highly desirable quality of life. Despite the decrease in median home prices as a result of the housing collapse, the imbalance between household income and home prices is still large enough to make homeownership difficult. According to 2012 second-quarter data, CAR ranked Orange County in the bottom 25 percent of California counties on its Housing Affordability Index. (Source: California Association of Realtors, 2012)

Overall, 2012-2013 shows a bottomed-out housing market poised for recovery. The Federal Reserve reported that home sales have grown in nearly all 12 of the Federal districts. Furthermore, shrinking house inventories and rising demand is driving higher prices for most districts as well as building permits for multifamily homes. (Source: OCBC, 2012 Workforce Housing Scorecard)

Demand

Between 2010 and 2015, Orange County is projected to add 56,569 new jobs and 25,828 new housing units. The resulting ratio of 2.2 jobs for every new home puts the County above the standard "healthy" ratio of 1.5 jobs for every housing unit. Considering the effect the Great Recession has had on the number of new jobs that can be created, the jobs to housing ratio could be much higher than it already is. Thus, even despite the circumstances of the economy that has hindered job creation; the demand for housing in Orange County still remains high. (Source: California State University, Fullerton, Center for Demographic Research, 2013)

Of particular note is the rise in rental market demand – in 2011, renters consisted of more than 41 percent of the housing market in Orange County. This is reflected in the younger work generation's likeliness to switch jobs frequently, and foreclosed homes are rapidly

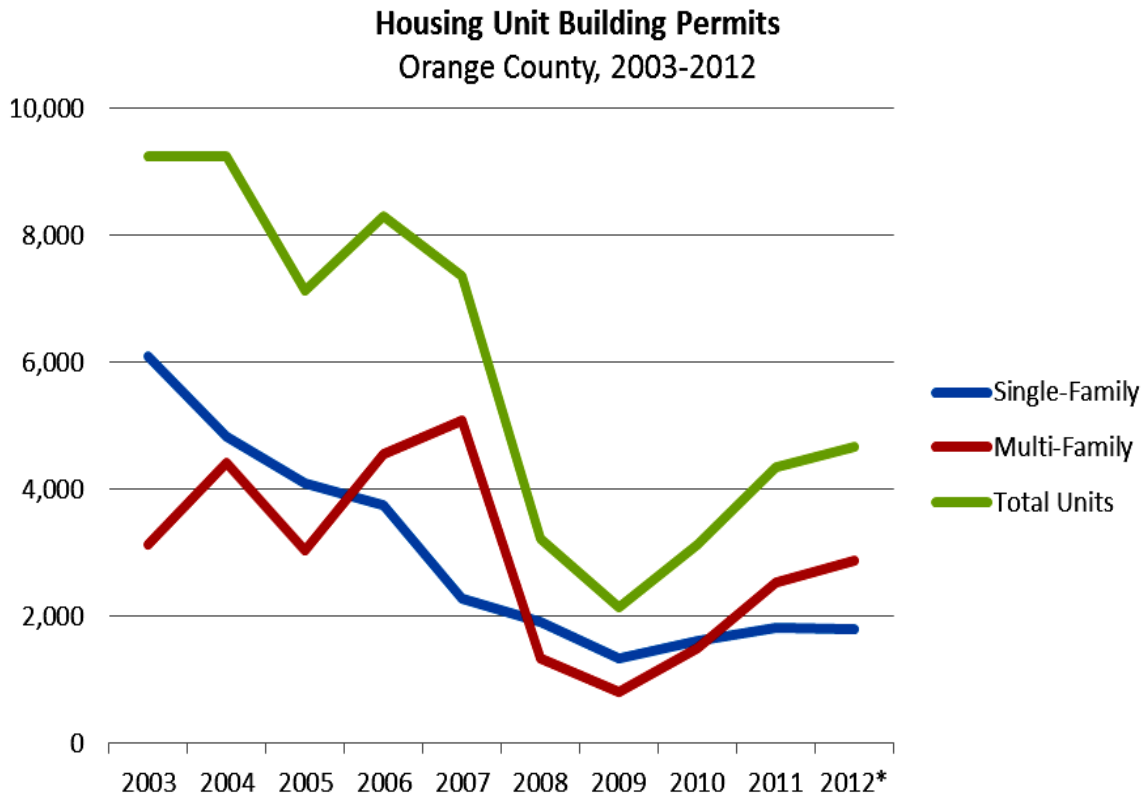
taken in by investors looking to meet increasing rental demand. (Source: OCBC, 2012 Workforce Housing Scorecard)

Affordability

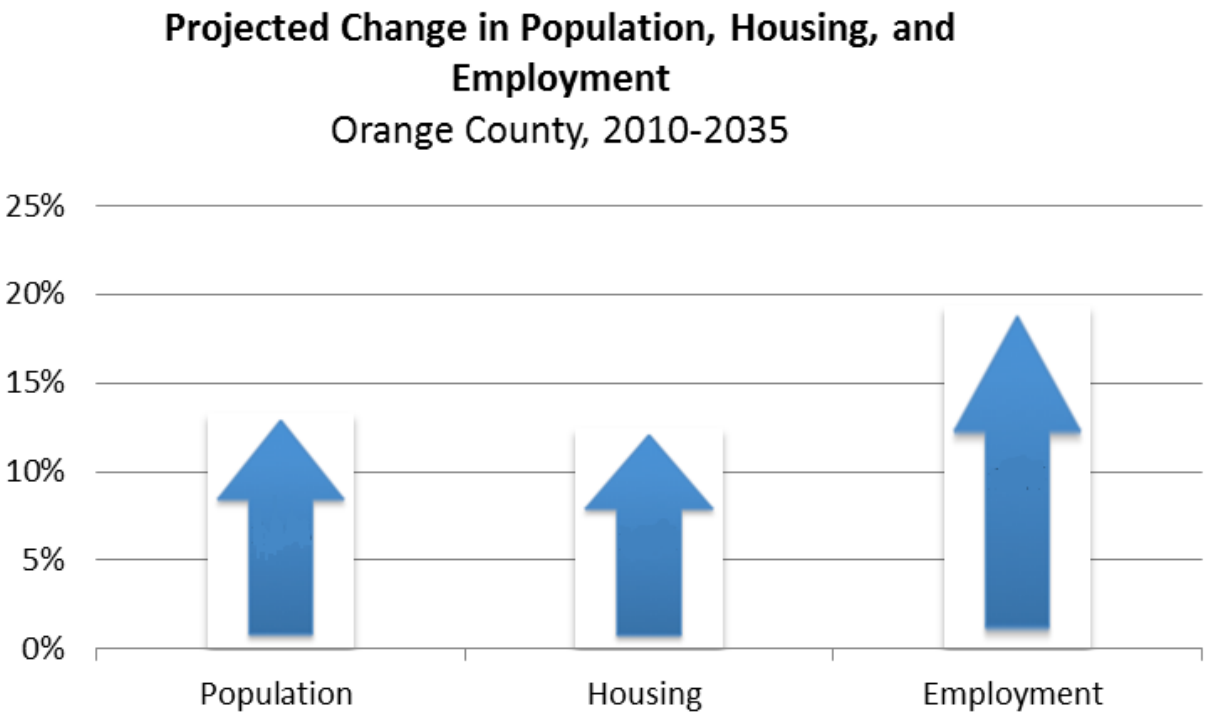
Orange County has one of the least affordable rental markets when compared to its peer counties. Due to the housing downturn, the percent of renter-occupied housing units has increased steadily, reaching 41.4 percent in 2011. The increase in demand for rental units has raised rents by 5.1 percent in the last year, making it even more difficult for renters to afford housing. According to the National Low Income Housing Coalition, the average hourly wage needed to afford a two-bedroom rental unit in Orange County was $31.77 in 2012, making the County the fifth most expensive region in the nation. (Source: National Low Income Housing Coalition, 2013)

Housing Market Facts

- Real State analytics firm CoreLogic reported that national report prices rose 4.6 percent from August 2011 to August 2012, the largest year-over-year growth in six years.
- In August 2012, existing single-family home sales were up 9 percent year-over-year, and the supply of home listings decreased by 18 percent, according to the National Association of Realtors.
- September 2012 construction of houses and apartments rose by 34.8 percent, up to 872,000. This is great improvement over April 2009's low of 478,000, but still under the overall high of 2.2 million.
- Building permits increased by 45.1 percent year-over-year from 2011 to 2012.In 2011, single-family permits comprised 42 percent of total permits issued, compared to 66 percent in 2003 (the highest proportion in the past 10 years).
- House foreclosures have fallen by 31.2 percent year-over-year from 2011 to 2012 and by 63 percent since Q1 2009. (Source: OCBC, 2012 Workforce Housing Scorecard)
- According to the 2011 American Community Survey, a majority of occupied units were owner-occupied (60 percent) compared to renter-occupied (40 percent).
- Approximately half (51 percent) of the existing housing units in Orange County were single-family detached units.
- Going forward, the County's total housing stock is projected to grow 12 percent between 2010 and 2035, slightly slower than population growth (13 percent) and employment growth (19 percent) over the same period.



*2012 data is preliminary.
Source: U.S. Department of Housing and Urban Development



Source: Center for Demographic Research, California State University, Fullerton, Orange County Projections 2010 Modified

Average Household Size

The average household size in Orange County is 2.99 persons:

- Among the more than 3,000 counties in the nation, only 179 had an average household size larger than Orange County's.
- Orange County's average household size is larger than California (2.91) and the United States (2.60).
- Santa Ana has the highest household size in the County (4.45) and the 10th highest household size in the nation when compared to cities or unincorporated areas with more than 20,000 residents.
- After Santa Ana, the Orange County cities with the highest household sizes include Garden Grove (3.73), Buena Park (3.56), Anaheim (3.37), and Stanton (3.35).
- Seal Beach, Laguna Beach and Newport Beach have the smallest household sizes (1.9, 2.0 and 2.2, respectively).

Density

Census 2010 data shows Orange County remains one of the most densely populated areas in the United States, falling 18th among all counties in the nation:

- Census 2010 places Orange County's population density at 3,808 persons per square mile, an increase of 6 percent since 2000.

- Densities vary by location among Orange County's incorporated areas, from lows of 1,996 persons per square mile in Seal Beach and 2,449 in San Juan Capistrano, to highs of 12,415 in Stanton and 12,005 in Santa Ana.
- Population density is much lower in unincorporated areas (431 persons per square mile).

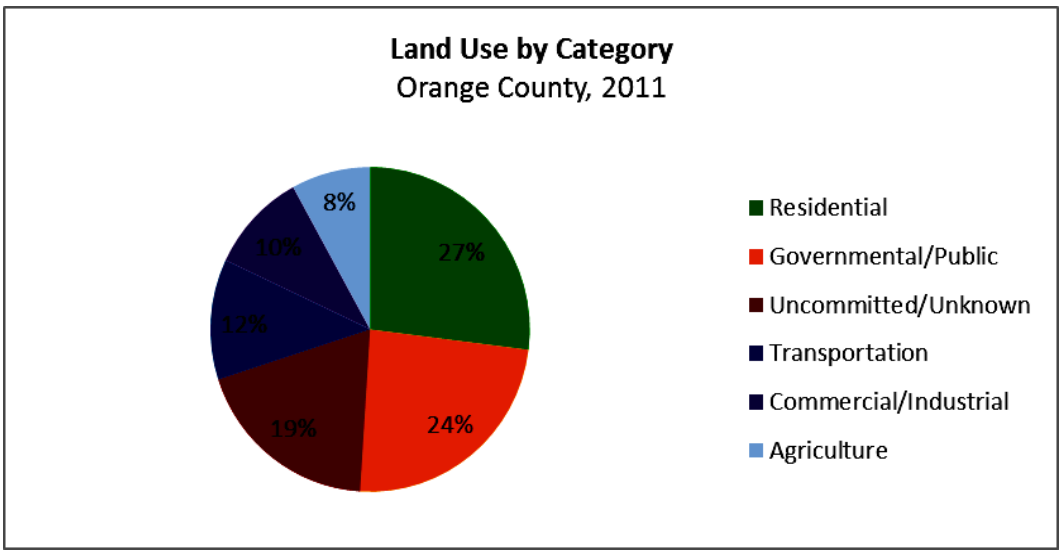
Population Density Ranking County Comparison, 2010		
Rank out of all U.S. Counties	**County (Major City)**	**Persons per Square Mile of Land Area**
5	**San Francisco (San Francisco)**	**17,179**
7	**Suffolk (Boston)**	**12,416**
18	**Orange County(Santa Ana/Irvine)**	**3,808**
26	**Dallas (Dallas)**	**2,718**
30	**Los Angeles (Los Angeles)**	**2,420**
37	**Hennepin (Minneapolis)**	**2,082**
67	**Sacramento (Sacramento)**	**1,471**
76	**Santa Clara (San Jose)**	**1,381**
106	**Travis (Austin)**	**1,034**
121	**Seattle (Seattle)**	**913**
145	**San Diego (San Diego)**	**736**
250	**Maricopa (Phoenix)**	**415**
348	**Riverside (Riverside)**	**304**
825	**San Bernardino (San Bernardino)**	**102**

Source: U.S. Census Bureau, GCT-PH1-R: Population, Housing Units, Area, and Density, Census 2010

LAND USE

Orange County covers 798 square miles of land, including 42 miles of coastline:

- A substantial portion (27 percent) of the County's land is devoted to various types of residential housing.
- Approximately a quarter (24 percent) of the County's land is classified as "Governmental/Public," including open space and parks.
- Transportation infrastructure (e.g. roads, rails) accounts for 12 percent of County land, followed by 10 percent devoted to commercial and industrial uses.
- About one-fifth of County land is classified as "Uncommitted," meaning it is either vacant or there is no data available.



Source: Orange County Public Works

EMPLOYMENT

The increase in jobs in Orange County industries is projected to grow 0.8 percent annually over a 10 year period (2008-2018), which happens to be less than the estimated statewide growth of 1.0 percent annually over the same period. Currently, Orange County makes up about 10 percent of all non-farm employment in California and will account for around 8 percent of all new statewide non-farm jobs during this period.

During this period, the greatest amount of non-farm employment growth will come from Professional and Business Services (18 percent); Trade, Transportation, and Utilities (18 percent); and Leisure and Hospitality (13 percent) sectors. These sectors will account for almost 70 percent of all new jobs added to the County. Of these industry sectors, the fastest growing will be Education Services, Health Care, and Social Assistance at a rate of almost 2.2 percent growth per year. These fastest growing sectors are projected to grow even further as the population of baby boomers in Orange County continues to age. Other sectors exceeding the annual growth rates are Professional and Business Services (1.3 percent); Leisure and Hospitality (1.1 percent); Transportation, Warehousing, and Utilities (1 percent); and Construction (0.9 percent).

According to the Employment Development Department, during the period of 2008-2018, occupational projections for the Orange County region are expected to add 150,700 new jobs from industry growth, over 371,000 jobs from net replacement for a combined total of 522,000 job openings.

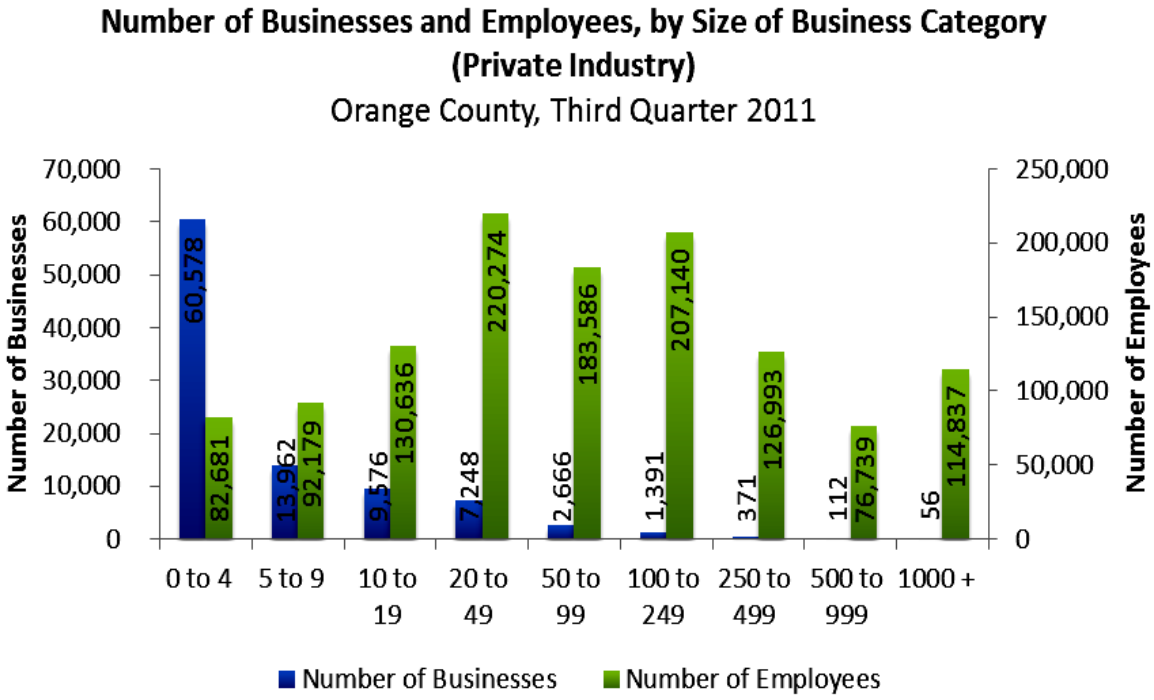
In terms of unemployment, Orange County has managed to fare better than the rest of the State during the Great Recession. As of October, 2012 the unemployment rate in Orange

County was 7.1 percent as compared to the State, which is 9.7 percent. These figures are down from their highest levels in January, 2010 when they were 10 percent, and 13 percent, respectively. (Source: California Employment Development Department)

Table 3. Unemployment

	Orange County			California		
	Civilian Labor Force	Unemployed	Unemployment Rate	Civilian Labor Force	Unemployed	Unemployment Rate
2007	1,608,600	62,600	3.9%	17,921,000	960,300	5.4%
2008	1,618,100	85,300	5.3%	18,203,100	1,313,100	7.2%
2009	1,588,800	140,600	8.8%	18,208,300	2,063,900	11.3%
2010	1,591,000	150,700	9.5%	18,316,400	2,264,900	12.4%
2011	1,603,700	139,300	8.7%	18,384,900	2,158,300	11.7%
Dec12	1,624,200	109,700	6.8%	18,489,600	1,800,400	9.7%

Source: California Employment Development Department



Source: California Employment Development Department

Income and Poverty

According to the Bureau of Labor and Statistics, Orange County ranks among the top of California counties in terms of personal income per capita. In 2010, the Orange County per-capita income was $49,863, which is high when compared to the State average of $42,514. This gave Orange County the sixth highest per capita income of all 58 counties in California.

Table 4. Personal Per-Capita Income

	Orange County	California
2010	**$31,373**	**$27,353**
2011	**$32,540**	**$27,859**
Average	**$31,957**	**$27,606**

Source: U.S. Census Bureau, 2011 American Community Survey

The level of poverty has reached 13 percent of the population in Orange County, which is only slightly lower than the measures of the state and the nation (Table 4). In 2011, 46 percent of students were eligible to receive free or reduced school priced meals, this is only marginally better than state levels of 56 percent. While Orange County has the reputation of being an affluent community, many pockets reflect growing poverty issues that are occurring throughout the state and nation. (Source: Bureau of Labor and Statistics, 2013)

Table 5. Poverty

	Orange County	California	United States
Median household income	**72,293**	**57,287**	**50,502**
Median family income	**81,663**	**65,476**	**61,455**
Percent of people whose income is below poverty line	**12.9%**	**16.6%**	**15.9%**

Source: U.S. Census Bureau, 2011 American Community Survey

The percent of people whose income is below the poverty line is a useful metric for identifying hardship in the County. In 2011, the percent of people living below the poverty line in Orange County was 12.9 percent, just slightly lower than the State and national measures. This is unusually high considering that the median family, and household income of Orange County are much higher relative to the State and national levels (Source: US Census Bureau, American Community Survey, 2011).

Health and Safety

The Medical Services Initiative (MSI) is a mandated program meant to act as a safety-net for the medical care of Orange County's necessitous adults. This program provides medical care for residents aged 21 to 64 years old with medical need and without the financial resources to pay for their care. As of 2010, there were 34,508 people receiving care from Orange County's Medical Services Initiative program from 14 ZIP codes within the County.

Despite the gains made in enrollment into publicly funded health insurance programs, more than half a million people in the County do not have insurance (526,094 people or 17.3 percent of the population). Almost one in ten children is not insured, which correlates to 60,445 people under the age of 18. For the most part, adults between the ages of 18 and 64 make up the largest share of those uninsured with 458,144 people or 23.6 percent of the County. More than 2 percent of the senior population lives without insurance. (Source: Orange County Health Care Agency, 2012)

Table 6. Insurance

Uninsured in Orange County	Number	Percent
Children (0-17)	60,445	8.2%
Adults (18-64)	458,144	23.6%
Seniors (65+)	7,505	2.1%
All	526,094	17.3%
Source: American Community Survey		

The public safety concerns of Orange County that are identified as being detrimental to the physical and social development of Orange County are crime, fire hazards, hazardous materials, and aircraft. The two major forms of crime deterrence used by law enforcement agencies are suppression and prevention. The use of suppression takes the form of proactive methods and investigative techniques where violators of the law are aggressively pursued.

EDUCATION

Workforce Development

The ability for Orange County to continue to grow its industries, increase wages, attract a highly paid workforce, and ultimately preserve its high quality of life is dependent upon maintaining a well-educated workforce. Historically, Orange County has been very successful at maintaining a well-educated workforce as its educational attainment levels have consistently been higher than those of the State. Considering much of the County's projected job growth will come from industries that require advanced or specialized degrees, the need to develop the County's future workforce in these advanced and specialized areas is imperative. As table seven illustrates, progress has been made in the growth of high-tech related degrees, though further growth will be needed in the future.

Table 7. High-Tech Related Degrees

	2010		2004-2010 % Changes	
Discipline	**Bachelor Degrees Granted**	**Graduate Degrees Granted**	**Bachelor Degrees Change**	**Graduate Degree Change**
Biological Sciences	**1,151**	**35**	**64%**	**20.7%**
Engineering	**592**	**404**	**29%**	**57.8%**
Information & Computer Sciences	**215**	**108**	**-60%**	**28.2%**
Physical Sciences	**278**	**150**	**106%**	**-0.1%**
Math	**127**	**43**	**31%**	**72.0%**
Total	**2,363**	**740**	**22.80%**	**38.1%**

Source: California State University, Fullerton, Chapman University, and University of California, Irvine

Enrollment

According to the California Department of Education, in 2011-2012, Orange County had 502,195 students enrolled in 28 school districts. These districts ranged from a size of 2,363 to 57,250 students. However, student enrollment in public education institutions has steadily decreased by almost 2 percent in the last ten years, mainly as a result of the aging of families in the County. The continuing students of Orange County are served by three universities, nine community colleges, and two continuing education institutions. During the 2011-2012 academic years, over 215,000 students registered to attend classes at one of the four Orange County Community College Districts. Currently, the cost per unit for the colleges in the California Community College system is $46 per unit for residents, an increase of 77 percent since 2007. Available universities in the County are the University of California, Irvine (UCI), California State University, Fullerton (CSUF), and Chapman University. As of the 2011-2012 school year, UCI had an enrollment of 25,750 and a tuition of $14,406, while CSUF had 36,156 students and a tuition of $6,676, and Chapman University had 6,301 students and a tuition of $41,040 (Source: California State University, Fullerton, Chapman University, University of California, Irvine, and Orange County Community College Districts, Department of Education).

Educational Performance

In order to better gauge the academic performance of students, the Academic Performance Index (API) was developed as a way of measuring the success of school districts by comparing their results to other school districts throughout the State. The average API score in Orange County has been steadily increasing since 2005, and as of 2011 the average score had increased by nine percent to 844. This improvement is encouraging as Orange County school districts have now crossed the statewide performance target of 800. Another positive indicator is the performance of Orange County students on the California High School Exit Exam. As of 2012, Orange County high school students had scores of 88 percent in English language arts and 89 percent in mathematics. These scores are the highest experienced by the County and well exceed the State pass rates of 83 percent for English language arts and 84 percent for mathematics. (Source: California Department of Education, Educational Demographics Unit)

Drop-out Rates

Based on the 2011 American Community Survey, 16 percent of Orange County adults over the age of 25 had not completed high school, as compared to 19.1 percent of adults statewide. According to the California Department of Education, in 2011 Orange County had a dropout rate of 9.3 percent as compared to a dropout rate of 14.4 percent statewide. In addition, Orange County's graduation rate was 85.6 percent in 2011, as compared to a graduation rate of 76.3 percent state wide. The 2011 dropout rate, noted above, is significantly less when compared to the 2008-2009 academic year, where Orange County

had a dropout rate of 14 percent while California experienced a dropout rate of 22 percent. (Source: California Department of Education, 2011)

Table 8. Drop-Out Rates		
	Orange County	**California**
2008-2009	**14%**	**22%**
2010-2011	**9%**	**14%**
Source: California Department of Education		

ENVIRONMENT PROFILE

Geography and Location

Located in the southwest region of California, Orange County is bordered by Los Angeles County to the north, San Diego County to the south, Riverside County to the east, and San Bernardino County to the northeast. In California, Orange County is the twelfth smallest of 58 counties, covering an area of 791 square miles of land and 159 square miles of surface water.

In the northern portion of the County sits the coastal plain of the Los Angeles Basin, while in the southern portion are the foothills of the Santa Ana Mountains. The majority of the County's population lies in the two coastal valleys of the Santa Ana Valley and the Saddleback Valley. The coastal plain gradually ascends into the Santa Ana Mountains, which push out to the outer border of the County in the Cleveland National Forest. The highest point of elevation is Santiago Peak at 5,687 feet, just outside the eastern portion of Santa Ana. With a mountainous east side, the County stretches along 40 miles of coast along its southwest.

The County's major body of water is the Santa Ana River, which receives water flow through the County from the Santiago Creek. Other contributions to the river come from Aliso Creek, San Juan Creek, and Horsethief Creek. One other source of water comes from the San Gabriel River, which joins into the Pacific Ocean. The only natural lakes in the County are the Laguna Lakes in Laguna Beach, which is formed from water that enters from an underground fault.

Orange County is often divided into two figurative regions known as "North County" and "South County." This border division occurs along the Costa Mesa-Newport and Irvine-Tustin areas. This distinction has come from differences in land use decisions between the established areas of the north and the undeveloped areas of the south. (Source: Orange County General Plan)

NATURAL RESOURCES, INFRASTRUCTURE, and UTILITIES

Agriculture

The agricultural resources of Orange County have long been a staple for the County's local economy as many areas of the state and country depend on the produce grown in this area. Due to the unique features of a predominately Mediterranean climate and ideal soil fertility, the County has the advantage of being able to produce various crops year round. However, due to the growth of urban areas, many of the agricultural lands have been encroached upon and greater pressure mounts to convert farmland into urban uses. Due to

the rising costs of water, land taxes, and labor prices, future projections indicate a greater loss of the agricultural resource.

Minerals

The County also benefits from an abundance of mineral resources that are ideal for meeting the County's present and projected needs, specifically in regard to construction aggregate. During the early 1980's the State Mining and Geology Board designated the mineral lands of Orange County as a regionally significant source of minerals. However, since that time many of the resources have become unavailable due to the development of urban areas on this land. Despite the abundance of mineral resources that are still available, any extraction would be subject to approval on a project-by-project basis and would require extensive legal hurdles.

Water and Water Services

The ability for Orange County's economy to grow and maintain the quality of life it has created is dependent upon maintaining an adequate and dependable water supply. Due to the growing demand for water, coupled with its limited availability and lessened quality, its management has become a critical issue. In order to meet this need, the County depends on a network of local and imported sources of water. A large percentage of Orange County's water comes from a groundwater basin that is derived from the Santa Ana River watershed. However, much of this water is imported from the Colorado River and water from northern California. This scenario has created a need for more efficient development projects, water efficiency programs, and the use of reclaimed water.

Roughly 70 percent of the water used in Orange County is imported from facilities provided by the Metropolitan Water District of Southern California (MWD). The majority of the water supply is delivered via the Colorado River Aqueduct and the California Aqueduct. The other major source of water supplied to Orange County is from the groundwater basin, which lies underneath the northern portion of the County. The water distribution system that is required to meet the demand of Orange County is facilitated by imported MWD water that is purchased and portioned out to five separate agencies. Through the distribution of these five MWD agencies (Municipal Water District of Orange County, Coastal, Anaheim, Fullerton and Santa Ana), water is imported to all Orange County cities, private companies, and independent and dependent water districts. (Source: Metropolitan Water District of Southern California)

In order to accommodate for the rapid growth of the County's demand for infrastructure, Orange County has been successful in expanding its treatment capacities incrementally as needed. The provision of sewer services through collection, treatment, and removal of wastewater is undertaken by special districts and local governments. The northern and central areas of Orange County's wastewater needs are served by the Orange County

Sanitation Districts, which makes up seven districts and serves 23 cities in the County. These districts collect wastewater from surrounding cities, sanitary districts, County water districts, and sewer maintenance districts. This wastewater is then taken to two major treatment facilities co-owned by the Districts. In the southern portion of the County, the Aliso Water Management Agency and South East Regional Reclamation Authority serve the Aliso Creek Watershed and San Juan Creek Watershed as well as southerly areas down to the County border. (Source: Orange County General Plan).

The Environmental Cleanup Program is one of the key operations covered in Measure M2 to protect water quality from pollution generated by County transportation. A two-tier grant, distinguishing between funding for catch basin maintenance and large-scale water protection projects such as constructed wetlands and natural basins, was approved in 2010 and began funding projects through 2012. (Source: OCTA)

Petroleum

While Orange County does not have the energy resources to meet its demand, it does have a significant amount of energy resources within its boundaries. Its main form of energy comes in the form of petroleum resources made up of oil and natural gas deposits. The majority of the petroleum resources of the County are in Huntington Beach, Newport Beach, Seal Beach and the Brea/La Habra area. Due to the need of these resources, most of the supply of oil has been extracted to the point of depletion. However, through the use of a secondary recovery phase, it is possible to further extract oil resources for another 10 years until the secondary phase is no longer feasible. It is expected that future extraction techniques will attempt additional recovery phases for what is estimated to be 50 percent of the unrecovered resource.

Natural Gas

The use of natural gas in Orange County is supplied by the Southern California Gas Company, which receives 90 percent of its supply from sources outside of the State. The supply of natural gas to Orange County is made more difficult by the fact that the use of the resource is prioritized by how it is used. The use that receives the highest priority is residential use, while utility plants have the lowest. As a result, the supply of natural gas is a product of regulations on distribution instead of production rates. Regardless, the decreasing supply of natural gas in the State is an important issue when considering the increase in future demands.

Renewable Energy

Another asset available to meet the energy demand of the County is made up of solar, wind, biomass, and geothermal resources. While these resources do not make up a significant amount of energy to support the County at the present time, they could potentially become a viable alternative to oil, natural gas, and other limited resources used for electricity. The

uses created from these renewable sources come in the form of electricity, methane gas, ethanol, heat, oil and natural gas, and synthetic fuels. The development of these new forms of energy is vital to meet the need of Orange County's growing energy demand. (Source: Orange County General Plan). Please see the 2013 Orange County Community Indicators for a complete report and discussion of the progress that Orange County is making toward the California Renewable Portfolio Standard.

TRANSPORTATION

Transportation Access

The demand for transportation in Orange County has increased due to changes in economic factors and social changes that have taken place over the last 40 years. The intense growth of employment and the population has increased the number of trips taken on freeways and arterial highways. This increase in demand for travel has negatively affected the levels of service on large proportions of the transportation system, leading to greater congestion during hours of high traffic. One of the County's leading prospective goals in the area of transit is the encouragement of compact land use development that increases the use of transit and in effect lowers traffic congestion, energy use, and air quality problems.

The increased mobility and ease of transportation to Orange County residents was made possible by the development of the freeway system corridors of the County. This travel system has made the automobile the most prevalent mode of transportation in the County now and in the future. At the same time it has created a network among public transportation systems and connects the use of railway and air travel among the public. Highway transportation is accessible mainly by three major highways: the Santa Ana Freeway, the San Diego Freeway, and the San Gabriel Freeway. In addition there are 13 other highways that are part of the transportation infrastructure through various State highways. (Source: Orange County General Plan)

Regarding projects supporting growth for transportation in Orange County, one could hardly find a more successful example than the Measure M series of transportation sales taxes. Originally passed in 1990, the 11-year increase to sales tax by one half-cent funded the development of several major highway improvements, and even added the widening of State Route 22 as an extra project with leftover tax revenues. Although the original Measure M has since expired, Measure M2 was passed in November 2006 to essentially extend the half-cent sales tax increase through 2041. Accelerating the construction projects was the Early Action Plan, passed in 2007, to expedite regulatory delays and enabling faster implementation of several key M2 projects.

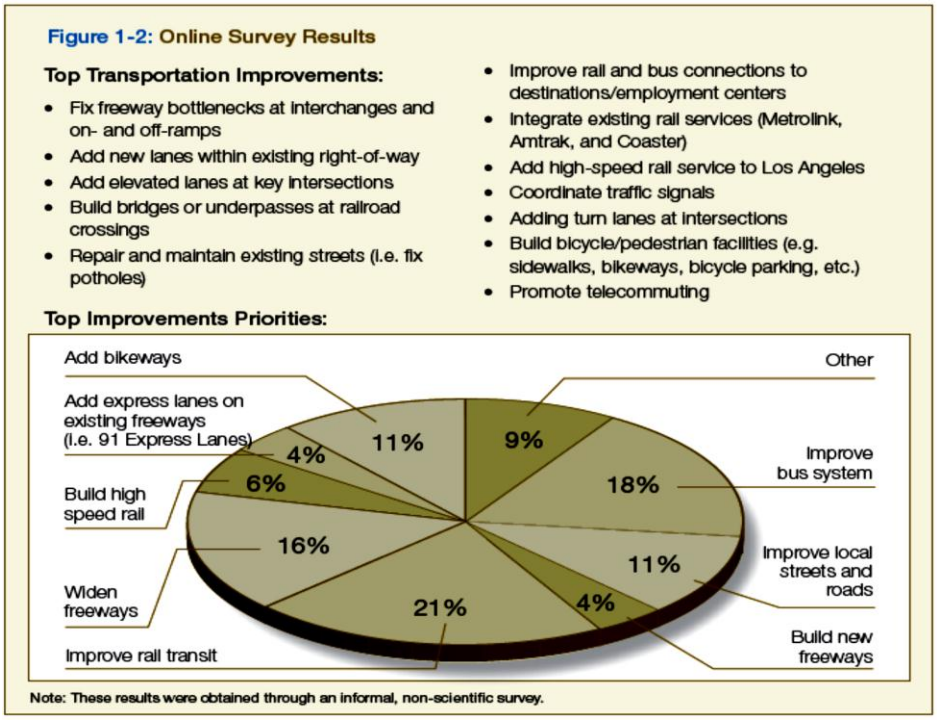
Most recently, the M2020 plan was implemented in 2012 to establish the roadmap for freeway, street and public transit projects over the coming eight years. For freeways, this

includes completing all current M2 freeway projects' environmental phases, and full delivery of 14 new projects dotting Interstates 5, 405, and State Routes 55, 57, and 91 – about $4.4 billion in spending. Streets and roads will see an injection of $1.2 billion for road improvements and the synchronizing of 2,000 traffic signals. Metrolink will also see aesthetic improvements and funding to lay the groundwork for local bus route connectivity and future statewide rail transit options. Rounding out the project package is environmental cleanup and mitigation projects, designed to add open space acreage under conservation and redesign roadside flow ways to be environmentally friendlier.

Another County-centric resource for developments in transportation is the Orange County Transportation Authority's Long-range Transportation Plan (abbreviated LRTP). The purpose of the LRTP is to provide a blueprint for Orange County's transportation improvements over a 20+ year time span, and the report is updated every four years. The plan shapes projects that address the system's needs around assumptions for population, housing employment, and budget constraints for the County. The LRTP outlines its goals as follows:

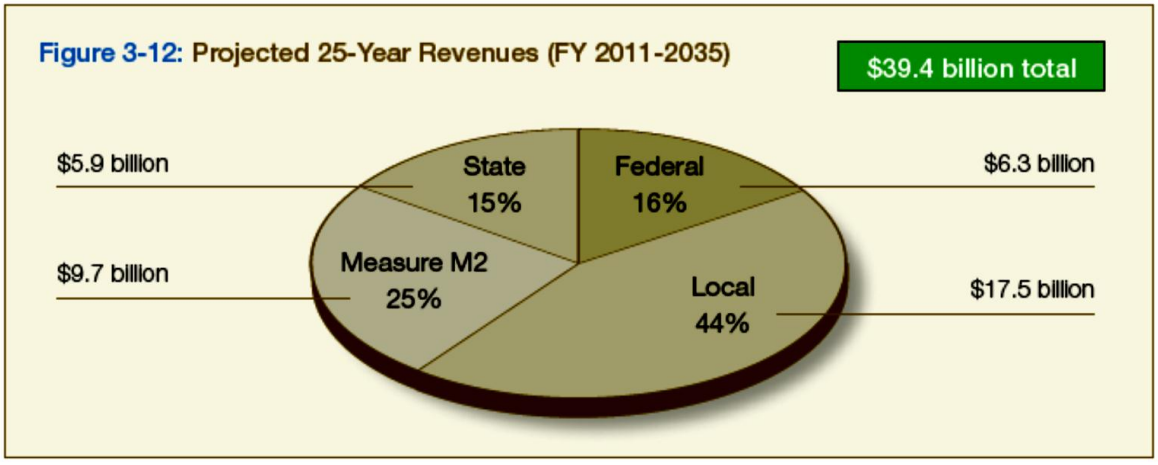
- **Expand Transportation System Choices:** Expand access to travel options across all travel modes, improve connectivity to major destinations, and improve integration between transportation modes.
- **Improve Transportation System Performance:** Improvements to travel speeds, travel times, person throughput, and roadway and transit service levels.
- **Ensure Sustainability:** Timely maintenance of transportation infrastructure, implementation of environmental protection strategies, and use of innovative project delivery methods to reduce taxpayer costs.

The following chart presents the results of a recent survey conducted for the 2010 LRTP, highlighting some of the most-requested improvements for the Orange County population:



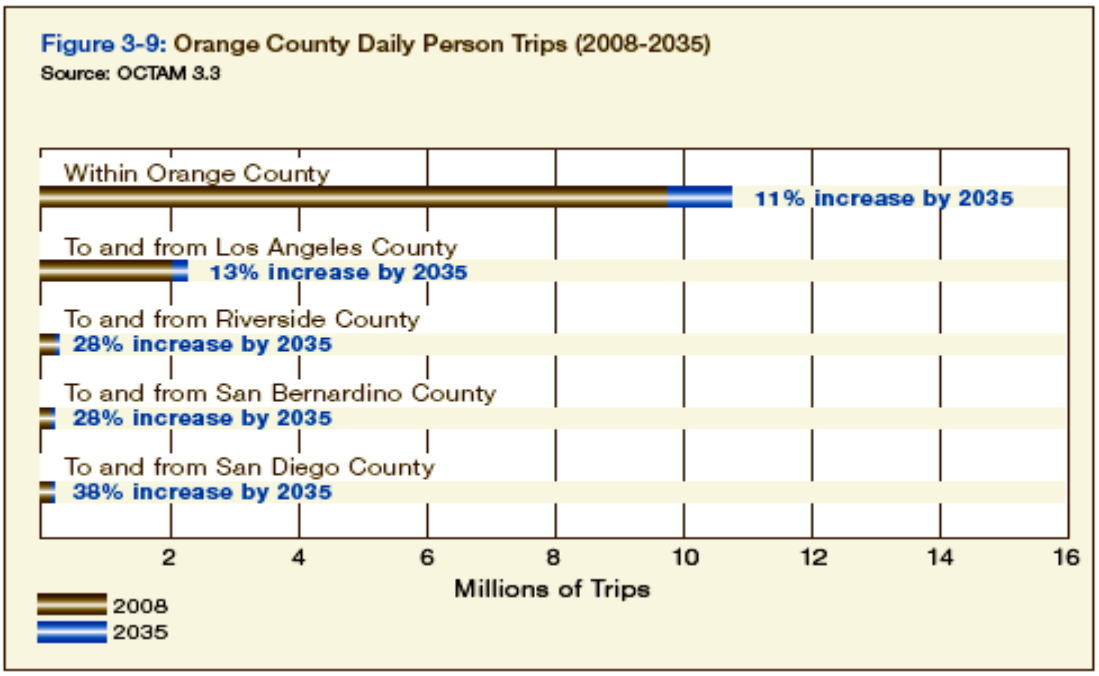
Source: OCTA, 2010 LRTP

The highest-scoring categories included improvements for local rail transit, a more connected bus system, and wider freeways. Fortunately, many of these project categories are already being addressed through Measure M's ongoing project plan. The LRTP bases its proposed projects on the revenue assumptions listed below, by anticipated source and concentration:



Source: OCTA, 2010 LRTP

Local funding is the dominant anticipated share, which is defined as "OCTA bus fare revenue, toll revenues, TDA funds, developer funds, and local jurisdiction capital improvement funds". Of course, Measure M2 is believed to contribute a significant portion through 2040. Finally, the LRTP also makes forecasts on actual daily trips made within



Orange County, and round-trips from Orange County to outlying counties:

Source: OCTA, 2010 LRTP

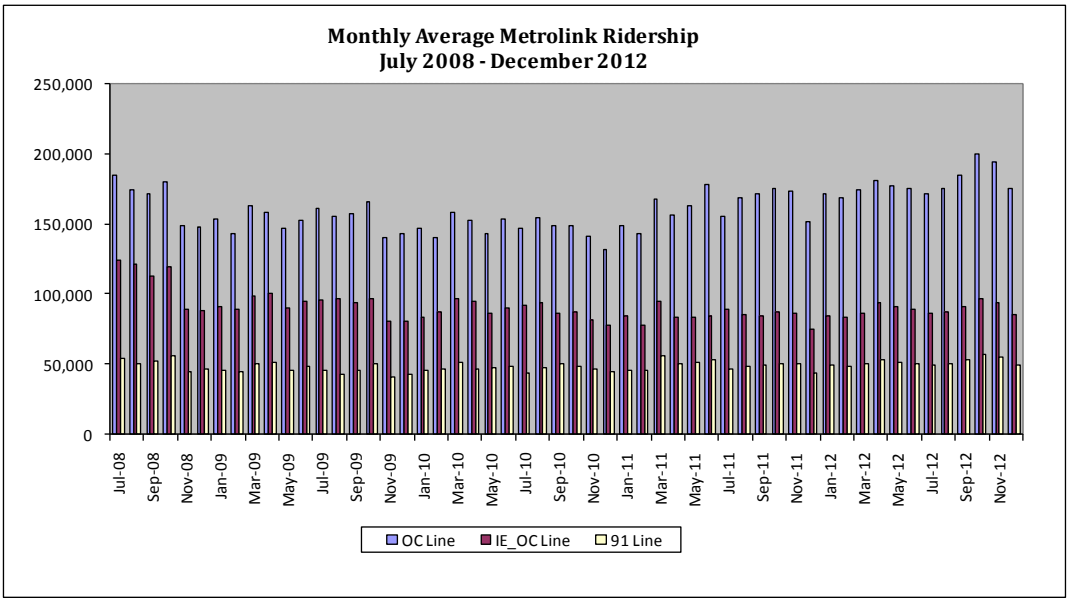
Looking purely at percent increases, inter-county travel is expected to grow faster than trips within Orange County. Nonetheless, intra-county trips are anticipated to rise by 11%, surpassing 10.3 million trips daily.

Transit

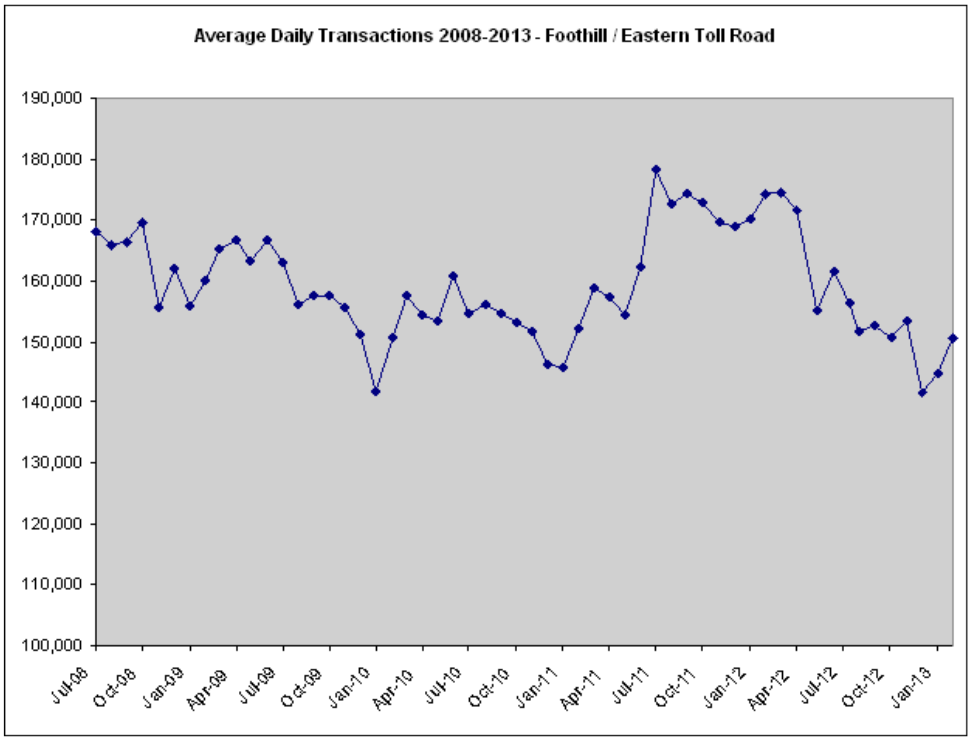
The use of transit service in the County is provided by public transit agencies along with private carriers. Service provided regionally is made possible by the Southern California Rapid Transit District, connecting Los Angeles and Orange County, and by AMTRAK. As well, bus service provided on a regional basis is made possible through Greyhound, providing bus service between Los Angeles, Orange, and San Diego County. The majority of public transportation service in Orange County is provided by the buses of the Orange County Transportation Authority (OCTA). The OCTA provides for a wide range of transportation services that have been created in a way to match the needs of local residents. The service provides for more than 76 routes, 546 vehicles, 52.5 million

passengers boarding a year, and transportation within at least one-half mile to 95 percent of the residents in the County. Project T underneath Measure M2 provides the foundation for Metrolink stations to connect with future high-speed rail systems designed to connect Northern and Southern California. Project U is crafted specifically to support public transit for seniors, providing "…up to $75 million of funding to expand mobility choices for seniors and persons with disabilities by stabilizing OCTA bus fares and providing funds for senior community transportation programs and senior non-emergency medical transportation services". (Source: Orange County Transportation Authority, 2012)

Ridership on the Orange County Metrolink lines has increased beyond pre-recession levels since 2011. Below is a snapshot of the three Metrolink groups that serve Orange County, and how ridership has changed from 2008 to 2011. Ridership has improved across the board up through 2011:



Toll road usage has fluctuated mildly since 2008. The following demonstrates that toll road usage is both subject to seasonality and that usage hit its highs during the summer and fall of 2011, provided by the Toll Road Authority:


Average Daily Transactions 2008-2013 - Foothill / Eastern Toll Road
190,000
180,000
170,000
160,000
150,000
140,000
130,000
120,000
110,000
100,000
Jul-08
Oct-08
Jan-09
Apr-09
Jul-09
Oct-09
Jan-10
Apr-10
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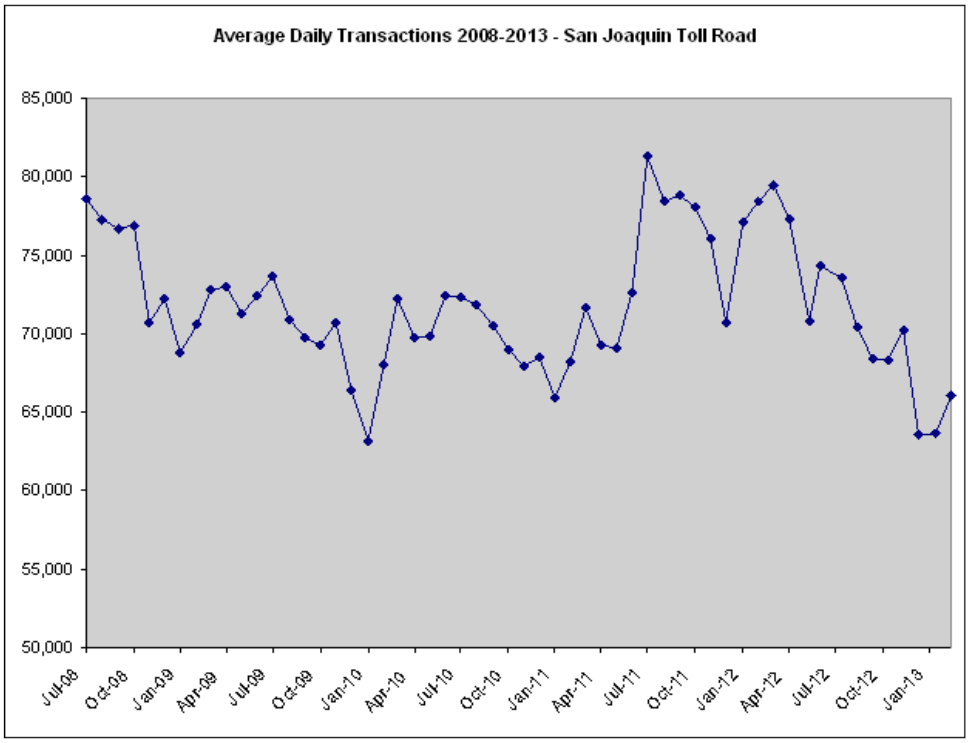
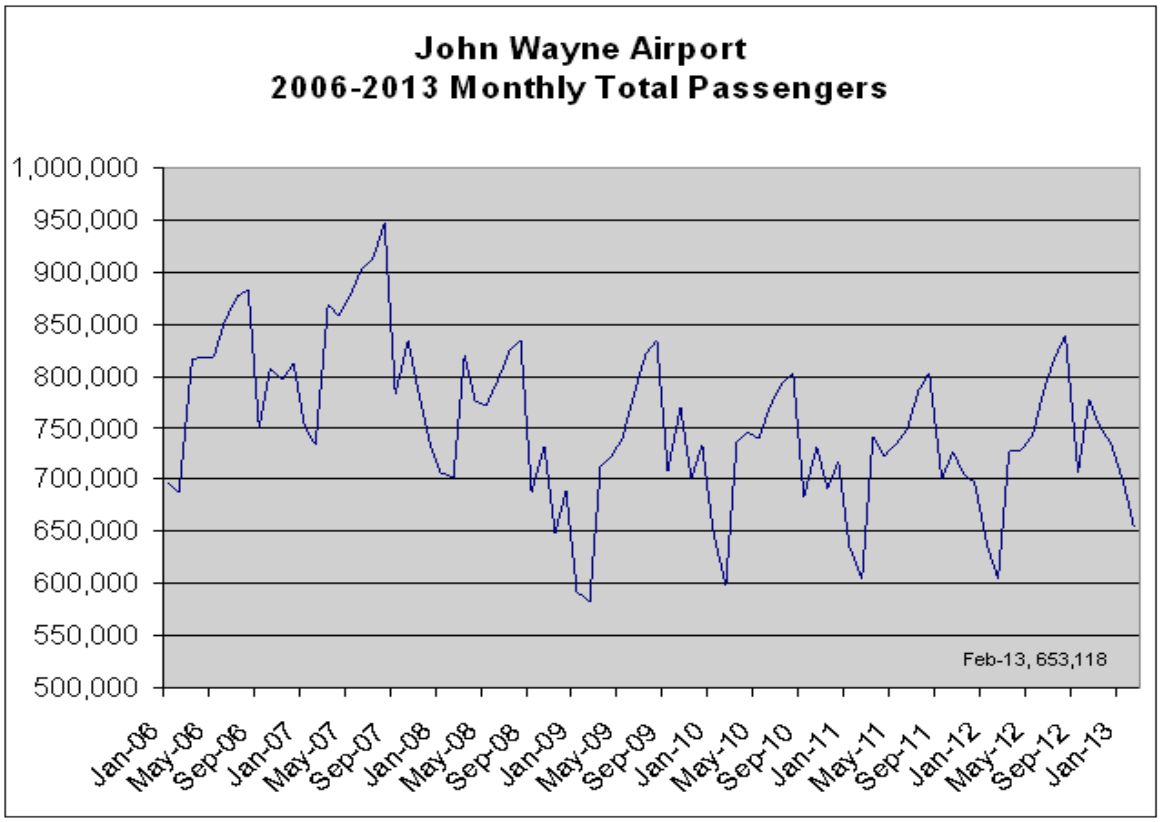
Jul-12
Oct-12
Jan-13


Average Daily Transactions 2008-2013 - San Joaquin Toll Road
85,000
80,000
75,000
70,000
65,000
60,000
55,000
50,000
Jul-08
Oct-08
Jan-09
Apr-09
Jul-09
Oct-09
Jan-10
Apr-10
Jul-10
Oct-10
Jan-11
Apr-11
Jul-11
Oct-11
Jan-12
Apr-12
Jul-12
Oct-12
Jan-13

Airport Infrastructure

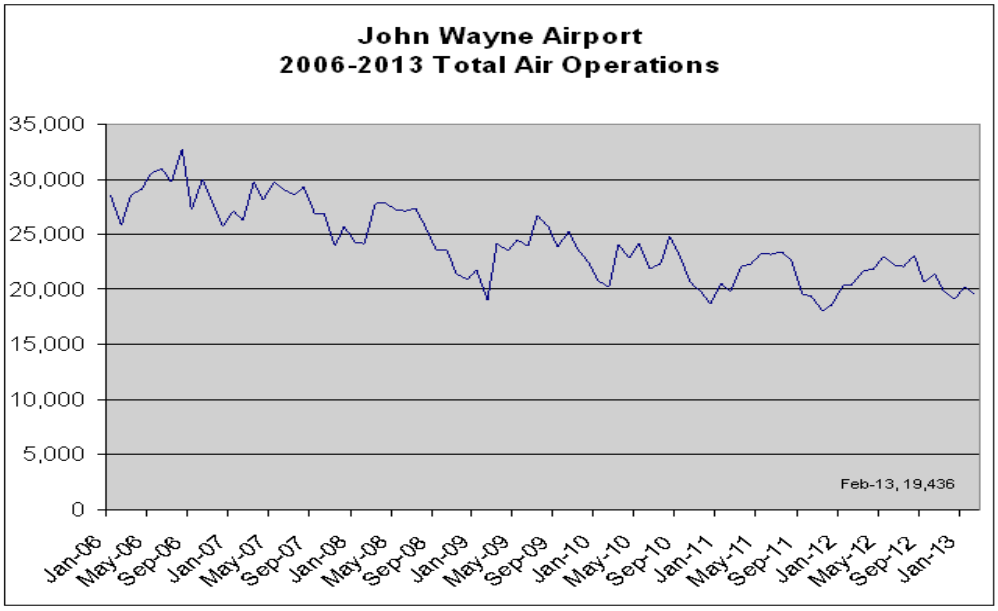
The use of commercial service air travel in Orange County is provided solely by John Wayne Airport (JWA). The airport is over 500 acres in size and has two parallel runways: one of 5,700 feet and a shorter runway of only 2,900 feet. JWA is served by 12 commercial air carriers and is also home to over 500 general aviation aircrafts. In 2011, almost 9 million passengers were provided service. JWA has special significance because no other airport in the County provides commercial passenger, air-cargo service, and is the major provider of general aviation services and facilities in the County. It also serves as a home to local law enforcement air operations and to medical flights. (Source: John Wayne Airport)

Below is an aggregation of total monthly passengers boarding at John Wayne Airport, from 2006 through 2012. Although travel activity decreased since early 2008, ridership since then has remained relatively stable, with a slight spike in peak summer travel for 2012:



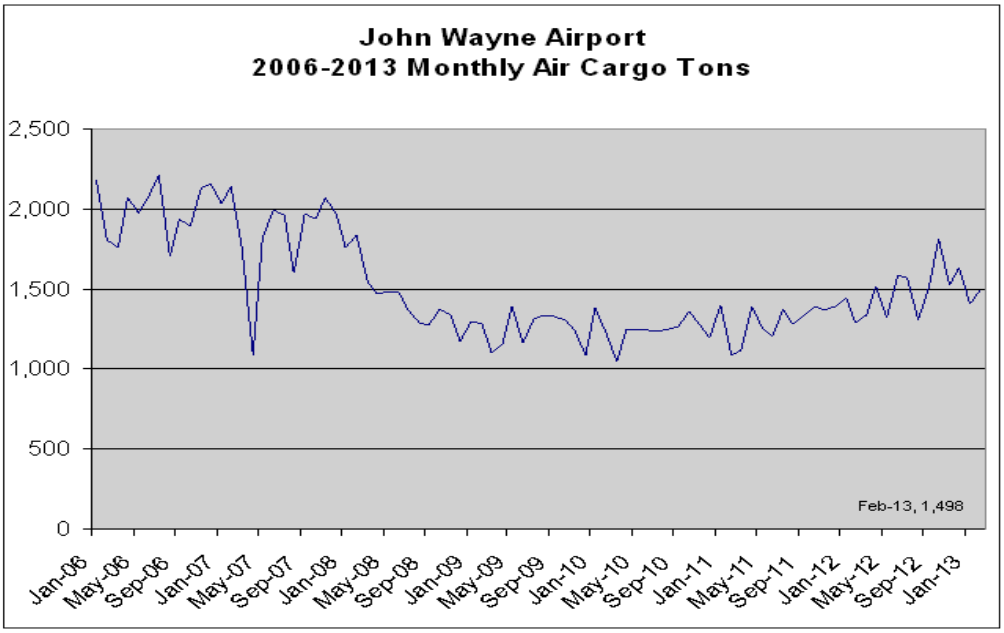
Source: John Wayne Airport

Another barometer for airport activity is monthly air cargo transported, in tons. Below is the corresponding report on transported cargo from 2006 to 2012:



Source: John Wayne Airport

Although both cargo and passengers have adapted and remained consistent even in recent years, overall air activity has decreased for the County since 2006. Charted below is the monthly data on take-offs and landings for John Wayne Airport, with declining plane trips year-over-year:



Regional Economy

See Attachment A: 2013 Orange County Community Indicators and Attachment B: 2012-2013 State of the County Workforce Indicators for a complete discussion of current Orange County economic trends. Additionally, please see next section on Orange County's industry clusters for a cluster-based look at the Orange County economy.

Despite the difficulties the nation has faced in the wake of the Great Recession, Orange County's employment growth is on par with the national rate, and also performing better than surrounding Southern California counties and the State. Many attractive qualities of Orange County continuously contribute to its gradual upswing: a diverse industry cluster base, high wage industry composition, innovative and entrepreneurial business climate, a well-educated and skilled workforce, and its advantageous location at the heart of Southern California promoting international trade activity.

This section looks at Orange County's industry clusters through several different cluster frameworks, analyze the strongest industry clusters for developing job growth via competitive advantages in Orange County, and cite companies in each cluster as high-performing examples utilizing Orange County's unique regional qualities. The analysis will report on Orange County's industry cluster setting from many perspectives: industry and occupational growth based on current OCWIB industry cluster definitions using data from the California Employment Development Department; an examination of employment concentration in various clusters by city and industry provided by EconoVue; and additional work on Orange County's strongest cluster groups recently completed for the Southern California Association of Governments by the Los Angeles County Economic Development Corporation. Closing the analysis will be a presentation on cluster multiplier effects for the County.

The nationwide downturn in residential real estate had a disproportionately large impact on Orange County. Growth during the past decade had been driven in large part by the expansion of mortgage loan companies headquartered in the region. From 2007-2010, a number of these companies declared bankruptcy and shut down as loan volumes declined and loan defaults soared. As a result of this process, job losses in the financial services sector were unprecedented in the late 2000s. However, in 2011, this industry appeared to hit bottom, and actually showed strong growth in 2012.

Between 2006 and 2011, the Orange County population grew by 2.9 percent, an average annual increase of 0.5 percent. This growth was due entirely to the natural increase (births were higher than deaths), as an average of 10,400 people left the County each year.

Highlights – Current and Projected

- Job growth strengthened in 2012, rising by 2.1 percent. This momentum continues over the next five years, as annual employment gains average 2.2 percent through 2017.
- The professional services sector will remain the growth engine for jobs in Orange County, and will expand by 56,500 positions between 2012 and 2017. Other industries that will exude strong growth are leisure and hospitality (+21,500 jobs), retail trade (+19,100 jobs), and health and education (+16,700 jobs).
- Annual population growth will be moderate over the next five years, increasing by an average of 0.8 percent. Net migration will stay positive, with an average of 6,900 individuals entering the County each year between 2012 and 2017.
- Per capita incomes, adjusted for inflation, are expected to increase by 2.6 percent in 2012. Over the 2012-2017 period, incomes will rise by an average of 2.4 percent per year.
- Total taxable sales, adjusted for inflation, will increase by 3.2 percent between 2012 and 2017.
- Industrial production in will increase by 2.6 percent in 2012, and will grow at an average rate of 2.5 percent between 2012 and 2017.

County Economic and Demographic Indicators

Projected Economic Growth (2012-2017)

Expected retail sales growth: 20.5 %

Expected job growth: 14.3 %

Fastest growing jobs sector: Information Technology

Expected personal income growth: 21.2 %

Expected population growth: 5.0 %

Net migration to account for: 27.5 %

Sectors

Orange County has continued to show its dependence on business and professional services, as this sector has created the largest amount of businesses in the County currently and historically. When looking at other sectors that have provided the largest amount of businesses to the County, the leaders are: administrative and support, retail stores, health care, and construction.

Growing Sectors

By the end of the Great Recession in 2009, Orange County has seen certain industries grow at a faster pace than others in the time since then. The industries that have managed to grow the most since the economic turnaround are the ones that will most likely see increased levels of success in the near future. The top ten industries, in terms of absolute and percentage growth, represent the industries that adjusted better than others to the challenges posed by the Great Recession and even managed to improve on their position during the recovery period. Orange County can expect to see continued growth of the service sectors—with food services and drinking places, and administrative and support services experiencing the largest absolute growth. After administrative and support services, there is a major drop in absolute growth. This drop represents the County's need for greater industry development, especially those with higher wages. The technical industries in Orange County have shown a promising return since the Great Recession as heavy and civil engineering construction and computer system design and related services have experienced significant percentage growth. The continued development and growth of these technical industries, among others, will be important for the County's future as a leader in the high-tech industry. (Source: California Employment Development Department)

Fastest Growing Industries in Orange County by Absolute Growth and Percent Growth	
Absolute Growth	**Percent Growth**
Food Services and Drinking Places	**Amusement, Gambling and Recreation**
Administrative and Support Services	**Colleges, Universities and Professional Schools**
Amusement, Gambling and Recreation	**Heavy and Civil Engineering Construction**
Ambulatory Health Care Services	**Management, Scientific and Technical Consulting**
Merchant Wholesalers, Durable Goods	**Computer Systems Design and Related Services**
Management, Scientific and Technical Consulting	**Social Assistance**
Accommodation	**Food Services and Drinking Places**
Computer Systems Design and Related Services	**Administrative and Support Services**
Social Assistance	**Motor Vehicle and Parts Dealer**
Architectural, Engineering, and Related Services	**Ambulatory Health Care Services**
Source: California Employment Development Department	

APPENDIX B: Industry Cluster Analysis

Industry Cluster Analysis

During this time of economic recovery, Orange County must focus on the creation of high wage jobs and the development of a skilled workforce to fill them. More high wage, high impact jobs must be created to replace those lost during the Great Recession and accelerate overall economic recovery.

The Great Recession led to the loss of many of Orange County's high wage occupations. Since then, the County has worked diligently to increase job availability, though much of these increases in job growth have been attributed to employment growth in lower income clusters. As a result, Orange County must continue to focus on the attraction and creation of high wage occupations, while developing a well-educated and skilled workforce to meet the demands of these new roles. These high wage occupations will play a significant factor in Orange County's ability to maintain its reputation as a vibrant place with a unique combination of a high quality of life and economic vitality—attributes that will attract residents, large corporations and entrepreneurs to the region over time.

The Industry Cluster Concept

Dr. Michael E. Porter of Harvard Business School defines a cluster as a geographic concentration of like firms, suppliers, infrastructure, and training programs that develop with traits from specific locations. This heavy concentration of specific firms spikes efficient competition and collaboration, which in turn increases firms' demand for local suppliers. Concentration in a specialized pool of industries adds more specialized labor opportunities.

Industry clusters, in a given geographical region, initiates a cycle of employment, innovation, and productivity in a specific industry – which serves to attract increasingly prestigious high-level employees, which in time improves socioeconomic conditions for the region. Furthermore, with increased specialization comes a higher demand for exports from the region – cash inflows from exports increase regional wealth, indirectly impacting local businesses with improved circulation from resident spending.

In identifying a region's clusters, Dr. Porter makes a distinction between traded industries and local-serving industries; the former category includes industries that drive exports, while the latter is defined as businesses that satisfy the needs of the local population. Traded clusters bring outside revenue in to the region, and therefore must be prioritized over local clusters in a strategy to improve the overall economic prosperity of the region.

Major Cluster Types

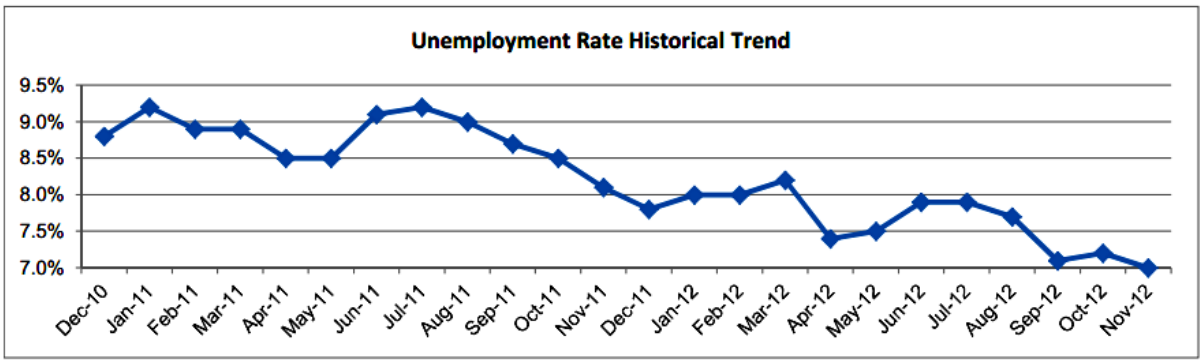
All industries can be organized within three main types of clusters: Local, Traded, and Natural Resource.

Local industry clusters provide goods and services to the population within a given sector, consisting of food service, local medical care, retail, etc. These industries are characterized by their limited ability to reach markets outside of their general location. Employment rates vary between these industries, but are generally proportional to overall economic activity within the region. Of the industry sectors defined by the 2012 NAICS classification system as well as Dr. Porter's Cluster Mapping Project, the following are considered to be local clusters, or include subgroups with local impact:

Traded industry clusters consist of industries that primarily create wealth via exports. High concentration in a given, specific region is a key defining characteristic of traded industries.

Unemployment Trends

Orange County hit its peak unemployment in 2010, where the Great Recession's wake left Orange County with a 10 percent unemployment rate. Although some recovery has formed recently for the country, Orange County sits at 7 percent unemployment – nearly double the rate found pre-recession. As of November 2012, the unemployment rate in Orange County was 7 percent compared with 7.4 percent for the U.S. and 9.6 percent for California. While still significant, this estimate shows great improvement for Orange County compared to the previous year's 9.2 percent. The Orange County trend is highlighted below:



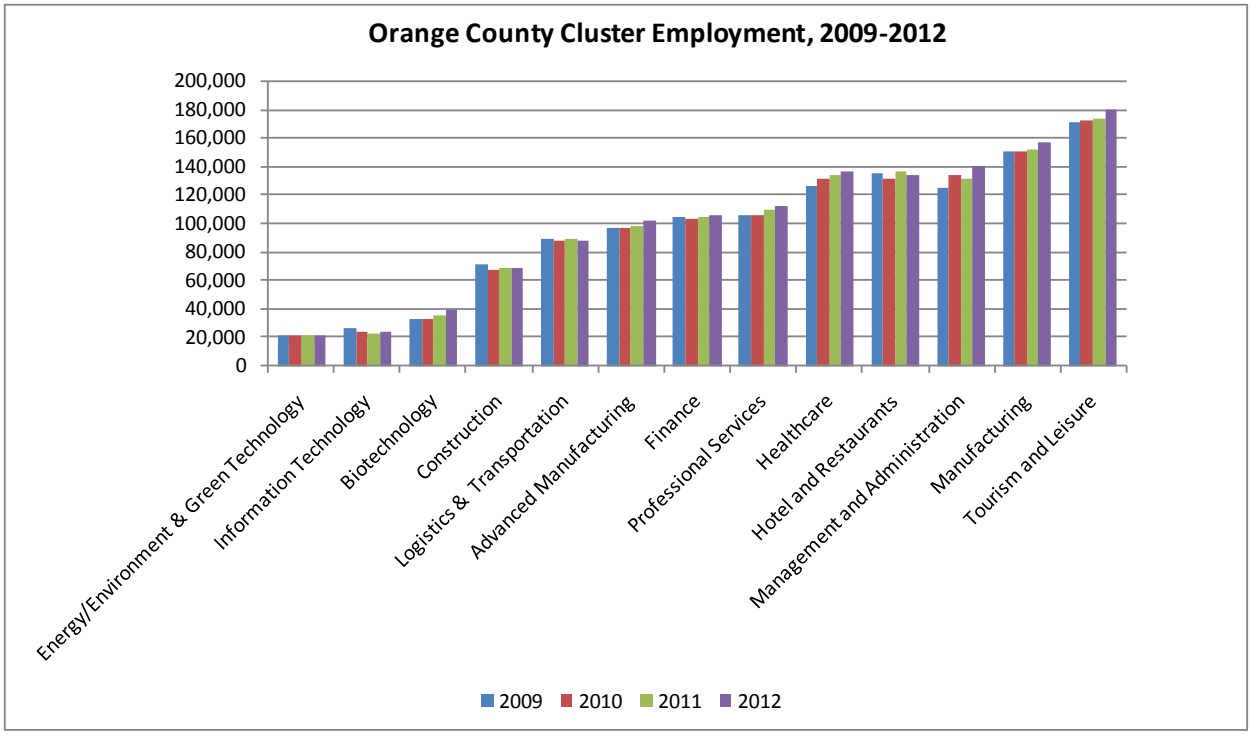
Source: California Employment Development Department

The key takeaway is that some unemployment is attributed to the way companies have adapted to a leaner workforce; many positions that once existed within a given company have not reopened. Job creation begins with employers, and employers that can open discussion on improving productivity through labor injections can help accelerate a return to more conservative unemployment rates.

Orange County Indicators for Cluster Growth

Tourism remains Orange County's largest cluster in terms of employment. The largest employment growth in the past year was seen in the management and administration sector, which represented almost 35 percent of total cluster employment growth from 2011-2012. Following behind the management and administration sector in terms of absolute employment growth are tourism (7,374 jobs), manufacturing (5,359 jobs) and advanced manufacturing (4,412 jobs). Overall, cluster employment conditions are improving with only two clusters experiencing a decline last year compared to four in the previous year.

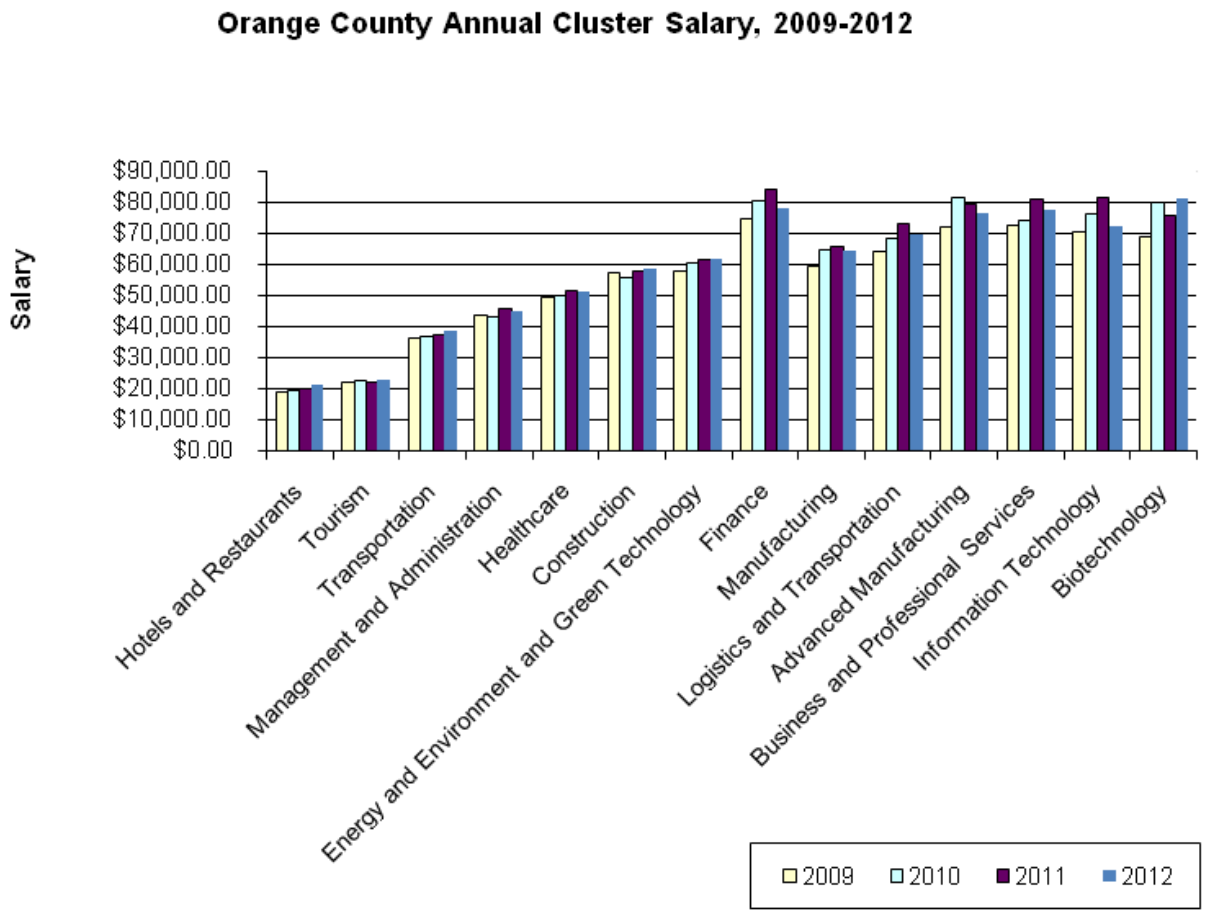
Industry Sector	2009	2010	2011	2012
Energy/Environment & Green Technology	**22,352**	**21,689**	**21,304**	**21,661**
Information Technology	**26,957**	**24,520**	**23,456**	**23,989**
Biotechnology	**33,732**	**33,951**	**36,104**	**40,126**
Construction	**72,175**	**68,209**	**69,204**	**69,347**
Logistics & Transportation	**89,806**	**88,651**	**89,258**	**89,092**
Advanced Manufacturing	**96,943**	**97,361**	**98,096**	**102,508**
Finance	**104,714**	**103,809**	**104,803**	**106,923**
Professional Services	**106,061**	**105,998**	**109,640**	**112,699**
Healthcare	**126,624**	**131,620**	**134,204**	**137,552**
Hotel and Restaurants	**135,363**	**131,667**	**137,581**	**134,588**
Management and Administration	**125,376**	**134,579**	**132,413**	**141,433**
Manufacturing	**151,163**	**151,116**	**152,753**	**158,112**
Tourism and Leisure	**172,325**	**173,268**	**173,941**	**181,315**



Source: OCBC analysis of California Employment Development Department QCEW dataset

The average wage ($52,003) for all private industries in Orange County has fallen slightly since 2011. Despite the slight decrease, wages have continued to remain relatively stable since its decline during the Great Recession. The healthcare technology field, which remained strong during the Great Recession and has continued to grow since, topped wages in other clusters with an average salary of $81,149. The finance, and business and professional services cluster remained strong in 2012 with the second and third highest average salaries at $78,058 and $77,552, respectively. The only declines in average wages were in the advanced technology and biotechnology clusters with a two percent and five percent decrease, respectively.

While overall clusters saw a small decline in wages, many clusters experienced significant employment growth. More importantly much of this growth was concentrated in the middle to higher wage clusters, unlike previous years in which growth was concentrated in the lower wage industries. With an average annual wage of $77,552, the Management and Administration cluster saw the highest employment growth adding about 9,000 workers, for a growth rate of 6.4 percent. Growth in the higher wage clusters makes it possible for those employed in these clusters to live in Orange County. To continue this trend, cluster and workforce development efforts must persist in order to move lower wage residents into higher wage occupations.

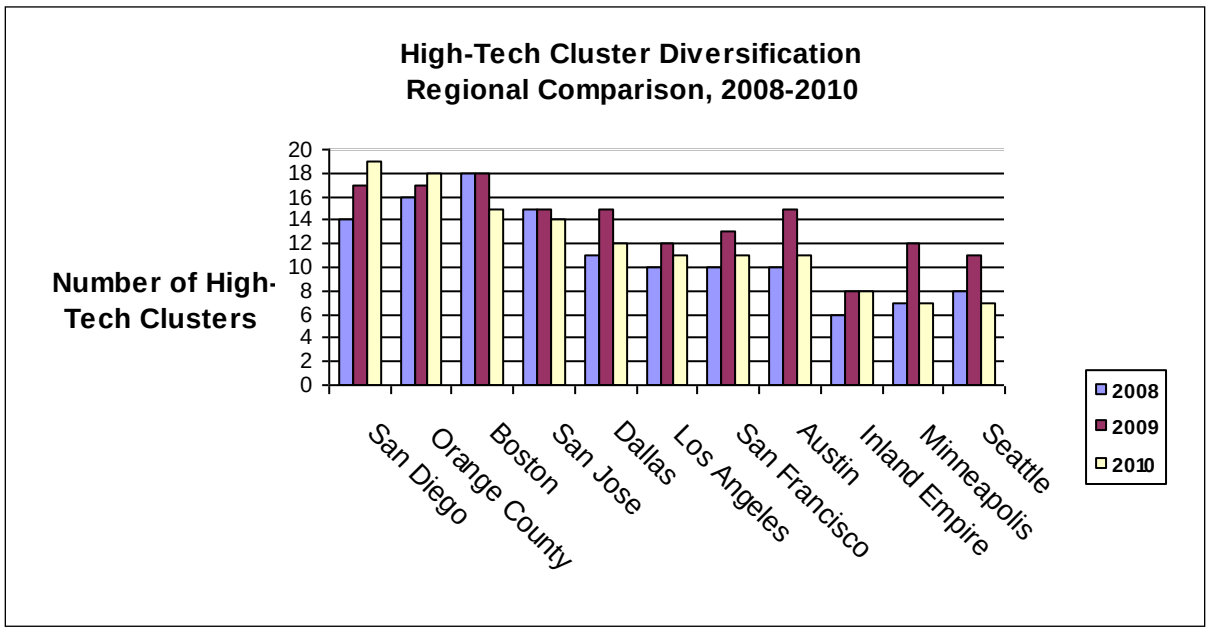


Source: OCBC analysis of California Employment Development Department QCEW dataset

Industry Trends

To further drive Orange County's economic recovery, key industry clusters must be identified and supported by tailored education and countywide economic development programs.

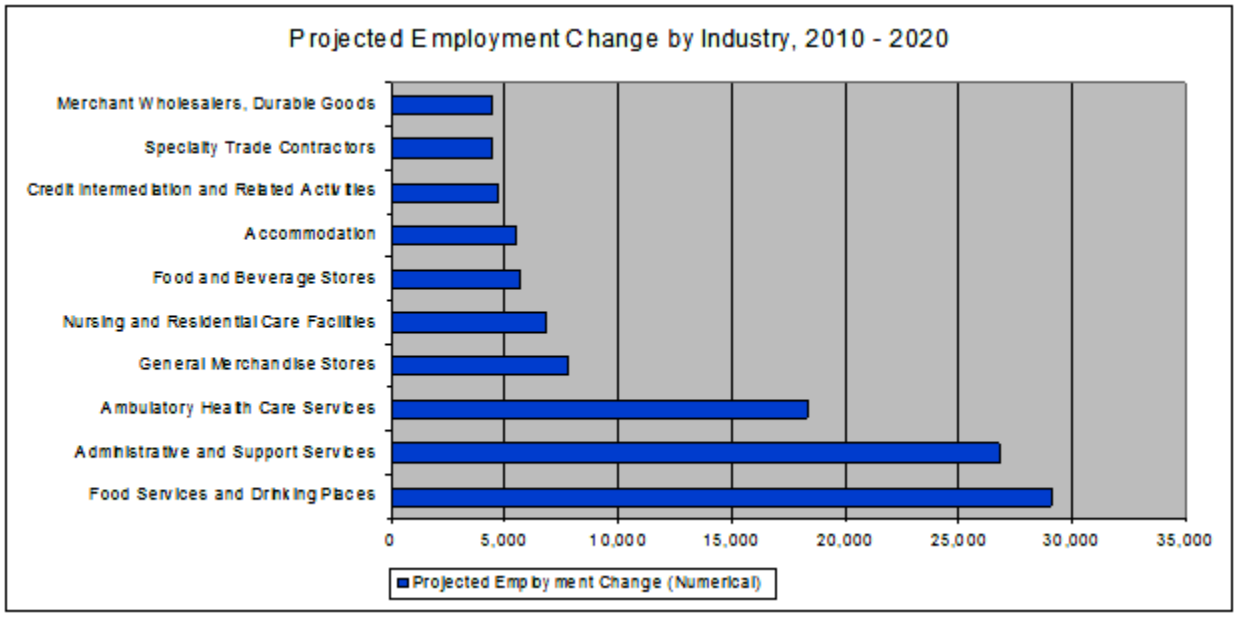
The clusters grouped in this section represent 75 percent of Orange County's total occupations, created to highlight the key industry sectors that drive regional employment. As demonstrated in the chart below, the County's concentration on communication, computer software programming and pharmaceutical industries has increased development and allowed for specialization in several high-tech clusters. Orange County is ranked only behind San Diego in the number of high-tech clusters in the nation for 2010.



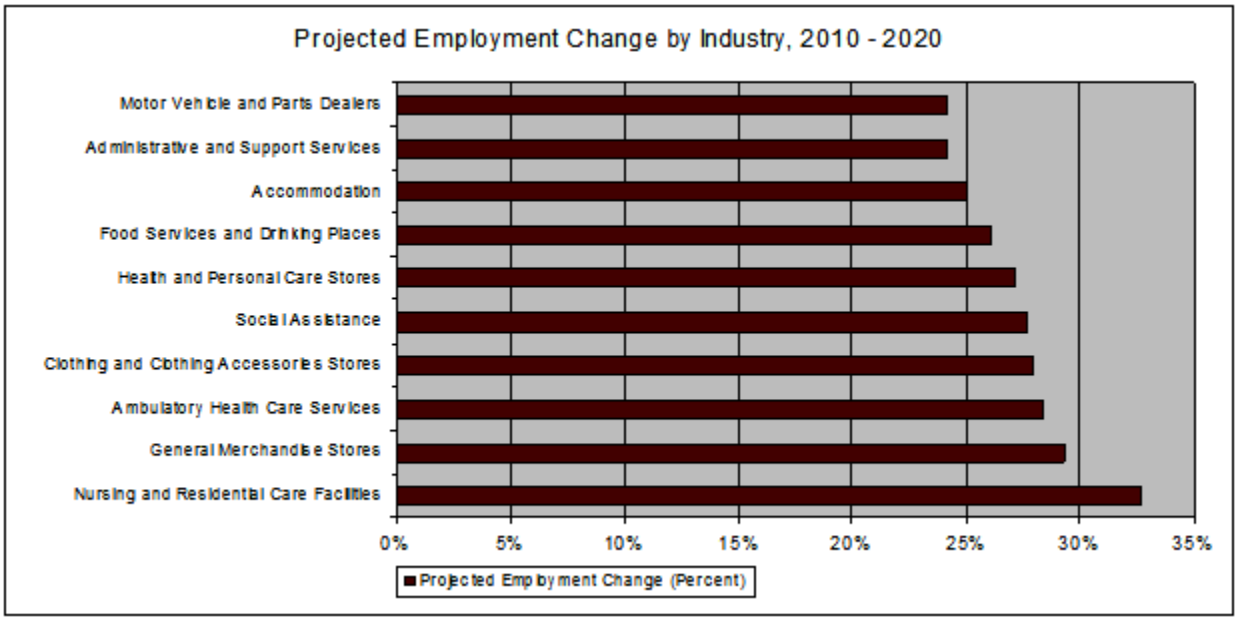
Source: Milken Institute

The California EDD's most recent projections for labor and occupational changes cover a ten-year span from 2010 to 2020. The EDD anticipates that by 2020, employment will increase by 197,100 to a grand total of 1,684,000 annual average workers, representing a 13 percent growth in labor. From 2010 to 2012, employment in Orange County has increased by 53,032 to an annual average of 1,493,382, around 3 percent positive growth. Singling out the top-rated industries and occupations for growth will further clarify where this anticipated growth will stem from, and measure how closely Orange County is following the trend.

Listed first are the top ten industries in terms of numeric growth – the industries that potentially will add the most new employees through 2020.

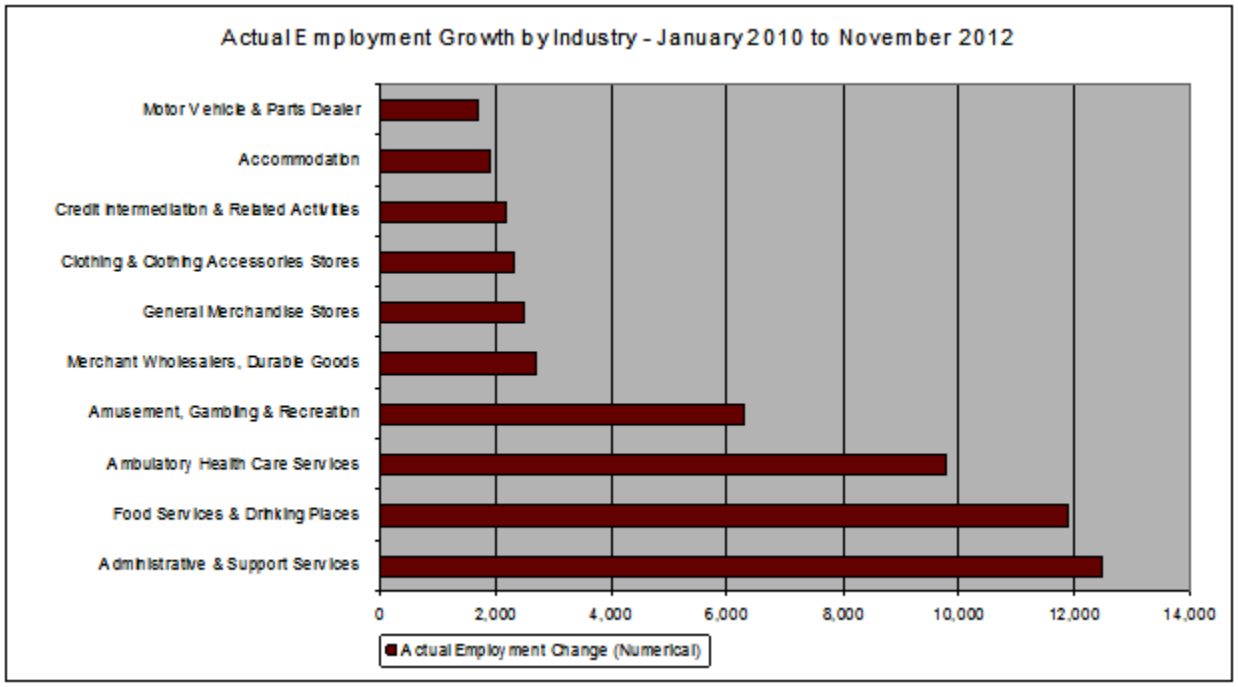


Strong anticipated growth leaders include service, product sales, and hospitality – industries structured to cater to Orange County residents. In absolute terms, industries with lower degree requirements as barriers to entry will frequently see dramatic fluctuations over time. Projected employment growth by percent, charted below, proposes

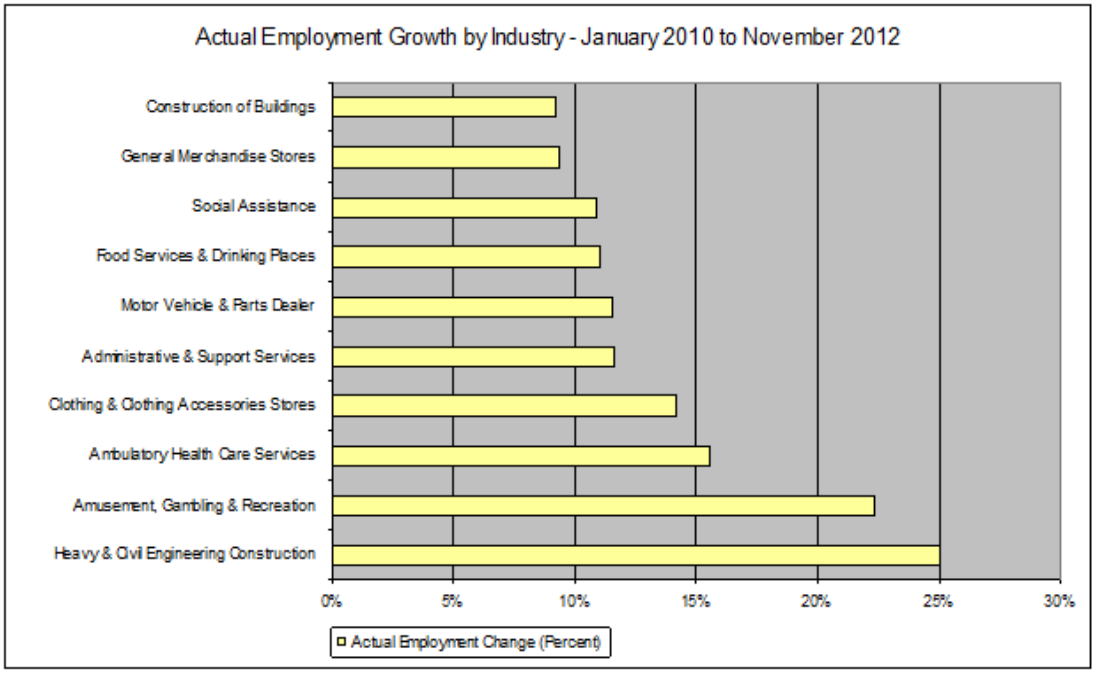


a slightly different set of high performers.

Here, a greater concentration of caretaking industries demonstrates niches in tourism support as well as providing for residents. On a percentage basis, nursing facilities and health stores rank first and sixth, respectively – again a sign of Orange County's trend toward an overarching medical high-tech cluster. Many of the EDD's trends align with employment growth spanning from 2010 to 2012:



Seven of the top ten actual employment growth categories are accounted for in the EDD's predictions. Actual percentage growth is graphed below:



Once again, seven of the EDD's top ten projected industries are also within the top ten industries in actual growth over the past two years. Of particular note is the high percentage growth in civil engineering – as the recent recession comes to a close, projects previously put on hold are being resumed, and new infrastructure planning is giving a significant boost to one of the greatest industry casualties of the recession.

One industry that is both consistent and vital across this analysis is ambulatory healthcare services; it is a frontrunner in both anticipated and actual employment growth, which is crucial to Orange County's strengths in pharmaceutical and medical device production. Demand for urgent care procedure kits and supplies from this industry helps grow Orange County's specialization further, resulting in a progressively well-regarded competitive advantage.

Crosscutting Cluster Drivers and Emerging Industries

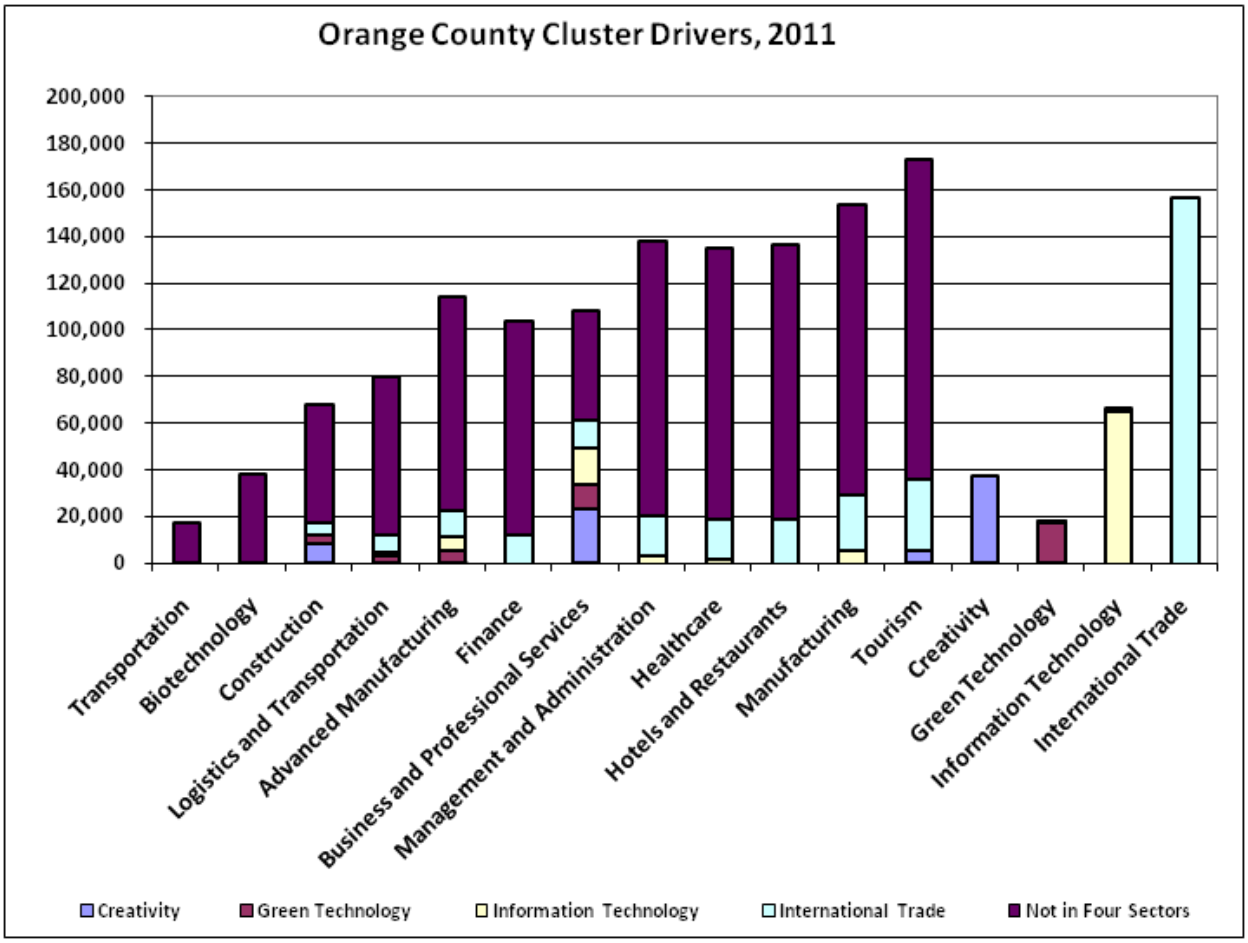
Orange County is in the midst of transitioning into a knowledge based, post-Great Recession economy. Because of the Great Recession, many of the traditional high wage jobs of the past have disappeared and re-emerging. New opportunities, however, are creating high wage jobs as a result of social and economic changes in the last decade due to international trade, information technology (IT), creativity and green/cleantech—four emerging industries that are blurring traditional cluster boundaries.

These four drivers overlay and crosscut traditional clusters, offering a better understanding of the County's workforce needs. Education and workforce development professionals began understanding the importance of these clusters in designing education and development policies. The OCWIB and OCBC started to track crosscutting clusters several years ago.

This section explores these interrelationships and how each driver overlaps and enhances existing cluster industries, creating both horizontal and vertical clusters. For example, while there are firms that are solely dedicated to information technology (computer software companies and game developers such as Blizzard Entertainment), there are information technology functions and occupations within all other clusters. Creativity-oriented occupations, such as architecture and interior design, are important components across clusters, overlapping in the business and professional services, construction and tourism clusters. These four drivers are increasingly important in developing and maintaining competitive advantage in Orange County's clusters, generating value-creating jobs and economic growth.

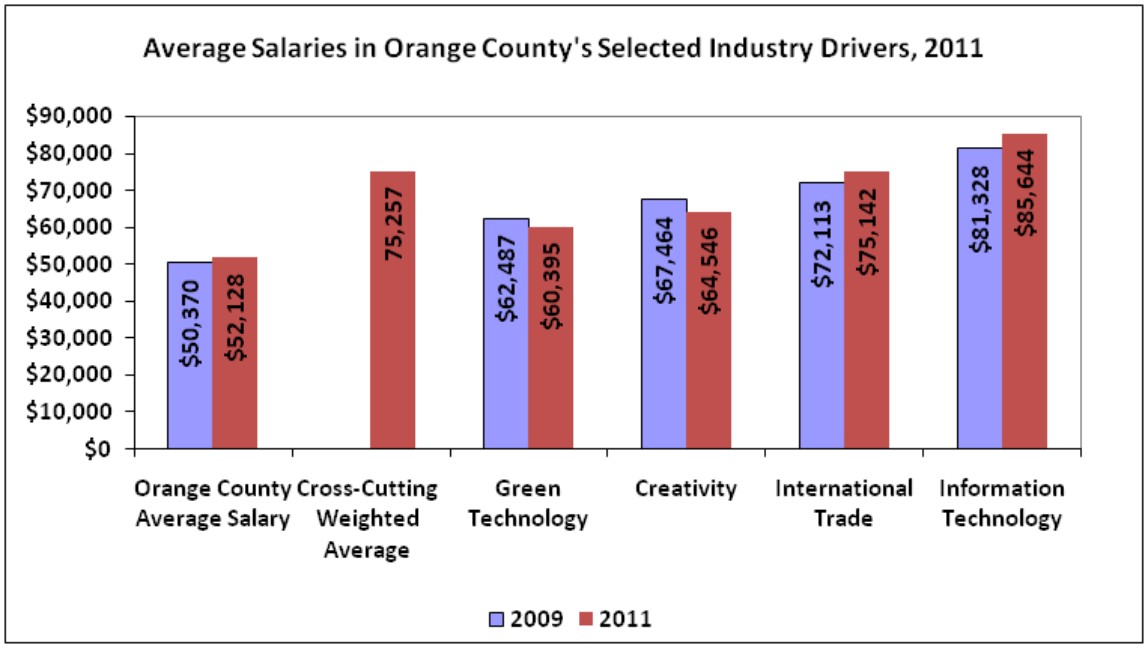
According to the estimated employment in 2011, international trade, information technology, creativity and cleantech are helping to drive employment growth and high-wage, high-multiplier occupations. While the recession did hamper potential growth of these industries, they have rebounded well and are expected to not only help grow traditional sectors, but in time become major sources of employment and revenue for the County. International trade, information technology, creativity and green/cleantech added approximately 278,691 jobs. In the past year, jobs increased in international trade and information technology, while employment in the creativity sector slightly declined and green technology moderately declined:

- International Trade: 156,997
- Information Technology: 66,236
- Creativity: 37,200
- Green Technology: 18,258



Source: OCBC Analysis of California Employment Development Department Data, OTIS Report, Next10, and Los Angeles Economic Development Corporation

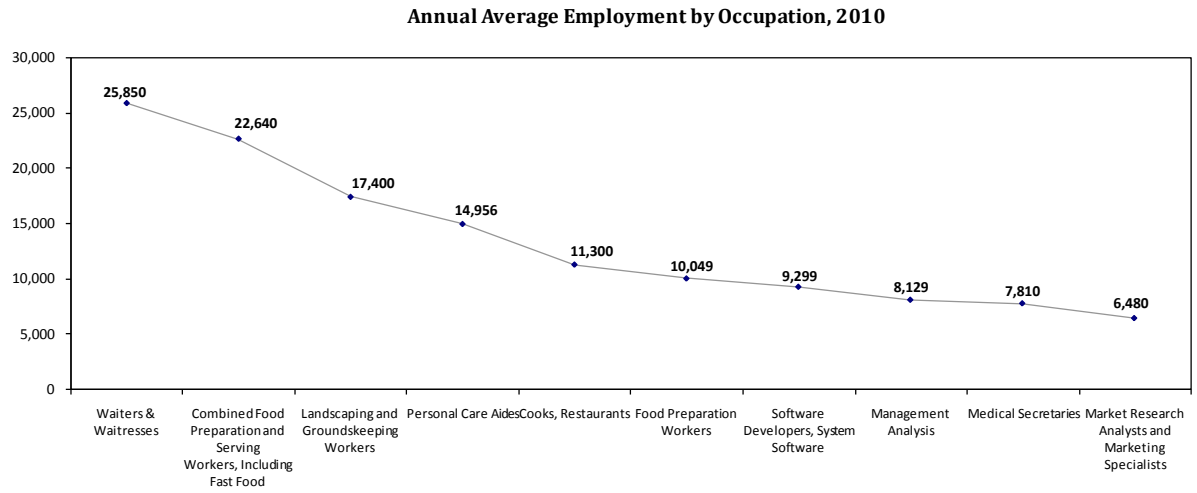
In addition to growing employment opportunities, workers in these cluster drivers earn above average salaries (on average about $75,527) compared to the average salary of $52,128. International trade and information technology salaries are rising, while average wages in green technology and creativity have declined in the last year.



Source: OCBC Analysis of California Employment Development Department data, Otis Report, Next10 and Los Angeles Economic Development Corporation

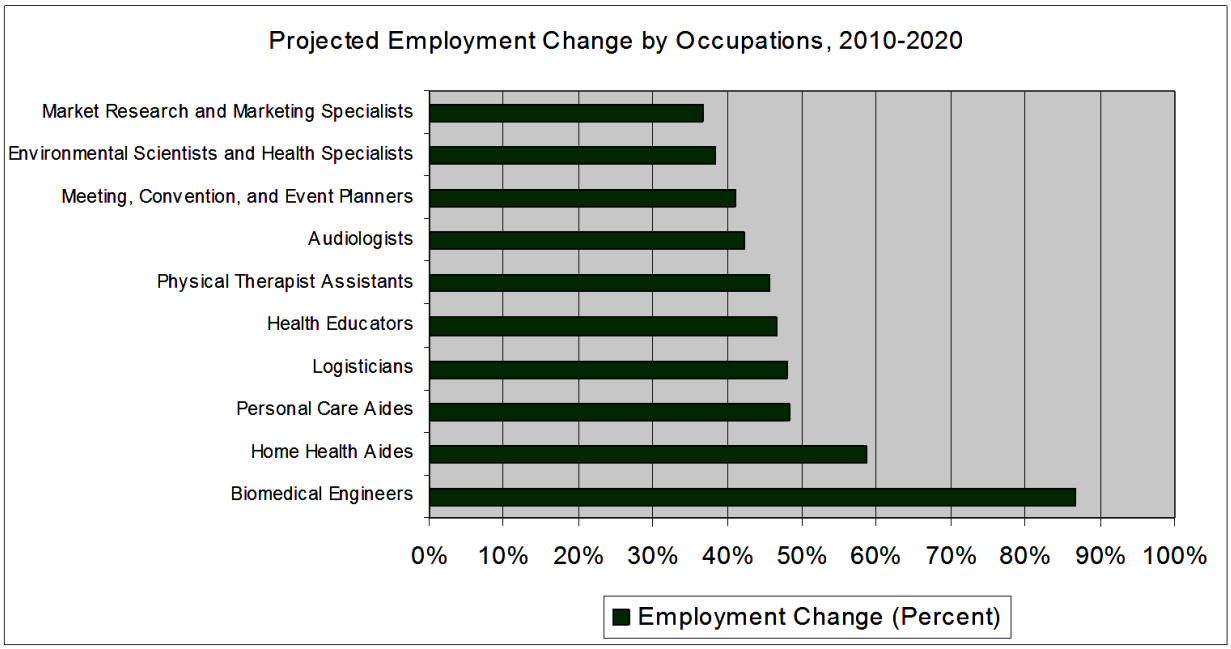
Occupational Trends

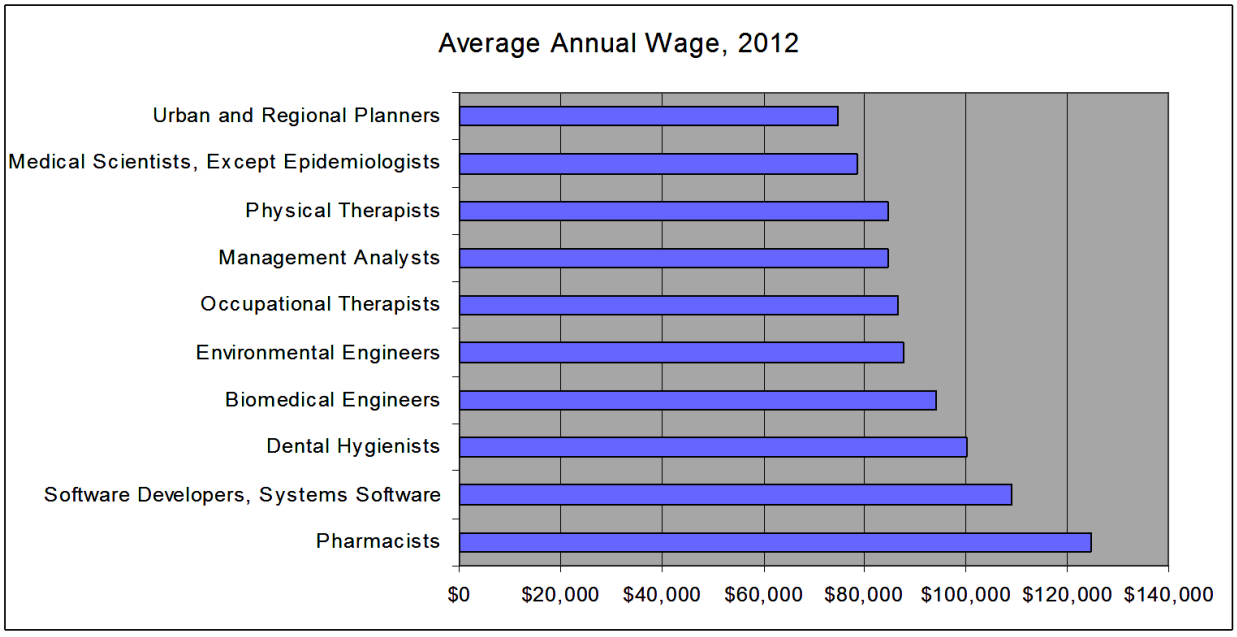
Competitive advantages for the County are even more apparent when looking at the concentration of occupations. The EDD also features forward-looking statements on the fastest-growing occupations in Orange County. Below are the EDD's figures on the ten largest occupations for 2010:

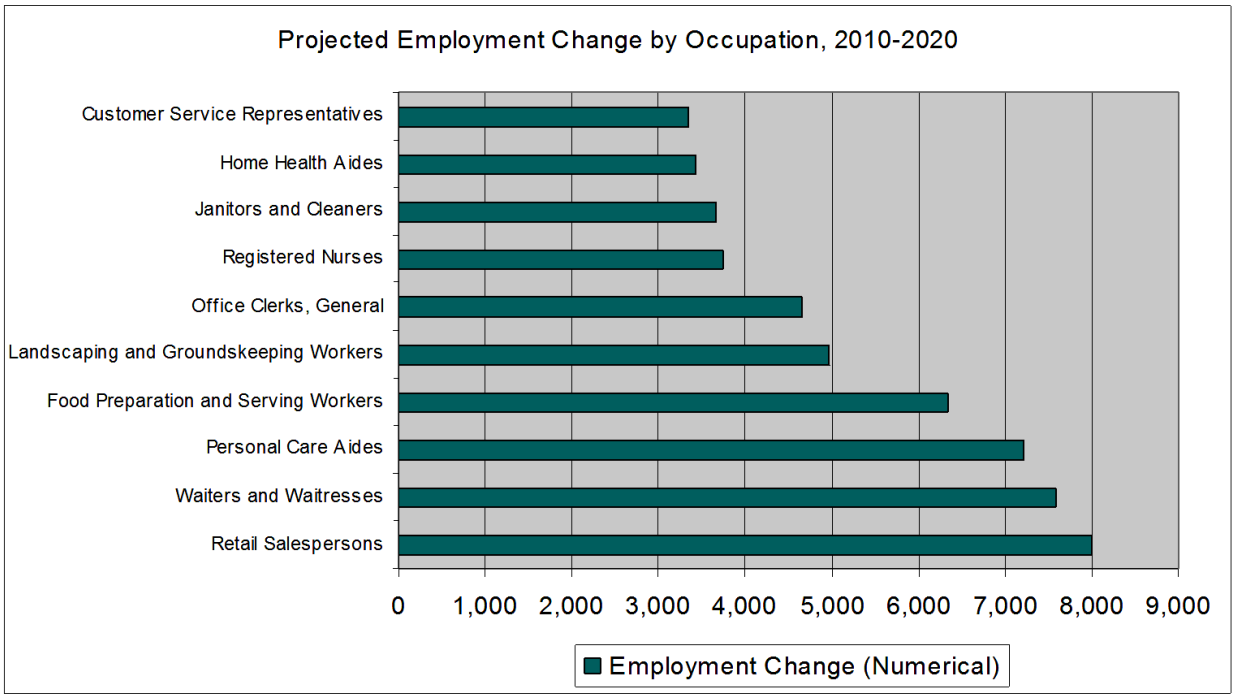


The standout occupations are predominately service-oriented, with executive assistance and research trailing closely behind. The highest non-service occupation for 2010 was software development, which may be surprising to those who anticipate Orange County's greater emphasis on hardware.

As for the near future, the EDD predicts significant growth in a more health-oriented blend of top occupations. Below are the projections in absolute growth and percentage growth for Orange County occupations:







While the numerical growth occupations are a moderate blend of service and health, percentage changes show an undeniable concentration in medical technology – 50 percent of the occupations are related to the high-tech medical industry cluster, with biomedical engineering workers projected to nearly double by 2020. This growth is contingent on the County's ability to facilitate a business climate for clinicians and product manufacturers through projects and accommodations for high-level workers.

Five of the ten highest-salary occupations in the County are projected to have employment growth of over 30 percent by 2020, with several just missing the top 10 occupations for overall growth. The following table summarized the best-paid occupations in the County for 2012, with their 2010-2020 growth rates below:

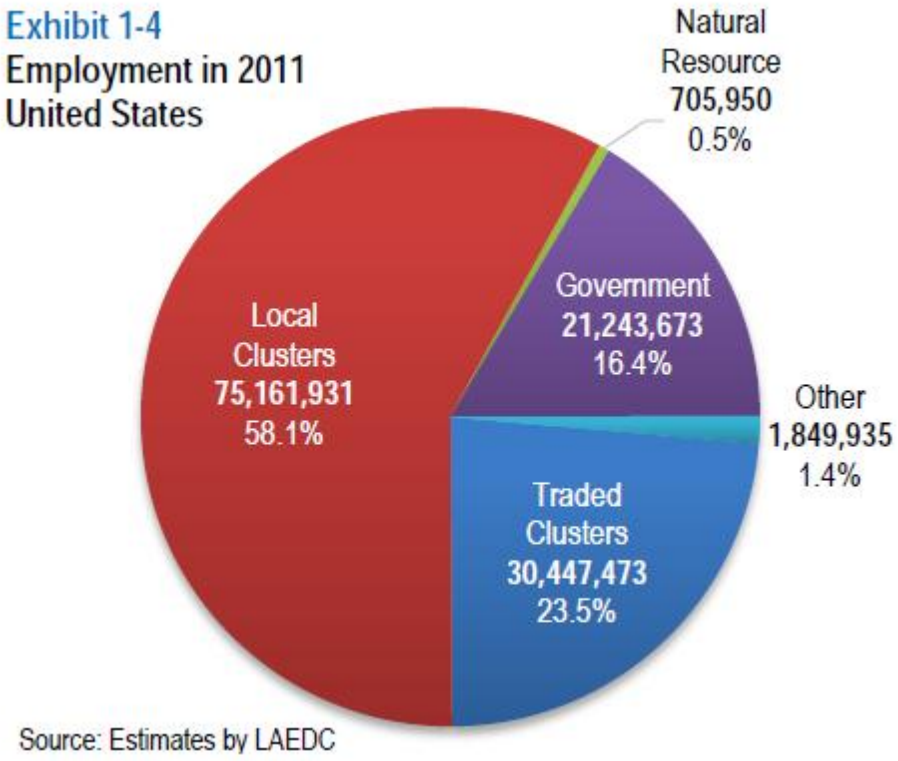
Projected Employment Growth, 2010-2020				
Pharmacists	**Software Developers, Systems Software**	**Dental Hygienists**	**Biomedical Engineers**	**Environmental Engineers**
27%	27%	25%	87%	29%
Occupational Therapists	**Management Analysts**	**Physical Therapists**	**Medical Scientists**	**Urban and Regional Planners**
33%	25%	32%	35%	31%

In short, the EDD forecasts major growth for both its entertainment-support service industries (the current leading industries) and the medicinal sciences (currently in second, but projected to capture increasing amounts of employment share). The southern Orange County cities provide a solid ecosystem to encourage high-tech cluster formation, with a combination of established employers and space for growth versus entertainment-intensive cities with limited zones for industrial development.

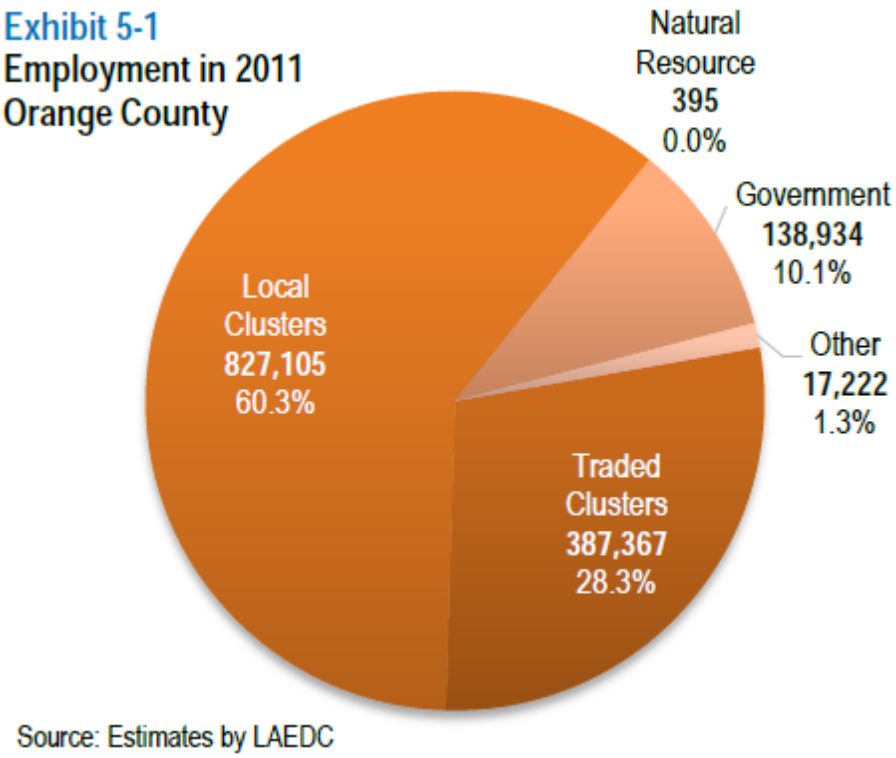
II. Location Quotients – Comparing Orange County's Cluster Concentrations to National Performance

To pinpoint Orange County's strongest industry clusters with the highest prosperity-building potential, the LAEDC report utilizes an index called the location quotient (abbreviated LQ). The LQ demonstrates the concentration of employment in a given industry, in comparison with a reference region. In this report, Orange County's LQ is compared to employment in the United States as a whole to determine clusters with a competitive advantage for the County. If an industry's LQ is greater than 1, then the employment concentration in the County is higher than in the nation, signifying that the County contains regional specialization and potential advantages in that industry.

The following data is taken from a recent study on Southern California's regional clusters performed by the Los Angeles County Economic Development Corporation in November 2012. Exhibit 1-4 sorts national payroll employment by cluster type, and is the basis for determining the LQ of Orange County industries in later sections:



Of the near 130 million payroll employees estimated in 2011 for the United States, fewer than 25 percent were employed in traded industries. Orange County is slightly outpacing the ratio of employment in traded clusters, as seen in the 2011 estimations below:



Orange County displays a notably smaller concentration of government and natural resource employment than the national ratio, which allows room for higher concentration in both the local and wealth-creating trade clusters.

Orange County – Employment and Location Quotient by Traded Industry Cluster

Orange County is diverse in its strengths, featuring favorable location quotients in eleven of its fifteen largest traded industry clusters. Table 1-6A and 1-6B contain data on the total employment per traded industry cluster, and the LQ of each. The first table is sorted by employment, while the second is sorted by LQ:

Table 1-6A
Largest Traded Industry Clusters in Orange County
(By employment, 2011)

	Employment	LQ
Business Services	75,750	1.3
Hospitality and Tourism	47,481	2.0
Trade[1]	44,729	1.1
Financial Services	26,704	1.2
Information Technology	23,304	2.5
Education and Knowledge Creation	21,712	0.8
Biomedical[2]	19,002	2.6
Analytical Instruments	16,810	3.1
Publishing and Printing	11,832	1.4
Metal Manufacturing	11,810	1.3
Aerospace	10,169	1.9
Entertainment	10,164	0.9
Fashion[3]	9,174	1.6
Processed Food	7,513	0.5
Heavy Construction Services	6,881	0.5
All other Traded Clusters	**44,333**	
Total Traded Cluster Employment	**387,367**	**1.2**

[1]Includes Transportation and Logistics and Distribution
[2]Includes Biopharmaceuticals and Medical Devices
[3]Includes Apparel, Footwear, Jewelry and Precious Metals, Leather and Related Products, and Textiles
Sources: CA EDD; BLS; Estimates by LAEDC

Table 1-6B
Strongest Traded Industry Clusters in Orange County
(By LQ, 2011)

	Employment	LQ
Analytical Instruments	16,810	3.1
Sporting, Recreational and Children's Goods	1,942	2.9
Biomedical[2]	19,002	2.6
Information Technology	23,304	2.5
Hospitality and Tourism	47,481	2.0
Aerospace	10,169	1.9
Fashion[3]	9,174	1.6
Power Generation and Transmission	4,307	1.6
Communications Equipment	2,890	1.5
Publishing and Printing	11,832	1.4
Construction Materials	2,005	1.4
Metal Manufacturing	11,810	1.3
Financial Services	26,704	1.2

[2]Includes Biopharmaceuticals and Medical Devices
[3]Includes Apparel, Footwear, Jewelry and Precious Metals, Leather and Related Products, and Textiles
Sources: CA EDD; BLS; Estimates by LAEDC

Table 1-7 summarizes traded industry clusters by payroll, from largest to smallest:

Table 1-7
Largest Industry Clusters in Orange County
(By payroll, 20110

Traded Clusters	**Payroll ($ millions)**
Business Services	$5,662
Financial Services	3,627
Trade[1]	3,501
Information Technology	2,337
Analytical Instruments	1,577
Education and Knowledge Creation	1,496
Hospitality and Tourism	1,427
Biomedical[2]	1,350
Aerospace	900
Publishing and Printing	689
Metal Manufacturing	635
Entertainment	524
Heavy Construction Services	468
Fashion[3]	415
Production Technology	413
All other Traded Clusters	**2,645**
Total Traded Cluster Payroll	**$27,666**
Total Regional Payroll	**$73,974**

[1]Includes Transportation and Logistics and Distribution

[2]Includes Biopharmaceuticals and Medical Devices

[3]Includes Apparel, Footwear, Jewelry and Precious Metals, Leather and Related Products, and Textiles

Sources: CA EDD; BLS; Estimates by LAEDC

To summarize the above tables, Table 1-8 lists the ranking of each traded cluster in employment, LQ, and payroll:

Table 1-8
Traded Industry Cluster Ranking Summary

	Employment	LQ	Payroll
Business Services	1	14	1
Hospitality and Tourism	2	5	7
Trade	3	N/A	3
Financial Services	4	13	2
Information Technology	5	4	4
Education and Knowledge Creation	6	N/A	6
Biomedical	7	3	8
Analytical Instruments	8	1	5
Publishing and Printing	9	10	10
Metal Manufacturing	10	12	11
Aerospace	11	6	9
Entertainment	12	15	12
Fashion	13	7	14
Processed Food	14	N/A	N/A
Heavy Construction Services	15	N/A	13
Production Technology	N/A	N/A	15
Sporting, Recreational and Children's Goods	N/A	2	N/A
Power Generation and Transmission	N/A	8	N/A
Communications Equipment	N/A	9	N/A
Construction Materials	N/A	11	N/A

[1]Includes Transportation and Logistics and Distribution

[2]Includes Biopharmaceuticals and Medical Devices

[3]Includes Apparel, Footwear, Jewelry and Precious Metals, Leather and Related Products, and Textiles

Sources: CA EDD; BLS; Estimates by LAEDC

Contrasting these results leads to some interesting discoveries. We can see that the highest employment rates do not correlate with a higher LQ rate for many clusters. Business Services has the highest employment level and payroll, but lags behind other clusters in LQ (albeit it also features an LQ of 1.3 – greater than one); it and many other clusters with high employment appear to be industries that serve the local population as well.

Though higher employment rates tend to correspond to higher payroll levels, there are some exceptions – specifically, Hospitality and Tourism features a significantly smaller payroll level for its employment rank, while Analytical Instruments is the opposite.

Finally, the majority of the top 8 LQ clusters are also ranked for employment and payroll, suggesting that clusters with high LQ tend to be relatively established industries with several infrastructure elements already in place to enable higher employee and wage rates.

III. Multiplier Effects for Orange County Industries

Concluding the cluster section is an overview of the multiplier concept and results on which sectors show the greatest revenue-generating potential for the County. Data is based on 2010 census data for Orange County provided by IMPLAN.

In simple terms, the multiplier effect is a quantifiable way to visualize county growth by analyzing the employment- and income-generating effects on the County economy through input injection into a given industry. The concept is akin to the LQ ratios used by the LAEDC, but takes the interpretation one step further by measuring changes in local spending and the wealth-inducing effects on local businesses and individuals.

This section refers to export-driving industries as *tradable sectors* and local, community-supporting industries as *nontradable sectors*. When jobs are added in a tradable sector, those newly-employed workers relocate, and therefore spend their incomes on living requirements, services, entertainment and more within their living region. Multipliers are estimated based on the wage levels of different industries – higher incomes translate to higher spending, discretionary or otherwise, that generates greater business activity. As mentioned in the opening section regarding traded clusters, export-oriented industries are the chief high-multiplier drivers, because they attract revenue inflows from companies and customers outside of the County and consequently increase the economy's currency volume.

The multipliers analyzed below are Type I multipliers, meaning that they combine *Direct Effects* (e.g. increases for the given firm/industry that expands its exports) and *Indirect Effects* (e.g. increases for firms/industries that supply the firm/industry that expands its exports) while excluding results from the *induced effects* – household spending – mentioned above.

Four multipliers are reviewed for each NAICS industry, each measuring a different change in the industry. The *Output Multiplier* estimates changes in local sales based on increases in export sales. *Employment Multipliers* tracks total changes in employment based on increasing employment in a given sector. *Income Multipliers* estimate additional wages generated as a result of wage changes in a given sector. Finally, the *Value Added Multiplier* measures changes in tertiary revenue drivers such as business taxes and property incomes.

Multipliers are a powerful concept that helps understand the beneficial effects of creating a job in one industry and how those positive impacts ripple throughout the rest of the Orange County economy. For instance, increasing Information product/service exports by

$10 million will also generate output for firms in industries that supply Information (such as Manufacturing, Professional Services, or other possible categories), in this case $4.3 million. The effect for Information is more pronounced for changes in employment and labor income. An important fact to keep note of is that multipliers operate in both directions; if Information output were to decrease by $10 million, ripples in supporting industries would result in a net output decrease for the economy by $14.3 million.

-Digit NAICS Orange County Industry Multipliers

Description	Output Multiplier	Employment Multiplier	Labor Income Multiplier	Value Added Multiplier
11 Ag, Forestry, Fish & Hunting	1.154396	1.113006	1.092774	1.157828
21 Mining	1.245216	1.247186	1.401414	1.253976
22 Utilities	1.126853	1.820998	1.24159	1.1204
23 Construction	1.272597	1.317121	1.239798	1.31259
31-33 Manufacturing	1.255894	1.566901	1.456659	1.425773
42 Wholesale Trade	1.188672	1.249045	1.171657	1.159242
44-45 Retail trade	1.320451	1.160083	1.256371	1.319817
48-49 Transportation & Warehousing	1.253098	1.255885	1.205021	1.247842
51 Information	1.433063	2.108634	1.825695	1.499694
52 Finance & Insurance	1.608356	1.794457	1.715423	1.7008
53 Real estate & rental	1.182738	1.373925	1.649659	1.135835
54 Professional-Scientific & Tech Services	1.300009	1.283119	1.200402	1.277338
55 Management of companies	1.425394	1.500704	1.338152	1.458638

56 Administrative & waste services	**1.293827**	**1.156322**	**1.205004**	**1.276147**
61 Educational Services	**1.40886**	**1.15031**	**1.230142**	**1.517628**
62 Health & social services	**1.338401**	**1.230297**	**1.219989**	**1.358577**
71 Arts-entertainment & recreation	**1.389158**	**1.245367**	**1.470138**	**1.411802**
72 Accommodation & food services	**1.325438**	**1.139745**	**1.345254**	**1.374384**
81 Other services	**1.431424**	**1.207447**	**1.319334**	**1.486204**
92 Government & non NAICs	**1.077903**	**1.047936**	**1.04075**	**1.054648**

The top five multipliers in each category are highlighted in red. As evidenced by Construction, Real Estate and Manufacturing, lower output multipliers do not necessarily mean lower employment and labor income multipliers. Several of these general sectors are predominately non-tradable sectors, so small output multipliers are reasonable and expected. Both Information and Finance are easily the industries with the greatest range of impact in every multiplier type. Other Services is most influenced by its category that includes grant-making organizations.

Appendix C: Orange County's Red-Zones

Source: U.S. Census Bureau, 2010 & 2011 American Community Survey (ACS)

Anaheim

Unemployment		Per Capita		
2010	14.4%	2010	$	21,813
2011	11.5%	2011	$	22,049
24-Month Average	13.0%	24-Month Average	$	21,931

Buena Park

Unemployment		Per Capita		
2010	8.6%	2010	$	23,212
2011	5.9%	2011	$	21,508
24-Month Average	7.3%	24-Month Average	$	22,360

Costa Mesa

Unemployment		Per Capita		
2010	11.2%	2010	$	29,924
2011	9.4%	2011	$	32,540
24-Month Average	10.3%	24-Month Average	$	31,232

Fullerton

Unemployment		Per Capita		
2010	11.5%	2010	$	27,288
2011	10.7%	2011	$	30,167
24-Month Average	11.1%	24-Month Average	$	28,728

Lake Forest

Unemployment		Per Capita		
2010	8.0%	2010	$	35,971
2011	7.1%	2011	$	37,527
24-Month Average	7.6%	24-Month Average	$	36,749

Mission Viejo

Unemployment		Per Capita		
2010	8.3%	2010	$	40,325
2011	10.2%	2011	$	35,932
24-Month Average	9.3%	24-Month Average	$	38,129

Newport Beach

Unemployment		Per Capita		
2010	7.4%	2010	$	69,296
2011	9.4%	2011	$	67,564
24-Month Average	8.4%	24-Month Average	$	68,430

Orange

Unemployment		Per Capita		
2010	11.2%	2010	$	28,682
2011	8.6%	2011	$	30,462
24-Month Average	9.9%	24-Month Average	$	29,572

United States

Unemployment		Per Capita		
2010	10.8%	2010	$	26,059
2011	10.3%	2011	$	26,708
24-Month Average	10.6%	24-Month Average	$	26,384

Orange County

Unemployment		Per Capita		
2010	11.0%	2010	$	31,373
2011	9.6%	2011	$	32,540
24-Month Average	10.3%	24-Month Average	$	31,957

Garden Grove						**Santa Ana**						
Unemployment		**Per Capita**				**Unemployment**		**Per Capita**				
2010	13.2%	2010	$	20,107		2010	14.4%	2010	$	15,235		
2011	12.0%	2011	$	20,149		2011	10.6%	2011	$	15,341		
24-Month Average	12.6%	24-Month Average	$	20,128		24-Month Average	12.5%	24-Month Average	$	15,288		
Huntington Beach						**Tustin**						
Unemployment		**Per Capita**				**Unemployment**		**Per Capita**				
2010	10.9%	2010	$	36,832		2010	10.4%	2010	$	28,397		
2011	11.2%	2011	$	40,330		2011	7.4%	2011	$	32,193		
24-Month Average	10.9%	24-Month Average	$	38,581		24-Month Average	8.9%	24-Month Average	$	30,295		
Irvine						**Westminster**						
Unemployment		**Per Capita**				**Unemployment**		**Per Capita**				
2010	7.8%	2010	$	41,725		2010	15.0%	2010	$	19,884		
2011	7.2%	2011	$	39,027		2011	11.0%	2011	$	24,745		
24-Month Average	7.5%	24-Month Average	$	40,376		24-Month Average	13.0%	24-Month Average	$	22,315		
		Source: U.S. Census Bureau, 2009-2011 American Community Survey (ACS)										Source: U.S. Census Bureau, 2009-2011 American Community Survey (ACS)
Aliso Viejo						**Laguna Niguel**					**United States**			
Unemployment		**Per Capita**				**Unemployment**		**Per Capita**			**Unemployment**		**Per Capita**	
2009-2011	7.9%	2008-2010	$	44,316		2009-2011	9.0%	2008-2010	$	47,831	2009-2011	10.3%	2009-2011	$ 27,158
Brea						**Placentia**					**Orange County**			
Unemployment		**Per Capita**				**Unemployment**		**Per Capita**			**Unemployment**		**Per Capita**	
2009-2011	9.3%	2009-2011	$	33,839		2009-2011	11.5%	2009-2011	$	28,819	2009-2011	10.0%	2009-2011	$ 32,997
Cypress						**Rancho Santa Margarita**								
Unemployment		Per Capita				Unemployment		Per Capita						

2009-2011	6.7%	2009-2011	$	31,239		2009-2011	7.1%	2009-2011	$	40,154	
Dana Point						**San Clemente**					
Unemployment		Per Capita				Unemployment		Per Capita			
2009-2011	9.1%	2009-2011	$	46,933		2009-2011	8.9%	2009-2011	$	43,923	
Fountain Valley						**San Juan Capistrano**					
Unemployment		**Per Capita**				**Unemployment**		**Per Capita**			
2009-2011	9.5%	2009-2011	$	33,566		2009-2011	9.2%	2009-2011	$	38,636	
La Habra						**Seal Beach**					
Unemployment		Per Capita				Unemployment		Per Capita			
2009-2011	10.0%	2009-2011	$	24,507		2009-2011	8.5%	2009-2011	$	42,920	
Laguna Beach						**Stanton**					
Unemployment		**Per Capita**				**Unemployment**		**Per Capita**			
2009-2011	7.5%	2009-2011	$	71,462		2009-2011	13.9%	2009-2011	$	18,979	
Laguna Hills						**Yorba Linda**					
Unemployment		Per Capita				Unemployment		Per Capita			
2009-2011	9.5%	2009-2011	$	43,779		2009-2011	7.9%	2009-2011	$	49,079	
		Source: U.S. Census Bureau, 2007-2011 American Community Survey (ACS)									Source: U.S. Census Bureau, 2007-2011 American Community Survey (ACS)
Laguna Woods						**Los Alamitos**					**United States**
Unemployment		**Per Capita**				**Unemployment**		**Per Capita**			**Unemployment**		**Per Capita**		
2007-2011	9.6%	2007-2011	$	36,017		2007-2011	6.6%	2007-2011	$	38,527	2007-2011	8.7%	2007-2011	$	27,915
La Palma						**Villa Park**					**Orange County**				
Unemployment		**Per Capita**				**Unemployment**		**Per Capita**			**Unemployment**		**Per Capita**		
2007-2011	5.1%	2007-2011	$	34,475		2007-2011	6.4%	2007-2011	$	71,697	2007-2011	8.3%	2007-2011	$	34,416

Source: U.S. Census Bureau, 2007-2011 American Community Survey (ACS)						Source: U.S. Census Bureau, 2007-2011 American Community Survey (ACS)			
City	**Census Tract(s)**	**Unemployment**	**Per Capita**			**Geography**	**Unemployment**	**Per Capita**	
Aliso Viejo	423.20	2.9%	$	37,704		United States	8.7%	$	27,915
	626.33	11.5%	$	49,540		Orange County	8.3%	$	34,416
	626.34	7.2%	$	44,146					
	626.35	7.7%	$	44,198					
	626.36	6.0%	$	39,744					
	626.37	4.9%	$	42,263					
	626.38	4.5%	$	44,416					
	626.39	6.7%	$	48,951					
	626.40	2.8%	$	52,887					
	626.41	7.6%	$	36,162					
Anaheim	117.14	6.6%	$	18,846					
	218.07	5.9%	$	33,814					
	218.13	-	$	-					
	219.03	19.5%	$	25,580					
	219.05	3.7%	$	37,810					
	219.15	6.1%	$	58,938					
	219.16	11.1%	$	48,913					
	219.19	3.3%	$	44,498					
	219.20	6.6%	$	49,890					
	219.21	10.3%	$	51,333					
	219.22	10.6%	$	40,924					
	219.24	3.9%	$	39,852					
	863.01	18.8%	$	16,251					
	863.03	9.6%	$	24,884					
	863.04	10.5%	$	26,550					
	863.05	13.5%	$	27,651					
	863.06	13.7%	$	24,194					
	864.02	10.4%	$	17,939					

	864.04	14.2%	$	17,675					
	864.05	8.2%	$	15,763					
	864.06	9.2%	$	20,391					
	864.07	5.7%	$	22,938					
	865.01	6.8%	$	16,380					
	865.02	14.7%	$	11,533					
	866.01	15.3%	$	12,509					
	866.02	15.6%	$	18,469					
	867.01	11.6%	$	21,103					
	867.02	12.0%	$	19,403					
	868.02	15.6%	$	18,520					
	868.03	9.4%	$	20,951					
	869.01	14.4%	$	19,001					
	869.02	13.4%	$	21,532					
	869.03	9.7%	$	18,802					
	870.01	13.1%	$	17,483					
	870.02	10.5%	$	22,510					
	871.01	5.6%	$	20,669					
	871.02	13.1%	$	17,355					
	871.03	12.1%	$	20,267					
	871.05	4.8%	$	21,984					
	871.06	5.6%	$	18,169					
	872.00	8.9%	$	23,266					
	873.00	13.5%	$	14,912					
	874.01	12.4%	$	24,006					
	874.03	17.8%	$	13,275					
	874.04	14.4%	$	11,985					
	874.05	13.9%	$	12,154					
	875.03	9.7%	$	16,894					
	875.04	12.2%	$	12,540					
	875.05	9.7%	$	18,639					
	876.01	10.3%	$	19,887					
	876.02	7.0%	$	22,323					

	877.01	10.1%	$	20,800					
	877.03	13.3%	$	20,448					
	877.04	8.0%	$	25,443					
	9800.00	-	$	-					
Brea	15.01	11.2%	$	41,311					
	15.03	6.1%	$	30,033					
	15.04	9.7%	$	27,955					
	15.06	10.9%	$	40,638					
	15.07	7.7%	$	36,754					
	218.14	9.2%	$	39,848					
	218.15	3.4%	$	38,031					
Buena Park	868.01	10.5%	$	28,584					
	1102.01	6.0%	$	23,751					
	1102.02	16.8%	$	29,561					
	1102.03	8.7%	$	23,649					
	1103.01	8.6%	$	27,766					
	1103.02	10.9%	$	20,520					
	1103.03	6.4%	$	25,855					
	1103.04	6.6%	$	25,149					
	1104.01	4.1%	$	24,703					
	1104.02	6.7%	$	20,614					
	1105.00	7.1%	$	16,648					
	1106.03	5.4%	$	18,448					
	1106.04	4.7%	$	33,306					
	1106.06	9.9%	$	15,964					
	1106.07	9.1%	$	24,816					
Costa Mesa	631.02	7.6%	$	66,576					
	631.03	4.1%	$	44,219					
	632.01	7.9%	$	37,728					
	632.02	11.1%	$	42,320					
	633.01	5.8%	$	45,597					
	633.02	6.4%	$	47,791					
	636.01	4.3%	$	33,564					

	636.04	10.3%	$	20,557					
	636.05	7.8%	$	15,549					
	637.01	8.3%	$	15,695					
	637.02	13.4%	$	21,762					
	638.02	4.9%	$	41,441					
	638.03	8.5%	$	35,299					
	638.05	4.3%	$	36,040					
	638.06	5.1%	$	40,686					
	638.07	5.8%	$	32,976					
	638.08	8.5%	$	17,933					
	639.02	8.2%	$	28,441					
	639.03	11.8%	$	26,726					
	639.04	5.1%	$	27,534					
	639.05	4.1%	$	38,789					
	639.06	11.2%	$	23,653					
	639.07	7.4%	$	53,013					
	639.08	7.7%	$	32,955					
Cypress	1100.10	6.5%	$	34,736					
	1100.11	3.9%	$	43,095					
	1101.04	4.8%	$	31,137					
	1101.06	6.5%	$	29,984					
	1101.09	5.8%	$	34,403					
	1101.10	9.3%	$	24,633					
	1101.11	8.2%	$	32,031					
	1101.13	6.0%	$	33,177					
	1101.14	6.2%	$	31,535					
	1101.17	7.6%	$	31,325					
	1101.18	1.1%	$	44,291					
Dana Point	422.01	10.4%	$	46,234					
	423.13	7.2%	$	41,849					
	423.23	3.3%	$	65,043					
	423.38	5.4%	$	46,602					
	423.39	10.9%	$	52,467					

	9901.00	-	$	-					
Fountain Valley	992.24	3.4%	$	30,809					
	992.25	6.6%	$	32,164					
	992.26	5.9%	$	32,617					
	992.27	10.4%	$	26,659					
	992.29	8.9%	$	33,924					
	992.30	9.8%	$	37,128					
	992.31	4.2%	$	42,878					
	992.32	10.6%	$	41,569					
	992.33	6.5%	$	41,353					
	992.34	6.5%	$	44,484					
	992.50	7.4%	$	32,848					
	992.51	9.1%	$	32,041					
Fullerton	15.05	3.2%	$	38,137					
	16.01	6.2%	$	45,835					
	16.02	6.2%	$	58,919					
	17.04	9.8%	$	38,845					
	17.05	10.5%	$	83,118					
	17.06	6.4%	$	63,519					
	17.07	8.4%	$	40,174					
	17.08	0.0%	$	41,410					
	18.01	11.2%	$	17,916					
	18.02	10.9%	$	14,620					
	19.01	6.9%	$	24,774					
	19.02	10.7%	$	19,199					
	19.03	13.7%	$	21,372					
	110.00	4.4%	$	32,434					
	111.01	14.4%	$	23,064					
	111.02	13.8%	$	21,641					
	112.00	7.6%	$	32,640					
	113.00	11.7%	$	45,447					
	114.01	12.8%	$	31,387					
	114.02	9.7%	$	42,013					

	114.03	10.6%	$	21,532					
	115.02	7.8%	$	25,121					
	115.03	7.1%	$	37,691					
	115.04	8.3%	$	17,406					
	116.01	8.9%	$	18,200					
	116.02	10.8%	$	19,816					
	117.07	7.6%	$	41,891					
	117.08	9.6%	$	23,844					
	117.11	9.2%	$	20,114					
	1106.05	7.6%	$	30,252					
Garden Grove	761.03	9.1%	$	17,590					
	880.01	8.9%	$	23,743					
	880.02	13.6%	$	23,512					
	881.01	-	$	-					
	881.05	10.8%	$	20,729					
	881.07	12.7%	$	20,610					
	882.01	13.1%	$	27,102					
	882.02	6.3%	$	26,337					
	882.03	17.1%	$	21,050					
	883.01	12.8%	$	19,897					
	883.02	12.6%	$	27,689					
	884.01	9.7%	$	21,302					
	884.02	15.5%	$	16,719					
	884.03	15.2%	$	21,165					
	885.01	12.0%	$	18,867					
	885.02	7.0%	$	19,796					
	886.01	9.2%	$	23,795					
	886.02	8.7%	$	21,584					
	887.01	15.3%	$	18,746					
	887.02	10.8%	$	17,983					
	888.01	12.6%	$	19,027					
	888.02	8.4%	$	17,054					
	889.01	8.8%	$	17,785					

	889.02	13.3%	$	17,995					
	889.03	10.8%	$	15,781					
	890.03	11.8%	$	13,336					
	891.02	9.3%	$	16,258					
	891.06	8.4%	$	12,665					
	1100.01	1.7%	$	34,892					
	1100.03	14.4%	$	29,603					
	1100.04	4.0%	$	33,993					
	1100.05	5.4%	$	37,157					
Huntington Beach	992.12	13.9%	$	30,437					
	992.14	7.1%	$	35,860					
	992.15	4.7%	$	36,147					
	992.16	7.5%	$	33,482					
	992.17	3.8%	$	40,920					
	992.20	4.5%	$	39,405					
	992.35	12.2%	$	30,320					
	992.37	7.0%	$	35,871					
	992.38	7.6%	$	48,674					
	992.39	2.8%	$	47,154					
	992.40	2.1%	$	43,194					
	992.42	2.9%	$	313,119					
	992.43	3.8%	$	44,416					
	992.44	5.7%	$	38,816					
	992.45	5.3%	$	40,689					
	992.46	7.9%	$	44,677					
	993.05	12.3%	$	29,122					
	993.06	5.1%	$	47,697					
	993.07	5.7%	$	55,202					
	993.08	3.6%	$	79,091					
	993.09	7.6%	$	51,142					
	993.10	7.8%	$	54,946					
	993.11	9.8%	$	62,520					
	994.02	12.9%	$	18,239					

	994.04	8.8%	$	37,714					
	994.05	11.9%	$	35,321					
	994.06	12.6%	$	37,600					
	994.07	3.7%	$	42,290					
	994.08	6.6%	$	43,723					
	994.10	17.5%	$	32,894					
	994.11	8.1%	$	31,608					
	994.12	7.7%	$	40,138					
	994.13	5.9%	$	41,021					
	994.15	4.1%	$	58,627					
	994.16	8.9%	$	36,558					
	994.17	10.6%	$	51,803					
	995.08	9.0%	$	40,959					
	995.13	7.9%	$	79,660					
	995.14	6.3%	$	70,099					
	996.03	12.8%	$	32,059					
	996.04	5.3%	$	37,242					
	996.05	11.4%	$	35,029					
Irvine	524.04	38.9%	$	17,285					
	524.10	0.0%	$	-					
	524.17	6.0%	$	45,019					
	524.18	4.2%	$	44,095					
	524.20	5.1%	$	53,270					
	524.21	5.9%	$	48,523					
	524.26	7.8%	$	50,987					
	525.05	6.7%	$	34,351					
	525.06	8.1%	$	41,660					
	525.11	9.0%	$	40,413					
	525.13	6.3%	$	43,110					
	525.14	5.9%	$	41,392					
	525.15	5.7%	$	42,750					
	525.17	8.8%	$	44,285					
	525.18	4.6%	$	65,882					

	525.19	8.5%	$	37,298					
	525.20	5.5%	$	44,231					
	525.21	8.9%	$	34,706					
	525.22	7.4%	$	42,918					
	525.23	7.8%	$	40,732					
	525.25	6.9%	$	42,507					
	525.26	5.6%	$	38,084					
	525.27	7.2%	$	40,656					
	525.28	5.4%	$	39,043					
	626.10	4.3%	$	60,099					
	626.11	6.8%	$	28,692					
	626.12	7.1%	$	41,258					
	626.14	7.1%	$	16,928					
	626.21	-	$	-					
	626.26	8.0%	$	14,709					
	626.27	2.9%	$	31,938					
	626.28	7.8%	$	40,511					
	626.29	6.3%	$	51,247					
	626.30	6.3%	$	64,288					
	626.31	2.7%	$	67,269					
La Habra	11.01	7.5%	$	32,543					
	11.02	8.5%	$	25,002					
	11.03	9.6%	$	19,564					
	12.01	9.0%	$	15,163					
	12.02	12.9%	$	17,498					
	13.01	10.8%	$	30,129					
	13.03	6.9%	$	22,571					
	13.04	6.8%	$	17,138					
	14.01	7.2%	$	23,395					
	14.02	4.9%	$	23,239					
	14.03	12.5%	$	29,081					
	14.04	9.1%	$	17,230					
La Palma	1101.02	5.8%	$	35,001					

	1101.15	4.3%	$	34,508					
	1101.16	4.7%	$	30,972					
Laguna Beach	423.05	4.4%	$	85,067					
	626.05	6.4%	$	67,749					
	626.19	3.6%	$	77,976					
	626.20	5.0%	$	76,019					
	626.32	4.7%	$	103,701					
	626.49	7.3%	$	51,186					
Laguna Hills	423.07	10.9%	$	33,893					
	423.27	7.7%	$	49,852					
	423.28	9.1%	$	79,754					
	423.33	5.1%	$	78,874					
	626.25	9.0%	$	24,237					
	626.47	11.1%	$	31,233					
Laguna Niguel	423.15	4.0%	$	48,030					
	423.17	5.1%	$	81,326					
	423.19	4.3%	$	52,120					
	423.24	14.5%	$	67,374					
	423.25	7.4%	$	69,417					
	423.26	5.3%	$	39,523					
	423.29	9.7%	$	47,348					
	423.30	9.3%	$	34,495					
	423.31	11.0%	$	45,249					
	423.32	11.4%	$	62,976					
	423.34	7.3%	$	33,853					
	423.35	4.8%	$	53,639					
	423.36	6.1%	$	49,798					
	423.37	9.1%	$	69,281					
Laguna Woods	626.22	10.6%	$	30,535					
	626.46	13.0%	$	30,662					
	626.48	9.7%	$	42,634					
Lake Forest	320.14	12.4%	$	26,503					
	320.27	4.0%	$	30,723					

	320.29	5.9%	$	33,752					
	524.08	5.5%	$	50,181					
	524.11	5.9%	$	33,087					
	524.15	4.8%	$	46,339					
	524.16	5.1%	$	32,022					
	524.22	4.8%	$	41,472					
	524.23	3.7%	$	40,169					
	524.24	4.2%	$	38,775					
	524.25	6.6%	$	46,826					
	524.27	4.1%	$	40,242					
	524.28	7.8%	$	47,881					
Los Alamitos	1100.14	6.7%	$	28,913					
	1100.15	7.3%	$	42,766					
	1101.08	5.9%	$	52,435					
Mission Viejo	320.02	8.3%	$	36,379					
	320.03	3.9%	$	46,208					
	320.12	9.5%	$	42,794					
	320.13	6.6%	$	37,908					
	320.15	9.0%	$	34,061					
	320.20	8.6%	$	36,846					
	320.22	9.9%	$	23,429					
	320.28	6.4%	$	30,389					
	320.30	7.7%	$	37,146					
	320.31	5.9%	$	43,034					
	320.32	7.8%	$	41,790					
	320.33	5.7%	$	42,854					
	320.34	7.9%	$	52,832					
	320.35	5.3%	$	59,792					
	320.36	7.9%	$	45,965					
	320.37	14.6%	$	47,305					
	320.38	7.5%	$	45,750					
	320.39	6.4%	$	41,086					
	320.40	4.7%	$	59,296					

	320.47	9.1%	$	39,622					
	320.48	7.5%	$	40,434					
Newport Beach	626.42	2.3%	$	86,789					
	626.43	3.7%	$	142,559					
	626.44	5.5%	$	79,253					
	626.45	3.1%	$	78,630					
	627.01	3.9%	$	94,863					
	627.02	4.7%	$	93,265					
	628.00	8.2%	$	65,719					
	629.00	6.2%	$	146,545					
	630.04	7.6%	$	61,799					
	630.05	7.2%	$	156,353					
	630.06	7.6%	$	74,666					
	630.07	5.6%	$	83,466					
	630.08	5.8%	$	83,973					
	630.09	9.1%	$	66,026					
	630.10	8.3%	$	61,223					
	631.01	4.5%	$	53,775					
	634.00	5.6%	$	82,863					
	635.00	6.8%	$	69,526					
	636.03	8.3%	$	45,796					
Orange	219.12	5.7%	$	60,041					
	219.13	6.6%	$	22,120					
	219.14	4.8%	$	36,511					
	219.17	3.2%	$	65,127					
	219.18	7.4%	$	44,643					
	219.23	6.7%	$	52,003					
	758.05	7.2%	$	32,746					
	758.06	8.6%	$	26,190					
	758.07	7.2%	$	29,898					
	758.08	10.9%	$	36,633					
	758.11	3.2%	$	24,546					
	758.12	7.4%	$	24,562					

	758.13	8.0%	$	41,154					
	758.14	5.5%	$	53,998					
	758.15	9.6%	$	26,672					
	758.16	4.6%	$	28,273					
	759.01	7.2%	$	28,195					
	759.02	10.2%	$	30,647					
	760.00	8.4%	$	29,000					
	761.01	11.7%	$	28,802					
	761.02	8.6%	$	18,102					
	762.01	4.0%	$	34,729					
	762.02	11.7%	$	26,804					
	762.04	12.3%	$	19,350					
	762.05	11.5%	$	19,973					
	762.06	7.1%	$	31,467					
	762.08	12.6%	$	32,258					
Placentia	117.09	2.8%	$	43,725					
	117.10	12.3%	$	37,124					
	117.12	6.7%	$	26,116					
	117.15	9.0%	$	37,353					
	117.16	10.7%	$	39,185					
	117.17	2.4%	$	31,267					
	117.18	8.4%	$	33,582					
	117.20	15.1%	$	10,680					
	117.21	11.4%	$	16,531					
	117.22	11.5%	$	31,719					
	218.21	8.4%	$	30,257					
Rancho Santa Margarita	320.41	0.0%	$	55,490					
	320.42	5.8%	$	41,507					
	320.43	6.8%	$	68,285					
	320.44	8.1%	$	71,875					
	320.49	5.0%	$	40,632					
	320.50	5.9%	$	35,267					
	320.51	5.4%	$	37,275					

	320.53	4.0%	$	44,575					
	320.54	7.7%	$	37,223					
	320.55	8.7%	$	32,158					
San Clemente	320.23	7.4%	$	57,096					
	421.03	5.0%	$	59,276					
	421.06	7.0%	$	40,633					
	421.07	7.4%	$	26,298					
	421.08	9.1%	$	50,625					
	421.09	8.6%	$	50,209					
	421.11	6.1%	$	49,318					
	421.12	7.1%	$	50,470					
	421.13	5.8%	$	41,296					
	421.14	5.9%	$	37,482					
	422.06	6.4%	$	50,807					
San Juan Capistrano	320.61	6.4%	$	72,266					
	422.03	8.3%	$	51,692					
	422.05	5.8%	$	40,543					
	423.10	7.1%	$	30,531					
	423.11	5.2%	$	58,024					
	423.12	7.6%	$	19,050					
Santa Ana	740.03	10.2%	$	24,277					
	740.04	9.6%	$	24,733					
	740.05	12.1%	$	15,048					
	740.06	8.2%	$	23,916					
	741.02	9.6%	$	16,034					
	741.03	11.3%	$	17,061					
	741.06	11.8%	$	19,938					
	741.07	3.6%	$	39,776					
	741.08	7.4%	$	13,877					
	741.09	7.9%	$	14,260					
	741.10	9.7%	$	22,286					
	741.11	6.3%	$	22,417					
	742.00	10.6%	$	14,889					

	743.00	6.1%	$	12,873					
	744.03	13.3%	$	10,060					
	744.05	12.9%	$	12,327					
	744.06	5.3%	$	18,083					
	745.01	12.0%	$	10,297					
	745.02	12.3%	$	11,528					
	746.01	10.3%	$	12,555					
	746.02	12.0%	$	13,399					
	747.01	8.2%	$	12,399					
	747.02	8.7%	$	12,478					
	748.01	9.1%	$	14,648					
	748.02	12.2%	$	11,725					
	748.03	8.9%	$	13,425					
	748.05	7.0%	$	10,436					
	748.06	12.9%	$	12,683					
	749.01	5.5%	$	12,069					
	749.02	7.8%	$	12,652					
	750.02	11.6%	$	14,759					
	750.03	8.7%	$	9,988					
	750.04	10.1%	$	11,220					
	751.00	10.6%	$	14,402					
	752.01	11.4%	$	12,329					
	752.02	13.9%	$	15,848					
	753.01	12.6%	$	23,083					
	753.02	12.4%	$	25,256					
	753.03	6.8%	$	39,103					
	754.01	11.0%	$	35,546					
	754.03	6.5%	$	25,588					
	754.04	12.7%	$	25,473					
	754.05	6.3%	$	28,459					
	756.03	9.8%	$	40,888					
	756.04	4.5%	$	63,935					
	756.05	3.6%	$	64,725					

	756.06	3.1%	$	58,521					
	757.01	10.2%	$	28,786					
	757.02	7.0%	$	53,232					
	757.03	4.9%	$	54,687					
	890.01	12.4%	$	17,332					
	890.04	10.7%	$	14,880					
	891.04	16.1%	$	12,767					
	891.05	10.2%	$	13,051					
	891.07	12.6%	$	23,087					
	992.02	12.9%	$	17,430					
	992.03	11.1%	$	21,442					
	992.47	7.8%	$	14,186					
	992.48	9.8%	$	14,507					
	992.49	8.5%	$	11,527					
Seal Beach	995.02	0.0%	$	37,286					
	995.04	7.5%	$	55,042					
	995.06	10.9%	$	63,398					
	995.09	2.4%	$	30,333					
	995.10	2.4%	$	30,600					
	995.11	9.5%	$	56,162					
	995.12	6.2%	$	51,353					
	1100.12	5.5%	$	47,301					
Stanton	878.01	10.3%	$	23,488					
	878.02	12.5%	$	22,691					
	878.03	14.0%	$	13,880					
	878.05	7.1%	$	19,376					
	878.06	10.9%	$	16,510					
	879.01	10.4%	$	20,292					
	879.02	12.3%	$	17,460					
	881.04	14.0%	$	20,226					
	881.06	11.0%	$	24,762					
Tustin	524.19	4.4%	$	48,826					
	525.02	7.6%	$	36,014					

	525.24	6.3%	$	39,900					
	744.07	9.0%	$	14,434					
	744.08	10.0%	$	15,130					
	755.04	8.7%	$	35,590					
	755.05	9.0%	$	27,340					
	755.06	9.1%	$	31,569					
	755.07	10.6%	$	22,368					
	755.12	14.9%	$	26,077					
	755.13	6.8%	$	23,262					
	755.14	7.4%	$	17,050					
	755.15	7.2%	$	34,888					
	756.07	8.2%	$	58,494					
Villa Park	758.09	6.1%	$	76,179					
	758.10	6.8%	$	60,132					
Westminster	889.04	9.6%	$	18,346					
	889.05	15.9%	$	18,329					
	992.04	5.7%	$	25,785					
	992.22	10.1%	$	26,169					
	992.23	7.8%	$	25,522					
	992.41	10.5%	$	28,077					
	996.01	10.3%	$	19,455					
	996.02	14.4%	$	30,658					
	997.01	11.7%	$	18,711					
	997.02	6.8%	$	23,020					
	997.03	9.1%	$	32,793					
	998.01	14.0%	$	20,982					
	998.02	15.3%	$	16,853					
	998.03	6.9%	$	19,103					
	999.02	15.0%	$	24,431					
	999.03	11.5%	$	17,629					
	999.04	10.5%	$	16,365					
	999.05	18.5%	$	26,316					
	999.06	4.2%	$	38,678					

Yorba Linda	218.02	3.6%	$	41,389					
	218.09	6.7%	$	35,462					
	218.10	3.0%	$	40,930					
	218.12	12.1%	$	31,458					
	218.16	4.7%	$	42,244					
	218.17	5.6%	$	39,855					
	218.20	9.0%	$	42,761					
	218.22	6.4%	$	54,014					
	218.23	6.7%	$	37,866					
	218.24	2.5%	$	61,263					
	218.25	9.7%	$	43,532					
	218.26	9.1%	$	41,354					
	218.27	8.8%	$	57,472					
	218.28	5.4%	$	60,809					
	218.29	7.1%	$	59,411					
	218.30	3.4%	$	59,334					
unincorporated area	320.11	4.2%	$	47,526					
	320.45	4.4%	$	44,588					
	320.46	4.2%	$	70,011					
	320.56	6.2%	$	46,382					
	320.57	3.6%	$	47,660					
	320.58	5.1%	$	48,018					
	320.59	5.4%	$	50,642					
	626.04	3.8%	$	74,128					
	1100.06	4.4%	$	50,904					
	1100.07	5.6%	$	50,359					
	1100.08	7.1%	$	46,205					

Color Key	
	Census Tracts added to the Red-Zone
	Red-Zone census Tracts that stay the same
	Census tracts that were removed from the Red-Zone

Appendix D: Demographics for Red-Zone groups

Orange County						
Totals			2,989,948	1,510,337	1,479,611	
Percentage			100.00%	50.51%	49.49%	
Averages	8.30%	34,416				36.00
Red-Zone						
Totals			397,349	211,204	186,145	
Percentage			100.00%	53.15%	46.85%	
Averages	13.44%	17,001				31.03
-						
Added						
Totals			112,930	54,167	58,763	
Percentage			100.00%	47.97%	52.03%	
Averages	13.38%	18,292				32.46
-						
Removed						
Totals			73,927	34,106	39,821	
Percentage			100.00%	46.13%	53.87%	

Averages	10.28%	16,964				31.25
-						
Same						
Totals			284,419	157,037	127,382	
Percentage			100.00%	55.21%	44.79%	
Averages	13.46%	16,485				30.46
Non-Red-Zone						
Totals			2,592,541	1,298,523	1,294,018	
Percentage			100.00%	50.09%	49.91%	
Averages	7.52%	39,331				38.80

	Percent over 25 with less than high school Degree	Percent 25 older with Bachelors degree or over	Percent that speak English "less than very well"	Foreign born population	Percent moved from abroad	Population below poverty
Orange County						
Totals				912,193		320,473
Percentage				30.5%		10.72%
Averages	16.60%	36.20%	21.50%		73%	
Red-Zone						
Totals				171,166		67,529
Percentage				43.1%		16.99%
Averages	39.13%	13.82%	42.19%		77%	
Added						
Totals				47,113		19,221
Percentage				41.7%		17.02%
Averages	31.16%	16.85%	35.74%		51%	
Removed						
Totals				34,367		11,758
Percentage				46.5%		15.90%
Averages	43.73%	14.31%	44.82%		56%	
Same						
Totals				124,053		48,308
Percentage				43.6%		16.98%
Averages	42.32%	12.61%	44.76%		87%	
Non-Red-Zone						
Totals				742,312		253,795
Percentage				28.6%		9.79%
Averages	13.17%	39.05%	16.68%		73%	

	Total Hispanic population	Total White population	Total Black population	Total American Indian/Alaska Native population	Total Asian population	Total Native Hawaiian and Other Pacific Islands population	Some other race
Orange County							
Totals	994,279	1,339,155	45,836	6,902	528,429	8,736	7,950
Percentage	33.25%	44.79%	1.53%	0.23%	17.67%	0.29%	0.27%
Averages							
Red-Zone							
Totals	229,512	79,734	7,776	824	71,741	1,751	992
Percentage	57.76%	20.07%	1.96%	0.21%	18.05%	0.44%	0.25%
Averages							
Added							
Totals	57,004	25,260	3,060	414	24,462	912	243
Percentage	50.48%	22.37%	2.71%	0.37%	21.66%	0.81%	0.22%
Averages							
Removed							
Totals	41,553	10,703	1,108	441	19,043	303	54
Percentage	56.21%	14.48%	1.50%	0.60%	25.76%	0.41%	0.07%
Averages							
Same							
Totals	172,508	54,474	4,716	410	47,279	839	749
Percentage	60.65%	19.15%	1.66%	0.14%	16.62%	0.29%	0.26%
Averages							
Non-Red-Zone							
Totals	768,808	1,257,602	37,745	6,069	454,852	6,985	6,958
Percentage	29.65%	48.51%	1.46%	0.23%	17.54%	0.27%	0.27%
Averages							

	Total households	Married couple households	Male single parent household	Female single parent households	Total single parent households	Average household size	Households with own children under 18
Orange County							
Totals	987,164	535,707	54,409	112,568	166,977		339,797
Percentage		54.27%	5.51%	11.40%	16.91%		34.42%
Averages						2.99	
Red-Zone							
Totals	105,346	56,237	8,352	17,289	25,641		44,694
Percentage		53.38%	7.93%	16.41%	24.34%		42.43%
Averages						3.84	
Added							
Totals	32,061	16,448	2,520	5,448	7,968		13,249
Percentage		51.30%	7.86%	16.99%	24.85%		41.32%
Averages						3.55	
Removed							
Totals	17,966	10,265	1,567	3,470	5,037		8,211
Percentage		57.14%	8.72%	19.31%	28.04%		45.70%
Averages						4.25	
Same							
Totals	73,285	39,789	5,832	11,841	17,673		31,445
Percentage		54.29%	7.96%	16.16%	24.12%		42.91%
Averages						3.95	
Non-Red-Zone							
Totals	881,126	479,177	46,148	95,084	141,232		295,201
Percentage		54.38%	5.24%	10.79%	16.03%		33.50%
Averages						2.98	

	Total Veterans for 18 and up population	Total 18 and up population	Estimate; Owner occupied:	Estimate; Renter occupied:	More than 1 occupant per room (Overcrowded)	Vacant housing units	Total housing units
Orange County							
Totals	140,583	2,251,810	595,444	391,720	92,356	59,159	1,046,323
Percentage	6.24%	100.00%	56.9%	37.4%	8.83%	5.65%	100.00%
Averages							
Red-Zone							
Totals	12,049	283,616	51,034	54,312	23,117	5,425	110,771
Percentage	4.25%	100.00%	46.07%	49.03%	20.87%	4.90%	100.00%
Averages							
Added							
Totals	3,884	80,696	12,952	19,109	7,047	1,833	33,894
Percentage	4.81%	100.00%	38.21%	56.38%	20.79%	5.41%	100.00%
Averages							
Removed							
Totals	2,238	51,851	9,877	8,089	4,180	844	18,810
Percentage	4.32%	100.00%	52.51%	43.00%	22.22%	4.49%	100.00%
Averages							
Same							
Totals	8,165	202,920	38,082	35,203	16,070	3,592	76,877
Percentage	4.02%	100.00%	49.54%	45.79%	20.90%	4.67%	100.00%
Averages							
Non-Red-Zone							
Totals	128,272	1,964,934	543,467	337,659	69,866	53,631	934,757
Percentage	6.53%	100.00%	58.14%	36.12%	7.47%	5.74%	100.00%

Averages							

Appendix E: 2012-2013 State of the County Workforce Indicators Report

ORANGE COUNTY WORKFORCE INDICATORS 2012/2013

TABLE OF CONTENTS

ORANGE COUNTY
BUSINESS COUNCIL

Orange County
Workforce Investment Board
Linking Business & People

Dear Workforce Development Partner:

Orange County Business Council (OCBC) and the Orange County Workforce Investment Board (OCWIB) are pleased to announce the eleventh annual *Orange County Workforce: State of the County 2012-2013 Report*. This report highlights the fundamental accomplishments achieved by Orange County's business community and the education and workforce training system, as well as the challenges Orange County must address to develop a skilled workforce for the future.

Last year's report examined Orange County's efforts creating jobs in a jobless economy. In this 2012 report, Dr. Wallace Walrod focuses on the challenges Orange County has leading a burgeoning economic recovery while the state and nation grapple with slow job growth and a global economy decelerates. This year, the Workforce Development Committee examined several broad based issues, including how to connect with Millennials in the workplace and keep them engaged, harness their talent and keep them in a job for more than the average three to five years. How can businesses support the arts to keep students—their eventual employees--engaged and motivated to search for solutions to complex problems? Transitional Kindergarten and its mission for three and four year olds to develop the proper reading and comprehension skills they need to enter kindergarten and succeed through 12th grade. Orange County continues to deal with its set of challenges common to diverse ethnicities, including English language acquisition and fluency, a significant achievement gap between school districts, and a Community College system eager to restructure itself to prepare students while maintaining local control. Finally, how does Orange County deal with the immense amount of graduating college students that need additional skills for today's job market?

The theme of this year's conference is "Education and Workforce Realities in a 21st Century Global Economy." Orange County continues to be the place to live, play and work. Orange County already has developed a great education and workforce training system foundation and continues to work hard on identifying steps to success through:

- Advocating education reform;
- Promoting local control; and
- Supporting game-changing legislation to ensure success in a county noted for innovation and growth.

OCBC and the OCWIB have built a strong and enduring alliance to seek out creative workforce solutions, educational success and the best in workforce training. We hope you will gain new understanding of critical workforce development issues and the spirit of collaboration and partnership from this conference. We encourage you to utilize its materials as a resource and blueprint for future success in your business, educational institutions, and local government.

Sincerely,

Lucy Dunn
President and CEO
Orange County Business Council

Bob Bunyan
2012 Chair
Orange County Workforce Investment Board

Richard Porras
Regional Vice President
External Affairs
Orange/Riverside &
San Bernardino Counties

AT&T California
1442 Edinger Avenue
Tustin, CA 92780
714-259-6690 Phone
Richard.porras@att.com

October 9, 2012

On behalf of AT&T, it is a pleasure to welcome you to the 11th annual Workforce Development Conference.

Southern California continues to be the place for employers and workers when it comes to innovation, technology, health care and lifesciences. It has so much to offer in terms of lifestyle, weather and opportunity. Traditional economic development, a functioning infrastructure, adequate workforce housing, and continued workforce development are all essential in sustaining our way of life here in Orange County.

This year's theme, "Education and Workforce Realities in a 21st Century Global Economy," focuses on the challenges businesses and educators face as we strive to attract the best and the brightest in our rapidly changing world. This is no small feat as the times alter how we do business and how our children learn. We must learn to adapt so we can build an educated workforce for the future. Obstacles include adjusting to the changing work habits of the Millennial generation; maintaining arts programs in schools to keep students engaged and to promote creativity; enrolling 3 and 4 year olds in comprehensive preschool programs so they will be able to develop adequate English reading and writing skills; teaching immigrant parents how the education system works in California; and finally, partnering with higher education institutions to identify the training skill sets needed to make certain our businesses thrive and our economy endures.

As key partners, Orange County Business Council (OCBC) and AT&T will continue to work together in promoting the S.T.E.A.M. disciplines (Science, Technology, Engineering, Arts and Math), Latino Educational Attainment, and preparing our young people for the global economy. Business and educators working together to shrink the Achievement Gap will continue to inspire self-assurance, open the world to new ideas, and sustain our economic engine in the county. It makes living and working in Orange County worth it.

Sincerely,

Richard Porras
Assistant Vice President of External Affairs
AT&T
2012 OCBC Chair, Workforce Development Committee

JOHN M. W. MOORLACH, C.P.A.
CHAIRMAN, ORANGE COUNTY BOARD OF SUPERVISORS
SUPERVISOR, SECOND DISTRICT

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PAMELA NEWCOMB
POLICY ADVISOR

CAMMY DANCIU
EXECUTIVE ASSISTANT

2012-13 ORANGE COUNTY WORKFORCE REPORT

October 9, 2012

On behalf of the Orange County Board of Supervisors, I am pleased to announce this year's Orange County Workforce Indicators Report, now in its 11th year, and welcome you to the Workforce Development Conference.

The partnership between the Orange County Workforce Investment Board and the Orange County Business Council has provided us with a steady, reliable source of data on workforce, education, and economic trends, as well as other important decision-making tools for our community.

The Workforce Indicators Report is well beyond a collection of lucidly presented data; it is a mirror of our ever-growing community, a lamp that reveals our strengths, and a magnifying glass of both our challenges and opportunities. In leveraging the Orange County Comprehensive Economic Development Strategy (CEDS), we strive to provide educational institutions, businesses, and other organizations a multi-faceted tool to analyze, assess, and plan for success.

We hope all of our partners find inspiration as well as information in these pages to help you in your invaluable work to sustain and improve the beauty and strength of every community, every neighborhood, and every family in Orange County.

The Board congratulates the Orange County Workforce Investment Board and the Orange County Business Council on the 2012-13 Workforce Indicators Report.

Very truly yours,

John M.W. Moorlach
Chairman, Board of Supervisors

INTRODUCTION

2012/2013

INTRODUCTION

Economic trends have permanently shifted in the last decade. Orange County is responding by establishing an innovative and effective foundation for future job growth and long-term prosperity.

The Great Recession caused devastating job losses and economic hardship to the national and global economy. While many regions and industry segments are still struggling to recover, Orange County has been better able to survive the recession than surrounding counties (and the state overall) because of its diverse economy, competitive business environment, skilled workforce as well as job growth in emerging industries. Orange County's recovery strengthened in 2012 and is once again the economic engine driving Southern California forward.

COMPETING SUCCESSFULLY BY KEEPING UP WITH SHIFTING TRENDS

In order to adapt and become more competitive, the private sector has become "lean and mean." Orange County businesses are no exceptions to these shifting trends. Orange County's education and workforce systems are also adapting to remain competitive and relevant. Many jobs lost in the county will not be returning, yet emerging industries such as high-tech/information technology and those associated with international trade are providing much-needed economic growth and job creation. To remain on the pathway to recovery, it is more important than ever that Orange County be diligent in keeping up with, and even ahead of, constantly shifting economic trends, as well as capitalizing on its unique, innovative culture. While the state as a whole struggles to recover, Orange County remains an attractive place for businesses to thrive due to its innovative spirit, high quality of life, skilled workforce and attractive geographic location.

INNOVATION LEADS TO JOB CREATION AND WAGE GROWTH

While the Great Recession put forth substantial challenges for Orange County to overcome, it also created a variety of new opportunities and pathways for increasing economic activity and employment. This year's report identifies the most significant opportunities for economic growth and job creation, while highlighting the challenges Orange County currently faces that will require creative solutions. Understanding the dynamics of the economic changes brought on by the recession will be crucial in ensuring Orange County's future economic viability.

Orange County has never lacked the building blocks for innovation:

- Home to a large number of innovative high-tech industries;
- Leadership in new, emerging industries such as advanced transportation, alternative fuels, medical devices and computer gaming;
- A creative, problem-solving, IT-savvy workforce exemplified by Disney's Imagineers; and
- Large concentrations of research and higher education institutes, business incubators and venture capital investments.

These attributes have provided Orange County with the tools necessary to successfully adapt to shifting demographic and economic landscapes. Yet, as demographics and industries within the county evolve, it is crucial that Orange County not lose its innovative and competitive edge. Continuing to develop policies and mechanisms to adapt to shifting trends rests largely on how well Orange County elected officials, the business community and policymakers collaborate.

One good example is a recent U.S. Department of Labor Workforce Innovation Fund grant awarded to the County of Orange for an Information Technology Cluster Competitiveness Project, a three-year partnership between the business community and the education and workforce training system which will implement a new approach for engaging business and education stakeholders in an intensive planning process concerning the education and training needs of companies in IT across Orange County. The project will:

- Increase the availability of a large pool of skilled IT workers in Orange County;
- Increase the capacity of Orange County's workforce system to support a wide range of IT business needs;
- Place new and returning Orange County workers into IT positions;
- Upgrade the IT skills of incumbent workers already in the Orange County IT industry; and
- Prepare a greater number of high school students for entry-level IT jobs or advanced IT training.

More information about this exciting project will be shared in the next 12 months and coming years.

In order to better understand and appreciate the economic and workforce foundations on which Orange County currently stands, the *2012-2013 Orange County Workforce Indicators Report* provides an overview of the trends that will shape the future of the county. Orange County Business Council and Orange County Workforce Investment Board are pleased to once again work together to promote Orange County's key competitive advantages, while engaging, supporting, and linking groups of workforce, education and business leaders to ensure a strong economic future for Orange County.

FAST FACT

*Orange County's education and workforce systems are **adapting to remain competitive and relevant.** To remain on the pathway to recovery, it is more important than ever that Orange County be diligent in keeping up with, and even ahead of, constantly shifting economic trends, as well as **capitalizing on its unique, innovative culture.***

ORANGE COUNTY
DEMOGRAPHIC TRENDS

2012/2013

ORANGE COUNTY DEMOGRAPHIC TRENDS

Orange County continues to have an aging and ethnically diverse population. Local and regional leaders play an essential role in planning for the county's shifting population trends that will be critical for Orange County's long-term economic success and prosperity.

WHY IS THIS AN ISSUE?

Education and workforce training programs must be implemented to support a population that is growing older and becoming more diverse. Older populations require a broad range of healthcare services, housing options, and support programs to sustain a satisfactory quality of life. A diverse community and workforce may need English language proficiency programs and initiatives to increase educational attainment across all levels (K-12, community college, university) in order to build a well-educated, high wage workforce.

DEMOGRAPHIC SNAPSHOT: ORANGE COUNTY 2011

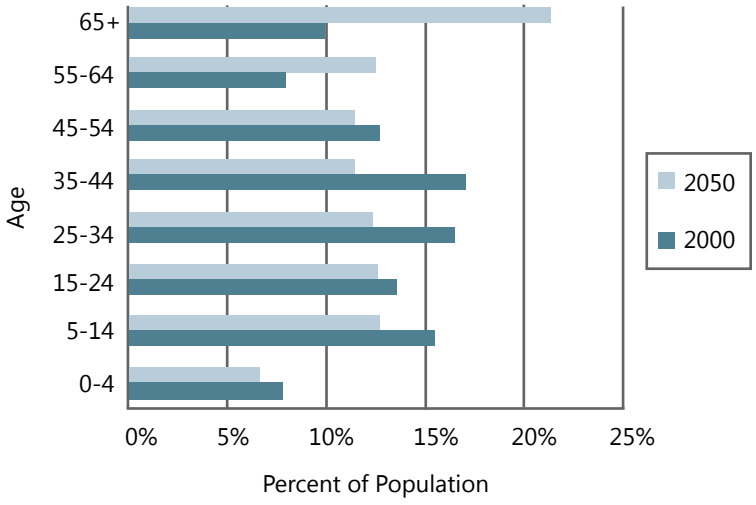
Age	Number	Percent
< 5	193,153	6.3%
5-9	199,403	6.5%
10-14	210,106	6.9%
15-19	220,818	7.2%
20-24	223,182	7.3%
25-29	217,937	7.1%
30-34	203,831	6.7%
35-39	207,345	6.8%
40-44	229,617	7.5%
45-49	228,886	7.5%
50-54	219,531	7.2%
55-59	183,700	6.0%
60-64	154,484	5.1%
65-69	112,426	3.7%
70-74	83,737	2.7%
75-79	64,259	2.1%
80-84	50,775	1.7%
85+	52,555	1.7%
Total	**3,055,745**	**100%**

Race	Number	Percent
White	1,330,314	43.5%
Hispanic or Latino	1,042,752	34.1%
African American	47,486	1.6%
American Indian	6,613	0.2%
Asian	549,227	18.0%
Native Hawaiian	8,766	0.3%
Two or more races	70,587	2.3%

Source: U.S. Census Bureau, Population Estimates Program

AGE >> As of 2010, Orange County had a population of 3,010,232 (U.S. Census Bureau, 2010 Census) with a median age of 36.2 years old. Around 27.6 percent of the population is under the age of 19 years old, 61 percent is aged between 20-64, and the population 65 years of age and older represents 11.6 percent of the total. Compared to state and national age compositions, Orange County has a slightly larger proportion of residents aged 25-64 and a smaller proportion of residents aged nine and under. These age trends are mainly due to natural increase. In the next several decades the 55+ population is expected to rapidly grow, while the younger population will decline as a proportion of the county population.

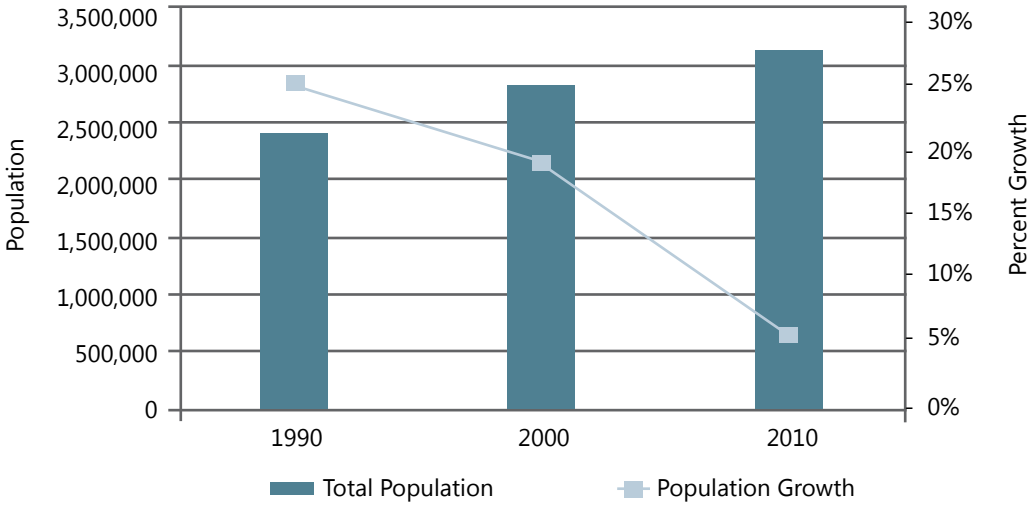
Projected Components of Population by Age in Orange County, 2000-2050



Source: State of California, Department of Finance

POPULATION GROWTH >> From 1990 to 2010, the population increased by approximately 600,000 residents, with the majority of that growth happening in the 1990s (17 percent). Since 1950, the county exceeded state and national growth rates, but the population from 2000-2010 grew at a surprisingly slower rate (just above five percent). In the past two years, the California Department of Finance estimated an additional 45,560 residents, making the current population total 3,055,792 with a growth rate just over 1.5 percent (which is faster than the state growth rate of just over 1.1 percent).

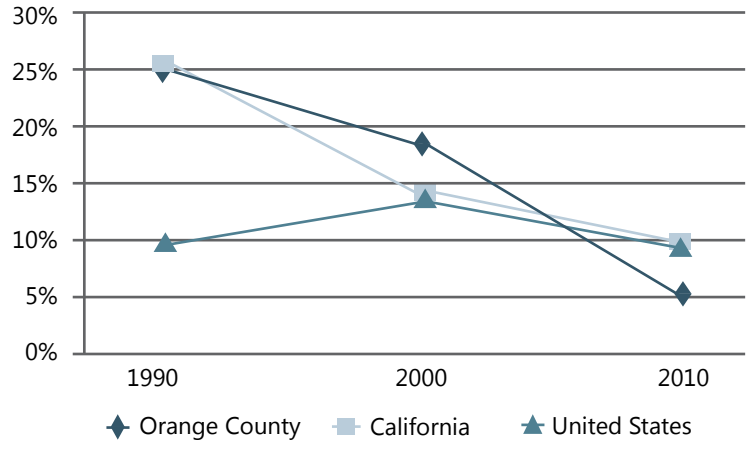
Orange County Population Growth Trends, 1990-2000



Source: US Census Bureau, 2010 Census

In the past, especially from 1950-1980, the population in Orange County grew as result of migration from other states and other California counties. This trend has been steadily decreasing and natural increase has become the main source of population growth. According to the California Department of Finance, the net migration (the total of domestic migration and foreign immigration) from 2000 to 2010 accounted for a population loss of 106,369 residents in Orange County. There continues to be a high rate of foreign immigration into the county, accounting for 151,002 in population growth during the same time period. As a result the population growth experienced in the 2000s was due to natural increase (299,661 residents), or about 29,966 children born annually. Population growth due to natural increase, however, has begun to slow, particularly in 2008 when the number of births dropped almost 14 percent. This drop in birth rate is a trend often seen during recessions and depressions. Thus, as Orange County continues toward economic recovery, this number will return to previous levels. In 2011, Orange County saw a relative spike in population growth for the first time since 2001, which was primarily the result of a positive net migration.

Orange County, California and US Population Growth Comparison



Source: US Census Bureau, 2010 Census

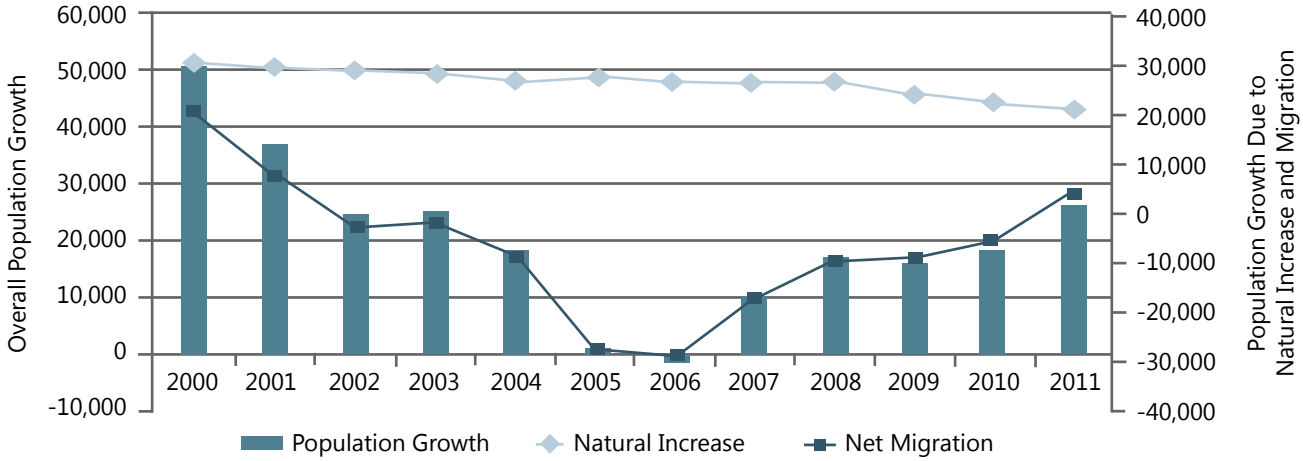
FAST FACT

*Over the course of the next several decades, **the 55+ population is expected to rapidly grow**, while the younger population will decline as a proportion of the county population.*

3,055,745

Orange County Population

Orange County Population Growth, 2000-2011



Source: California Department of Finance, Demographic Research Unit

In 2010, the three largest cities in the county were Anaheim (336,265), Santa Ana (324,528) and Irvine (212,375). In the past two decades, Aliso Viejo (450.8 percent), Rancho Santa Margarita (229.1 percent) and Irvine (84.1 percent) experienced the highest population growth.

Orange County Population Projections

Year	Population
2015	3,156,580
2020	3,266,107
2025	3,349,157
2030	3,410,773
2035	3,421,228

Source: Center for Demographic Research, CSUF

FAST FACT

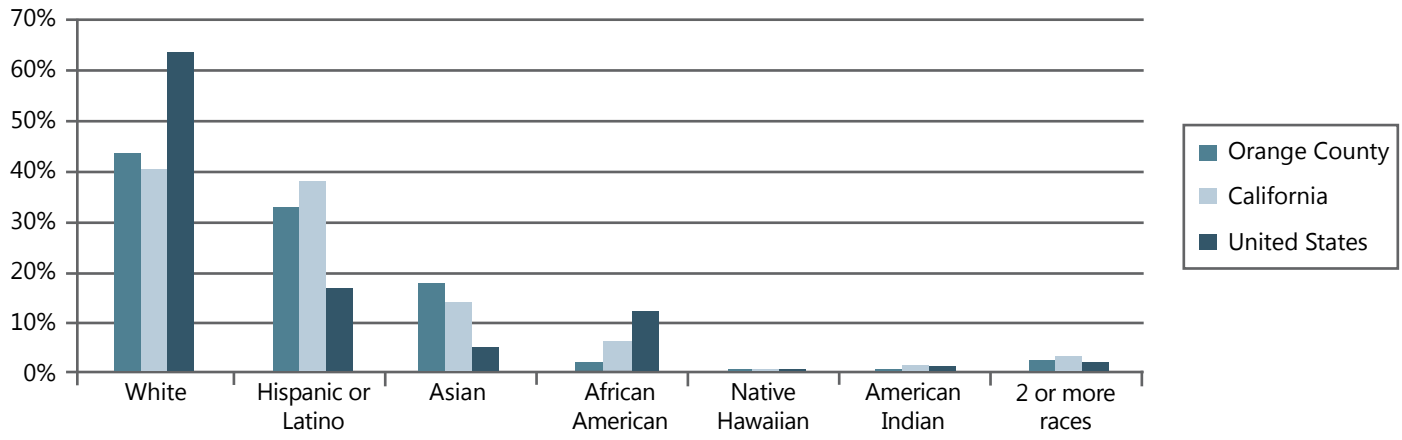
OC's Most Populous Cities:

Anaheim	*336,265*
Santa Ana	*324,528*
Irvine	*212,375*

The current growth rate is expected to increase over the next few years, at which point the California State University, Fullerton Center for Demographic Research projects that Orange County will add more than 250,000 residents by 2035.

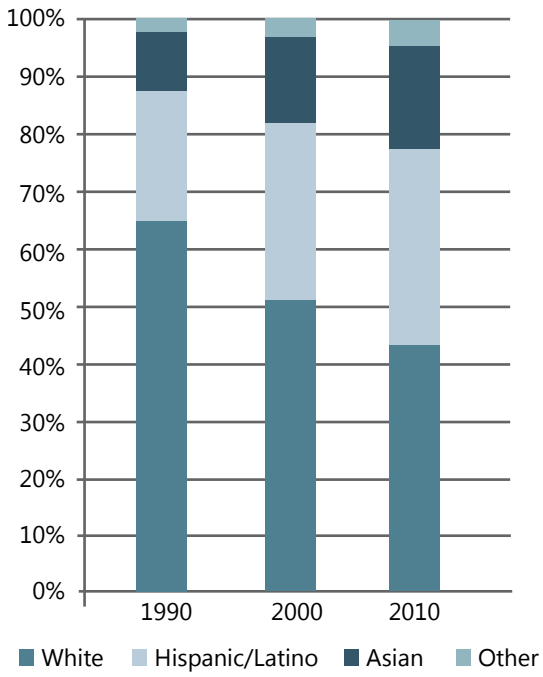
ETHNIC COMPOSITION >> Projections indicate that the trends of a diversifying population will continue in Orange County. By 2020, Latinos are projected to replace Whites as the majority. Since 2005, Latinos have accounted for more than 50 percent of the total births in the county, followed by Asians at 25 percent. The growth rate of the Asian population, while smaller in total numbers, outpaces the Latino growth rate. From 1990-2010, Orange County's Asian population increased by 115.8 percent, while Latinos increased by 79.3 percent.

Orange County, California and United States Ethnic Composition, 2011



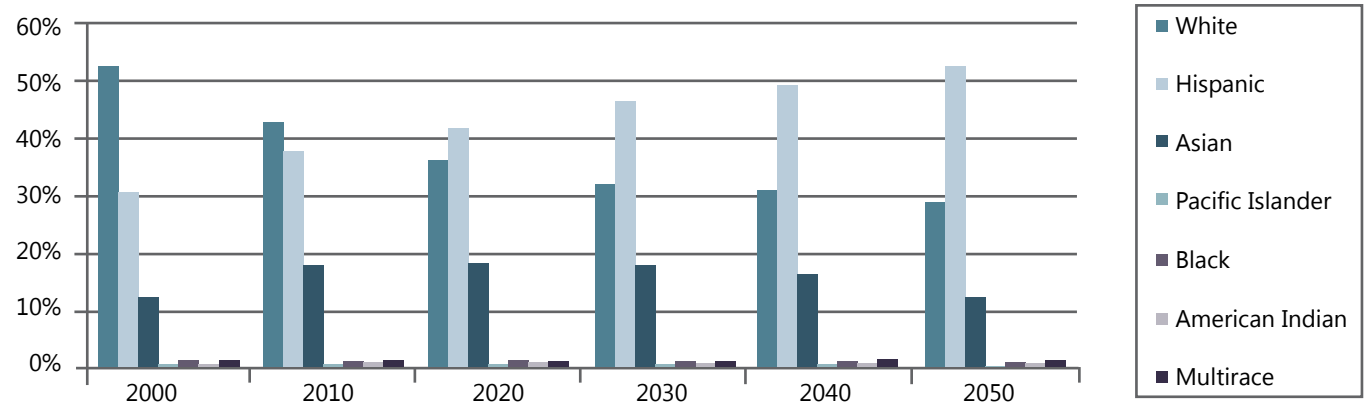
Source: U.S. Census Bureau: State and County Quick Facts

Orange County Ethnic Composition, 1990-2010



Source: U.S. Census Bureau, 2010 Census

Projected Components of Population by Ethnicity in Orange County, 2000-2050



Source: State of California, Department of Finance

WORKFORCE HOUSING SUPPLY

During a difficult decade of early peaks and subsequent valleys for the housing market, Orange County's long-term trend of a constrained housing unit supply continues. Many residents struggle with high housing costs in today's economy.

WHY IS THIS AN ISSUE?

A region's housing supply needs to keep pace with long-term population and job growth. Even during the Great Recession, Orange County was a net importer of workers from all surrounding Southern California counties.

HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

The California Department of Finance estimates that between 2010 and 2012 Orange County added 3,454 new housing units, bringing the total housing unit count to 1,052,361. The estimated housing growth rate of slightly over 0.3 percent is far behind the estimated population growth rate of 1.5 percent during the same time period. This trend could create a potential shortage in the housing supply, especially with the increased population growth projected over the coming years, particularly with Orange County's already constrained housing market.

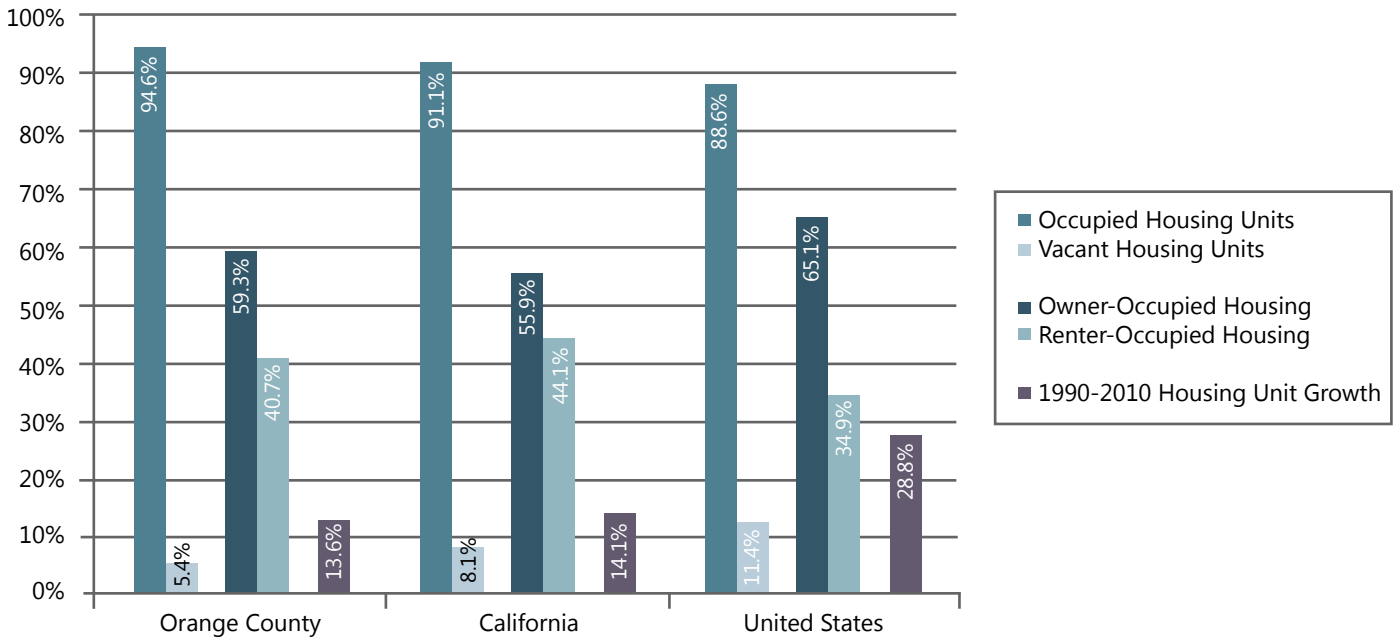
In 2010, Orange County had a total of 1,048,907 housing units—94.6 percent of which were occupied, leaving 5.4 percent vacant. This compares to 91.9 percent occupied and 8.1 percent vacant for California and 88.6 percent occupied and 11.4 percent vacant for the nation.

Of Orange County's total occupied housing units, 59.3 percent are owner-occupied and 40.7 percent are renter-occupied. The owner-occupied rate in the county is higher than the state (55.9 percent) but lower than the nation (65.1 percent). In the 1990s, the rate of owner-occupied housing units grew before stagnating in the 2000s. On the other hand, renter-occupied housing units dipped in the 1990s, but grew approximately three percent in the 2000s.

FAST FACT

The three cities that experienced the largest population growth also experienced the highest housing growth. Housing units in ***Aliso Viejo increased by 320%*** *between 1990 and 2010, followed by* ***Rancho Santa Margarita growing by 173.4%, and Irvine by 87%.***

Orange County, California and United States Housing Tenure Overview, 2010



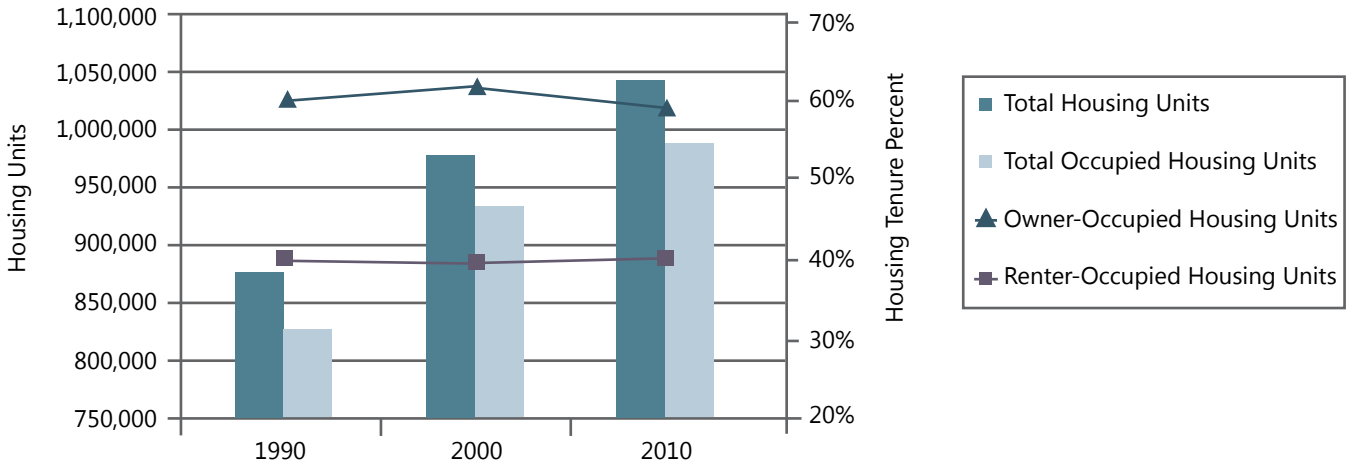
Source: U.S. Census Bureau, 2010 Census

Overall, the total number of housing units in the county grew by 13.6 percent from 1990 to 2010, comparable to state growth of 14.1 percent but far below national growth of 28.8 percent. The three cities that experienced the largest population growth also subsequently experienced the highest housing growth. Housing units in Aliso Viejo increased by 320 percent between 1990 and 2010, followed by Rancho Santa Margarita growing by 173.4 percent, and Irvine by 87 percent.

Projections suggest that future housing growth in the county will be centered near transportation resources in cities such as Anaheim, Irvine and Santa Ana. These cities will also experience population and employment growth. These estimated growth trends suggest that housing options will need to change to reflect higher densities, meaning that construction of multi-unit housing options—such as apartments or condos—in high growth clusters will need to increase in order to accommodate growing populations.

*Please see the **Workforce Housing** section of the report for more information on housing.*

Orange County Housing Growth and Tenure, 1990-2010



Source: U.S. Census Bureau, 2010 Census

HOUSEHOLD INCOME AND WAGES

As the Orange County economy recovers from the Great Recession, economic development and workforce programs should target opportunities to grow good paying jobs, increase wage levels, and expedite employment growth. At a time of slow job growth and income stagnation at the state and national levels, continued focus on a comprehensive economic development strategy and the creation of a more skilled workforce are essential to maintaining Orange County's positive income trends.

WHY IS THIS AN ISSUE?

Keeping Orange County's median household income growing is crucial to maintaining and growing a vibrant and prosperous economy. While the state projects that low wage occupations will be the primary drivers of the region's employment growth in the next 10 years, Orange County's high-tech, biotech and emerging clusters show promise in creating significant employment growth of high wage occupations.

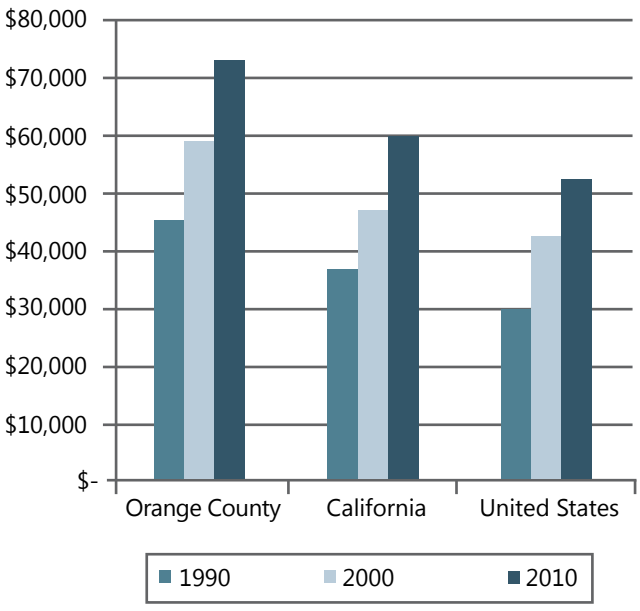
HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

Sustained income and wage growth has allowed Orange County to become the economic engine for Southern California, while maintaining an unparalleled quality of life. Positive income trends are a by-product of the county's business climate, concentration of large, successful employers, high-growth, innovative companies, and well-educated workforce.

The 2010 median household income was $73,380, which was 22.9 percent higher than the state ($59,659) and 41 percent higher than the nation ($52,041)—a trend that goes back several decades. Overall between 1990 and 2010, Orange County median household incomes were 24.9 percent larger than state averages and 44.5 percent larger than national averages.

The past two decades have brought significant changes to Orange County's profile of income categories. In 1990, approximately 30 percent of the residents had incomes below $30,000; 25 percent between $30,000-$49,000; and 23 percent between $50,000-$74,999. Higher income categories—those making between $75,000-$124,999 and over $125,000—were about 17 percent and 6 percent respectively.

Orange County, California and United States
Median Household Income Comparison, 1990-2010

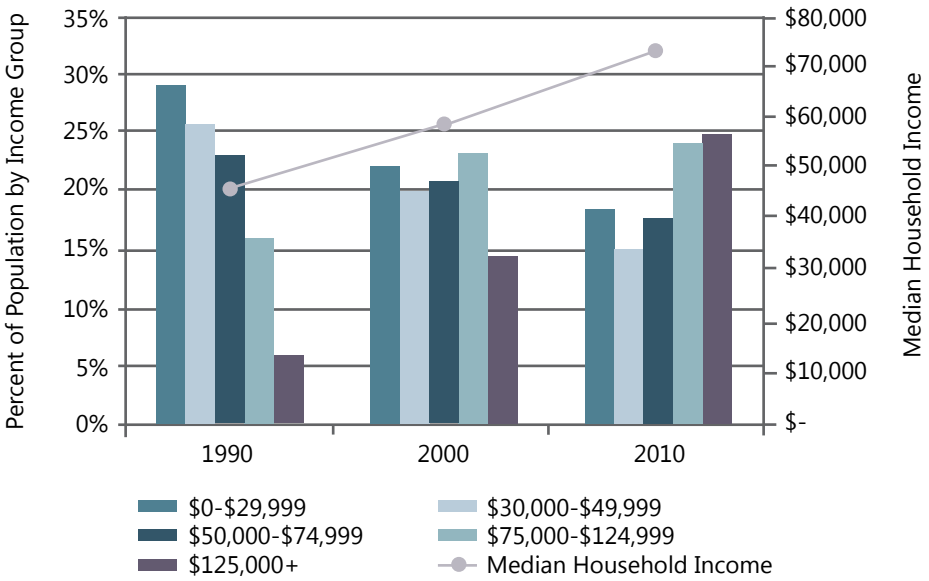


Source: U.S. Census Bureau, Bureau of Economic Analysis

By 2000, the proportion of Orange County workers making under $75,000 shrank to 63 percent, while the two largest income categories grew to 37 percent. The largest growth occurred in the income group making over $125,000 (nine percent), while the largest decrease occurred in the below $30,000 income category (seven percent).

These trends continued in the last decade, with the proportion of lower income groups in Orange County shrinking further and the top two income categories growing steadily. Overall, in 2010 the two highest income groups represented nearly 50 percent of households, a testament to the beneficial impact of an economic and business environment focused on creating high wage occupations.

Evolution of Orange County Income Groups, 1990-2010



Source: U.S. Census Bureau, Bureau of Economic Analysis

FAST FACT

By 2000, the proportion of Orange County workers making under $75,000 shrank to 63%, while ***the two largest income categories grew to 37%****. These trends continued in the last decade, with the proportion of* ***lower income groups shrinking*** *further and the* ***top two income categories growing*** *steadily.*

LASTING IMPACTS OF THE GREAT RECESSION

2012/2013

LASTING IMPACTS OF THE GREAT RECESSION

While Orange County's recovery continues to take hold, replacing permanently lost jobs and creating new job opportunities will require innovative job creation strategies and new ways of thinking about education and workforce initiatives. Education, workforce and economic development strategies must all be put under the microscope to identify the most efficient pathways and plans of action for expanding Orange County's economic growth and job creation.

WHY IS THIS AN ISSUE?

Many economists originally estimated a quick economic recovery, similar to recoveries experienced in past recessions. However, most economists truly underestimated the deep and lasting effects of the Great Recession on employment and housing markets. Spending habits of businesses and consumers have been slow to improve. Many societal and business trends—such as traditional hiring and staffing patterns—have permanently shifted. There is a growing realization that a significant portion of the jobs that were lost will not return. As a result, traditional pathways of economic and employment growth will not be as effective. Thus, new ways of thinking are required to understand and prepare for the future.

While Orange County's job profile revealed some possibilities of improvement during the first half of 2012, its unemployment rate remains historically high. There are too many potential workers who are unemployed, underemployed, or have stopped looking for work. A continued lack of available job opportunities also suggests a rather subdued economic growth outlook. In order to remain competitive in this challenging environment, companies must maintain "lean and mean" profiles created in response to the Great Recession, with the focus on operational efficiency and cost-savings rather than overall expansion and growth of business prospects.

The economic climate has forced some older workers into early retirement while many more have chosen to work longer than expected due to declines in their financial situation. One direct result is far fewer job openings for the younger workforce, which raises labor market competition in an already strained job market.

HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

JOB LOSS AND UNEMPLOYMENT >> Orange County lost around 162,000 jobs, or 10.7 percent of its payroll employment, from 2007 to 2010. The construction industry experienced the largest percentage decline (28.6 percent), which translated to a total of 29,467 lost jobs. Significant employment loss was experienced by other industries: Business and professional services (-34,314 jobs); trade, transportation and utilities (-27,050 jobs); manufacturing (-25,867 jobs); and financial services (-22,025 jobs).

Many expected 2012 to be a year of continuing recovery for the overall job market, but these expectations were not fully realized. Orange County employment grew by approximately 35,000 private sector jobs in the first half of 2012, but unemployment rates remained high, fluctuating between 7.4 percent and 8.2 percent—an improvement from the 8.5 percent to 9.2 percent unemployment rates during the same period last year. During the month of June 2012, the county had a net increase of 8,700 jobs, yet unemployment rose due to an increased labor force of recent graduates and more unemployed actively looking for work. Thus, while Orange County continues to generate good job growth, an increasing labor force lacks enough job opportunities to bring down the unemployment rate significantly. Chapman University estimates payroll job growth to grow by 1.8 percent in 2012 and 2.0 percent in 2013. If these rates are not accelerated, employment rates may not level for several years.

In April 2012, California State University, Fullerton projected that employment will increase by 1.5 percent in 2012 and 2.1 percent in 2013 for Orange County, which translates to a gain of 20,500 jobs in 2012 and 29,500 jobs in 2013—increases that follow the 14,375 jobs added in 2011.

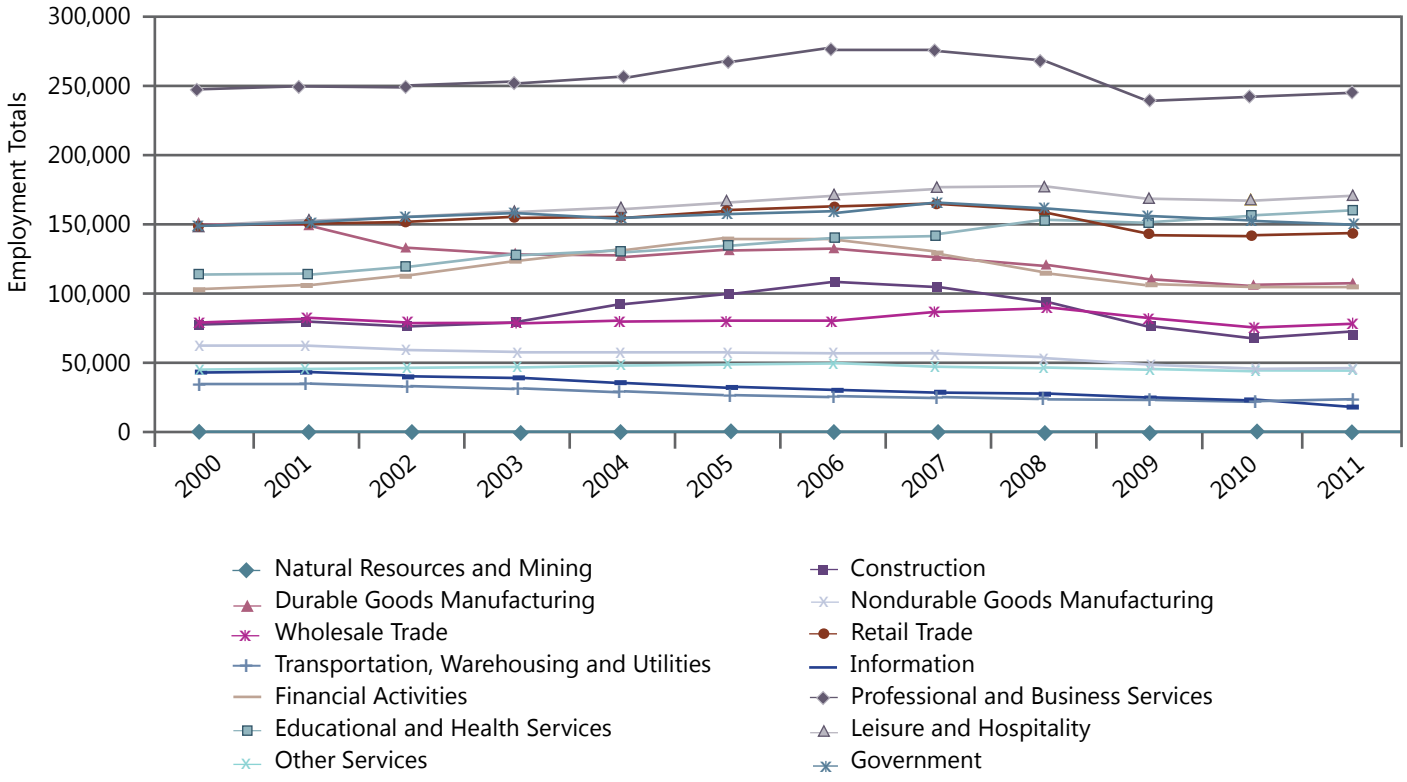
A month-to-month trends analysis from January 2007 to June 2012 shows the recessionary drops in industry employment and the subsequent lag in employment recovery. While most industries show significant employment declines during the recession and subdued growth coming out of the downturn, two industries—health services and tourism (leisure and hospitality)—performed comparatively well during both periods. The two sectors with the biggest declines during the Great Recession—construction and financial services—have also recently experienced job growth.

On the state level, a more struggling economic profile takes shape. Compared to prior recessions, California's recovery so far is extremely slow. In the 1990-1991 recession that saw severe defense downsizing and aerospace cutbacks, California lost 517,000 payroll jobs and unemployment rates hit 9.9 percent, yet recovery to peak levels came within 21 months. In the 2001 recession caused by the bursting of the dotcom bubble, California lost 365,000 jobs yet took 28 months to recover. The recent 2007-2009 recession cost the state 1,366,000 jobs over 38 months. Currently there is a high level of uncertainty as to the extent and timing of employment recovery.

As of June 2012, Chapman University estimates that statewide payroll jobs will increase by 1.4 percent in 2012 and 1.6 percent in 2013, adding 202,000 jobs in 2012 and 223,000 jobs in 2013. These projected increases in job growth will continue on the heels of the 0.6 percent growth in 2011. While payroll job growth is showing signs of recovery, the low rate of growth casts doubt about California's ability to regain peak employment levels anytime in the near future.

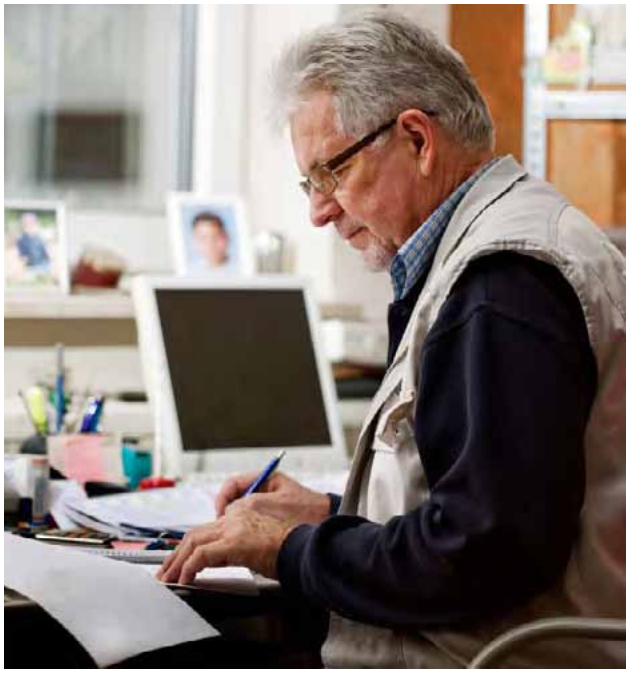
Although, for Orange County, job growth in the first half of 2012 surpassed projection rates. Even with this steady stream of improvements in the job market, the unemployment rate will likely remain persistently above seven percent through 2013 as the county attempts to recover from the 150,000+ jobs lost during the Great Recession.

Orange County Industry Trends, 2000-2011



Source: California Employment Development Department

PROJECTED LACK OF NEW JOB OPENINGS >> California's Employment Development Department (EDD) estimates of new and replacement jobs through 2018 underscore the severity of the issue of Baby Boomers currently constraining the jobs which would traditionally fall to those just entering the workforce. New jobs are classified as openings due only to new additional job growth. Replacement jobs are defined as job openings created when workers retire or permanently leave an occupation. Actual future replacement jobs may not be as available as predicted because older generations are pushing their retirement back.



Replacement jobs are largely concentrated in lower wage entry-level jobs in the following industries: office and administrative support; sales and related occupations; and food preparation and serving related occupations. These industries have median annual wages of $35,922, $30,659 and $19,406 respectively.

There is a trend of Baby Boomers occupying traditionally younger workforce starter jobs and using them as survival jobs. A possible explanation for this could arise from the way these jobs typically do not require extremely high levels of education but are rather built around experience. Baby Boomers, having been in the workforce longer than younger generations, are likely more qualified for these positions, if not overqualified. This older workforce cannot afford to start the long process of finding other high wage jobs because of increased competition and lack of availability.

As a result, young graduates may be unable to enter the workforce in meaningful ways or at the time they desire. Some continue advancing their education but this strategy does not securely prepare them for the economic future ahead. Even with the potential for higher eventual salaries, many students take out large student loans and accrue debt for years after graduation. Prolonged uncertainty about current and future job market trends will continue to hamper the employment and career prospects of this generation.

FAST FACT

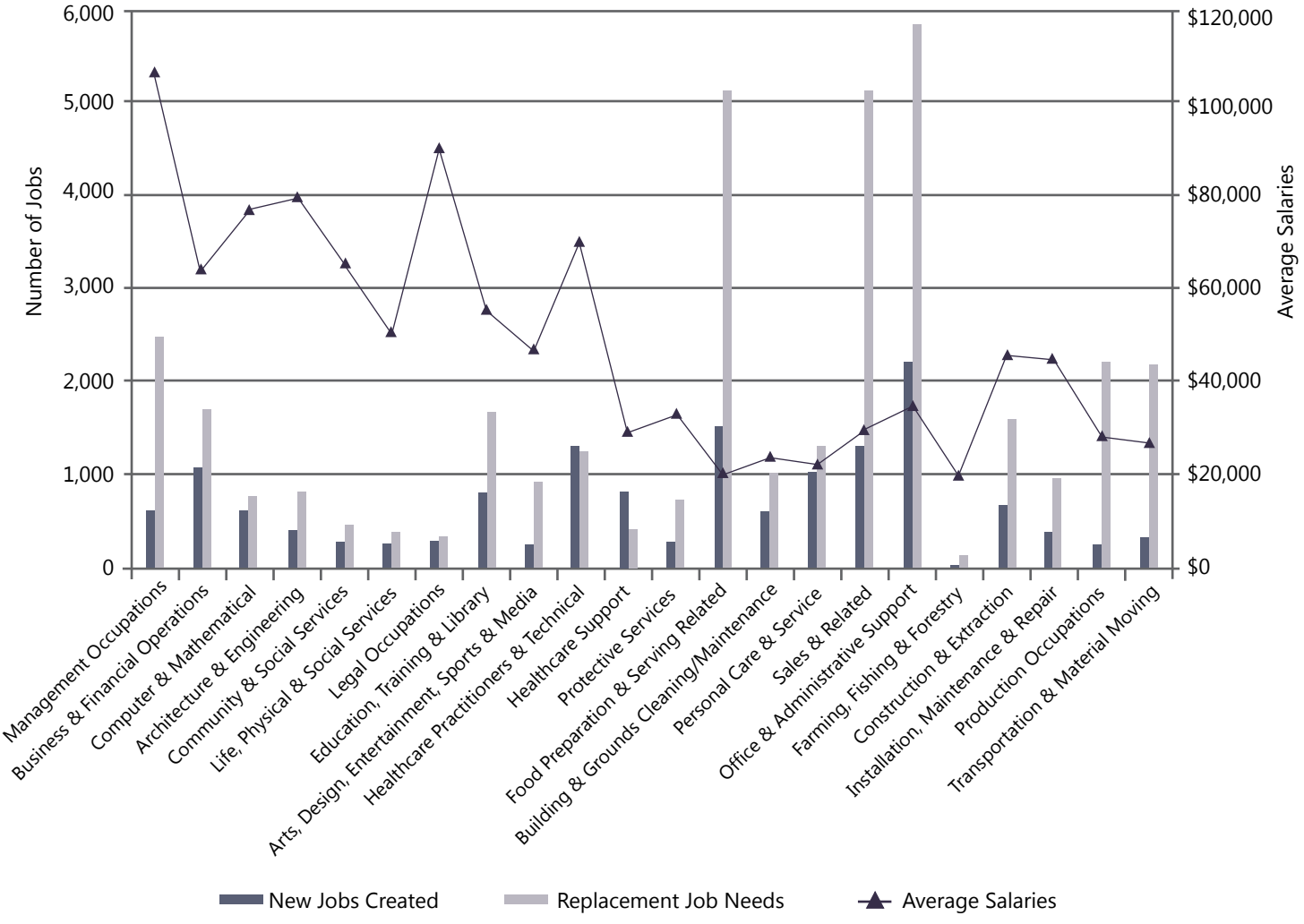
*Even with the potential for higher eventual salaries, many students take out **large student loans** and **accrue debt for years** after graduation. Prolonged uncertainty about current and future job market trends will continue to **hamper the employment and career prospects** of this generation.*

BACKGROUND >> Baby Boomers are the largest generation in American history and are responsible for the explosive economic and employment growth in Orange County from 1960-2000. However, the 2007-2009 economic collapse resulted in Baby Boomers losing substantial amounts of retirement savings, therefore prolonging their need to remain in the workforce.

More and more young graduates enter the labor force to find there are few jobs available in their desired industries not only because of the Great Recession, but because the Baby Boomers—who are well educated and have high levels of experience—continue to work and in essence stalled career ladder vertical movement.

As the population becomes more ethnically diversified and the educational systems become increasingly constrained by financial problems, Orange County will suffer in its ability to provide a talented workforce for its local businesses. These challenges coupled with the increasing college tuition rates will decrease the number of students able to further their educations and, as jobs become available, may not be able to grow a local pool of qualified workers.

New Jobs Created and Forecasted Replacement Jobs for Orange County, 2008-2018



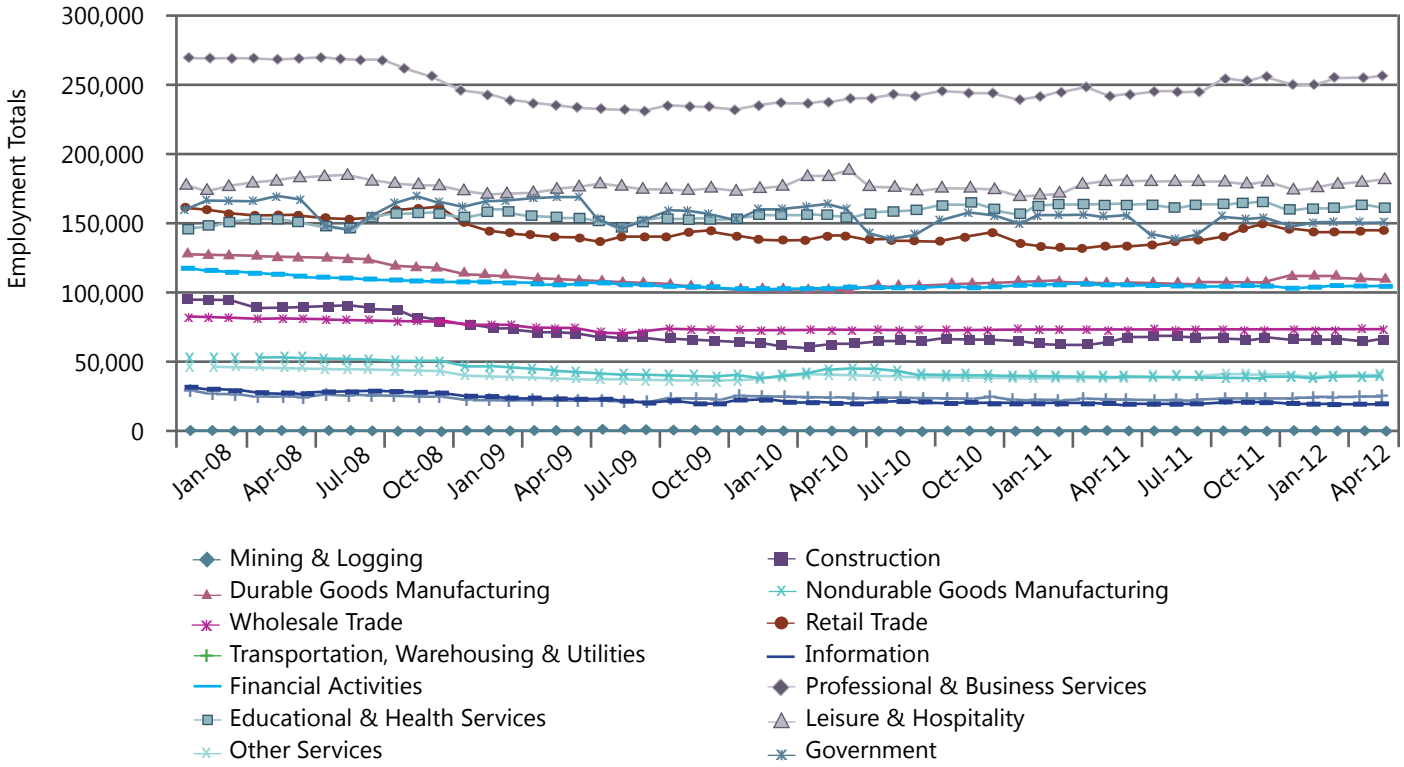
Source: California Employment Development Department

Orange County 2012, Quarter 1 Wages by Industry

Occupation Title	Median Annual Wage, Q1 2012
Management Occupations	$111,467
Business and Financial Operations Occupations	$66,747
Computer and Mathematical Occupations	$83,720
Architecture and Engineering Occupations	$82,638
Life, Physical and Social Science Occupations	$68,037
Community and Social Services Occupations	$47,258
Legal Occupations	$89,482
Education, Training and Library Occupations	$53,997
Arts, Design, Entertainment, Sports and Media Occupations	$48,152
Healthcare Practitioners and Technical Occupations	$73,965
Healthcare Support Occupations	$29,682
Protective Service Occupations	$41,704
Food Preparation and Serving Related Occupations	$19,406
Building and Grounds Cleaning and Maintenance Occupations	$22,422
Personal Care and Service Occupations	$22,797
Sales and Related Occupations	$30,659
Office and Administrative Support Occupations	$35,922
Farming, Fishing and Forestry Occupations	$19,178
Construction and Extraction Occupations	$48,693
Installation, Maintenance and Repair Occupations	$44,699
Production Occupations	$28,787
Transportation and Material Moving Occupations	$27,165

Source: California Employment Development Department

Orange County Industry Trends by Month, 2008-2012



Source: California Employment Development Department

BUSINESS SENTIMENT >> California State University, Fullerton's Q1 2012 Orange County Business Expectations survey asked Orange County executives and business leaders about the most significant factors impacting their companies:

- 56.8 percent cited the overall economy;
- 19.3 percent named government regulations; and
- 6.8 percent mentioned labor costs.

When asked about their overall view of the growth of their own industry:

- 51.2 percent believe that their industry will remain stable;
- 37.2 percent expect significant or some growth in their industry; and
- 11.6 percent predict some decrease in their industry.

CROSS CUTTING CLUSTER DRIVERS AND EMERGING INDUSTRIES

2012/2013

A CLOSER LOOK AT CROSS CUTTING CLUSTER DRIVERS AND EMERGING INDUSTRIES

Programs and policies should support emerging industries, or the drivers of industry clusters, to accelerate their growth and proliferation throughout traditional industry clusters. International trade, information technology, creativity and green/cleantech are helping to drive employment growth and high wage, high multiplier occupations. The recession hampered the potential growth of these industries, yet they have rebounded well and are expected to not only help grow traditional sectors but, in time, become major sources of employment and revenue for the county.

WHY IS THIS AN ISSUE?

Orange County is in the midst of transitioning into a knowledge based, post-Great Recession economy. Because of the Great Recession, many of the traditional high wage jobs of the past have disappeared and will not be coming back. New opportunities, however, are creating high wage jobs as a result of social and economic changes in the last decade due to international trade, information technology (IT), creativity and green/cleantech—four emerging industries that are blurring traditional cluster boundaries.

These four drivers overlay and crosscut traditional clusters, offering a better understanding of the county's workforce needs. Education and workforce development professionals began understanding the importance of these clusters in designing education and development policies. Orange County Workforce Investment Board and Orange County Business Council started to track crosscutting clusters several years ago.

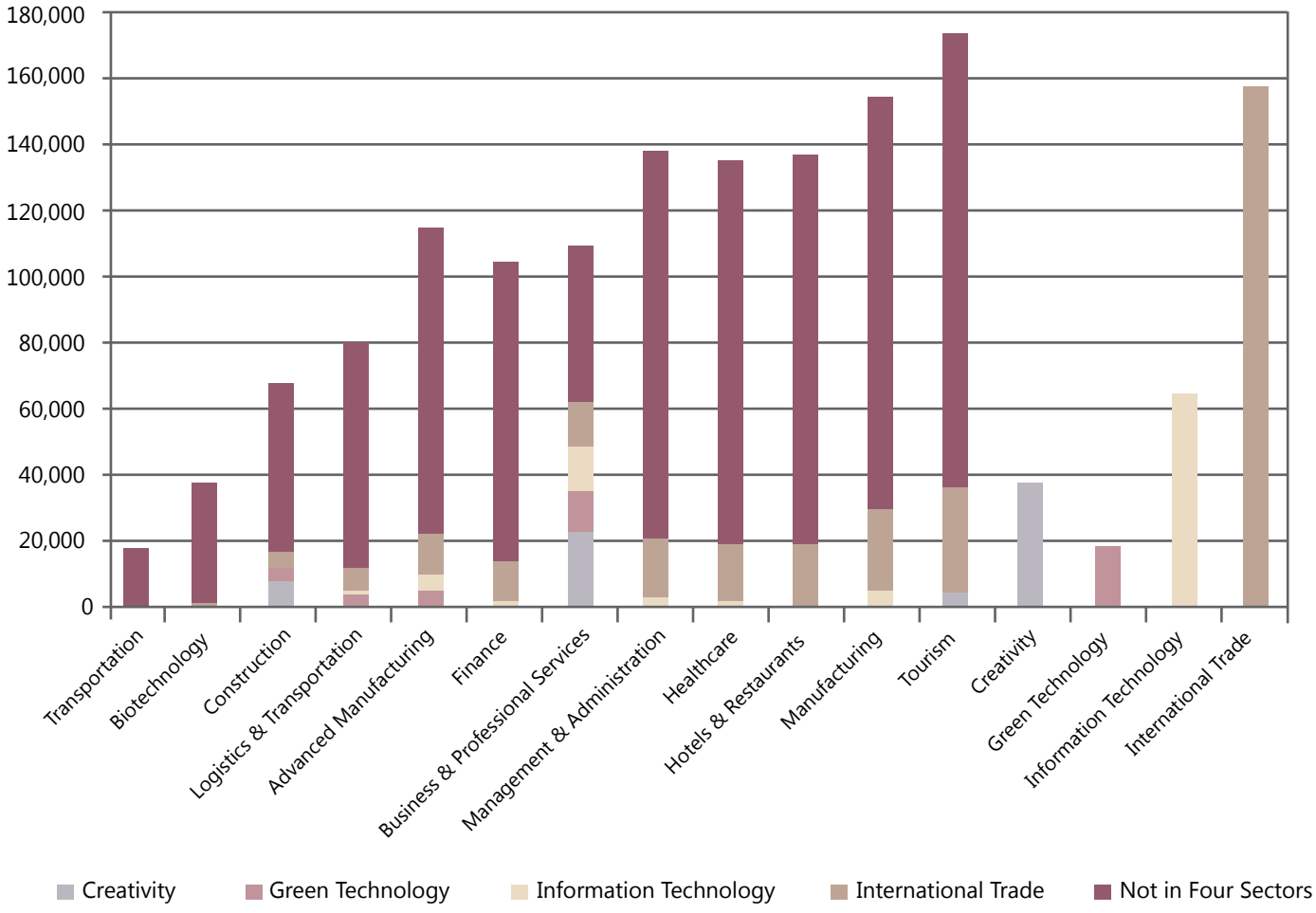
This section explores these interrelationships and how each driver overlaps and enhances existing cluster industries, creating both horizontal and vertical clusters. For example, while there are firms that are solely information technology (such as computer software and game developers such as Blizzard Entertainment), there are information technology functions and occupations within all other clusters. Creativity-oriented occupations are important components across clusters as well, such as architecture/interior design overlapping in the business and professional services, construction and tourism clusters.

These four drivers are increasingly important in developing and maintaining competitive advantage in Orange County's clusters. They generate value-creating jobs and initiate economic growth.

According to the estimated employment in 2011, international trade, information technology, creativity and cleantech are helping to drive employment growth and high-wage, high-multiplier occupations. While the recession did hamper potential growth of these industries, they have rebounded well and are expected to not only help grow traditional sectors but, in time, become major sources of employment and revenue for the county. International trade, information technology, creativity and green/cleantech added approximately 278,691 jobs. In the past year, jobs increased in international trade and information technology, while employment in the creativity sector slightly declined and green technology moderately declined:

- International Trade: 156,997
- Information Technology: 66,236
- Creativity: 37,200
- Green Technology: 18,258

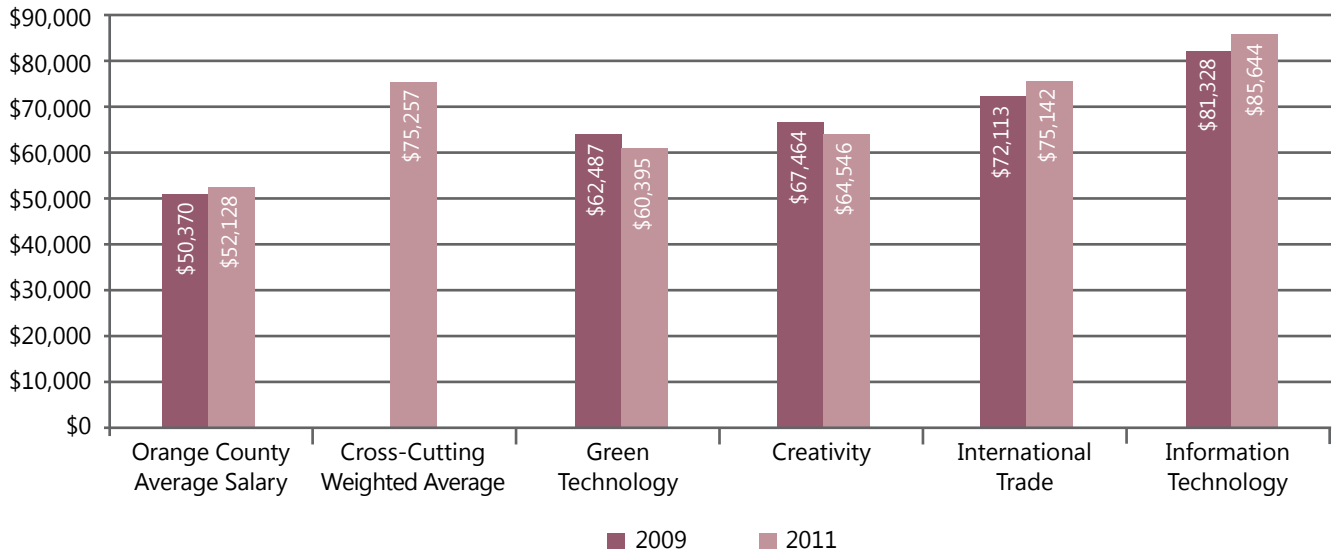
Orange County Cluster Drivers, 2011



Source: OCBC Analysis of California Employment Development Department Data, OTIS Report, Next10, and Los Angeles Economic Development Corporation

In addition to growing employment opportunities, workers in these cluster drivers earn above average salaries (on average about $75,527) compared to the average salary of $52,128. International trade and information technology salaries are rising, while average wages in green technology and creativity have declined in the last year.

Average Salaries in Orange County's Selected Industry Drivers, 2011



Source: OCBC Analysis of California Employment Development Department data, Otis Report, Next10 and Los Angeles Economic Development Corporation

INTERNATIONAL TRADE >> Orange County's geographic location provides it with distinct advantages regarding international trade. Some of these advantages include proximity to the ports of Long Beach and Los Angeles; a well-connected freeway and road system for trucking; rail lines providing national trade linkages; proximity to international and domestic airports; and a large and growing presence of an ethnically diverse population. Combine these significant trade factors with Orange County's large and competitive manufacturing base, namely in computer software, electronics and transportation equipment. The county continues to rapidly cultivate trade relationships with growing economies such as China, Japan, South Korea, Mexico and Canada. These economic and employment opportunities emerge to drive the county's robust global trade industry.

California State University, Fullerton's Institute for Economic and Environmental Studies recently released its *2011 International Trade Economic Forecast: An Overview of Orange County and Southern California Exports*, which estimates that international trade accounts for well over 10 percent of Orange County's gross product and employs nearly 500,000 residents in Southern California. From 2003 to 2007, the total volume of exports grew an average of 13 percent with export values reaching $19.7 billion in 2008—nearly doubling levels seen almost a decade ago. Although, with the onset of the Great Recession, exports experienced drastic declines and fell by 14.9 percent from $19.7 billion to $16.7 billion in 2009. Recovery from this decline is projected to occur within the next two to three years with export levels increasing by 20.8 percent in 2010, followed by increases of 12.9 percent in 2011, 7.2 percent in 2012, and 10.1 percent in 2013.

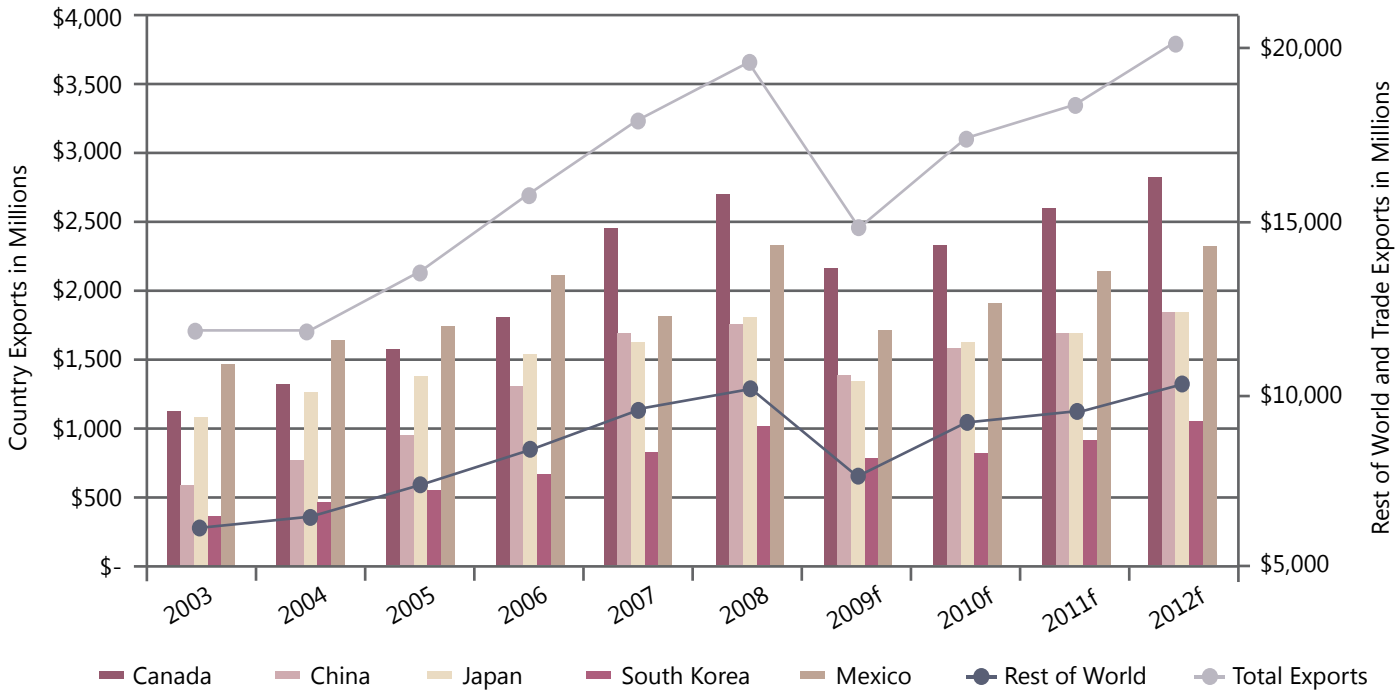
Orange County mainly exports to five countries, including Canada, China, Japan, South Korea and Mexico. Export growth is based on the expansion of the economies of those countries. China's economy expanded by 9.2 percent in 2011, at which time South Korea's increased by 3.5 percent and Canada's by 2.5 percent.

FAST FACTS

***International trade** accounts for well **over 10% of Orange County's gross product** and employs nearly **500,000** residents in Southern California.*

*Orange County mainly exports to **five countries**, each with expanding economies: Canada, China, Japan, South Korea and Mexico.*

Orange County Exports by Country, 2003-2012 Forecast

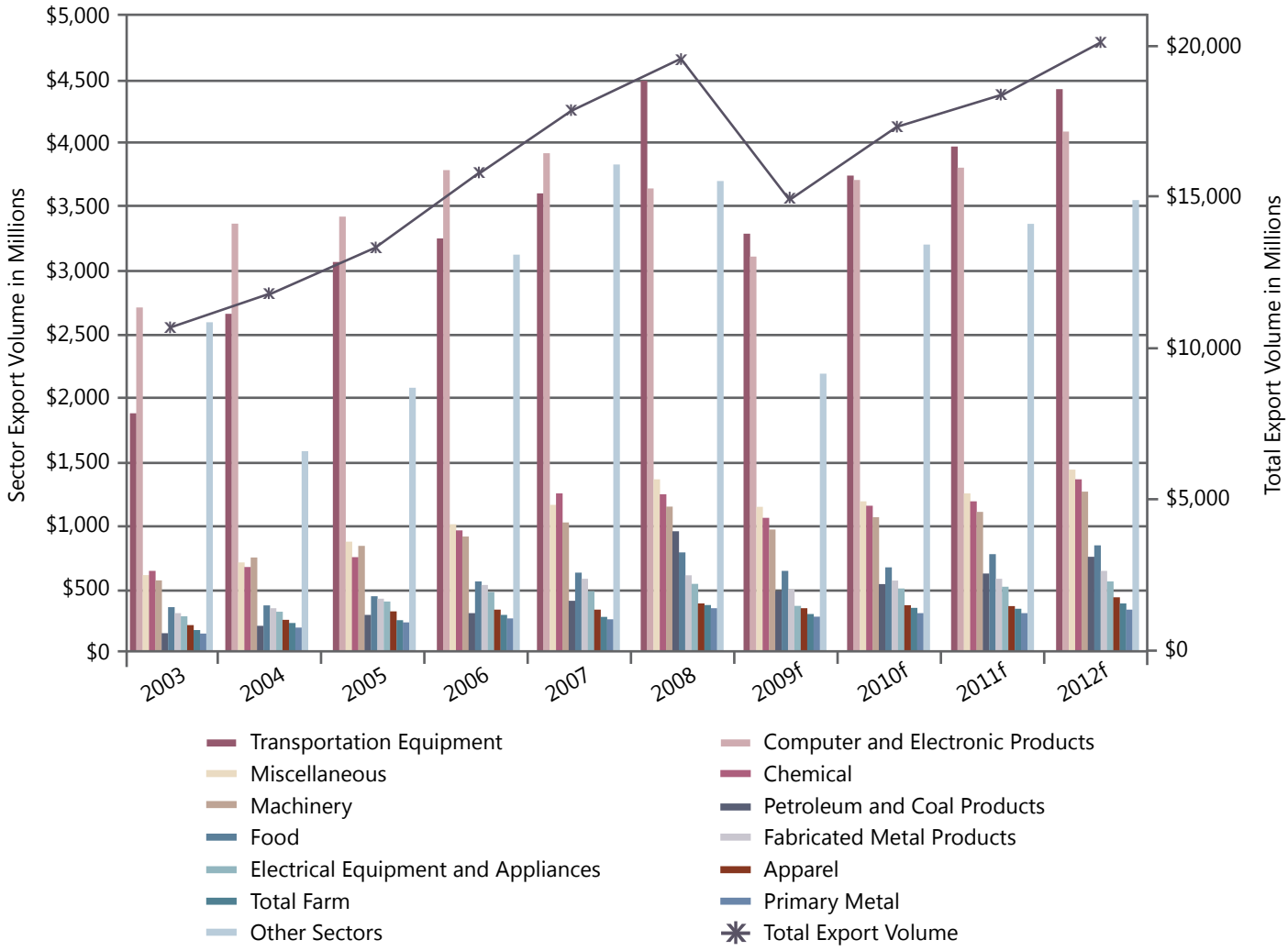


Source: IEES, California State University, Fullerton

The two most dominant export sectors for the county were transportation equipment and computer and electronic products. These sectors combined accounted for approximately 41.3 percent of total exports in 2008. Other large export trade sectors for Orange County include miscellaneous, chemical, machinery, petroleum and coal products, and food.

Exports of transportation equipment experienced the largest decline from 2008 to 2009 of over $1 billion, and are not expected to attain pre-recession levels by 2012. On the other hand, computer and electronic products are slated for significant growth in the near future, reaching former 2008 export levels by 2010 and growing further by 2012. By 2013, Orange County expects exports of $6.1 billion in computers and electronic products, increasing from $3.8 billion in 2009. Furthermore, transportation equipment exports are expected to grow to $5.5 billion in 2013—up from $3.3 billion in 2009.

Orange County Exports by Sector, 2003-2012 Forecast



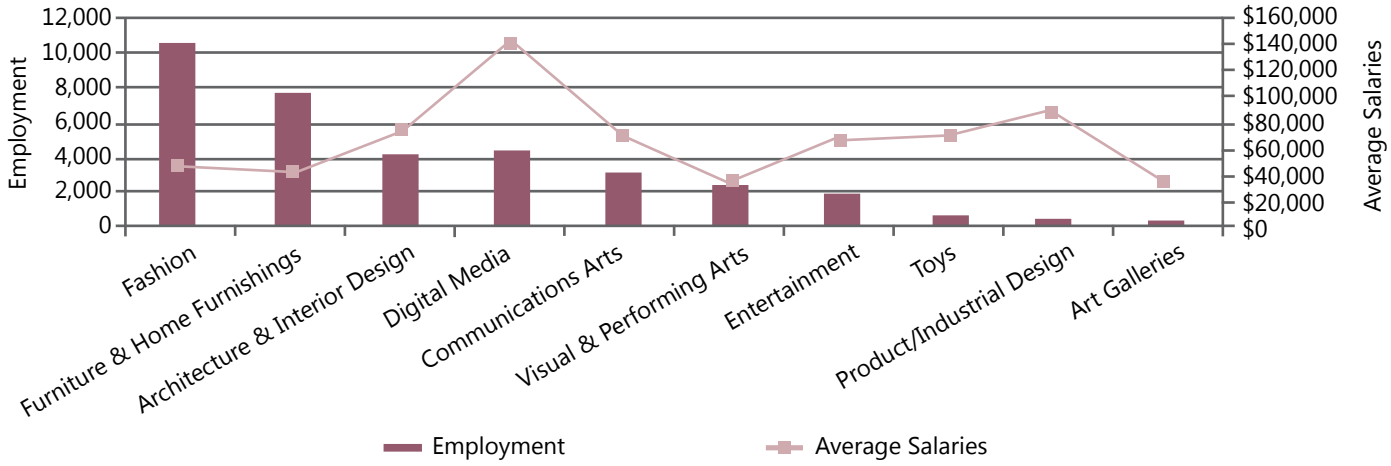
Source: IEES, California State University, Fullerton

INFORMATION TECHNOLOGY >> A highly skilled information technology workforce is essential to driving economic growth in a fast growing knowledge-based economy. Specialized skills—often requiring education or experience in science, technology, engineering and mathematics—are critical to supporting innovation in fields as diverse as computers, medicine and communication.

Orange County has long been a leader in computer and electronic software, service and product manufacturing, and a major portion of international exports are based on these products. Information technology occupations, namely those that connect businesses and provide computer software products and services, have aided in driving employment of various industries in the county. Professional and business services industries rely greatly on information technology for day-to-day operations with features such as email, video conferencing, cloud technologies and various computer software programs. These new technologies have allowed businesses to become more connected to their customers and promote business-to-business connections, which allow for increased collaborations and subsequently the expansion of this industry.

The average salary for the information technology industry is $86,000, almost $34,000 more than the average industry salary in the county. According to California's Employment Development Department, the highest wage occupation in the information technology industry is that of software publishers who earn an average of $144,404 annually. This industry will be the main driver of employment and economic activity in the county. California's Employment Development Department reported that three of the top six occupations with the most job ads/openings in Orange County were related to information technology—such as web developers, computer systems analysts and computer software engineers/applications.

Orange County Creative Industry Employment and Average Salaries, 2010



Source: Otis College of Art and Design, Los Angeles Economic Development Corporation

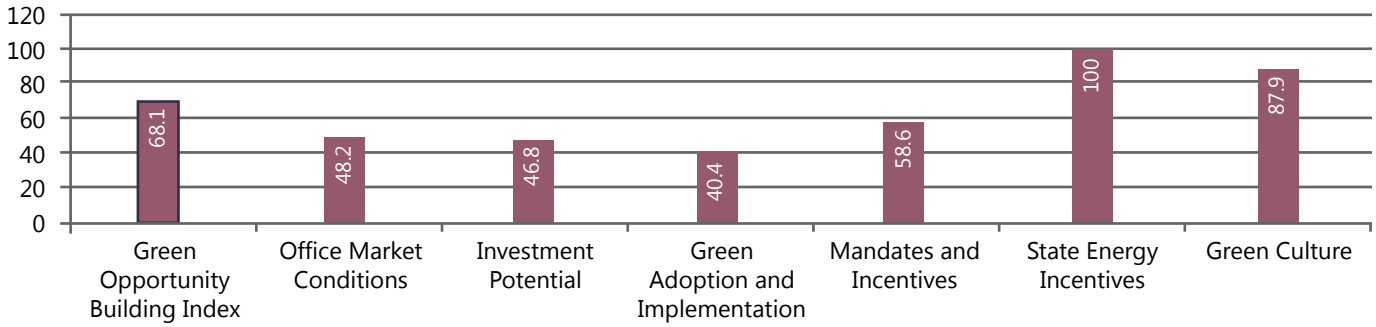
CREATIVITY >> Orange County's increasing focus on STEM (science, technology, engineering, math) as a critical competitive advantage has evolved into an emphasis on STEAM (science, technology, engineering, arts, math). The creativity sector is the market impact of businesses and individuals involved in producing cultural, artistic, and design goods and services. More specifically, it consists of creative professionals and enterprises that take powerful, original ideas and transform them into practical and often innovative goods, or inspire with their artistry.[1]

GREEN/CLEANTECH >> Many Orange County companies have altered business operations to include new environmentally sustainable practices, not only because of recent state and federal legislation, but also because efficient practices make good business sense. According to Next 10's *2012 Many Shades of Green* report, Orange County's green employment increased by 62 percent, adding 6,900 jobs from 1995 to 2010 compared to the state green employment growth of 53 percent during the same period. Orange County's overall job growth of 15 percent was the third largest growth rate in California, behind the Sacramento area (113 percent) and Bay area (78 percent).

The biggest sectors for employment were air and environment; energy generation; energy efficiency; water and wastewater; and recycling and waste. Growth in energy generation added 120 jobs, expanding 3.0 percent during the period from 2009 to 2010. Energy efficiency subsections—solar appliances and devices, lighting and energy conservation products—grew 12 percent, adding a combined 110 jobs during the same period.

[1] Orange County's 2009 creative industry employment was estimated to be 37,900 direct jobs. Counting indirect jobs of this sector, total employment for Orange County grew to 77,200 jobs, with high annual wages offered by such occupations as digital media ($123,530) and product and industrial design ($90,328).

Cushman and Wakefield/BetterBricks Green Opportunity Building Index and Sub-Index Scores



Source: Cushman & Wakefield/BetterBricks

Another measure of green activity comes from the Cushman & Wakefield/BetterBricks *2011 Green Opportunity Building Index*—an indicator that measures and combines six subsectors, ranging from office market conditions to green culture, to rank the top U.S. office markets on the basis of both real estate fundamentals and green investment considerations. Orange County's index score of 68.1 and 14th rank out of 30 places it behind San Diego (69.3) and Los Angeles (79.2). San Francisco scored the highest rating with 100.

The **office market conditions** measure the overall health of the region's office market, including Class A vacancy rates, overall vacancy rate, leasing activity as a percent of inventory, absorption as a percent of inventory, average cap rates for office transaction, peak-to-trough performance for asking rents, and peak-to-trough performance for occupancy.

The **investment potential** reflects forecasted future conditions through supply-side forces and demand drivers using Cushman & Wakefield's proprietary forecasting methodology. Orange County's score of 46.8 ranked it 12th out of the top office markets.

The **green adoption and implementation** take into account the existing adoption and potential implementation of green development and/or redevelopment in terms of such variables as LEED and ENERGY STAR office space. Orange County's score of 40.4 ranked it 11th behind San Francisco (83.2) and Los Angeles (56), yet in front of San Diego (32.9).

The **mandates and incentives** assess a local market's commitment to sustainable building practices through legislative mandates and incentives to build and refurbish green development, capital investments and retrofits. Orange County ranked 13th, along with San Diego but behind San Francisco and Los Angeles.

The **state energy incentives** measure utility and public benefit funds, efficiency programs and policies, building energy codes, appliance efficiency standards, financial and information incentives, and research and development. All cities located in California scored 100 on this measure.

The **green culture** measures the green economy, land use and planning measures, walkability and public transportation. Orange County scored 87.9, behind San Francisco (100) and San Diego at (88.1), but in front of Los Angeles (85.4).

INDUSTRY CLUSTER AND OCCUPATION TRENDS

2012/2013

UNEMPLOYMENT

While unemployment rates remain high due to the effects of the Great Recession, which officially ended in late 2009, Orange County's employment growth is performing better than surrounding Southern California counties and the state; and is on par with the nation.

WHY IS THIS AN ISSUE?

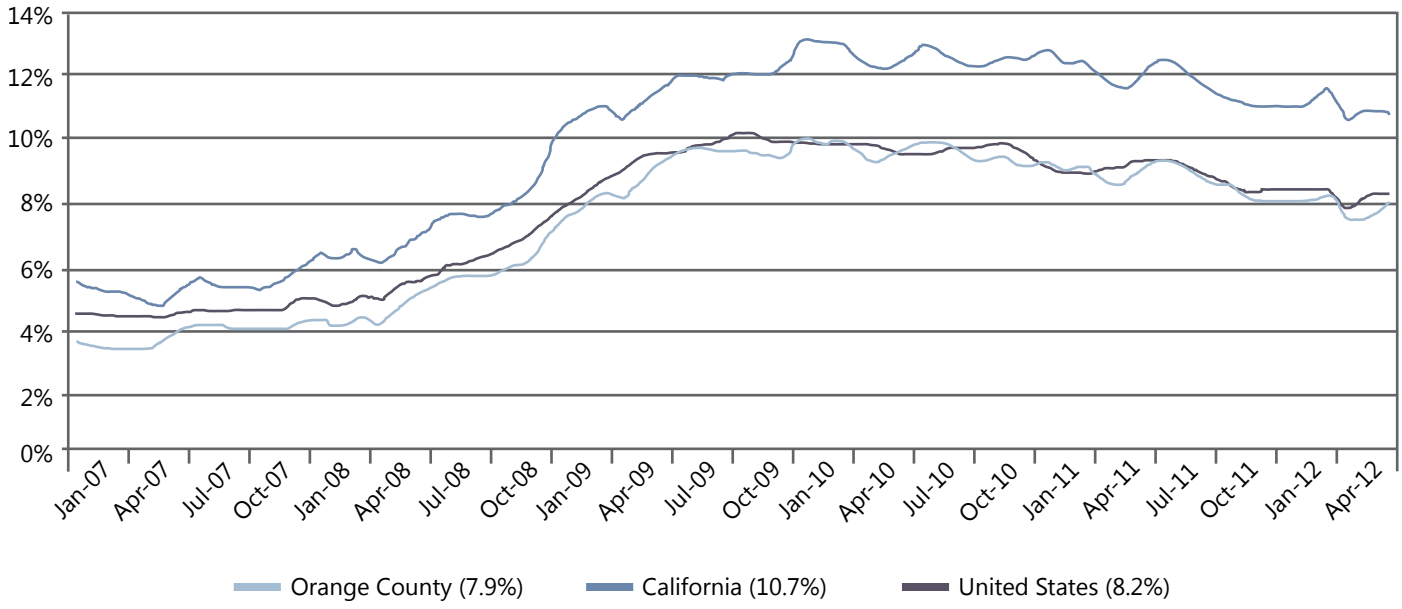
Orange County has outperformed surrounding communities because of its diverse industry cluster base; high wage industry composition; innovative and entrepreneurial business climate; welcoming business environment; well-educated and skilled workforce; and geographic location at the center of Southern California—a large market with advantageous international trade linkages. Orange County's recovery is proceeding at a moderate pace and is starting to pick up steam.

During the Great Recession, employers survived by forging new perspectives and competitive approaches, such as operating with a smaller and more efficient workforce. As Orange County continues recovering, many employers have maintained this approach, choosing to grow only as needed. This has slowed employment growth at a time when it is critical to the county's economic success.

HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

Unemployment peaked at 10 percent in January 2010. Since then, Orange County has made significant advances toward economic recovery by creating approximately 60,000 new jobs in the private sector. Unfortunately, the unemployment rate is still approximately three percent higher than what was traditionally seen prior to the Great Recession. As of June 2012, the unemployment rate in Orange County was 7.9 percent compared with 8.2 percent for the U.S. and 10.7 percent for California. While still high, for Orange County this estimate represents improvement from its 9.2 percent estimate a year earlier.

Unemployment Rates of Orange County, California and United States



Source: California Employment Development Department

INDUSTRY AND OCCUPATIONAL GROWTH

Concentrating education, workforce and economic development programs to support key industry clusters will help accelerate employment growth and provide Orange County with high impact and high multiplier occupations, further driving economic recovery.

WHY IS THIS AN ISSUE?

Industry clusters tend to have higher growth and generate higher wage occupations. Industry clusters, different from industry sectors, are defined as geographic concentrations of interconnected companies, specialized suppliers, service providers and associated institutions in a particular field. On the other hand, industry drivers are emerging industries that are found in a large majority of industry clusters (as illustrated in the Cluster Overlay section) and help to drive employment growth in those clusters.

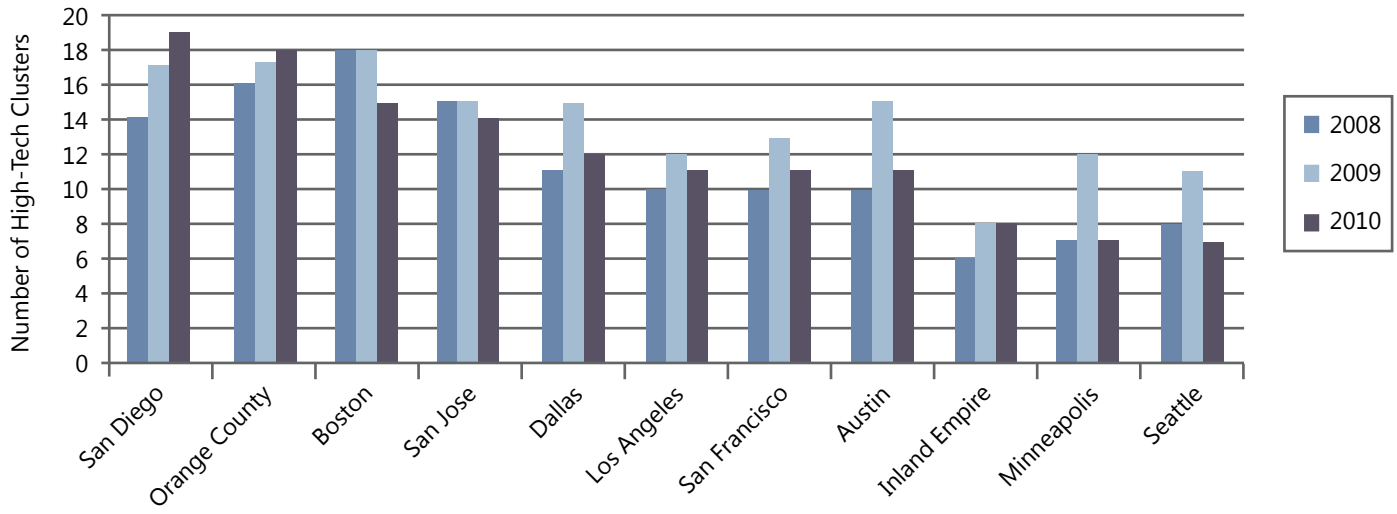
During this period of global economic recovery and globalization, it is important for Orange County to build its competitive advantage around its growing and emerging industry clusters. Sustained economic growth will be achieved through Orange County's diversified industry sector base, emerging industry clusters, and industry drivers, effectively creating pathways for increasing economic activity.

BACKGROUND >> The clusters discussed in this section represent three-fourths of all Orange County occupations and were created to highlight the key industry sectors that drive employment and economic activity in the region. Clusters are geographic concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions in particular fields. Clusters emerge because companies engaged in a similar industry recognized that they can boost their productivity through locating near each other, thus enhancing their ability to compete collectively and cooperatively. Individual firms in a cluster benefit from comparative advantages associated with geographical concentrations such as access to a common pool of specialized labor, infrastructure, intellectual property and lower transaction costs between firms.

HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

The county's concentration on communication, computer software programming and pharmaceutical industries has led to competitiveness and increased development in several high-tech clusters. Orange County is ranked only behind San Diego and is significantly ahead of Boston in the number of high-tech clusters in the nation for 2010. The number of high-tech clusters increased from 17 in 2009 to 18 in 2010, comparing favorably to San Jose and Los Angeles, which had 14 and 11 respectively.

High-Tech Cluster Diversification Regional Comparison, 2008-2010

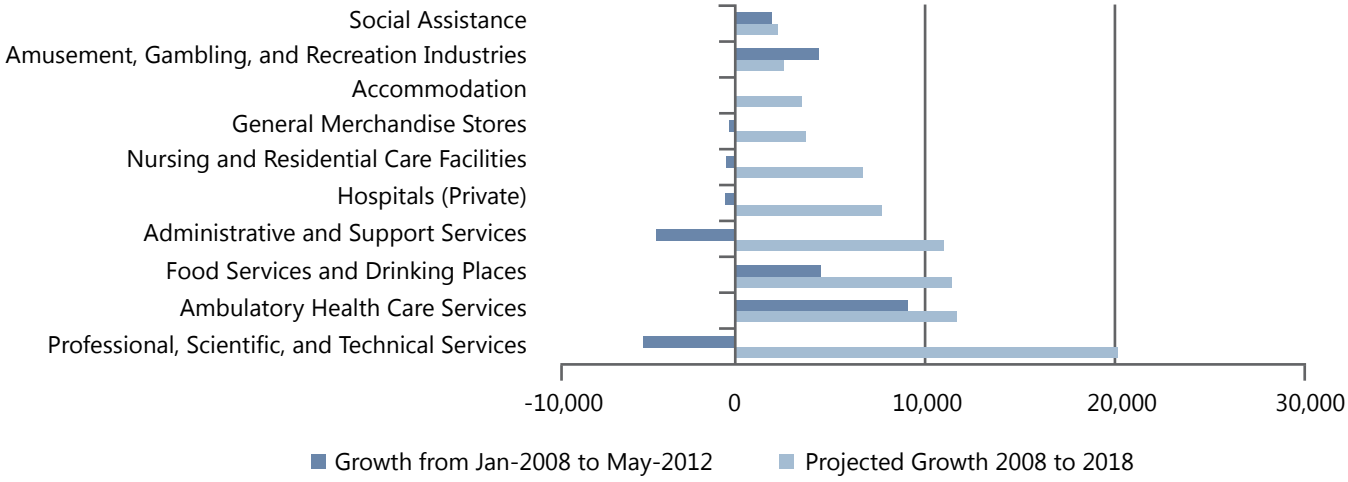


Source: Milken Institute

INDUSTRY SECTOR OVERVIEW >> In 2010, California's Employment Development Department released its 2008—2018 employment projections for Orange County. While there are still six years left in the projected time frame, current numbers propose a different story. Projections estimated that Orange County's industry sector employment would grow by 8.4 percent, but since the beginning of 2008 industry employment has fallen by 6.8 percent. This gap between the current and projected employment growth is a result of the uncertainty and lasting impacts of the Great Recession.

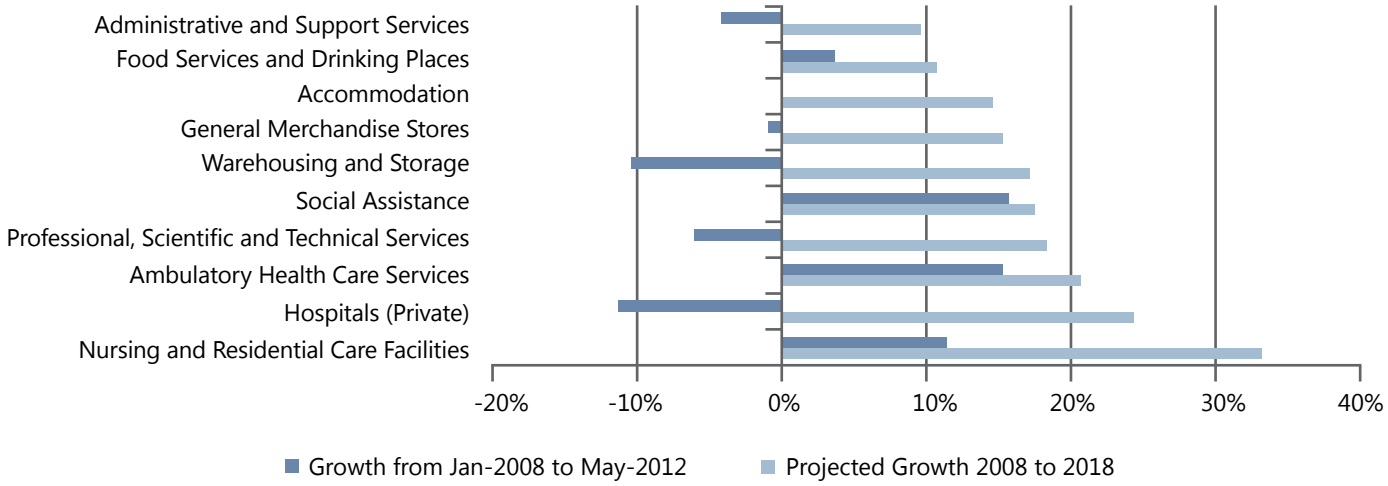
When looking at the industries that California's Employment Development Department projected to grow the fastest—both in terms of absolute and percentage growth—during the 2008 to 2018 period, there is a more diverse picture. While some are on track to meet or exceed the projections, others are far behind or have experienced employment loss since 2008. The professional, scientific and technical services industry was projected to increase the most in terms of absolute growth but instead lost 6,100 jobs. The administrative and support services followed with a 4,900 loss in employment. In terms of percentage growth, hospitals (private) and warehousing and storage were projected to be among the top 10 fastest growing industries, yet experienced an 11.6 percent and 10.2 percent decrease, respectively. Other industries are on track to exceed EDD projections, such as ambulatory healthcare services and social assistance industries, which saw gains of 9,100 and 15.6 percent, respectively.

Projected vs. Current Absolute Industry Growth



Source: California Employment Development Department

Projected vs. Current Percent Industry Growth



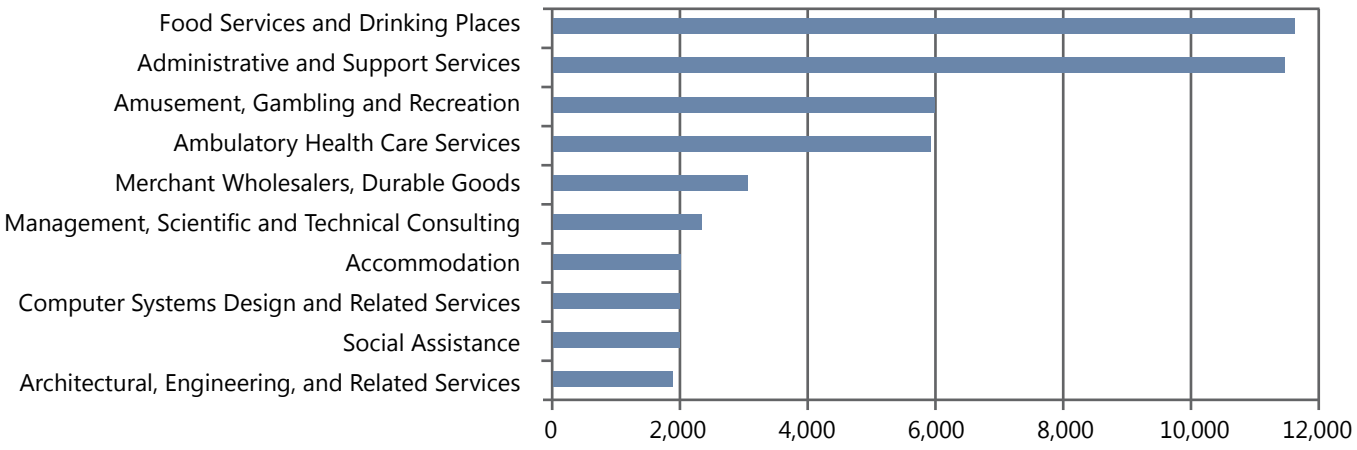
Source: California Employment Development Department

With the Great Recession ending in late 2009, Orange County has seen the rise of certain industries over the past two and a half years. The industries that have shown the most growth since the end of the Great Recession are the same ones that will prosper in the immediate future.

These top ten industries, in terms of absolute and percentage growth, represent the ones that adjusted well to the difficulties posed by the Great Recession and capitalized on the current recovery period. Orange County can expect to see continued growth of the service sectors—with food services and drinking places, and administrative and support services experiencing the largest absolute growth at 11,400 and 11,300, respectively. After administrative and support services, there is a major drop in absolute growth. This drop signifies the county's need for continued industry development, particularly in higher wage industries.

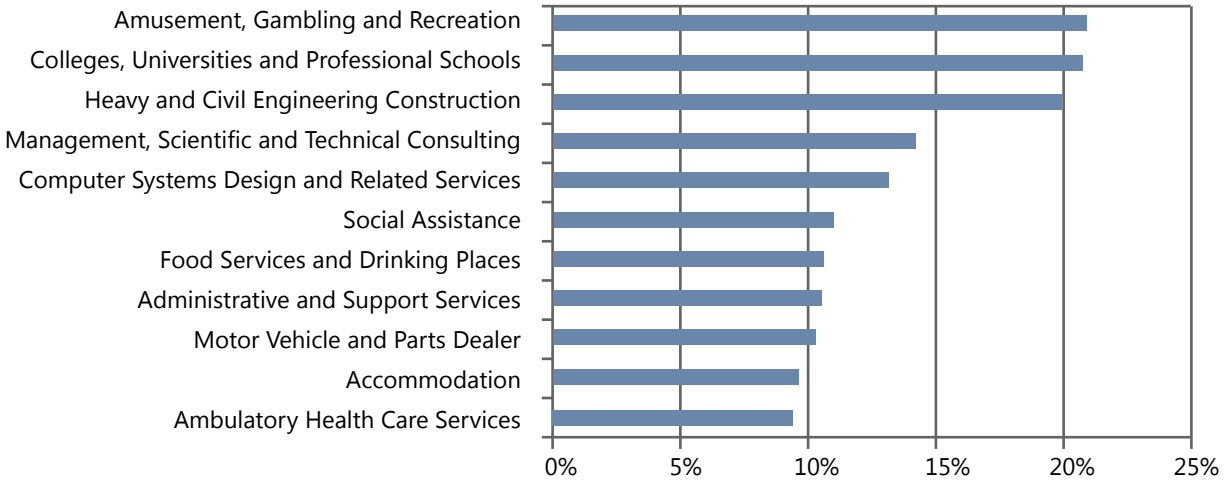
The technical industries in Orange County have also rebounded well from the Great Recession with the heavy and civil engineering construction and computer system design and related services experiencing significant percentage growth. The continued development and growth of these technical industries, among others, will be important for the county's future as a leader in the high-tech industry.

Top Ten Fastest Growing Industries in Orange County by Absolute Growth, Jan-2010 to May-2012



Source: California Employment Development Department

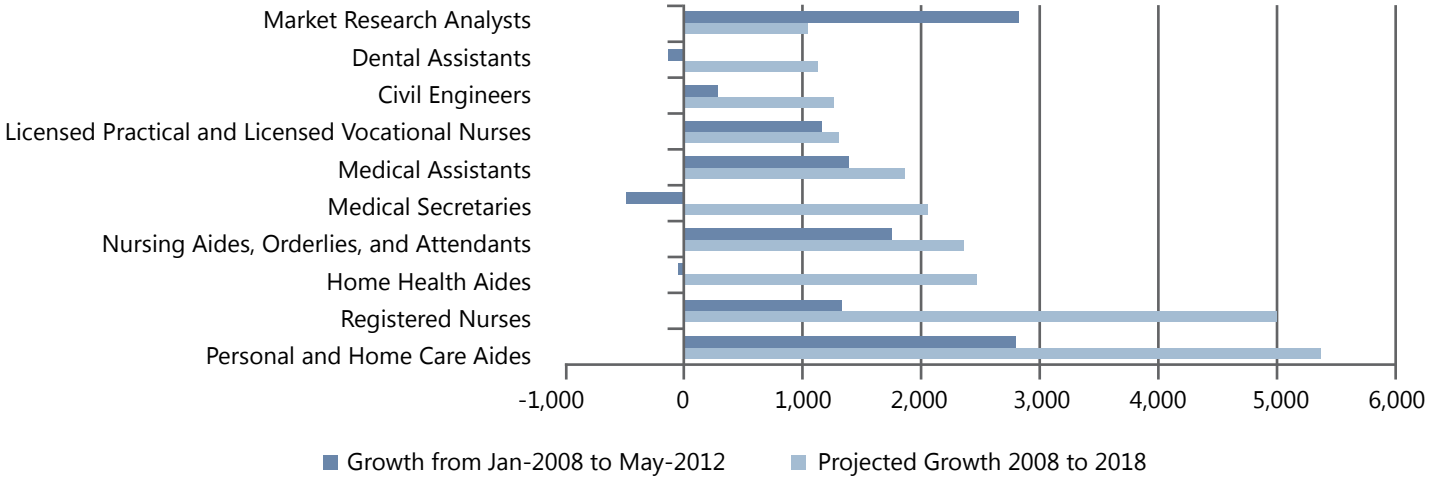
Top Ten Fastest Growing Industries in Orange County by Percent Growth, Jan-2010 to May-2012



Source: California Employment Development Department

OCCUPATIONAL OVERVIEW >> During the 2008 to 2018 period, California's Employment Development Department projected that Orange County would add 135,000 jobs by 2018. Although, estimates indicate that the county currently has 7,500 fewer jobs than 2008 levels. This decrease is the result of major losses during the Great Recession from 2008 to the end of 2009. Since 2010, relatively steady employment growth has added approximately 30,000 jobs to the Orange County economy. Occupations identified as the fastest growing in terms of absolute growth have kept pace with or exceeded the EDD projections. Only home health aides, medical secretaries and dental assistants experienced minor net declines since 2008. With the exception of those three, the healthcare industry continues to grow and be a strong presence in the county.

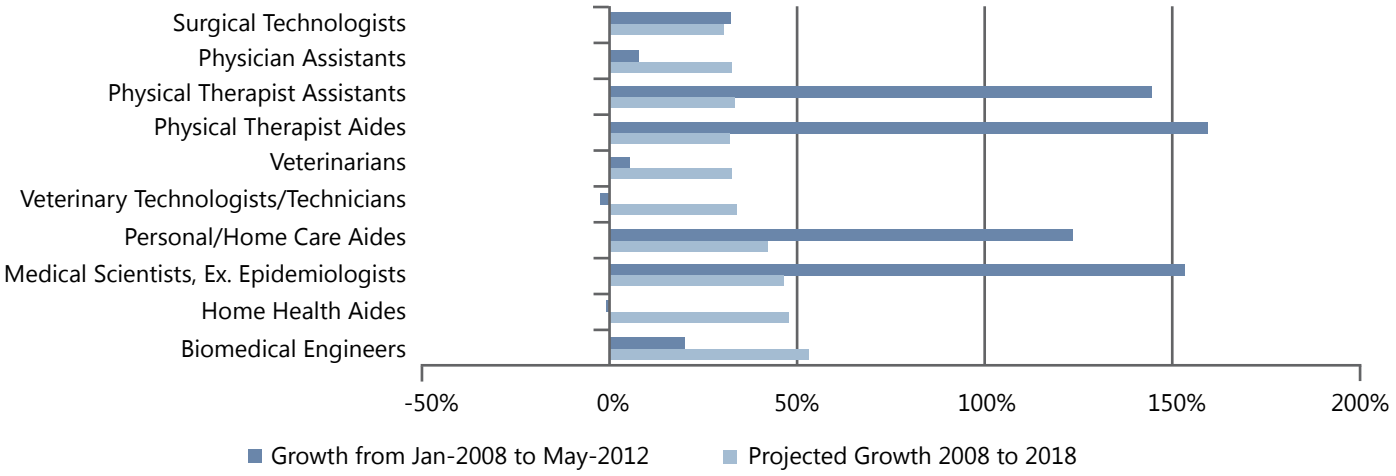
Projected vs. Current Absolute Occupation Growth



Source: California Employment Development Department

In terms of percentage growth, biomedical engineers (52.2 percent), home health aides (47.5 percent), medical scientists (45.7 percent), and personal and home care aides (42.8 percent) were projected to be the fastest growing occupations from 2008 to 2018 in Orange County. Some, such as biomedical engineers, are on track to meet projections. Home health aides and veterinary technologists/technicians, on the other hand, have experienced slight declines. Some occupations—all in the healthcare industry—have far exceeded their growth projections with physical therapist aides experiencing the largest growth by 162 percent since 2008. The top 10 high growth occupation categories demonstrate and reinforce current and projected growth trends of the information technology, biomedical and healthcare clusters.

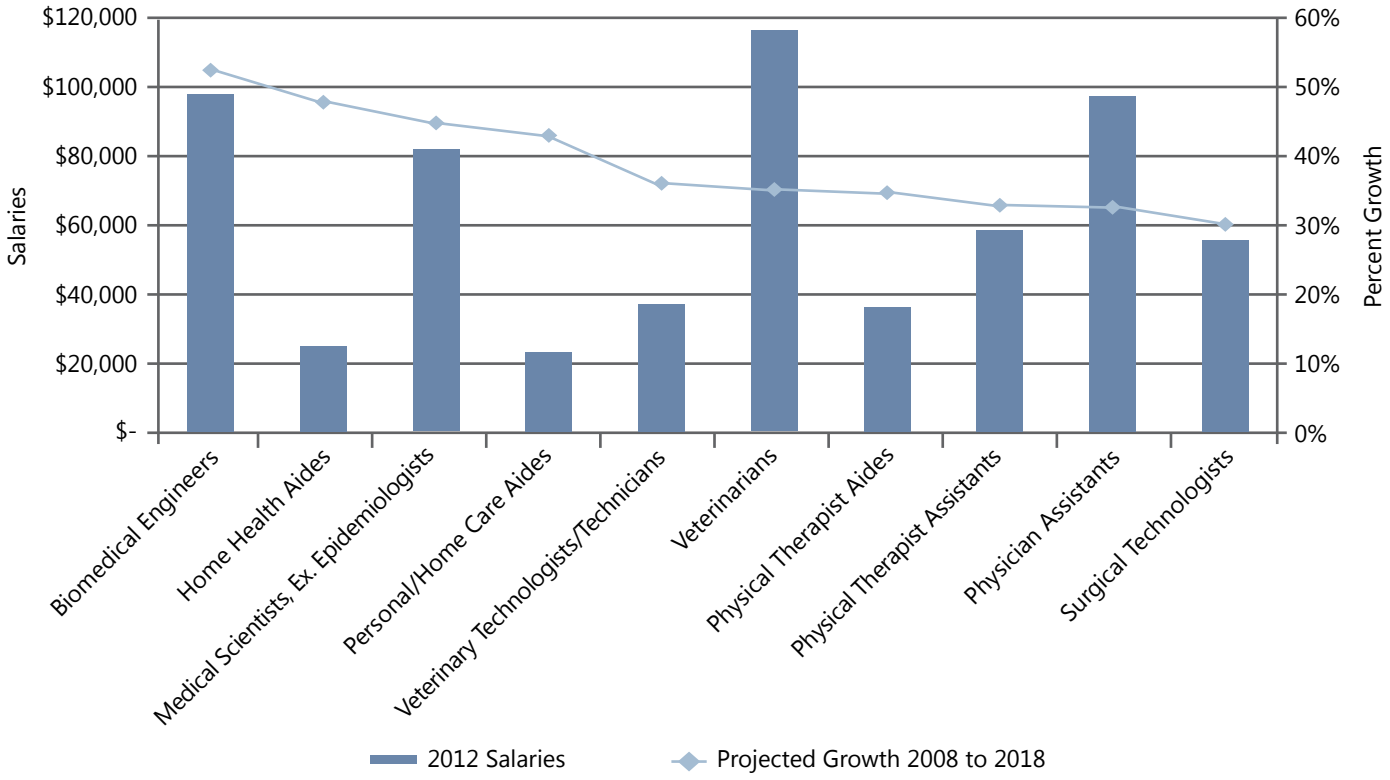
Projected vs. Current Percent Occupation Growth



Source: California Employment Development Department

Five of the 10 high growth occupations have salaries above $50,000 and are split between the high-tech, management and administration, and healthcare clusters. Many fast growing occupations pay above average salaries, as often workforce demand exceeds the existing supply of skilled workers, leading to workforce shortages. Fast growing occupation categories are ripe areas to consider for targeted education and workforce programs.

Average Salaries of Fastest 2008-2018 Growing Occupations in Orange County



Source: California Employment Development Department

CLUSTER EMPLOYMENT AND SALARIES

During this time of economic recovery, Orange County must focus on the creation of high wage jobs and the development of a skilled workforce to fill them. More high wage, high impact jobs must be created to replace those lost during the Great Recession and accelerate overall economic recovery.

WHY IS THIS AN ISSUE?

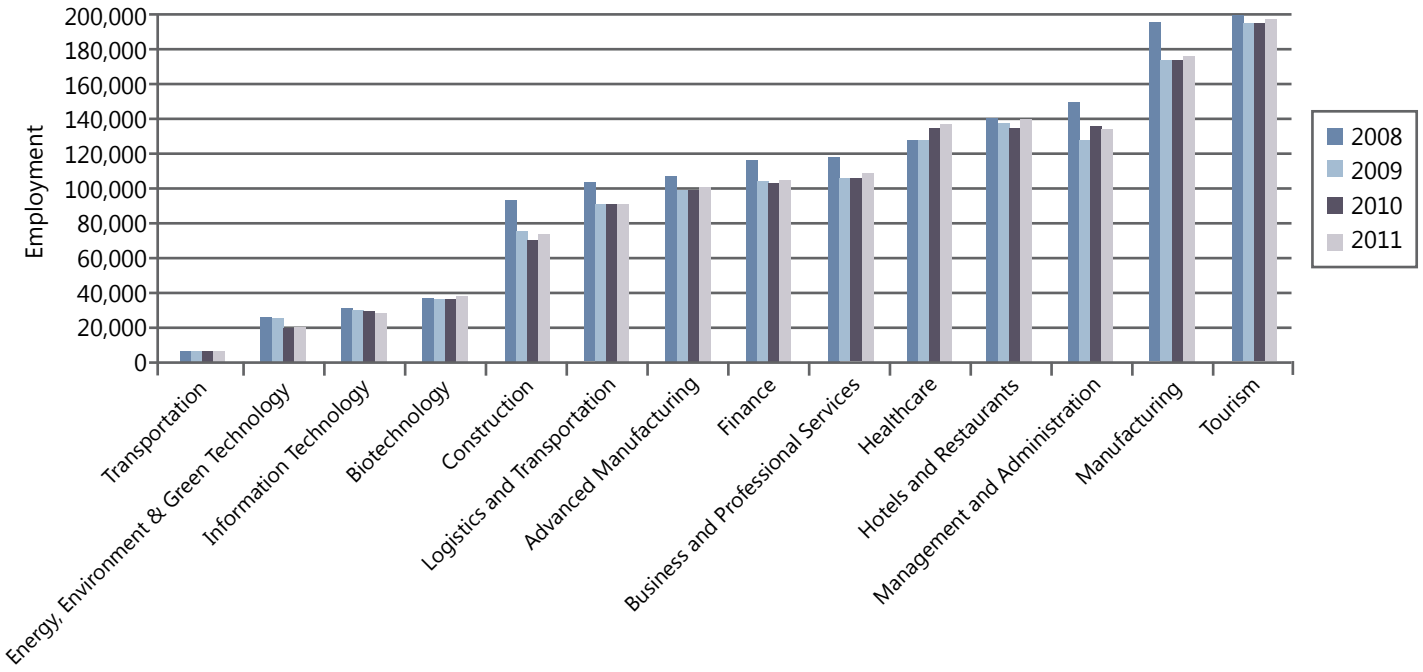
The Great Recession led to the loss of many of Orange County's high wage occupations. Since then, the county has worked diligently to increase job availability, though much of these increases in job growth have been attributed to employment growth in lower income clusters. As a result, Orange County must continue to focus on the attraction and creation of high wage occupations, while developing a well-educated and skilled workforce to meet the demands of these new roles. These high wage occupations will play a significant role in Orange County's ability to maintain its reputation as a vibrant place with a unique combination of a high quality of life and economic vitality—attributes that will attract residents, large corporations and entrepreneurs to the region over time.

HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

Tourism remains Orange County's largest cluster in terms of employment. The largest employment growth in the past year was seen in the hotel and restaurant cluster (of just under 6,000 jobs), which represented over 35 percent of total cluster employment growth from 2010-2011. Following behind the hotel and restaurant cluster in terms of absolute employment growth business and professional services (3,642 jobs), healthcare (2,584 jobs) and biotechnology (2,153 jobs).

Overall, cluster employment conditions are improving with only four clusters experiencing a decline last year compared to nine in the previous year. However, Orange County continues to see declines in the energy, environment and green technology and information technology clusters.

Orange County Cluster Employment, 2008-2011



Source: OCBC analysis of California Employment Development Department QCEW dataset

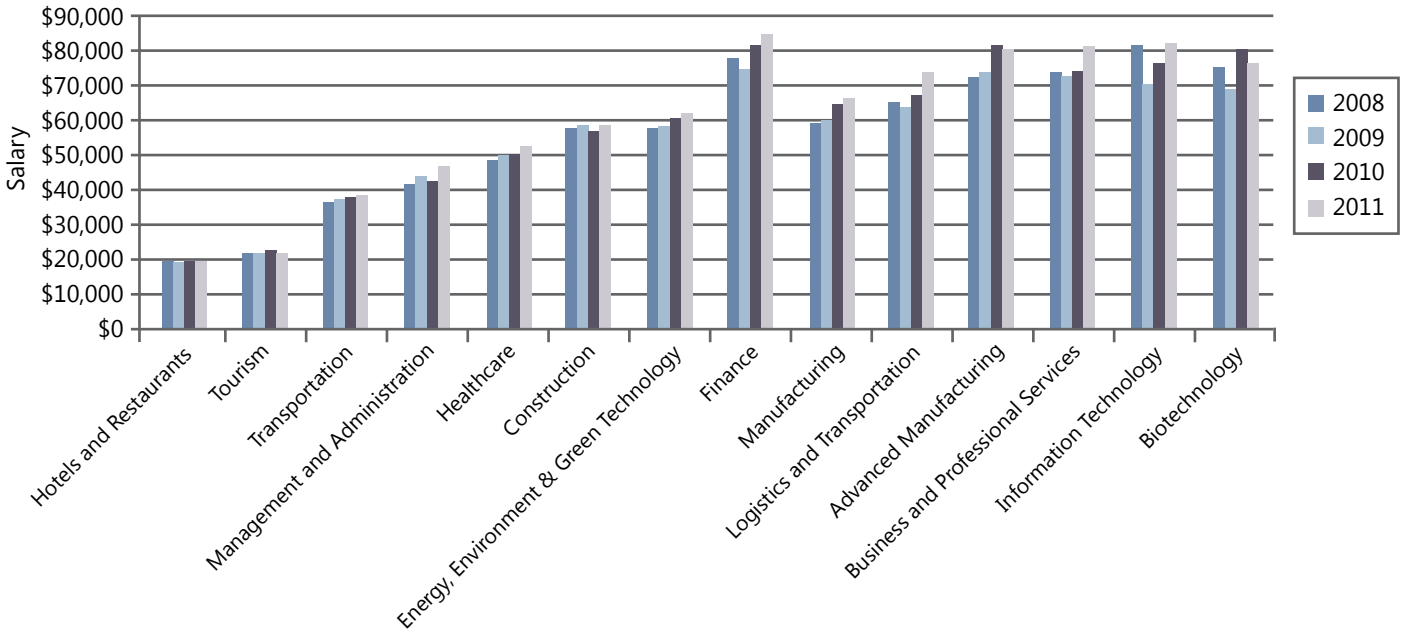
The average wage ($59,791) for all private industries in Orange County has risen significantly over the past year. This has continued the positive trend from the previous year, after wages fell as a result of the Great Recession. After steep declines just before and during the Great Recession, wages in the finance cluster have topped wages in other clusters with an average salary of $84,376 in 2011. The information technology and business and professional services cluster also showed strong growth from 2010-2011 with the second and third highest average salaries at $81,626 and $80,912, respectively. Overall 2011 was a positive year for Orange County with most clusters experiencing an increase in average salary. The only declines in average wages were in the advanced technology and biotechnology clusters with a two percent and five percent decrease, respectively.

There is a trend where the largest employment growth occurs in the lower wage industries, such as the hotel and restaurant and healthcare clusters. While this contributes to much needed employment growth, the high cost of living will make it difficult for those employed in these clusters to live in Orange County. As a result there must be continued cluster and workforce development to move these residents into higher wage occupations.

FAST FACT

*The **average wage ($59,791)** for all private industries in Orange County has **risen significantly** over the past year. After steep declines just before and during the Great Recession, **wages in the finance cluster have topped wages in other clusters** with an average salary of **$84,376** in 2011.*

Orange County Cluster Salary, 2008-2011



Source: OCBC analysis of California Employment Development Department QCEW dataset

EDUCATION AND WORKFORCE TRAINING TRENDS

2012/2013

EDUCATION AND WORKFORCE TRAINING TRENDS

In order for Orange County to maintain its competitive advantage of a large, well-educated workforce, improved policies and programs must be created to increase college and university level educational attainment across all sectors.

WHY IS THIS AN ISSUE?

A region's ability to improve its growth industries, increase overall wages, attract high-wage occupations, expedite vertical movement in career ladders, and increase innovation is directly tied to advancing the educational attainment of its workforce. The availability of a diverse, well-educated pool of individuals in the workforce provides a competitive advantage and is crucial to increasing overall wage levels and promoting broad economic development across the county. High levels of well-educated individuals also help to promote innovation across industries, by facilitating and expediting the emergence of improved technologies and business processes.

During the Great Recession, many Orange County industries were forced to operate with a smaller, more efficient workforce. As the economy recovers and industries begin to expand their workforces, it is important for the county to provide businesses with a well-educated workforce. In order to meet this demand, programs and policies must be implemented to increase college and university level educational attainment, as well as adult education. In doing so industries will be provided with a competitive advantage, promoting continued economic development throughout the County.

HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

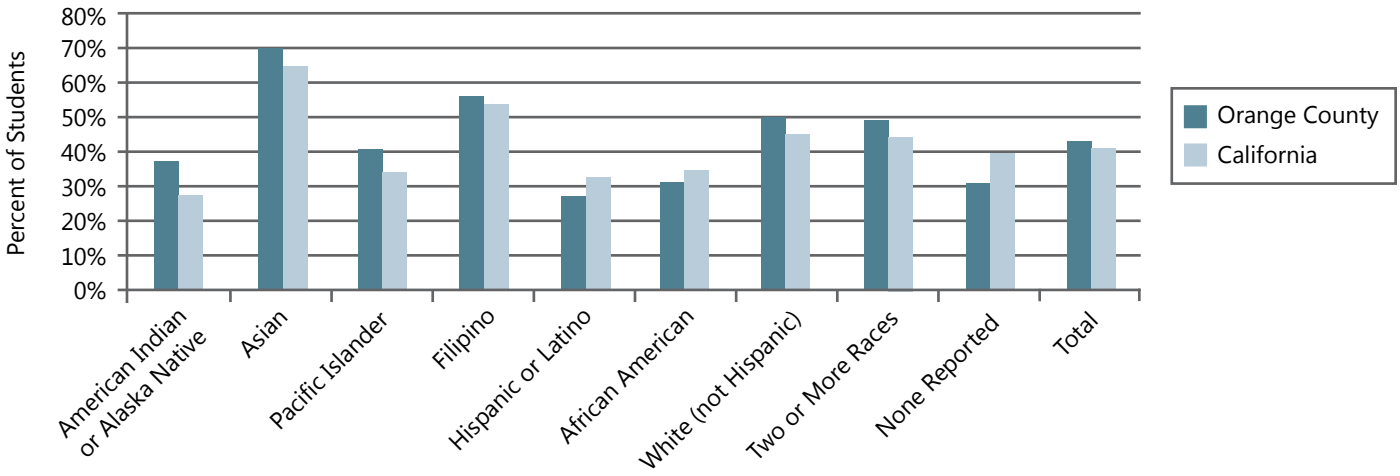
As of 2010—2011, approximately 43 percent of Orange County high school students were eligible for entry into the UC/CSU university systems. This rate shows a significant improvement with a seven percent increase in the past year. However, this latest increase has only been the most recent upturn in a series of ups and downs in the eligibility rate since 2006.

While Asians continue to have the highest levels of eligibility, the issue arises in the eligibility of Orange County's minority populations. Current efforts to address the low rates have clearly had an impact on the Latino population, which experienced an increase of over 10 percent in their eligibility rate over the past year. This increase was significant, but the African American and Latino eligibility rates in Orange County continue to perform poorly compared to other ethnicities and remain below the state levels.

FAST FACT

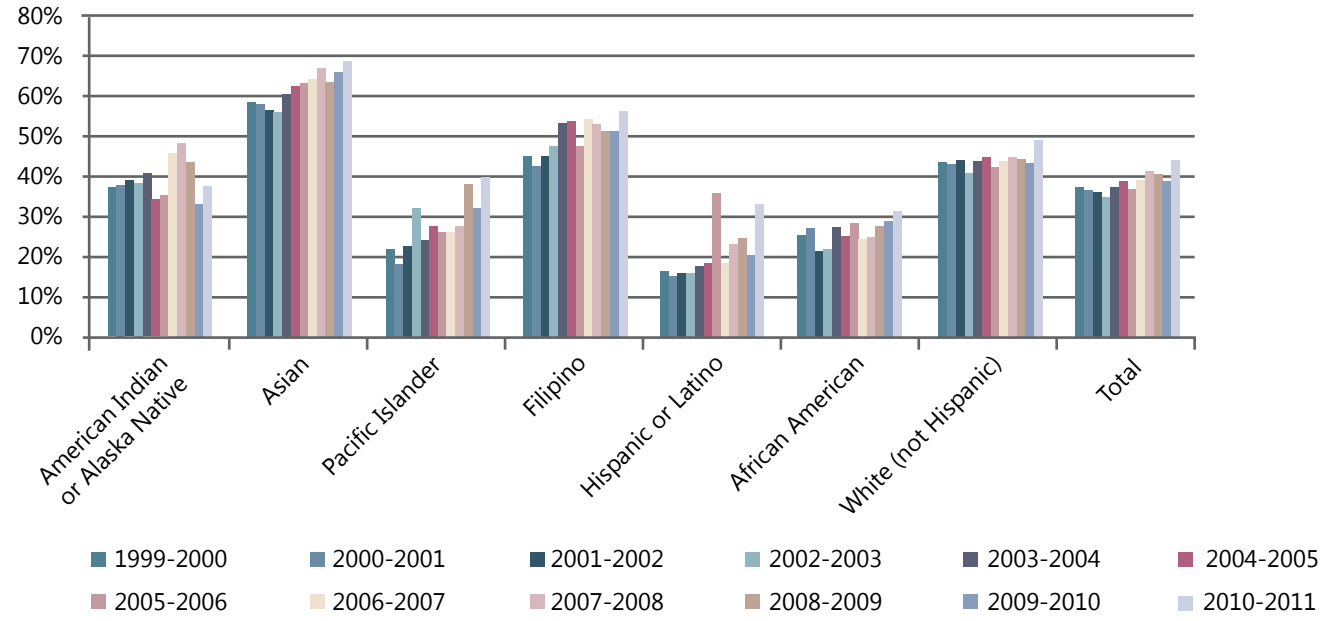
Efforts to address the low college eligibility rates among Latinos have clearly had an impact on the ***Latino population****, which* ***experienced an increase of over 10%*** *in their eligibility rate over the past year. However, African American and Latino eligibility rates continue to* ***perform poorly compared to other ethnicities*** *and remain below state levels.*

UC/CSU Eligible Orange County and California Graduates, 2010-2011



Source: California Department of Education, Educational Demographics Unit

UC/CSU Eligible Graduates by Ethnicity, 1999-2011



Source: California Department of Education, Educational Demographics Unit

BACKGROUND >> Orange County has historically been a well-educated community with educational attainment levels consistently higher than those of the state. Its fast growing industries and high quality of life have served as a magnet for both young and experienced professionals, while the university system has provided the county with a consistent flow of well-educated workers. The talent pool in Orange County has allowed high-wage occupations to grow, allowing the region to generate higher wages than surrounding areas and peer regions across the nation.

With much of Orange County's future job growth expected in industries requiring advanced or specialized degrees, demand for individuals with these degrees will increase significantly. As a result, it will be important for the county to prepare its current and future workforce to meet this new demand. College level and advanced degree educations are increasingly important for job opportunities and high-wage occupations. As technologies improve, business processes become more efficient, and job competition increases; in turn, the need for individuals with advanced, specialized degrees increases dramatically.

API, SAT, AND HIGH SCHOOL EXIT EXAM PERFORMANCE

Educational achievement gaps between Orange County school districts must be addressed in order to ensure all students receive a quality education. By improving the performance of districts that are underperforming while supporting those that are performing well, Orange County will be able to maintain its competitive advantage of a well-educated workforce.

WHY IS THIS AN ISSUE?

Orange County's academic performance has seen steady improvement over the past decade. While this suggests improved individual school district performance, some schools are still underperforming. The Academic Performance Index (API), Scholastic Assessment Test (SAT) and the High School Exit Exam provide measures of student performance. These measures help decision-makers assess possible shortfalls in their educational systems and identify areas that need improvement. Areas with higher overall test scores tend to attract more residents since parents look for well-structured educational systems for their children.

Measures of academic performance also provide employers with a broad sense of how prepared the future workforce will be. If the county performs well, it will decrease the chances of local employers recruiting from other areas and thus increase the available jobs for the local workforce.

HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

While efforts to improve poorly performing school districts have begun to enhance performance levels, achievement gaps between school districts remain significant. Orange County must continue to implement programs and policies focusing on improving educational attainment, particularly among English language learners and economically disadvantaged populations.

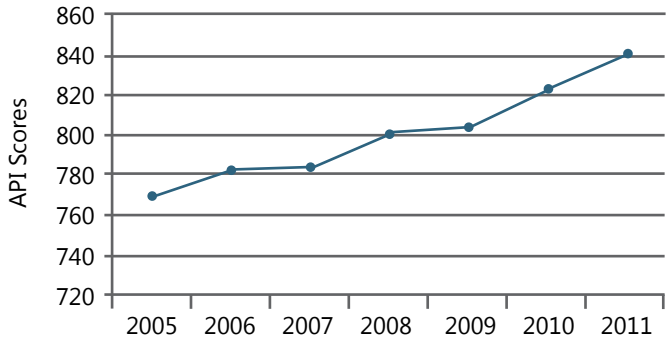
Across API, SAT and High School Exit Exams, Orange County performs well compared to peer regions, the state and the nation. Yet within the county, there are significant gaps between high performing schools and low performing schools. In order to continually increase its overall educational prowess, this gap will need to be narrowed.

Programs and policies should be targeted at not only enhancing education performance in underperforming districts, but also aimed at ensuring these students graduate and are eligible for advanced degrees. In doing so, Orange County will effectively improve its workforce, thus attracting more people into the region as well as high-tech, high-wage businesses and occupations.

ACADEMIC PERFORMANCE INDEX >> The Academic Performance Index (API) measures the academic performance of individual schools based on the results of statewide testing. The API uses an improvement model, where the API from one year is compared to the API from the prior year to measure improvement.

Orange County has had continued improvement in its average API scores since 2005. In 2011, the average API score was 844, which was more than a nine percent increase over 2005's 773 average API score. While Orange County's average API scores have improved, individual school districts have also shown improvement with the Garden Grove and Orange School Districts finally attaining the statewide performance target of 800. However, Anaheim and Santa Ana School Districts have failed to meet the state standard, with scores of 763 and 742, respectively.

Orange County Average API Scores for 2005-2011

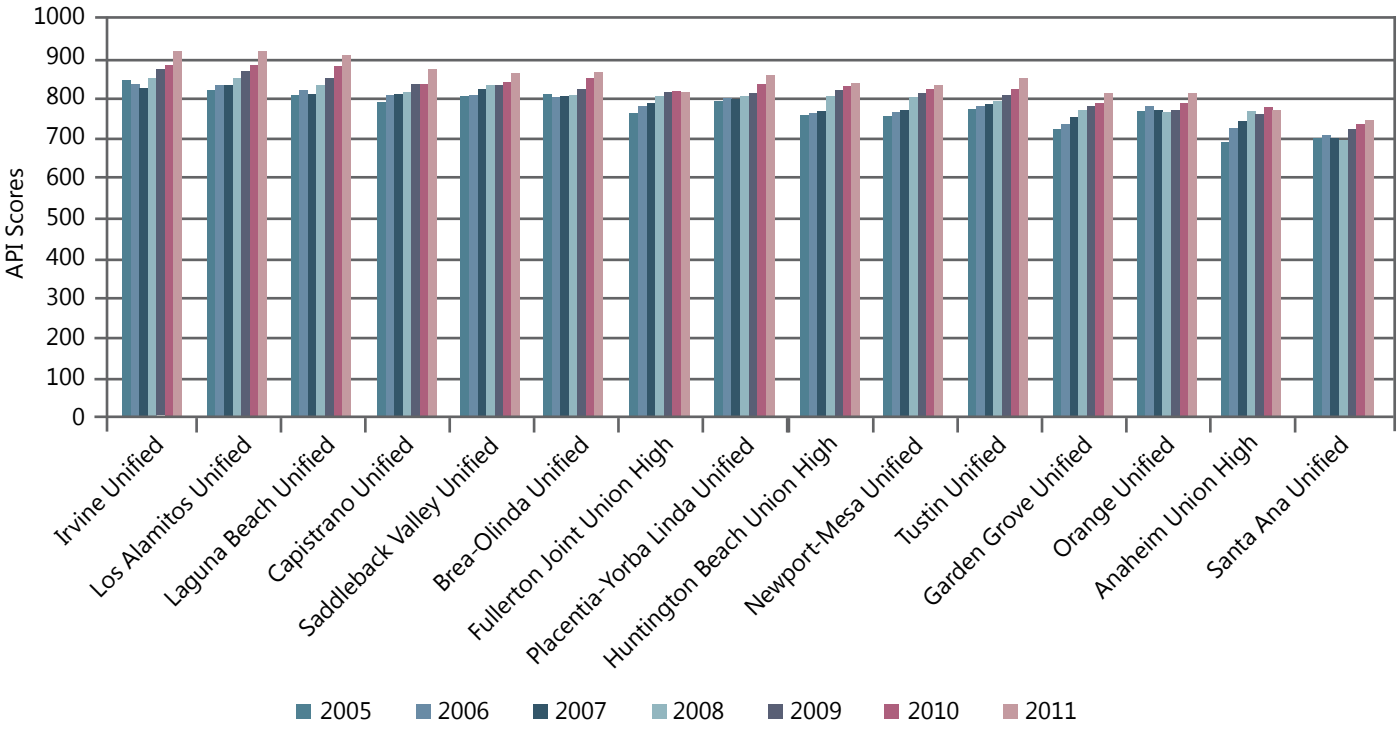


Source: California Department Of Education, Educational Demographics Unit

FAST FACT

While Orange County's average ***API scores have improved****, individual school districts have also shown improvement with the* **Garden Grove and Orange School Districts** *finally attaining the* ***statewide performance target of 800****.*

Orange County Average API Scores by District, 2005-2011

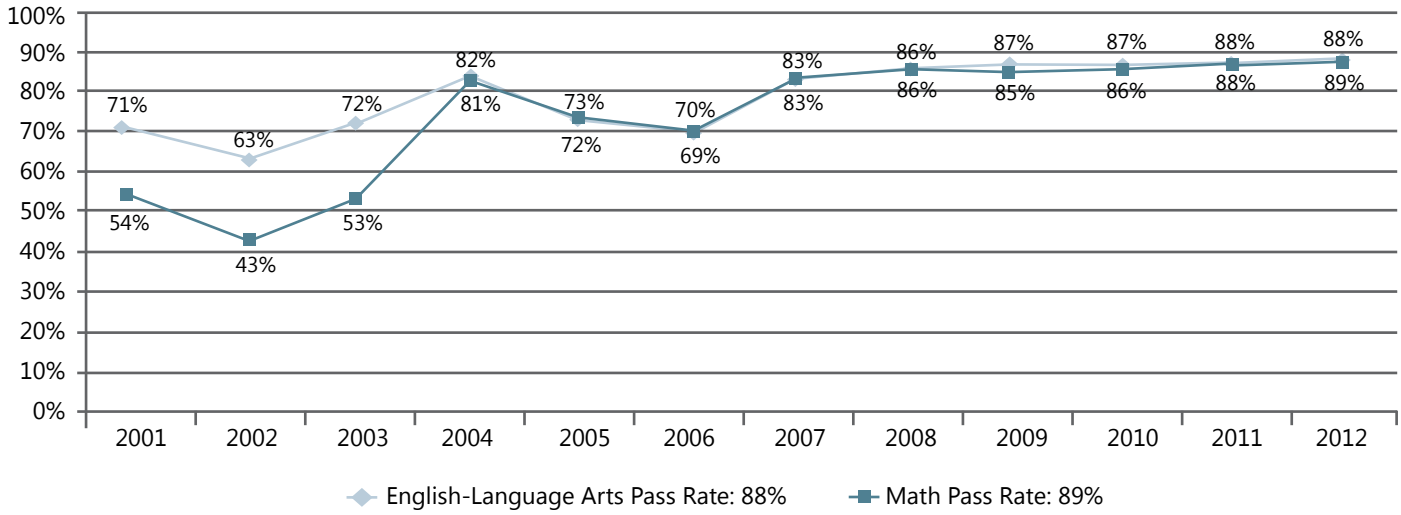


Source: California Department Of Education, Educational Demographics Unit

HIGH SCHOOL EXIT EXAM PERFORMANCE >> Orange County high school students are required to take the High School Exit Exam in order to graduate. Exit exams provide another tool in measuring cumulative student achievement. As of 2012, Orange County high schools students had an exam pass rate of 88 percent for english language arts and 89 percent for mathematics. These are the highest rates experienced for both subjects, and exceed the state pass rates of 83 percent for english language arts and 84 percent for mathematics.

Santa Ana Unified School District's High School Exit Exam pass rates are the lowest in the county and lower than statewide rates. While pass rates for Santa Ana schools have experienced an absolute increase in recent years, they are still well below average county rates and those of neighboring school districts.

Orange County Grade 10 High School Exit Exam Trend, 2001-2012

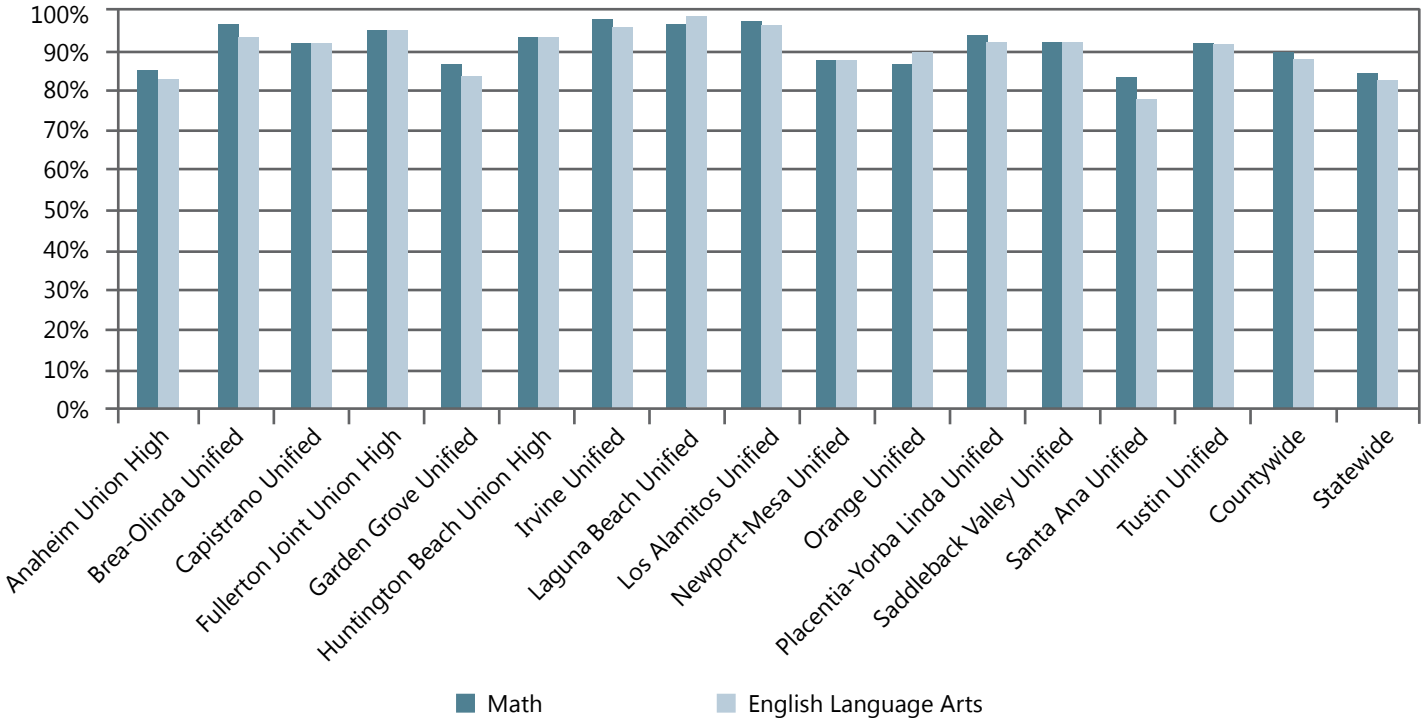


Source: California Department Of Education, Educational Demographics Unit

FAST FACT

*Every school district in Orange County **outperformed the state averages** for both math and english language arts **except for Santa Ana Unified** which posted exit exam pass rates of **78%** for english language arts and **83%** for math, and **Anaheim Union High** which had the same pass rate as the state in math and a lower pass rate in english language arts at **82%**.*

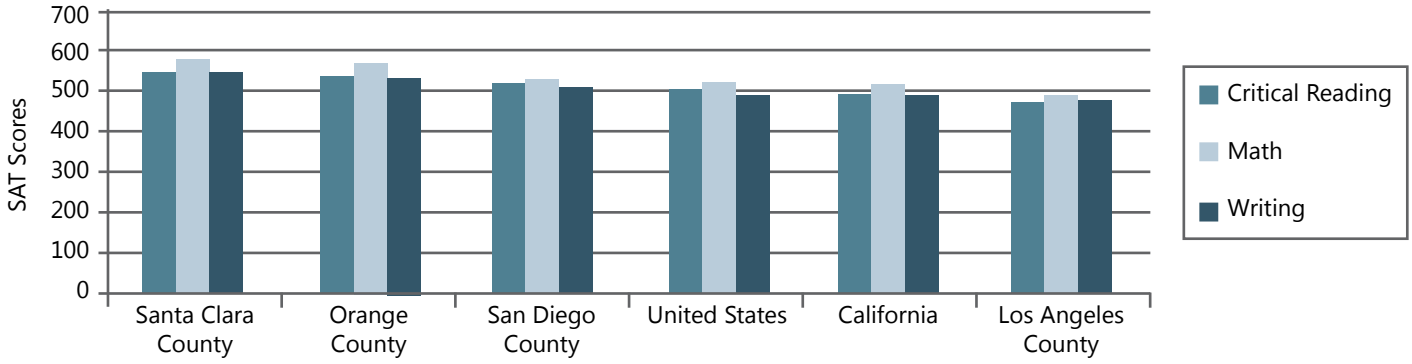
Grade 10 High School Exit Exam Pass Rate by District, 2011-2012



Source: California Department Of Education, Educational Demographics Unit

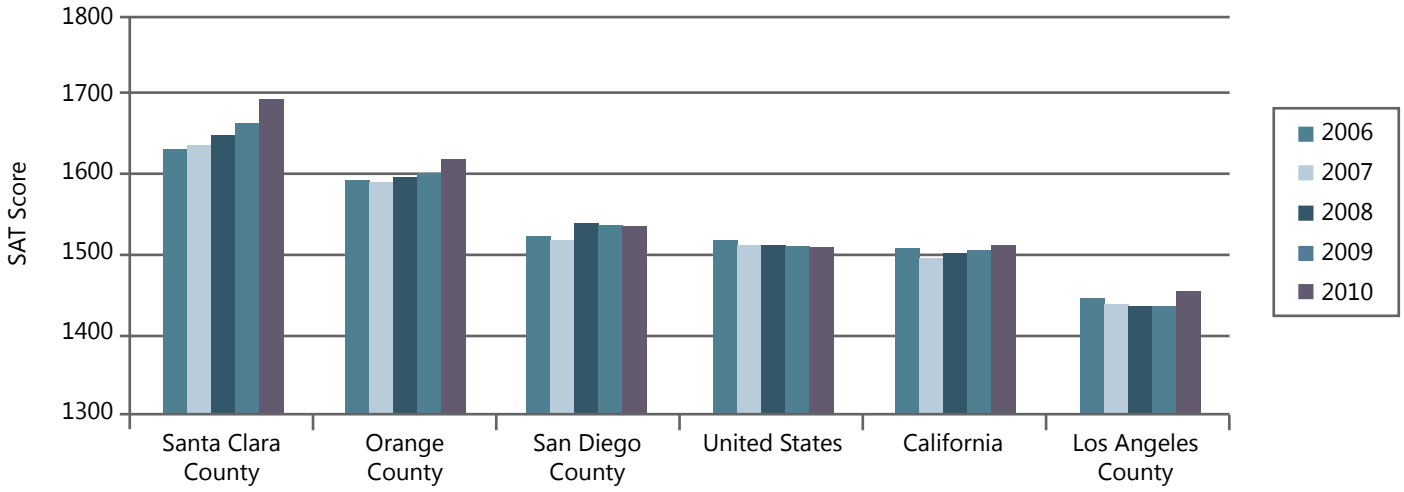
SAT PERFORMANCE >> With the exception of Santa Clara County, Orange County scored better on the SAT than peer counties, the state, and the nation. Orange County's cumulative average SAT score in 2010 was 1,616—well above the state and national averages of 1,512 and 1,509 respectively. Among peers, only Santa Clara County scored higher with an average score of 1,692. Additionally, Orange County 2010 SAT performance grew 16 points year-over-year, while most other counties were flat except for Santa Clara County, which experienced a 31-point increase. Additionally, Orange County's math SAT score is higher than other counties, except again for Santa Clara County.

2010 SAT Scores by Subject



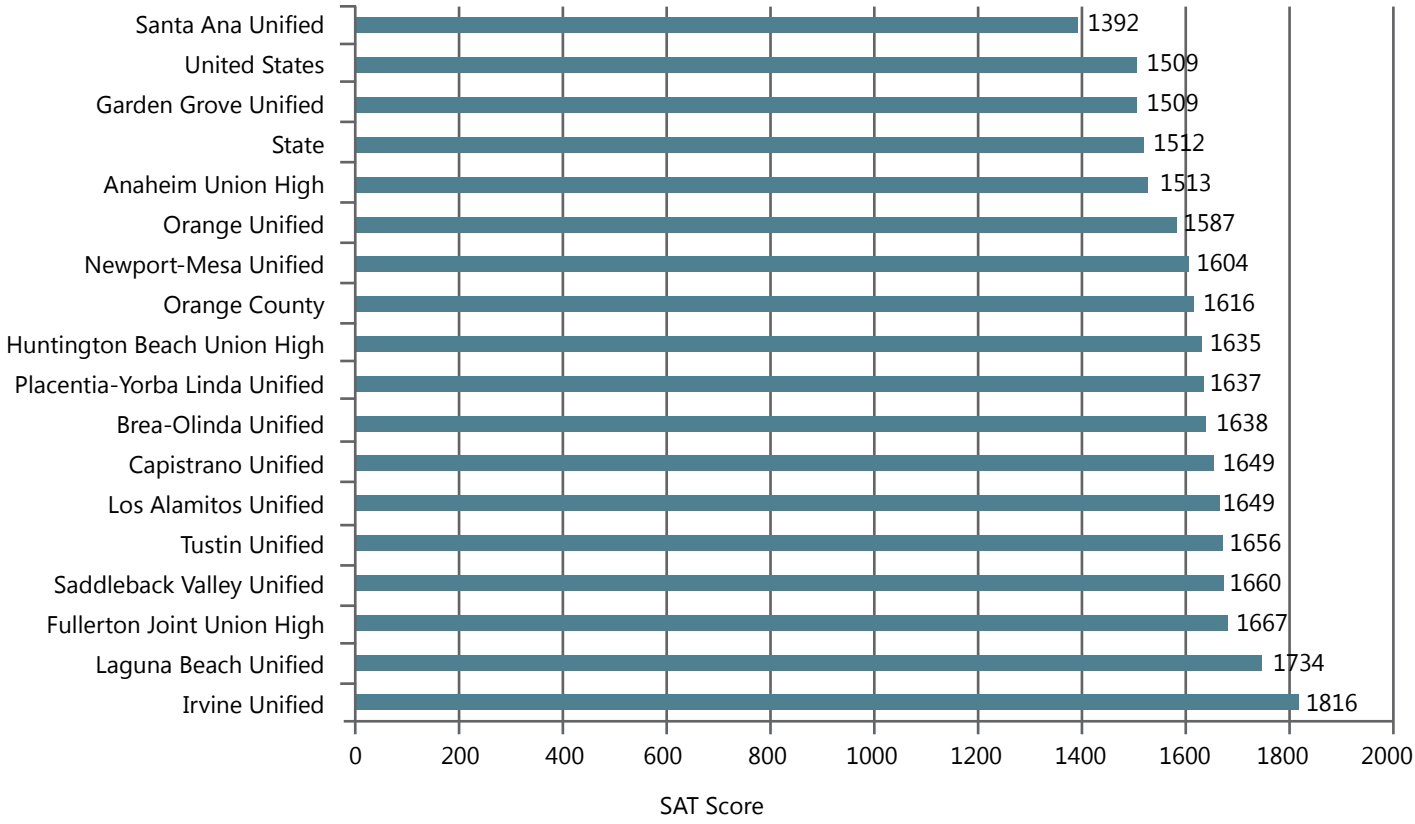
Source: California Department of Education, Educational Demographics Unit

Regional SAT Scores, 2006-2010



Source: California Department of Education, Educational Demographics Unit

Average Total SAT Scores by District, 2010



Source: California Department of Education, Educational Demographics Unit

In terms of SAT scores by school district, Orange County has some of the best performing districts in the state, but there is also great variation within the county. Irvine Unified had the highest overall SAT scores with an average of 1,816, followed by Laguna Beach Unified at 1,734. By comparison, the average SAT at the national level is 1,509 and 1,512 at the state level. The lowest SAT scores of Orange County school districts were in Santa Ana (1,392) and Garden Grove (1,509).

ENGLISH LEARNERS

English fluency trends in Orange County need to advance more rapidly, ensuring students can achieve greater educational outcomes and are prepared for the workplace.

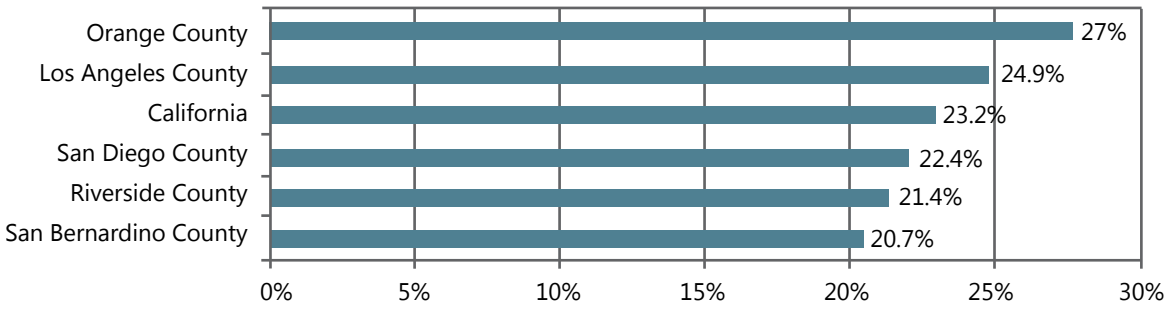
WHY IS THIS AN ISSUE?

Language barriers pose significant hardships for students in both the learning process and the workplace. As future job markets become increasingly competitive, it will be critical for Orange County to support the development and improvement of English fluency programs. This will be particularly important in communities with larger immigrant populations. Without this focus, these communities may continue to experience lower wages and poor business growth. Students who do not speak, read, or write English fluently face serious limitations in Orange County's current and future job markets, making it crucial that improved English fluency programs be instituted to support a student population who will make up the majority of the future workforce. If not, the county will fail to provide local businesses with a qualified workforce, which will ultimately start a domino effect resulting in overall lower wages and a decreased quality of life for Orange County residents.

HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

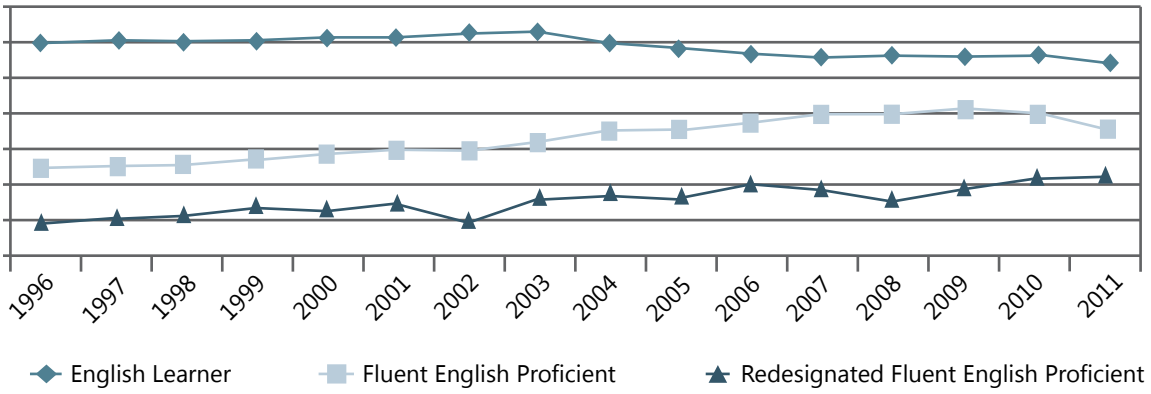
Orange County must focus on improving English fluency among student populations to ensure that these students are prepared for higher education and the workplace. Orange County's percentage of English language learners, which is at 27 percent, continues to be the highest among the state and neighboring counties. While this represents a decrease from the previous years (28.2 percent), it is still more than two percent higher than the next closest county, and almost four percent higher than the state. Over the last decade Orange County has seen an overall positive trend of students designated as "fluent English proficient," although there was a small dip in 2011.

English Learners as Percent of Total Enrollment, 2010-2011



Source: California Department of Education, Educational Demographics Unit

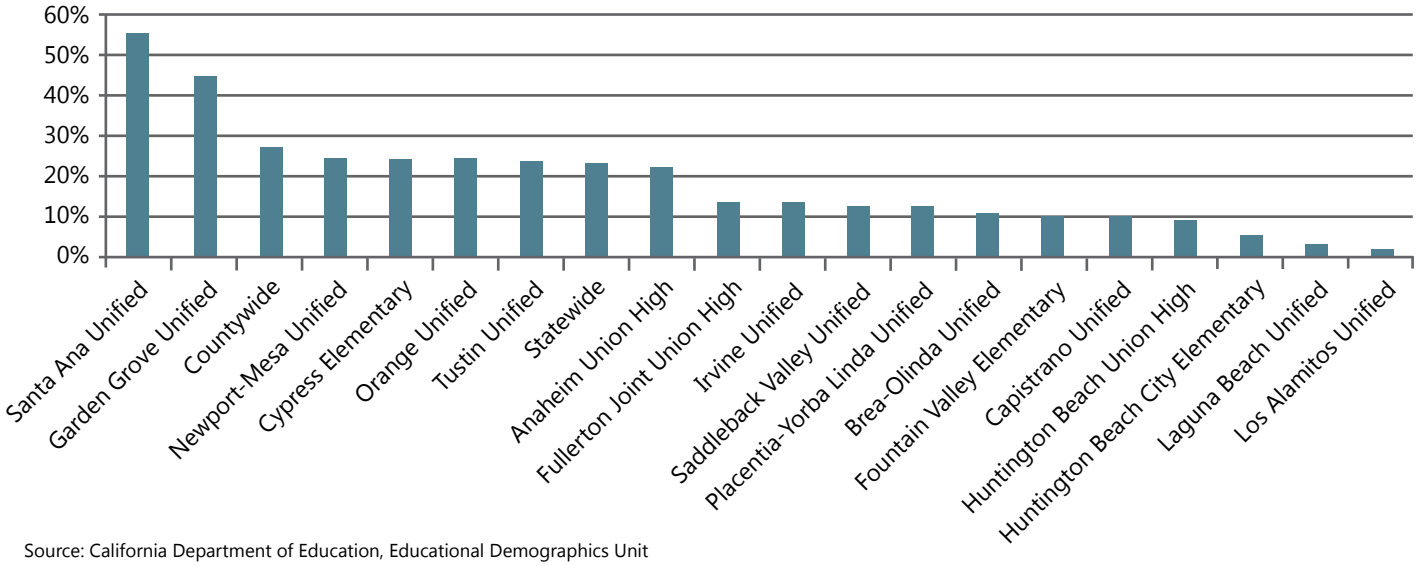
Orange County English Language Learners, 1996-2011



Source: California Department of Education, Educational Demographics Unit

From 2010 to 2011, Santa Ana had the highest percentage of English Learners compared to other districts in Orange County at 54.8 percent, followed by Garden Grove with 43.3 percent—both lower than the previous year, but still substantially higher than the county average of 27 percent.

Percent of English Learners by District, 2010-2011



Source: California Department of Education, Educational Demographics Unit

SUPPLEMENTAL INFORMATION >> English Learner students are those who reported a primary language other than English on the state-approved *Home Language Survey* and who—on the basis of the state approved oral language (grades K-12) assessment procedures and including literacy (grades 3-12 only)—have been determined to lack the clearly defined English language skills of listening comprehension, speaking, reading and writing necessary to succeed in the school's regular instructional programs.

Fluent English Proficient (FEP) students are those who reported a primary language other than English but met the district criteria for determining proficiency in English—i.e., those student who were identified as FEP (Fluent English Proficient) on initial identification and students re-designated from Limited-English-Proficient (LEP) or English Learner (EL) to FEP. Re-designated Fluent to English Proficient students are the percent of students re-designated from English Learners to Fluent English Proficient status since the last count of English proficiency of students which is determined on an annual basis.

DROPOUT RATES

Ensuring Orange County dropout rates continue to decline should be a key priority in order to ensure a prepared workforce for the future.

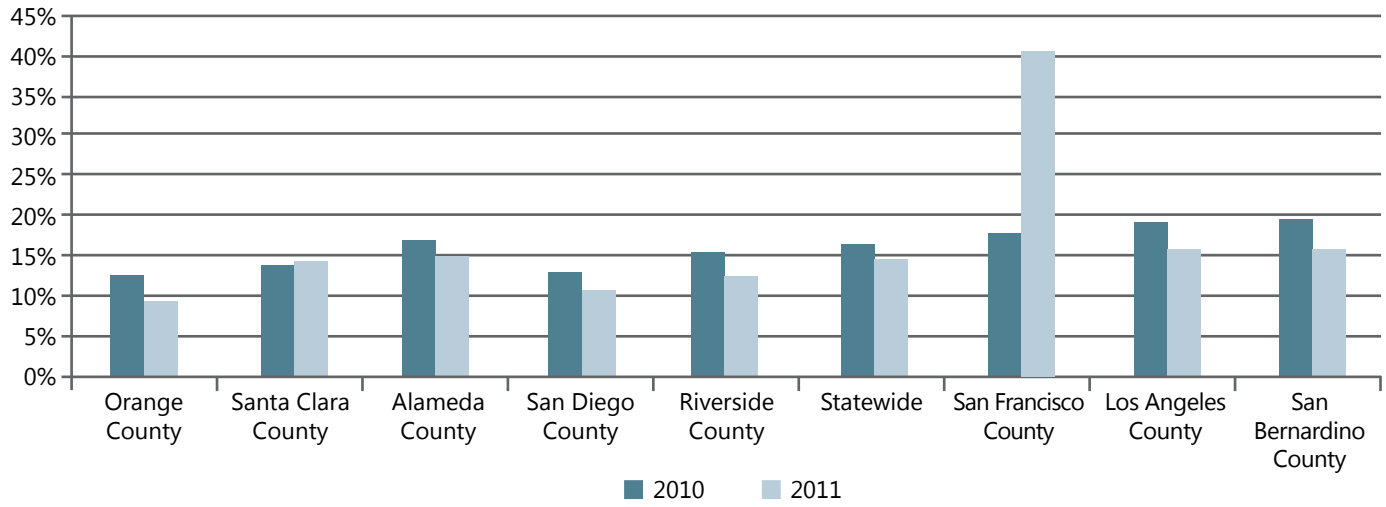
WHY IS THIS AN ISSUE?

The dropout rate not only represents the number of people who have dropped out of school, but also the potential number of people who have been added to the poorly educated segment of the population. While Orange County has low student dropout rates, it is still an issue that should be addressed on a constant basis. Many Orange County schools are recognized as being amongst the best in the state due to their commitment to academic excellence. However, students continue to drop out for a variety of reasons; the most prevalent reason is that students have lost overall interest and may not realize the substantial benefits associated with education. Thus, the county should focus on the implementation of programs and policies aimed at communicating the importance of education, not only at financial levels but also for social dynamics.

HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

In comparison to the state and neighboring counties, Orange County had the lowest dropout rate in 2011 at 9.3 percent, which represents a more than 24 percent decrease in the dropout rate from the previous year. The next closest counties were San Diego County (10.9 percent) and Riverside County (12.4 percent). While Orange County's overall dropout rate has fallen into single digits, dropout rates continue to be significantly higher for some populations including English Language Learners, the socioeconomically disadvantaged, and minority populations.

Grades 9-12 Adjusted Four-Year Derived Drop-Out Rate



Source: California Department of Education, Educational Demographics Unit

HIGH TECH-RELATED DEGREES

With the fast growth of high-tech clusters in Orange County, future high-wage job opportunities will be primarily located in the high-tech industry. Ensuring that the future workforce is properly educated in the STEM disciplines (science, technology, engineering and math) is a crucial first step in establishing economic sustainability for Orange County individuals and communities.

WHY IS THIS AN ISSUE?

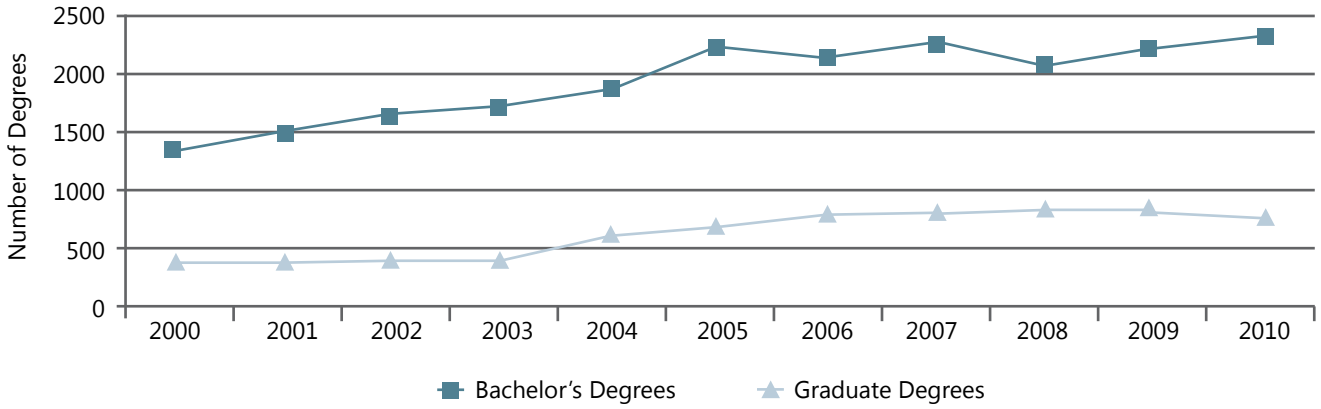
Orange County has a long history of science and technology-based businesses, beginning with the large presence of aerospace companies, which took advantage of the county's large, well-educated workforce in the 1960s and 1970s. With the emergence of many computer chip, circuit board, and microprocessor manufacturing companies, Orange County became known for its high-tech workforce and high-wage job market. This reputation for excellence in the STEM fields attracted even more technology-based businesses and high-skill residents to the county. With increasing global competition, keeping Orange County's competitive edge in the STEM disciplines is more important than ever for the continued economic success of the region.

HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

Following a slight drop in 2008, the number of STEM related undergraduate degrees awarded by Orange County increased over the past two years, with an 8.5 percent increase in 2009 and a 7.0 percent increase in 2010. Since 2004, the majors that have had the highest growth are physical sciences with 106 percent growth and biological sciences with 64 percent growth. Information and computer science undergraduate degrees were the only undergraduate disciplines to experience a decline since 2004, with a 60 percent decrease. Among the graduate degrees awarded, the largest growth occurred in the engineering and math disciplines, which experienced a 57.8 percent and 72 percent increase, respectively. Overall, STEM degrees amounted to 17.7 percent of all degrees awarded from 2009-2010. While STEM degrees are increasing steadily, the rate of increase continues to be outpaced by the rate of Orange County employers' need for even greater numbers of STEM workforce.

	2010		2004-2010 % Changes	
Discipline	**Bachelor Degrees Granted**	**Graduate Degrees Granted**	**Bachelor Degree Change**	**Graduate Degree Change**
Biological Sciences	1,151	35	64%	20.7%
Engineering	592	404	29%	57.8%
Information and Computer Sciences	215	108	-60%	28.2%
Physical Sciences	278	150	106%	-0.09%
Math	127	43	31%	72%
Total	**2,363**	**740**	**22.8%**	**38.1%**

Tech-Related Degrees Granted, 2000-2010



Source: California State University, Fullerton, Chapman University, and University of California, Irvine

FAST FACT

***STEM** (science, technology, engineering, and math) degrees amounted to **17.7% of all degrees awarded** from 2009-2010. While STEM degrees are increasing steadily, the rate of increase continues to be **outpaced by the rate of Orange County employers' need** for even greater numbers of STEM workforce.*

WORKFORCE HOUSING

2012/2013

WORKFORCE HOUSING

In order to ensure housing options for Orange County's workforce, housing development must reflect projected employment trends and related workforce income levels.

WHY IS THIS AN ISSUE?

Through an understanding of current and projected market trends of housing prices, rental rates, incomes and affordability, Orange County policymakers and leaders can make educated decisions about workforce housing programs that address the most pressing housing needs in the region.

Despite a deep and prolonged downturn in housing activity and values, Orange County's housing costs—including apartment rental rates—are higher than those of neighboring counties, peer regions and the national average. As highlighted in other sections of this report, many occupations projected to experience high job growth provide relatively low wages. Increasing the supply and availability of workforce housing options has become increasingly important following the Great Recession's negative impact on wage, income and household wealth trends.

HOW DO WE KNOW THIS ISSUE EXISTS IN ORANGE COUNTY?

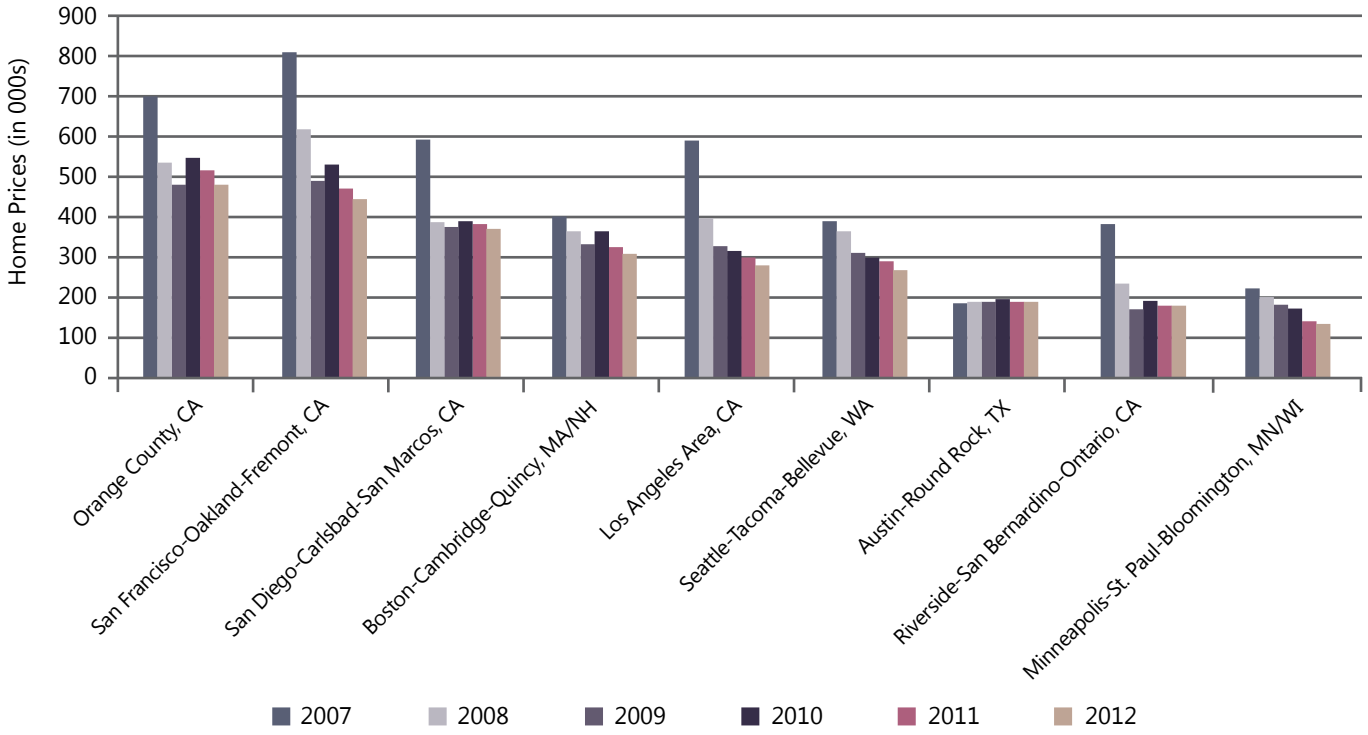
Orange County has long been one of the most expensive places in the country for housing. Even with the recent collapse of real estate prices, the region's home purchase prices are among the highest in the nation. Similarly, the average rents are high compared to rental housing in most other peer regions.

HOME OWNERSHIP >> According to the California Association of Realtors (CAR), 60.8 percent of Orange County units are owner-occupied, with the remaining 39.2 percent being renter-occupied units. In June 2012, the Orange County median price of an existing single-family detached home was $567,910—up 5.5 percent from May 2012 when the median price was $538,340, and further up 6.2 percent from the June 2011 median price of $534,680. This indicates a sign of improvement from the real estate market as property values continue to slowly regain their position after falling dramatically during the housing downturn.

CAR's Housing Affordability Index—First-Time Buyer measures the percentage of households that can afford to purchase an entry-level home. CAR considers this index to be the most fundamental measure of housing well-being for first-time buyers. As of the first quarter of 2012, CAR estimates Orange County to be 62, up from 57 in 2011. This means 62 percent of Orange County households can afford to purchase an entry-level home, a much higher level of affordability than before the housing downturn. However, Orange County ranks poorly when compared to the Housing Affordability Indexes of California and the U.S. at 73 and 84, respectively.

Still, at $412,130, the entry-level price of a home requires a minimum qualifying income of $60,180 (as of the first quarter of 2012). Orange County's high cost of living decreases overall migration into the county and continues to push some residents out of the region. This is troubling because many residents, particularly young adults, cannot afford to buy a home, and this younger generation is an important part of Orange County's future workforce.

Median Single-Family Home Price by Metropolitan Statistical Area, 2007-2012 Orange County vs. National Peers



Source: National Association of Realtors*

RENTING IN ORANGE COUNTY >> The Housing Wage—defined by the National Low Income Housing Coalition (NLIHC) to be the wage necessary to afford rental housing for specified family and employment situations—ranges from $26.62 per hour for a one-bedroom apartment to $44.95 per hour for a three-bedroom apartment in Orange County. These rates have increased since 2000 when Orange County's housing wages ranged from $15.23 per hour (one-bedroom apartment) to $20.86 per hour (three-bedroom apartment). Since peaking in 2007-2008, Orange County rental rates have stabilized, fluctuating slightly up or down each year.

With the exception of San Francisco and San Jose, Orange County has performed better in terms of rental affordability than its counterparts over the past few years. Still, the hourly wage needed for a one-bedroom apartment ($26.62) is equivalent to an annual income of $55,370. The annual renter income needed to afford a two-bedroom apartment at fair market rent is 118 percent of median annual income, or $66,082. At this level, 56 percent of Orange County renter households are not able to afford a two-bedroom apartment at fair market rent.

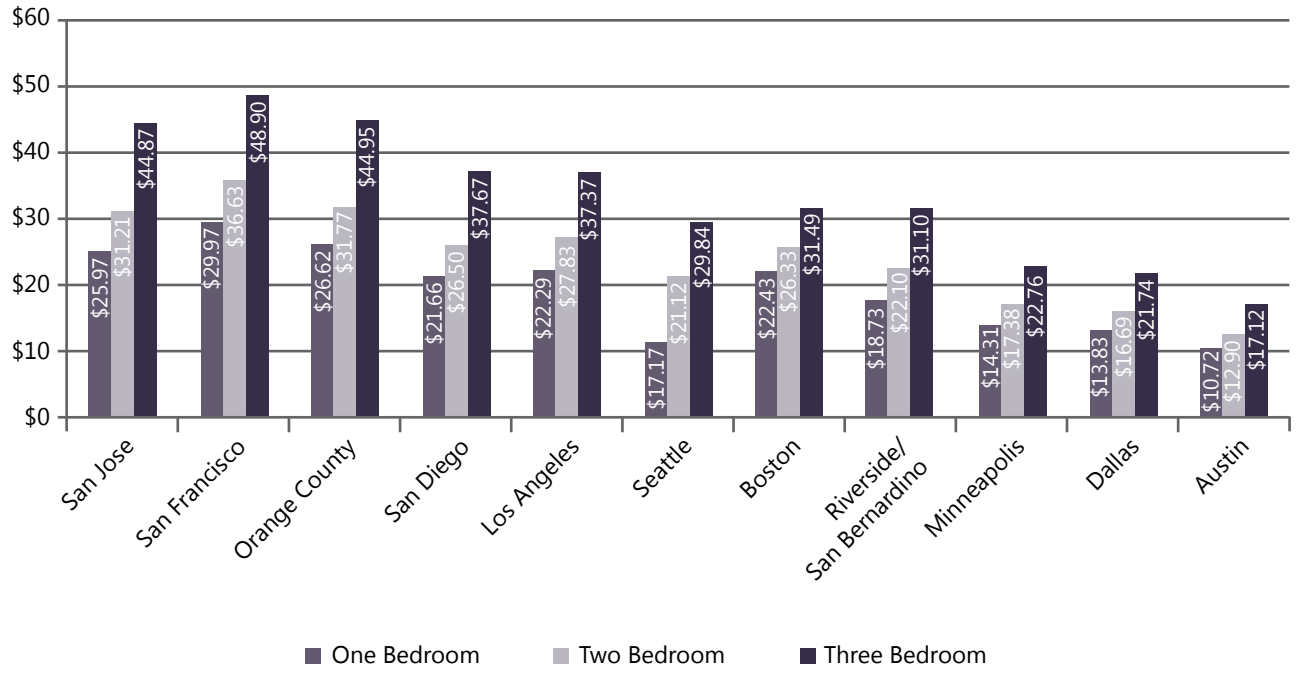
Fair Market Monthly Rent in Orange County, 2003-2012

Fair Market Rent	2003	2004	2005	2006	2007-08	2009	2010	2011	2012
One Bedroom	$1,098	$1,098	$1,161	$1,238	$1,330	$1,296	$1,336	$1,327	$1,380
Two Bedroom	$1,317	$1,317	$1,392	$1,485	$1,595	$1,546	$1,594	$1,584	$1,652
Three Bedroom	$1,885	$1,885	$1,992	$2,125	$2,282	$2,188	$2,256	$2,241	$2,354
Estimated Orange County Median Family Income	$74,200	$74,200	$75,700	$78,300	$84,100	$86,100	$87,200	$84,200	$85,300

Source: National Low Income Housing Coalition

*Note: Data from National Association of Realtors is of Single Family Home Prices while California Association of Realtors data is of all homes, single family as well as condominiums and town-homes.

Hourly Wage Needed to Afford Fair Market Rent in 2012, Orange County vs. National Peers



Source: National Low Income Housing Coalition

FAST FACT

*The **hourly wage** needed to rent a **one-bedroom apartment** ($26.62) is equivalent to an annual **income of $55,370**. The annual income needed to afford a two-bedroom apartment is 118% of median annual income, or $66,082. At this level, **56%** of Orange County renter households are **not able to afford a two-bedroom apartment**.*

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Appendix F: 2013 Orange County Community Indicators Report

Orange County

2012

COMMUNITY INDICATORS

2012

As Orange County begins to emerge from the lingering recession, modest improvements are appearing on the economic horizon. The region continues to have some strong competitive attributes that have not been undermined by the recession. Unfortunately, state and local fiscal challenges are expected to persist into the future and tax revenues will lag behind financial recovery.

Against this backdrop, there is a renewed focus among community leaders on job creation and other drivers for economic renewal. Per capita income is down, cost of living is high, and overall business climate measures are weak. If Orange County residents are feeling relief from the economic slump, it is not yet appearing in indicators of poverty or housing security among children, families or seniors.

What about key trends that provide a positive outlook for the economy? The 2012 Orange County Community Indicators report has good news to offer. Orange County's high-tech sector is diverse and sizable, our trade with other parts of the world is rebounding, suggesting markets are bouncing back, and employment is on an upward swing. At the same time, per capita income is rising and housing prices are slowly stabilizing. Several indicators of residents' health show improvement, from prenatal care to childhood safety to adult disease.

And recent data from Gallup-Healthways shows Orange County residents' life satisfaction rising in the past year.

We hope you will use the Community Indicators Report to gain further insight about the welfare of the Orange County community. On the following pages, we provide a snapshot of business climate, health, education, public safety, and the status of our valuable natural environment. This realistic assessment of where we are now can help provide a pathway forward to a stronger and continually thriving community.

On behalf of the Children and Families Commission of Orange County, the County of Orange, and the Orange County Business Council, I welcome your feedback and look forward to working together for a healthy and prosperous Orange County.

Michael M. Ruane
Project Director

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◆ Data for at least one element of this indicator is updated every two years or more.

Introduction

Released annually since 2000, the Orange County Community Indicators report tracks countywide trends related to the economy, environment, and populace. The data in this report allows stakeholders to ask whether a certain practice or trend is sustainable. Simply put, are we investing in our future? To invest, we must make decisions that foster and maintain Orange County's vitality now and into the future. Otherwise, we are leaving it up to later generations to pay the costs and consequences of our decisions. The issues we face are complex and interrelated. By investing wisely, communities and individuals alike can provide for a sustainable and successful place for us, our children, and our children's children to call home.

Indicator Selection

Good indicators are measurements that reflect how a community is doing and indicate whether key attributes are improving, worsening, or remaining constant. The indicators included in this report:

- Reflect broad countywide interests which impact a significant percentage of the population
- Illustrate fundamental factors that underlie long-term regional health
- Can be easily understood and accepted by the community
- Are statistically measurable and contain data that is both reliable and available over the long-term
- Measure outcomes, rather than inputs whenever possible

Peer Regions

To place Orange County's performance in context, many indicators compare the county to the state, nation or other regions. Specifically, we compare ourselves to our neighbors to better understand our position within Southern California. We also compare ourselves to "peer" regions, both within California and nationwide, because they are economic competitors or good barometers for comparison due to the many characteristics we have in common. Peer regions may vary slightly across sections based on the characteristics considered relevant to that topic.

Since the manner in which data is collected and reported varies among data sources, the boundaries of our peers vary as well. Metro areas or divisions, as defined by the U.S. Office of Management and Budget, are used whenever possible. In other instances, the county boundary or a boundary defined by the data source is used. For additional information regarding the boundaries and definitions of peers used for a particular measure, please contact ocindicators@ocgov.com.

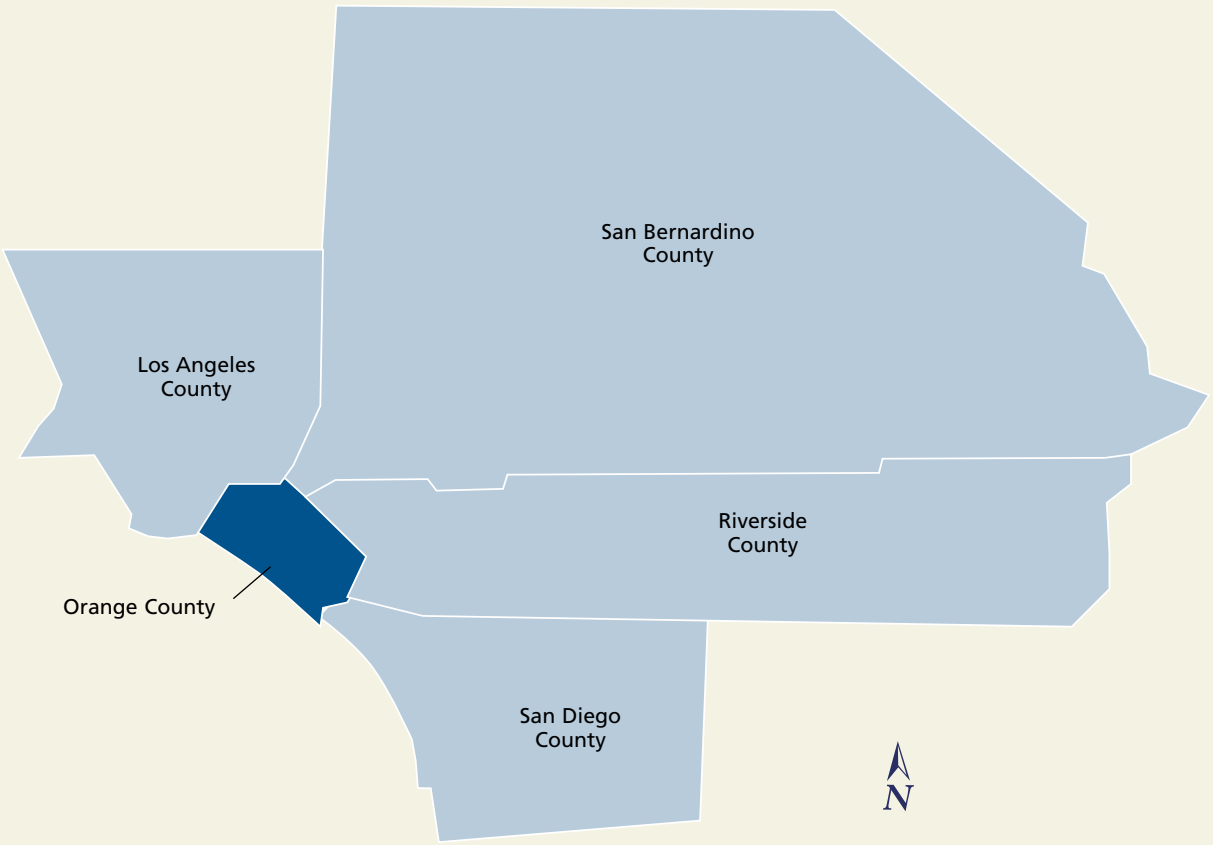
Specialized Indicators

While the 2012 Community Indicators report contains most of the historically tracked indicators, some specialized indicators no longer appear in this main publication. In addition, some indicators were combined or data was moved to an alternate location in the report. For indicators that no longer appear in the main report, updated information can be found at the following locations:

Indicator	Report/Website
English Learners	Orange County Workforce Indicators (www.ocwib.org)
Pediatric Asthma	California Health Interview Survey (www.chis.ucla.edu)
Child Care Quality and Affordability	Conditions of Children in Orange County (ochealthinfo.com/occp)
Substance Abuse	Various sources - see 2011 Community Indicators report
Hate Crime	California Criminal Justice Statistics Center (http://ag.ca.gov/cjsc/pubs.php#hate)
Green Jobs	Next10 (http://next10.org/next10/publications/index.html)

County Profile

Orange County is located in Southern California, with Los Angeles County to the north, San Diego County to the south, and Riverside and San Bernardino counties to the east. There are 34 cities within the county and several unincorporated areas.



POPULATION

Growth

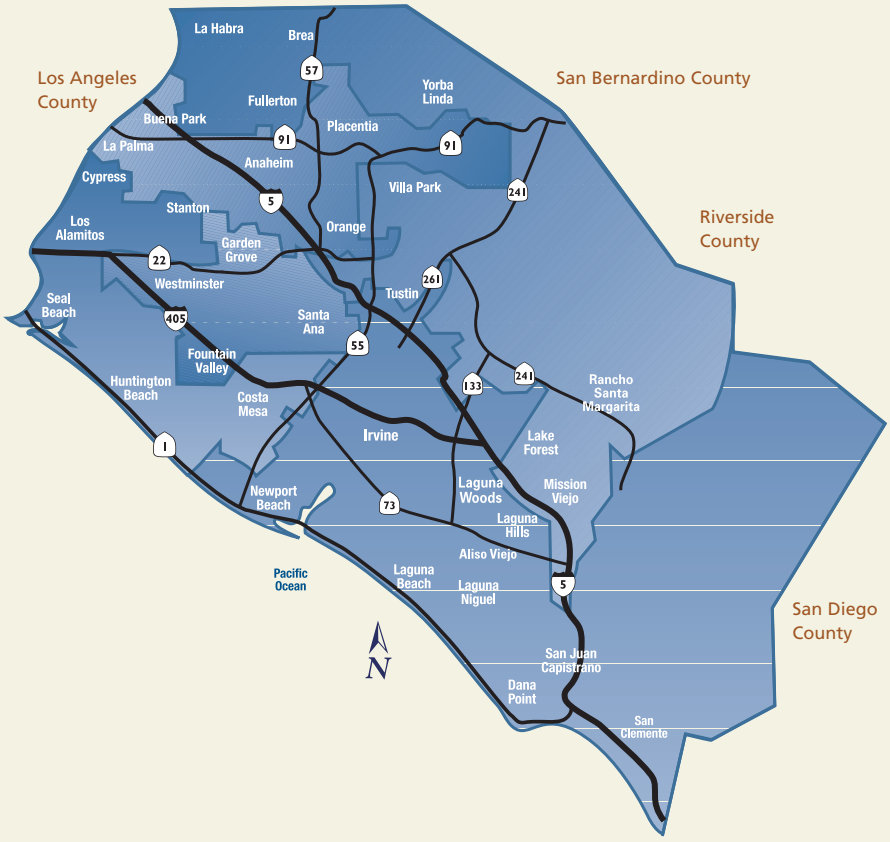
Orange County is the third largest county in California:

- With a population of 3,043,964 in July 2011, Orange County falls behind Los Angeles (9,857,567) and San Diego (3,131,254) counties.[1]
- Orange County is the sixth largest county in the nation, with more residents than 20 of the country's states, including Mississippi, Arkansas, Kansas, Utah, and Nevada.[2]
- At its peak, Orange County's population increased rapidly, by an average of 22% per year in the 1950s and 10% per year in the 1960s.[3]
- The average annual increase slowed considerably to 1.7% between 1990 and 2000, and further to 0.6% between 2000 and 2010.[4]
- The latest population growth estimates for Orange County showed slightly faster growth (0.9%) between 2010 and 2011.[5]
- Out of more than 3,000 counties nationwide, Orange County ranks ninth in terms of the number of people added to the county between 2009 and 2010.
- However, Orange County's already high base population combined with slowing growth places it 709th in the nation in terms of the percentage of change between 2009 and 2010.[6]
- The county's population growth is projected to continue at an increasingly slower rate, reaching nearly four million by 2050.[7]

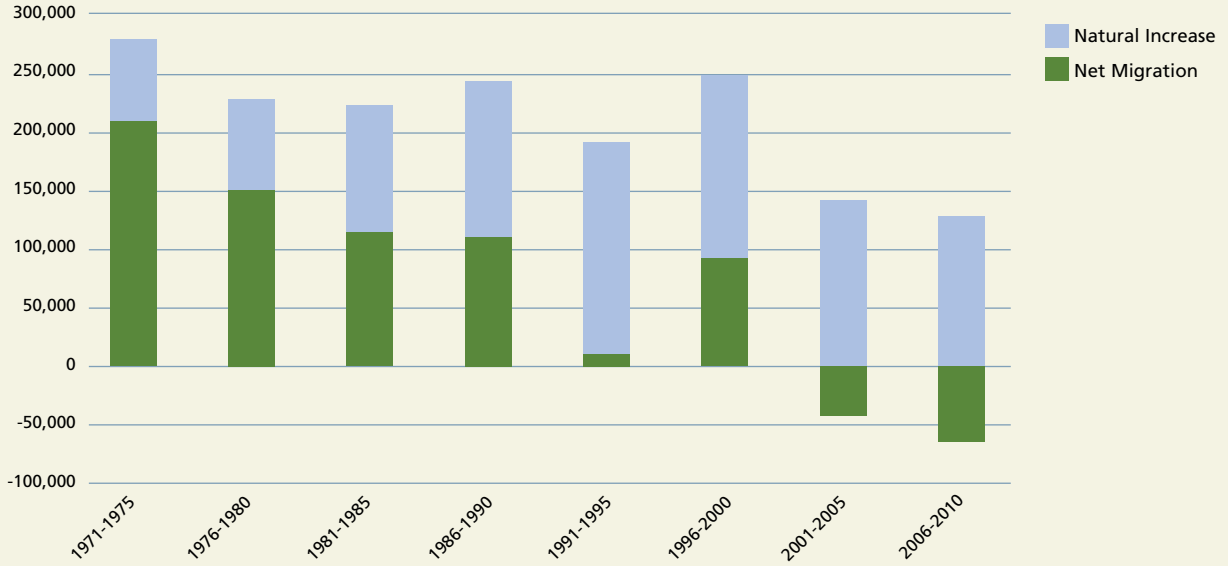
Components of Population Change

Since the 1980s, natural increase (births minus deaths) has outpaced migration as the county's principal source of growth:

- From the 1950s through the 1970s, much of the county's growth stemmed from migration into the county from within the state as well as from other states (domestic migration).[8]
- International immigration – largely from Asia and Latin America – has also contributed to Orange County's growth in the last 30 years, shifting the county's proportion of foreign-born residents from 6% in 1970 to 30% in 2010.[9]
- Between 2010 and 2011, Orange County added 21,356 residents through natural increase and 12,498 through international immigration.
- At the same time, the county lost 6,979 residents through domestic out-migration, for a net domestic migration increase of 5,519.[10]
- Long-range projections suggest this pattern will continue, with natural increase becoming the primary contributor to growth.[11]



Components of Population Change
Orange County, 1971-2010



Note: Data between 2000 and 2010 have been updated.

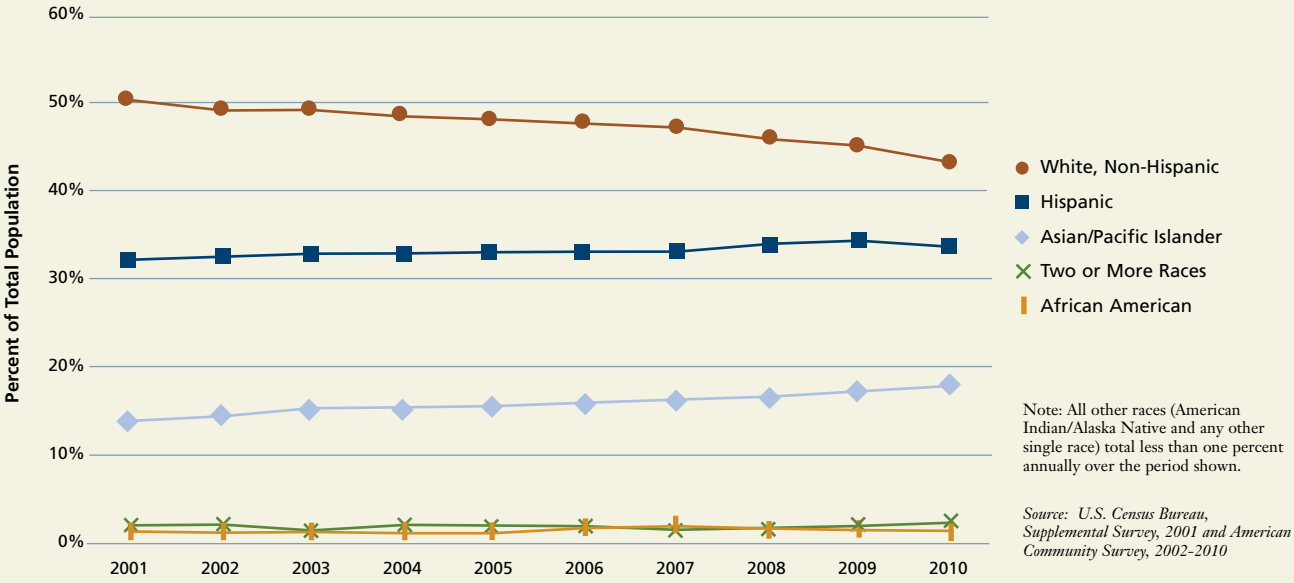
Source: Demographic Research Unit at California Department of Finance, Table E-6

Ethnicity and Age

Orange County is a racially and ethnically diverse region:

- 43.9% of Orange County residents self-identify as Non-Hispanic White, followed by 33.8% Hispanic (who may be of any race), and 18.3% Asian/Pacific Islander.
- 1.5% of residents are African American, another 2.2% are two or more races, and 0.4% are American Indian/Alaska Native or any other single race.[12]

Population by Race and Ethnicity
Orange County, 2001-2010



Note: All other races (American Indian/Alaska Native and any other single race) total less than one percent annually over the period shown.

Source: U.S. Census Bureau, Supplemental Survey, 2001 and American Community Survey, 2002-2010

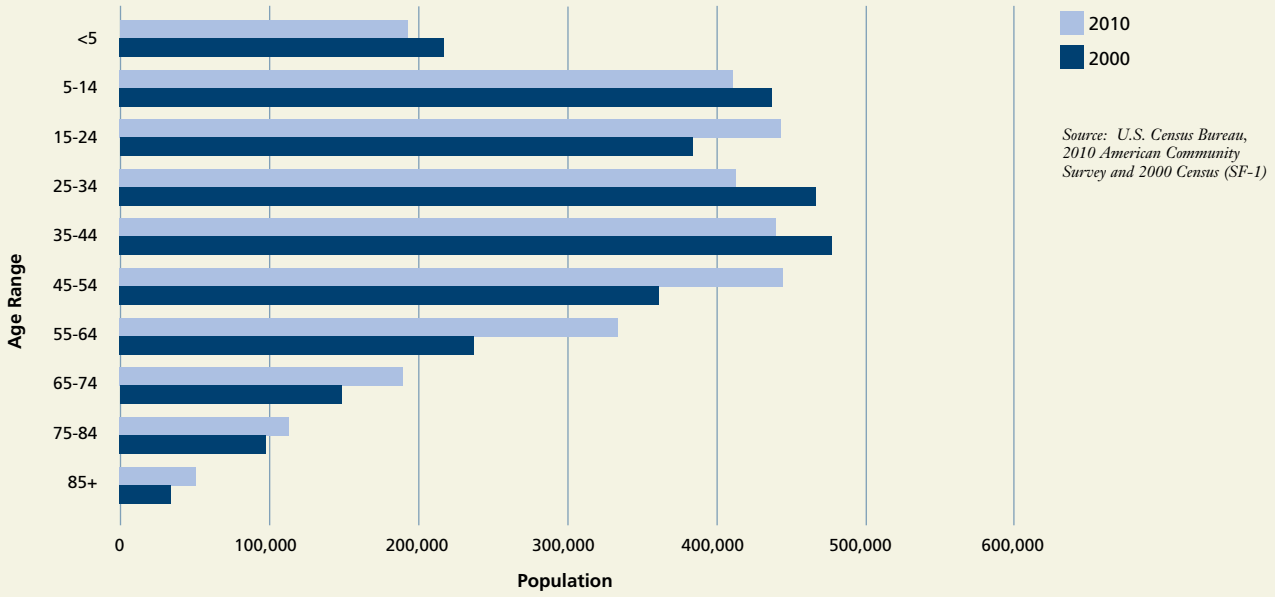
Orange County has a substantially higher proportion of foreign-born residents (30%) than the national average (13%) and only slightly higher than the statewide average (27%):

- Among Orange County residents at least five years of age or older, 45% speak a language other than English at home.
- Of those, the majority speak Spanish (59%) followed by Asian/Pacific Islander languages (31%), and other Indo-European languages (9%). The remaining 1% speak some other language.
- 21% of the total population report that they do not speak English "very well."[13]

In 2010, Orange County's median age was 36 years:

- This is slightly younger than the national median age of 37 years.[14]
- The 2000 Census reported Orange County's median age was 33 years, indicating an aging population.[15]
- In 2010, 24% of Orange County's population was under 18 years of age (compared to 27% in 2000) and 12% were 65 years and older in 2010 (compared to 10% in 2000).[16]

Population by Age
Orange County, 2000 and 2010



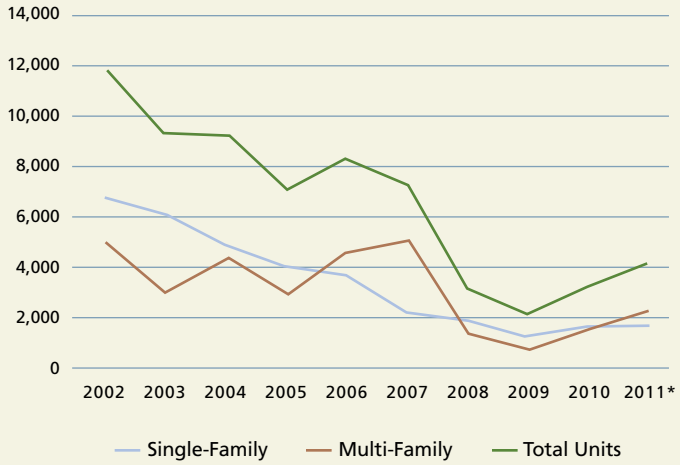
Source: U.S. Census Bureau, 2010 American Community Survey and 2000 Census (SF-1)

HOUSING

As of January 2011, there were 1,054,626 housing units available to Orange County residents:[17]

- According to the 2010 American Community Survey, a majority of occupied units were owner-occupied (59%) compared to renter-occupied (41%).
- Approximately half (51%) of the existing housing units in Orange County were single-family detached units.[18]
- Driven largely by increases in multi-family unit development, building permits issued for new construction show a modest rebound.
- In 2010, single-family permits comprised 52% of total permits issued, compared to 63% in 2009.
- Preliminary 2011 data indicates only 44% of permits issued were for single-family units.[19]

Housing Unit Building Permits
Orange County, 2002-2011



*2011 data are preliminary and do not include December.

Source: U.S. Department of Housing and Urban Development

AVERAGE HOUSEHOLD SIZE

The average household size in Orange County is 2.97 persons:

- Among the more than 3,000 counties in the nation, only 196 had an average household size larger than Orange County's.
- Orange County's average household size is larger than California (2.89) and the United States (2.59).[20]
- Santa Ana has the highest household size in the county (4.43) and the 11th highest household size in the nation when compared to other cities or unincorporated areas with more than 20,000 residents.
- After Santa Ana, the Orange County cities with the highest household sizes include Garden Grove (3.68), Buena Park (3.53), Stanton (3.35), and Anaheim (3.32).[21]

DENSITY

Census 2010 data shows Orange County remains one of the most densely populated areas in the United States, ranking 18th among all counties in the nation:

- Orange County's population density in 2010 was 3,808 persons per square mile, an increase of 6% since 2000.[22]
- Densities vary by location among Orange County's incorporated areas, from lows of 1,984 persons per square mile in Seal Beach and 2,429 in San Juan Capistrano, to highs of 12,360 in Stanton and 11,913 in Santa Ana.
- Population density is much lower in unincorporated areas (439 persons per square mile), which include large areas of parkland and open space.[23]

Population Density Ranking
County Comparison, 2010

Rank out of all U.S. Counties	County (Major City)	Persons per Square Mile of Land Area
5	San Francisco (San Francisco)	17,179
7	Suffolk (Boston)	12,416
18	**Orange County (Santa Ana/Irvine)**	**3,808**
26	Dallas (Dallas)	2,718
30	Los Angeles (Los Angeles)	2,420
37	Hennepin (Minneapolis)	2,082
67	Sacramento (Sacramento)	1,471
76	Santa Clara (San Jose)	1,381
106	Travis (Austin)	1,034
121	Seattle (Seattle)	913
145	San Diego (San Diego)	736
250	Maricopa (Phoenix)	415
348	Riverside (Riverside)	304
825	San Bernardino (San Bernardino)	102

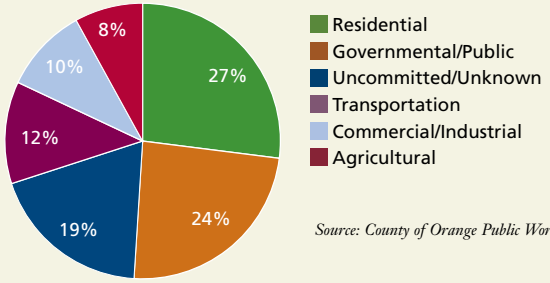
Source: U.S. Census Bureau, GCT-PH1-R: Population, Housing Units, Area, and Density, Census 2010

LAND USE

Orange County covers 798 square miles of land, including 42 miles of coastline:

- A substantial portion (27%) of the county's land is devoted to various types of residential housing.
- Approximately a quarter (24%) of the county's land is classified "Governmental/Public," including open space and parks.
- Transportation infrastructure (e.g. roads, rails) accounts for 12% of county land, followed by 10% devoted to commercial and industrial uses.
- About one-fifth of county land is classified as "Uncommitted," meaning it is either vacant or there is no data available.[24]

Land Use by Category
Orange County, 2011



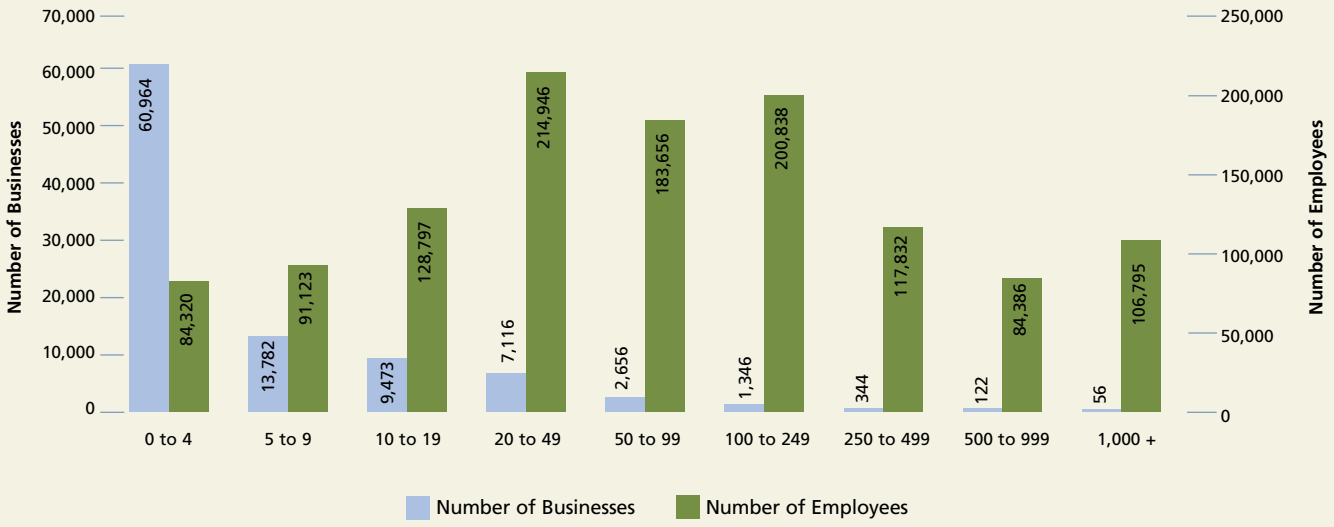
Source: County of Orange Public Works

EMPLOYMENT

While Orange County has the third highest population in the state, the county has the second highest number of jobs and the second highest number of firms:

- After averaging 1.54 million jobs between 2006 and 2008, employment in Orange County hit a post-crash low in June 2010 at 1.43 million jobs.
- Employment stayed at approximately 1.44 million jobs between 2009 and the first half of 2011; however, the second half of 2011 showed growing employment, ending with 1.47 million jobs.
- As of December 2011, the largest labor markets remain Trade, Transportation and Utilities (18%), Professional and Business Services (18%), and Leisure and Hospitality (13%).[25] See the Employment indicator for a detailed analysis of selected industry clusters and unemployment.
- Between 2005 and 2010, businesses with zero to four employees were the only size to experience growth (+9%).
- In 2010, fewer Orange County residents worked in large firms of 500+ employees (16%) than the statewide average (21%).
- Orange County's larger firms experienced the most significant employment losses between 2005 and 2010 (-32% among firms with 500+ employees).[26]

Number of Businesses and Employees, by Size of Business Category (Private Industry)
Orange County, Third Quarter 2010



Source: California Employment Development Department

[1] California Department of Finance, Demographic Research Unit, Table E-2 (www.dof.ca.gov/research/demographic/reports/view.php)
[2] U.S. Census Bureau, Population Estimates Program, Intercensal Estimates of the Resident Population for Counties and States: April 1, 2000 to July 1, 2010 (www.census.gov/popest/intercensal/county/county2010.html)
[3] U.S. Census Bureau and California Department of Finance as reported by Center for Demographic Research, California State University, Fullerton, Orange County Progress Report 2010 (www.fullerton.edu/cdr)
[4] California Department of Finance, Demographic Research Unit, Tables E-5 and E-6
[5] California Department of Finance, Demographic Research Unit, Table E-2
[6] U.S. Census Bureau, Population Estimates Program, Intercensal Estimates of the Resident Population for Counties and States: April 1, 2000 to July 1, 2010
[7] California Department of Finance, Table P-3: Population Projections by Race/Ethnicity, Gender and Age for California and its Counties 2000-2050
[8] Center for Demographic Research, California State University, Fullerton, Orange County Projections 2006
[9] Center for Demographic Research, California State University, Fullerton, Orange County Projections 2006; U.S. Census Bureau, 2010 American Community Survey
[10] California Department of Finance, Tables E-2 & E-6
[11] Center for Demographic Research, California State University, Fullerton, Orange County Projections 2006
[12] U.S. Census Bureau, 2010 American Community Survey
[13] U.S. Census Bureau, 2010 American Community Survey
[14] U.S. Census Bureau, 2010 American Community Survey
[15] U.S. Census Bureau, 2000 Census (SF-1)
[16] U.S. Census Bureau, 2010 American Community Survey and 2000 Census (SF-1)
[17] California Department of Finance, Table E-5
[18] U.S. Census Bureau, 2010 American Community Survey
[19] U.S. Department of Housing and Urban Development (http://socds.huduser.org/permits/index.html)
[20] U.S. Census Bureau, 2006-2010 American Community Survey Five-Year Estimates
[21] U.S. Census Bureau, 2008-2010 American Community Survey Three-Year Estimates (only cities or unincorporated areas with population over 20,000 are included in the ranking)
[22] U.S. Census Bureau, Census 2010, Table GCT-PH1. Population, Housing Units, Area, and Density
[23] Calculated from land area data presented in the Orange County Progress Report 2010 by the Center for Demographic Research, California State University, Fullerton, and California Department of Finance, Table E-1, January 1, 2011 population figures
[24] County of Orange Public Works (Land use distributions have been revised since previously reported.)
[25] California Employment Development Department, Employment by Industry Data for Orange County (www.labormarketinfo.edd.ca.gov/?pageid=166)
[26] California Employment Development Department, Size of Business Data, 2001-Present (www.labormarketinfo.edd.ca.gov/?PAGEID=138)

Special Features

Boomers Drive Up Median Age

Description of Indicator

By comparing U.S. Census data collected in 2000 and 2010, this feature summarizes changes in the age composition of Orange County's population and where population growth occurred within the county.

Why is it Important?

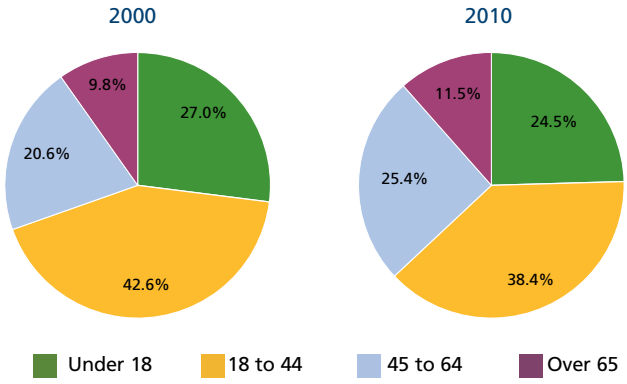
Tracking changes in the age composition of our population and the location of population growth helps decision-makers, businesses, and residents understand changing demographics and the related public and social service needs of the community.

How is Orange County Doing?

Between 2000 and 2010, Orange County's population grew by 5.8%:

- The median age of Orange County residents rose from 33.3 years in 2000 to 36.2 years in 2010.
- The proportion of residents under age 44 decreased over the decade, while the population over age 45 increased.
- The proportion of Orange County's population comprised of children and youth (under 18 years) decreased from 27.0% in 2000 to 24.5% in 2010.
- The 18 to 44 age group shrank by four percentage points, from 42.6% of the population in 2000 to 38.4% in 2010.
- The aging baby boom generation (born between 1946 and 1964) is driving growth in the 45 to 64 age group, which now makes up 25.4% of Orange County's population and is up nearly five percentage points from 20.6% in 2000.
- As of 2010, seniors (age 65 and over) comprise 11.5% of the total population, an increase of 1.7 percentage points since 2000.
- Orange County's population is aging at a faster rate than the state and the nation.

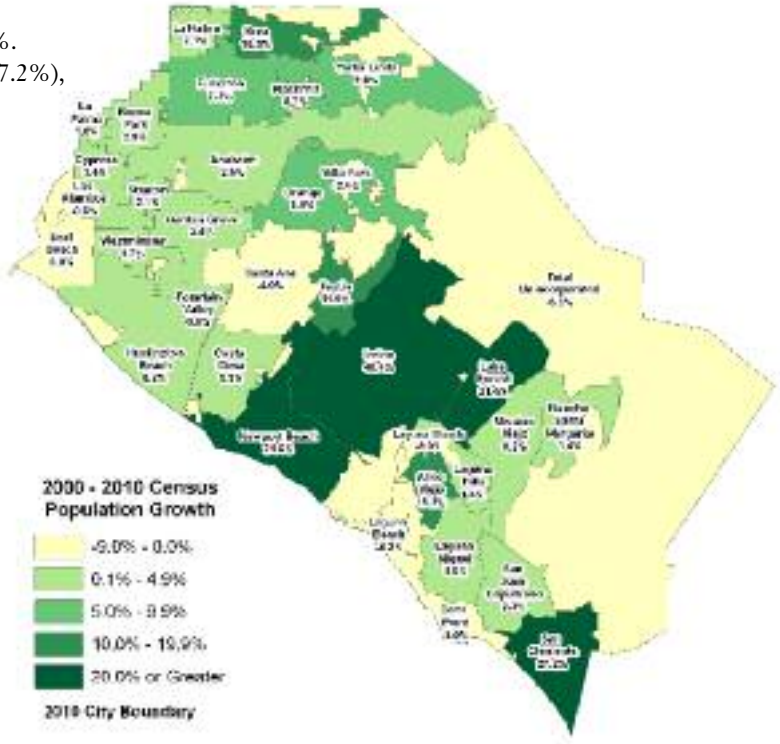
Population by Age
Orange County, 2000 and 2010



Source: U.S. Census Bureau, Census 2000 (SF-2) and Census 2010 (SF-1)

Between 2000 and 2010, the largest population growth in Orange County occurred in cities that annexed areas with existing development:

- Irvine experienced the greatest population growth at 48.4%.
- This is followed by Lake Forest (31.6%), San Clemente (27.2%), Newport Beach (21.6%), and Aliso Viejo (19.2%).



Source: U.S. Census Bureau 2000, 2010. Map prepared by Center for Demographic Research (www.fullerton.edu/cdr/census2010_oc_change.pdf)

Investment Climate Improves; Still Trails Peers

Description of Indicator

Based on the 2012 *Emerging Trends in Real Estate*® report, this feature assesses real estate and investment trends for Orange County and comparison regions, including commercial/multi-family and for-sale homebuilding. *Emerging Trends* reports the findings of a survey of leading real estate executives including investors, fund managers, developers, property companies, lenders, brokers, advisors, and consultants who completed surveys or were interviewed.

Why is it Important?

Attitudes and perceptions about real estate investment and development opportunities can be used to track and forecast economic growth and recovery. Comparison with peer and neighboring regions provide insight about the strength of Orange County's real estate market.

How is Orange County Doing?

Orange County ranked within *Emerging Trends* "Top 20" real estate markets to watch:

- Orange County scored best in the area of commercial/multi-family investment prospects, ranking 15th among 51 U.S. cities surveyed for the *Emerging Trends* report.
- This represents a decline of one place from Orange County's 2011 ranking of 14th, but an improvement from 17th in 2010 and 26th in 2009.
- Only one of the 51 cities surveyed failed to improve its investment score over the previous year's report.
- Orange County rated "fair" in terms of development prospects for commercial/multi-family properties and for-sale homebuilding prospects.
- Orange County's ratings for investment and development prospects in all categories are low compared to peers, but have increased for the past two years.

The Big Picture

Emerging Trends in Real Estate 2012® predicts that economic recovery will be slow, with growth focused in real estate markets offering 24-hour transportation hubs and global access, as well as areas with locally-based technology- and energy-related industries. Further, while most commercial markets have stabilized, occupancies and rents are not expected to show significant improvement. Among property sectors, multi-family units are anticipated to experience growth as a result of changing demographic trends and the aftermath of the housing market crash.

Prepared annually by PwC and the Urban Land Institute, *Emerging Trends in Real Estate*® is a trademark of PwC and is registered in the United States and other countries. "PwC" is the brand under which member firms of Pricewaterhouse-Coopers International Limited (PwCIL) operate and provide services.

Real Estate Investment and Development Prospects
Regional Comparison, 2009-2012

Generally Poor	Fair	Generally Good

Commercial/Multi-Family Investment

	2009	2010	2011	2012
San Francisco	6.12	5.57	6.34	6.92
Austin	5.64	5.45	6.29	6.92
Seattle	6.15	5.31	6.09	6.60
Boston	5.62	5.42	6.20	6.60
San Jose	5.69	5.16	6.08	6.58
Los Angeles	5.82	5.13	5.84	6.30
San Diego	4.92	5.04	5.63	6.17
Dallas	5.33	5.10	5.50	6.10
Orange County	**4.60**	**4.78**	**5.42**	**6.01**
Minneapolis	4.57	4.46	4.85	5.38
Riverside/San Bernardino	4.08	3.86	4.11	5.30

Commercial/Multi-Family Development

	2009	2010	2011	2012
San Francisco	4.79	3.00	4.55	6.16
Austin	4.51	3.51	4.63	6.04
San Jose	4.04	2.78	4.54	5.86
Seattle	4.73	3.12	4.23	5.81
Boston	4.01	2.98	4.46	5.68
Dallas	4.09	3.31	3.64	5.42
Los Angeles	4.33	2.77	4.17	5.27
San Diego	3.40	2.68	3.99	5.18
Orange County	**3.28**	**2.51**	**3.58**	**4.92**
Minneapolis	3.36	2.70	3.33	4.54
Riverside/San Bernardino	2.52	2.23	2.84	4.22

For-Sale Homebuilding

	2009	2010	2011	2012
Austin	4.53	4.50	5.39	5.76
San Francisco	4.79	3.61	4.78	5.40
San Jose	4.03	3.35	4.57	5.27
Seattle	4.73	3.91	4.28	5.21
Dallas	4.10	4.03	4.35	5.19
Boston	4.01	3.44	4.82	5.05
San Diego	3.36	3.08	4.25	4.64
Orange County	**3.29**	**2.99**	**4.08**	**4.58**
Los Angeles	4.33	3.04	4.41	4.50
Minneapolis	3.34	2.93	3.72	3.87
Riverside/San Bernardino	2.52	2.42	2.97	3.35

Note: Figures represent the combined ranking (on a scale of one to nine) by the real estate professionals surveyed.

Source: PwC and Urban Land Institute, Emerging Trends in Real Estate®, 2009 – 2012 (www.pwc.com)

Economic and Business Climate

Most measures of economic health demonstrate the lingering impacts of the Great Recession. Orange County's business climate suffered and residents continue to feel the pinch of unemployment and the high cost of living. However, some of the latest data presented show Orange County experiencing a solid rebound. Housing prices are slowly stabilizing, per capita income is gaining ground, and world trade volumes are growing.

NATIONAL PEERS

Austin, Boston, Dallas, Minneapolis, Seattle

CALIFORNIA PEERS

San Francisco, San Jose

NEIGHBORS

Los Angeles, Riverside/San Bernardino, San Diego

Business Ranking Lowest Since Tracking Began

Description of Indicator

This indicator measures Orange County's business climate through *Forbes* magazine's "2011 Best Places for Business" regional rankings. The *Forbes* ranking compares metro areas using 12 metrics related to job growth, income growth, educational attainment, projected economic growth, crime rates, cultural and recreational opportunities, number of highly ranked colleges, and net migration patterns.

Why is it Important?

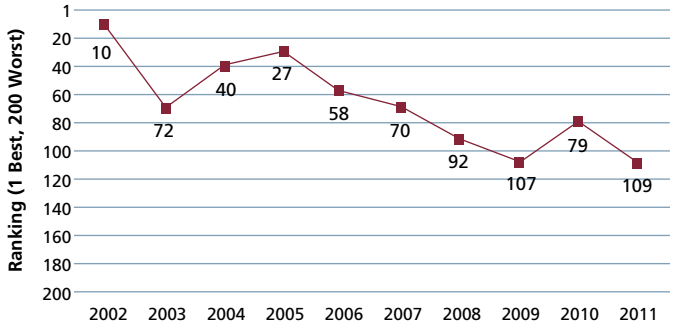
A region's business climate reflects its attractiveness as a location, the availability of business support and resources, opportunities for growth, and barriers to doing business. Since businesses provide jobs, sales tax revenue, economic growth, and entrepreneurial opportunities, a strong business climate is important for maintaining Orange County's economic health and quality of life.

How is Orange County Doing?

Orange County's *Forbes* ranking declined:

- The *Forbes* 2011 national rankings placed Orange County 109th out of 200 metro areas ranked, behind all peers compared except Los Angeles.
- Falling 30 places since 2010, this is Orange County's worst ranking in more than 10 years.
- However, *Forbes* 2011 rankings are based on 2010 year-end employment numbers. Accordingly, the strong job growth Orange County experienced during 2011 will be reflected in the 2012 rankings.
- Orange County's peak ranking was 10th in 2002.
- Orange County ranks well in educational attainment, but poorly in the cost of doing business and job growth.

Best Places for Business Ranking
Orange County, 2002-2011



Source: Forbes magazine, June 29, 2011(www.forbes.com/best-places-for-business)

Note: Through 2005, the ranking was out of 150 metro areas. In 2006, the ranking was expanded to include 200 metro areas.

Best Places for Business Ranking, by Component
Orange County, 2011

	Rank
Educational Attainment	30
Cost of Doing Business	169
Job Growth	182
Overall	**109**

Source: Forbes magazine, June 29, 2011(www.forbes.com/best-places-for-business)

Best Places for Business Ranking
Regional Comparison, 2007-2011

	2007	2008	2009	2010	2011
Austin	66	47	8	10	7
Dallas	111	93	32	26	10
Seattle	62	20	17	18	13
Minneapolis	106	103	76	57	34
San Jose	183	174	115	48	35
San Francisco	175	166	127	38	37
Boston	142	160	90	67	52
San Diego	92	106	104	89	64
Riverside/San Bernardino	110	78	94	88	99
Orange County	**70**	**92**	**107**	**79**	**109**
Los Angeles	159	154	180	120	114

Highest Rank				Lowest Rank
1-40	41-80	81-120	121-160	161-200
Top 40				Bottom 40

Source: Forbes magazine, June 29, 2011 (www.forbes.com/best-places-for-business)

Tourism Rebounds After Recessionary Dip

Description of Indicator

This indicator measures visitor spending on accommodations, food, recreation, retail products, and travel arrangements, as well as tax revenue generated within the county by visitor spending. Travel industry employment trends are also included.

Why is it Important?

Visitors traveling to Orange County for recreation and business generate revenue and jobs for the local economy. Tourism is one of the leading industries in Orange County, accounting for nearly 15% of employment (see Employment indicator). Hotels, shops, restaurants, and entertainment venues rely on tourism for a significant percentage of their business. Moreover, cities within the county benefit from tax revenue generated by visitor spending.

How is Orange County Doing?

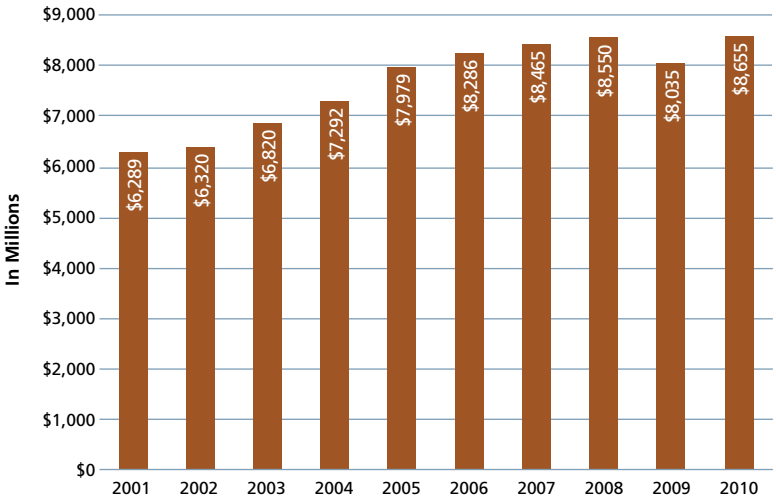
Overall spending and tax receipts rebounded:

- Visitor spending in Orange County totaled $8.66 billion in 2010, up from $8.04 billion in 2009.
- Similarly, Orange County tourism generated $552 million in 2010 – compared to $508 million in 2009 and $544 million in 2008.
- Despite losses in 2009, both Orange County visitor spending and tax receipts have grown an average of approximately 4% annually since 2001.
- Among California peers and neighbors, Orange County has the second highest rate of tax receipt growth (+14% since 2005).

Tourism-related jobs remained largely unchanged:

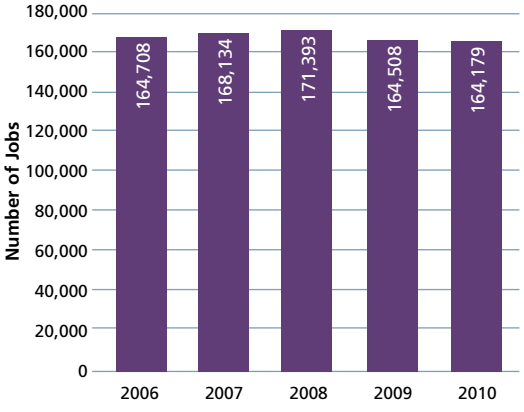
- Between 2009 and 2010, the average number of tourism-related jobs in Orange County decreased by 329 jobs.
- The average annual salary for jobs in the tourism sector was estimated at $22,151 in 2010, a modest increase over 2009 (see Employment indicator).

Visitor Spending
Orange County, 2001-2010



Source: California Division of Tourism, California Travel Impacts by County, Dean Runyan Associates (http://industry.visitcalifornia.com/Research/)

Tourism-Related Employment
Orange County, 2006-2010



Note: Data have been revised since previously published. The industry sectors included within this estimate of tourism-related employment is based partly on the U.S. Bureau of Economic Analysis categorization of the travel and tourism industry.

Source: California Employment Development Department

Tourism-Related Tax Receipts
Regional Comparison, 2010

Note: 2010 data is considered preliminary.

Source: California Division of Tourism, California Travel Impacts by County, Dean Runyan Associates (http://industry.visitcalifornia.com/Research/)

Global Trade Volumes Increased in 2010

Description of Indicator

This indicator measures the change in dollar value of Orange County exports, including exports by destination as well as the leading exports by type of commodity.

Why is it Important?

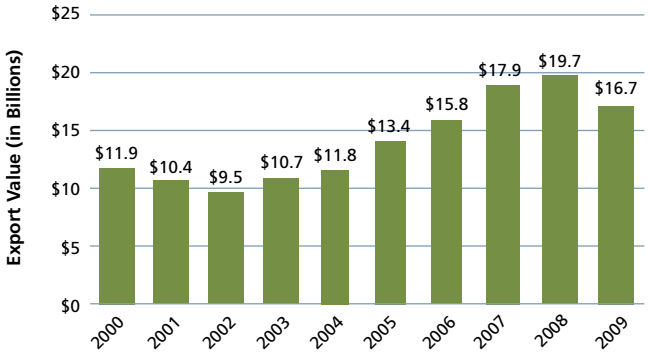
The ability to access foreign markets is important for a strong and growing local economy. Trade agreements like the North American Free Trade Agreement (NAFTA) and subsequent agreements with individual countries continue to open new markets for Orange County businesses. The county's location on the Pacific Rim, proximity to the Ports of Long Beach and Los Angeles, and diverse foreign-born population with international networks, make Orange County well positioned for international trade.

How is Orange County Doing?

The Great Recession significantly impacted world trade; however, global trade volumes are on the rise:

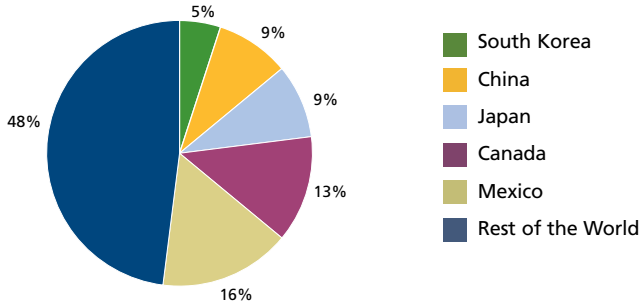
- Preliminary 2010 estimates show a significant increase in Orange County's exports, potentially surpassing pre-recession levels.
- The Chapman University 2012 Forecast indicates that Orange County's largest trading partners – particularly Mexico, Canada, and China – are experiencing solid economic growth, providing promising markets for Orange County exports.
- However, in 2009, exports from Orange County were $16.7 billion, decreasing 14.9% from the peak of $19.7 billion in 2008.
- In 2009, Orange County's largest single-country export destinations included Mexico ($2.6 billion), Canada ($2.1 billion), China ($1.4 billion), Japan ($1.4 billion), and South Korea ($0.8 billion).
- Orange County exports are concentrated in high-tech clusters dominated by computer and electronic products and transportation equipment. Other top exports include chemicals, machinery, food, and petroleum and coal products.

Total Orange County Exports Worldwide, 2000-2009



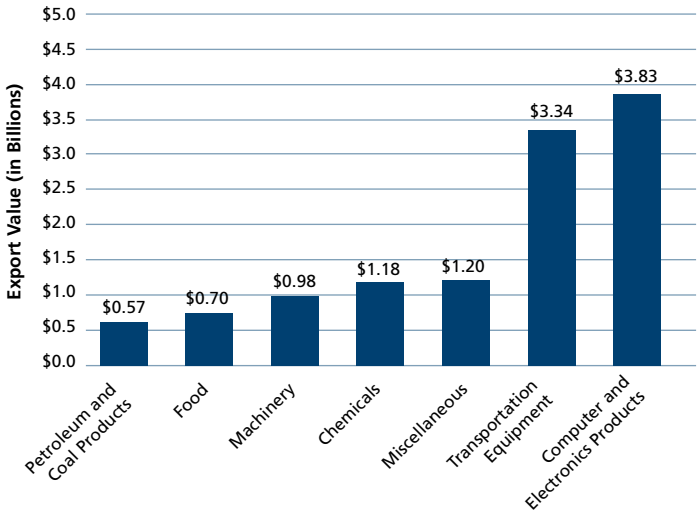
Source: California State University, Fullerton, Institute for Economic and Environmental Studies

Exports by Country
Orange County, 2009



Source: California State University, Fullerton, Institute for Economic and Environmental Studies

Exports by Sector
Orange County, 2009



Source: California State University, Fullerton, Institute for Economic and Environmental Studies

Large Differential Between Income and Cost of Living

Description of Indicator

This indicator compares per capita personal income relative to inflation and the cost of living. Total personal income includes wages and salaries, proprietor income, property income, and transfer payments (such as pensions and unemployment insurance). These figures are not adjusted for inflation. The Cost of Living Index compares the prices of housing, consumer goods, and services in Orange County and peer metro areas.

Why is it Important?

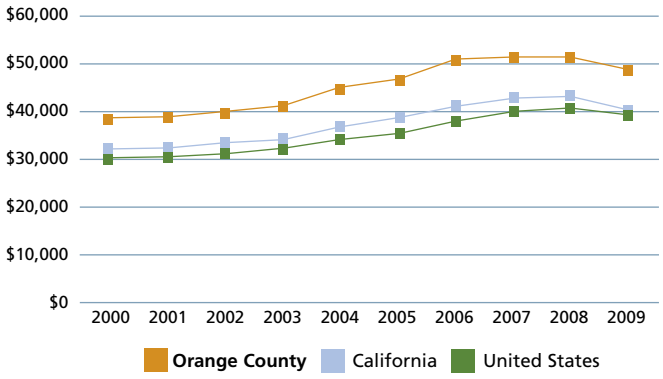
An above average and growing per capita income for Orange County residents is crucial in the context of high housing costs and overall cost of living. Current residents – particularly young workers – may decide to move to more affordable areas if incomes cannot keep pace with the cost of living. In addition, a high cost of living relative to peer markets can make Orange County less attractive as a destination for businesses and workers, and may push existing businesses to relocate to more affordable regions.

How is Orange County Doing?

Orange County's per capita income is down:

- In 2009, the national inflation rate was negative (deflation), falling 0.34%. As a result, each dollar bought marginally more, but Orange County residents were unlikely to sense the advantage since per capita income declined 5.5% from $51,877 in 2008 to $49,020 in 2009.[1]
- However, the 10-year trend is positive. Since 2000, income growth in Orange County (+28%) outpaced inflation (+25%), resulting in a slight net increase in buying power.
- In 2010, income statistics for both the state and nation indicate a rebound of approximately 3%, a trend likely to follow in Orange County as well.
- Among peers and neighbors, Orange County ranks in the middle in per capita income, but above both national and California averages.

Per Capita Income
Orange County, California, and United States, 2000-2009



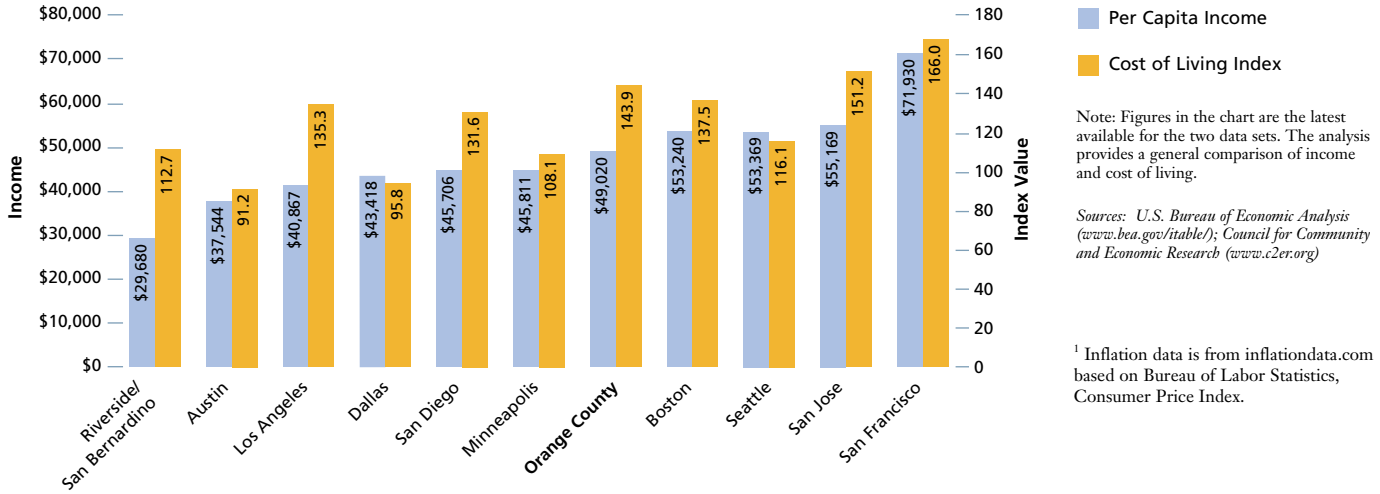
Source: U.S. Bureau of Economic Analysis (www.bea.gov/itable/)

Note: These figures have been updated since previously reported.

Cost of living remained third highest among peers:

- With 100.0 being average, Orange County measured 143.9 on the Cost of Living Index in 2011, down from 146.5 in 2010.
- Orange County's high cost of living is driven by comparatively high housing prices.
- When comparing per capita income and cost of living, Southern California has the largest differential between the two.
- In Orange County, this translates to less discretionary income than areas where income and cost of living are more aligned, less disposable income for consumer purchases, a reduced ability to pay off debt, and lower wealth creation over time.

Per Capita Income Compared to Cost of Living Index
Regional Comparison, 2009 (Income) and 2nd Quarter 2011 (Cost of Living)



Note: Figures in the chart are the latest available for the two data sets. The analysis provides a general comparison of income and cost of living.

Sources: U.S. Bureau of Economic Analysis (www.bea.gov/itable/); Council for Community and Economic Research (www.c2er.org)

[1] Inflation data is from inflationdata.com based on Bureau of Labor Statistics, Consumer Price Index.

Health and Biomed Sectors Grew Despite Recession

Description of Indicator

This indicator calculates average employment and salaries in 10 major Orange County industry clusters, which account for over half of the jobs in Orange County.[1] It also shows unemployment rates.

Why is it Important?

The dynamics of employment size and composition illustrate how Orange County's economy is evolving and responding to macro economic forces. Tracking salary levels by cluster shows whether these jobs pay enough for workers to afford to live in Orange County.

How is Orange County Doing?

Due to the Great Recession, employment declined in most of Orange County's 10 major industry clusters between 2006 and 2010:

- Only Health Services and Biomedical grew during this period (+11% and +8%, respectively), while Tourism remained largely unchanged (-0.3%).
- The remaining seven industry clusters posted employment losses.
- Construction took the hardest hit dropping 37% in five years.
- However, Business and Professional Services rebounded in 2010, while Computer Hardware remained steady.

In 2010, average salaries rose in most major clusters:

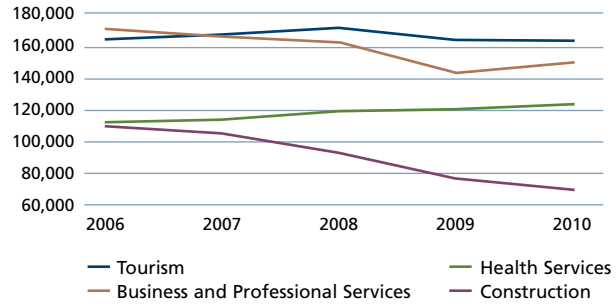
- The highest paid cluster, Computer Software, also saw the largest percent increase since 2009.
- Construction was the only industry showing losses in average salary between 2009 and 2010 (-1.6%).

Unemployment rates remain below state and national averages:

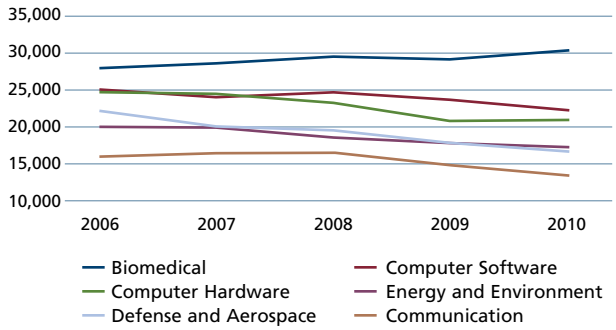
- Finishing the year at 7.8% in December 2011 (not seasonally adjusted), Orange County's unemployment rate improved substantially from the high of 10.0% in January 2010.
- While historically high, 7.8% falls below the December 2011 state and national rates of 10.9% and 8.3%, respectively.

Employment in Selected Orange County Clusters, 2006-2010

40,000 Jobs or More



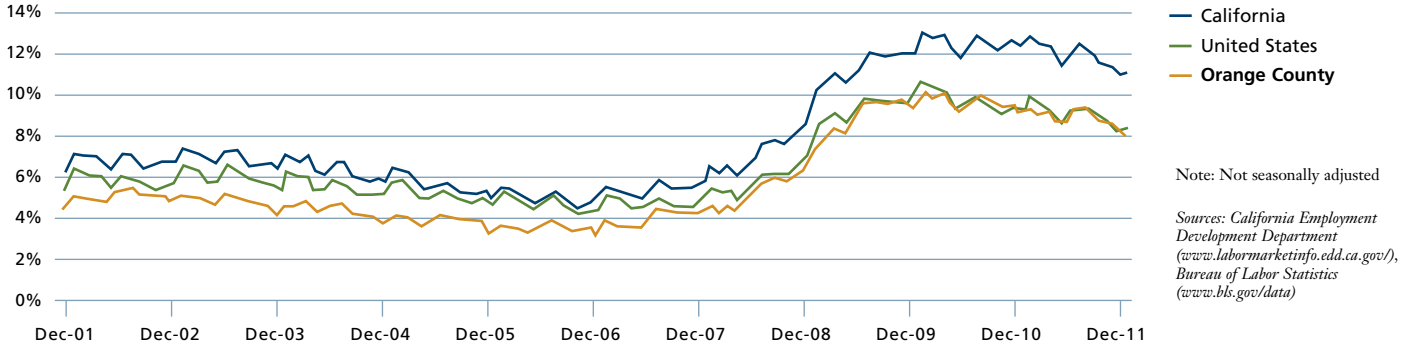
35,000 Jobs or Less



Average Annual Salaries in Selected Clusters
Orange County, 2010

	2010	Change from 2009
Computer Software	$101,166	9.7%
Defense and Aerospace	$93,775	5.6%
Computer Hardware	$81,069	4.3%
Communication	$73,565	2.4%
Health Services	$73,310	5.2%
Energy and Environment	$71,950	3.1%
Business and Professional	$58,323	0.0%
Construction	$56,703	-1.6%
Health Services	$53,311	1.8%
Tourism	$22,151	2.4%

Unemployment Rate
Orange County, California and United States, December 2001-December 2011



Note: Not seasonally adjusted

Sources: California Employment Development Department (www.labormarketinfo.edd.ca.gov/), Bureau of Labor Statistics (www.bls.gov/data)

[1] Data have been revised since previously reported.

Housing Shortage Eases Due to Job Losses

Description of Indicator

This indicator shows the ratio of new housing permits divided by new jobs created in Orange County compared with peer metro areas across the state and nation.

Why is it Important?

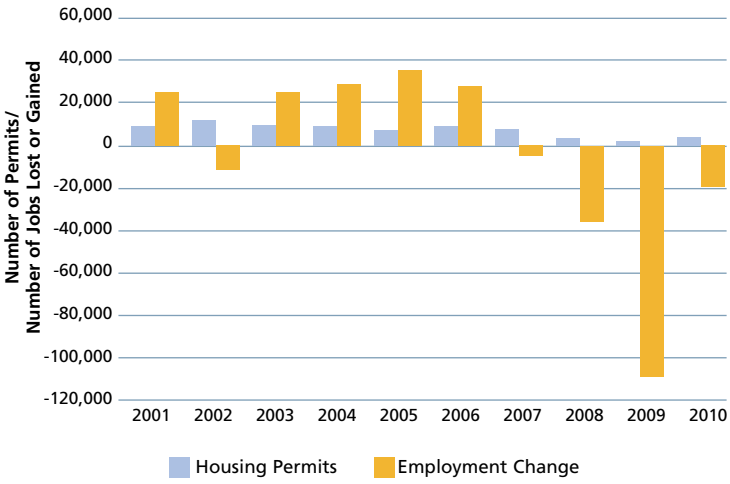
An adequate housing supply is essential for a community's labor force. When an economy is growing, new housing units are needed for the additional workers employed. If this housing demand is unmet, it can drive up home prices and apartment rents beyond what is affordable to many workers and residents. As a result, Orange County workers may choose to live in surrounding counties that offer a greater supply of affordable housing options, creating longer commutes and traffic congestion.

How is Orange County Doing?

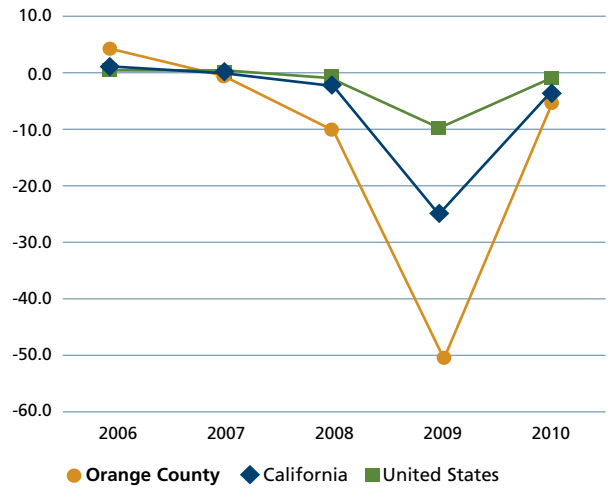
Due to a significant decline in employment over the past three years, the housing shortage – a result of many years of insufficient housing unit production relative to jobs created – has lessened:

- In 2010, employment dropped by 19,200 jobs, while 3,134 new housing permits were granted.
- With the exception of Boston and Austin, all peers compared experienced job losses in 2010 resulting in a negative jobs-to-housing ratio in nearly all markets, as well as in the state and the nation.
- Although recent employment losses alleviate some pressure on Orange County's housing demand, the reprieve is likely temporary unless housing production increases in step with economic recovery and future job creation; traditionally, the number of jobs in Orange County has far outpaced new housing production.

Housing Permits Granted and Employment Change
Orange County, 2001-2010



New Jobs Created per Housing Permits Granted
Orange County, California, and United States, 2006-2010



Housing Demand
Regional Comparison, 2010

	Housing Permits	Employment Change (Jobs) 2009 to 2010	Ratio of Employment Change to Permits
Boston	6,672	8,200	1.23
Austin	8,786	7,400	0.84
Dallas	20,640	-1,000	-0.05
San Jose	4,179	-4,000	-0.96
United States	*604,742*	*-989,000*	*-1.64*
Minneapolis	5,726	-16,700	-2.92
Seattle	10,040	-30,600	-3.05
San Diego	3,494	-11,200	-3.21
Riverside/San Bernardino	6,336	-23,600	-3.72
California	*43,716*	*-192,900*	*-4.41*
Orange County	**3,134**	**-19,200**	**-6.13**
San Francisco	4,621	-29,700	-6.43
Los Angeles	7,260	-56,400	-7.77

Note: Data have been revised since previously reported.

Sources: United States Bureau of Labor Statistics, Current Employment Statistics (www.bls.gov/data/); United States Department of Housing and Urban Development (http://socds.huduser.org/permits/index.html)

More Affordable; Still Most Expensive Among Peers

Description of Indicator

This indicator measures change in the median home price and the ability of first-time homebuyers to afford a home priced at 85% of the median in Orange County. It uses the California Association of Realtors' First-Time Homebuyer Housing Affordability Index to measure the percentage of Orange County households that can afford a home within these parameters and compares the minimum qualifying income to annual salaries in common or growing occupations.[1]

Why is it Important?

High relative housing prices adversely impact businesses' ability to attract and retain workers. A shortage of affordable housing, particularly for first-time buyers, discourages young workers from moving to or remaining in Orange County. In addition, a lack of affordable housing results in longer commutes, leading to increased traffic congestion and pollution, decreased productivity, and diminished quality of life. Homeownership increases stability for families and communities and for many, can provide long-term financial benefits that renting cannot.

How is Orange County Doing?

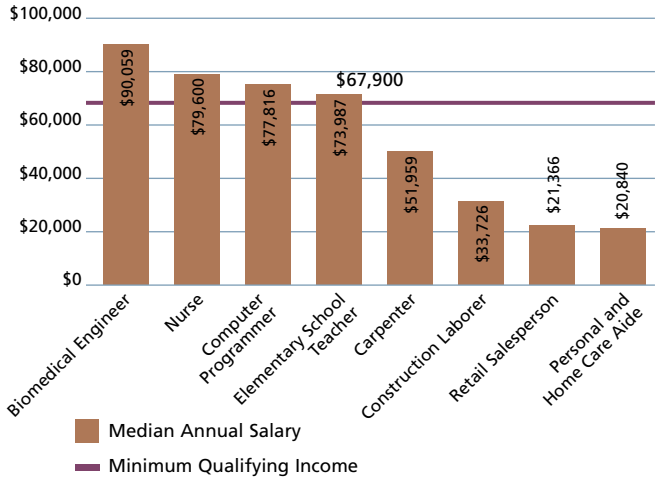
After reaching a post-crash low in January 2009, housing prices have slowly stabilized:

- In July 2011, the median sale price of an existing single-family detached home in Orange County was $551,510.
- Although this is down 3% from July 2010, Orange County housing has maintained its value better than the state, which decreased 8% over the same period.[2]
- As of July 2011, Orange County's median price was nearly $260,000 more than the state's median price for a comparable home.

While housing affordability improved in 2011, Orange County remains the most expensive market among California peers and neighbors:

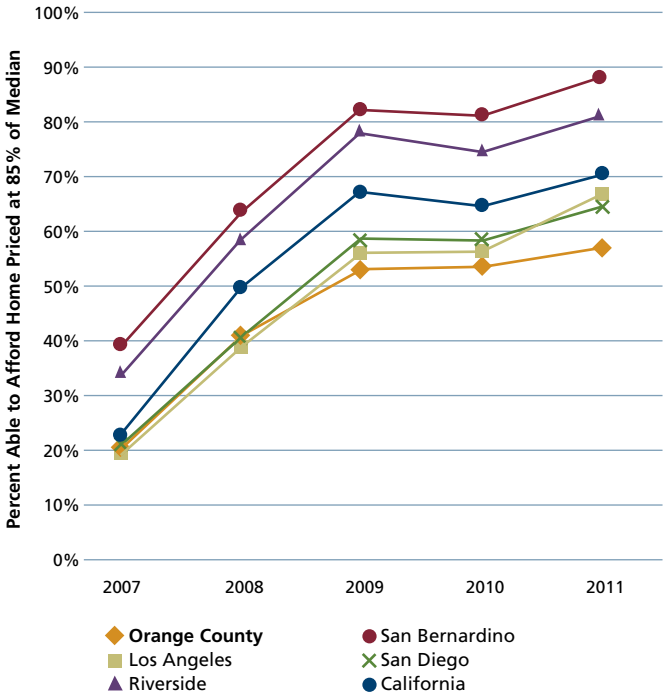
- The minimum household income needed for a first-time homebuyer to purchase an existing single-family home priced at 85% of the Orange County median price is approximately $67,900.
- Second quarter 2011 results indicate 57% of households in Orange County could afford an existing single-family detached home that was priced at 85% of median (or $456,210).
- This is compared with 54% in 2010, 53% in 2009, 41% in 2008, and 23% in 2007.
- Orange County's affordability rate is lower than all peers compared.
- Neighboring Riverside (81%) and San Bernardino (88%) counties remain the most affordable among peers with a majority of first-time buyers able to afford a home priced at 85% of the median.

Income Needed to Afford a Home Compared to Typical Salaries
Orange County, Second Quarter 2011



Sources: California Association of Realtors (www.car.org); California Employment Development Department (www.labormarketinfo.edd.ca.gov/?PageID=1009)

First-Time Homebuyer Housing Affordability Index
County Comparison, 2007-2011



Source: California Association of Realtors (www.car.org)

[1] The California Association of Realtors defines the parameters for the First-Time Buyer Housing Affordability Index. In 2011, the parameters were 10% down and the prevailing 1-year adjustable interest rate as reported by Freddie Mac (www.freddiemac.com/pmms/pmmsarm.htm) used towards the purchase of an existing single-family detached home priced at 85% of the county median price. Minimum qualifying income data in this indicator has been updated since previously reported.

[2] Median housing price data have been updated since previously reported. The July 2010 median sales price for Orange County was revised to $568,970.

Rent Rises Faster than Wages

Description of Indicator

This indicator measures the Housing Wage – the hourly wage a resident needs to afford "Fair Market Rent" (the median rent in the Orange County market). The Housing Wage is also compared to median wages among selected common and/or growing occupations in Orange County. "Affordable" is defined as spending 30% or less of total income on rent.[1]

Why is it Important?

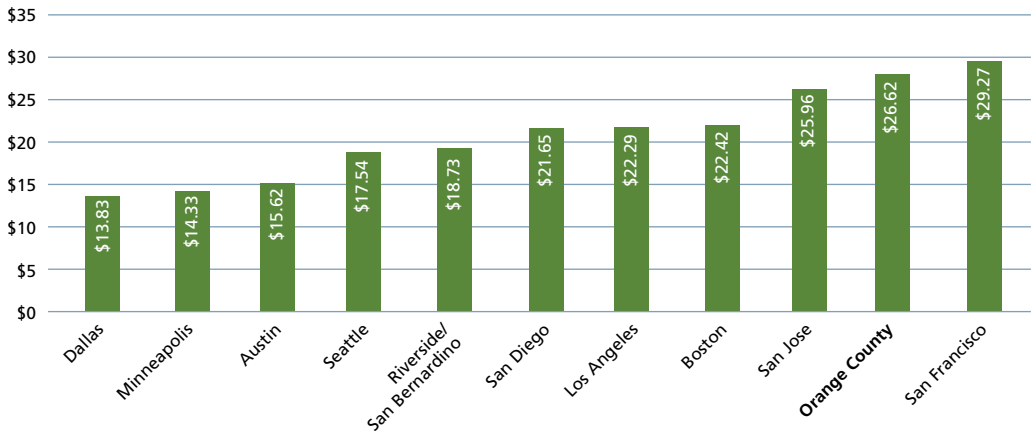
Lack of affordable rental housing can lead to overcrowding and household stress. Less affordable rental housing also restricts the ability of renters to save for a down payment on a home, limiting their ability to eventually realize the long-term advantages of owning a home. Ultimately, a shortage of affordable housing for renters can instigate a cycle of poverty.

How is Orange County Doing?

Orange County's Housing Wage increased in 2012:

- The hourly wage needed to afford a one-bedroom unit increased from $25.52 in 2011 to $26.62 in 2012. The one-bedroom Housing Wage is equivalent to an annual income of $55,360.
- The hourly wage needed to afford a unit of any size rose 4.3% since 2010, while changes in average wages for selected common and/or growing occupations ranged from -3% to +3% over the same period.
- Orange County has the second highest Housing Wage (less affordable housing) compared to peer metro areas.
- A minimum-wage worker must work 133 hours per week to afford a one-bedroom unit at fair market rent in Orange County.

Hourly Wage Needed to Afford a One-Bedroom Unit
Regional Comparison, 2012

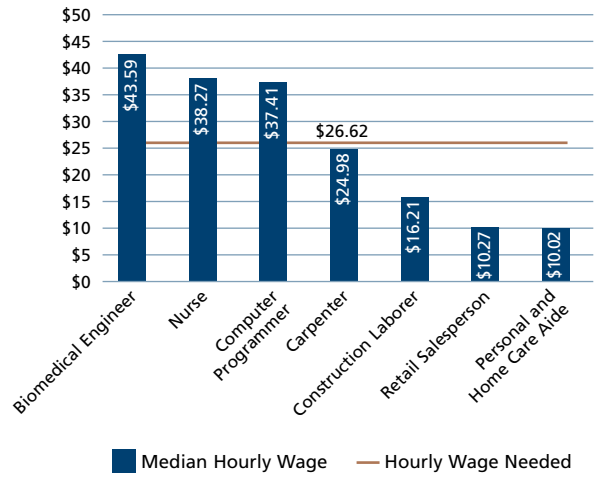


Renting in Orange County

	2011	2012
Fair Market Rent (Monthly)		
One Bedroom	$1,327	$1,384
Two Bedroom	$1,584	$1,652
Three Bedroom	$2,241	$2,338
Amount a Household Earning Minimum Wage Can Afford to Pay in Rent (Monthly)	$416	$416
Number of Hours per Week a Minimum Wage Earner Must Work to Afford a One-Bedroom Apartment	130	133

Sources: Community Indicators report analysis of Fair Market Rent data from the U.S. Department of Housing and Urban Development (www.huduser.org) using the methodology of the National Low Income Housing Coalition (www.nlihc.org); California Employment Development Department (www.edd.ca.gov)

Hourly Wage Needed to Afford a One-Bedroom Unit Compared to Typical Wages
Regional Comparison, 2012



[1] The Housing Wage data in this indicator reflects 2012 Fair Market Rent as reported by the U.S. Department of Housing and Urban Development (HUD).

Freeways Experience Nearly 10 Million Hours of Delay

Description of Indicator

This indicator tracks commute times and hours of vehicle delay due to congestion on Orange County freeways. It also measures ridership on Orange County's bus and commuter rail systems.

Why is it Important?

The ability of residents and workers to move efficiently within Orange County is important to quality of life and a prosperous business climate. Long commutes impact personal lives and worker productivity due to the time lost in transit. In addition, an effective public transit system is essential for the mobility of individuals who cannot afford, are unable, or choose not to drive a car.

How is Orange County Doing?

Orange County commute times remain steady:

- In 2009 and 2010, the average commute time to work for Orange County residents was 25.9 minutes, compared to 26.0 minutes in 2008.
- Orange County's average commute time falls in the middle among peers, with Riverside/San Bernardino on the high end at 30.6 minutes and Minneapolis on the low end at 22.9 minutes.

Delay due to congestion exacts a considerable cost:

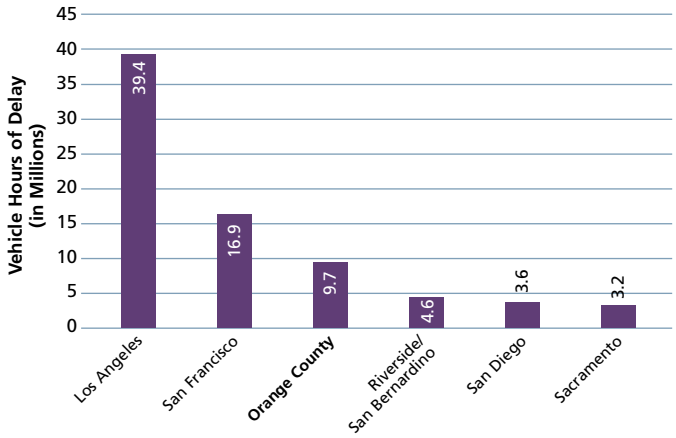
- In 2009, there were 9,736,000 annual hours of delay on Orange County freeways, the third greatest number of hours among California regions compared.[1]
- According to Caltrans' calculations, this delay resulted in usage of 16.7 million gallons of extra fuel and an additional 162,000 tons of carbon dioxide released into the air compared to what would have been emitted at free-flow speeds.
- In terms of productivity, the delays equate to wage and salary losses of $154.8 million for Orange County, or $424,000 per day in 2009.

In 2010/11, bus ridership continued to decline while rail ridership leveled:

- In 2010/11, bus boardings dropped to the lowest level in 15 years at 17 boardings per capita.
- This is equivalent to a 4% decline in total bus passenger boardings, on top of a 22% drop the previous year.
- Total ridership on Orange County's three commuter rail lines declined less than 1% to 3,430,828 riders.
- The 91 and Orange County Lines increased 5% and less than 1%, respectively, while the Inland Empire/Orange County Line decreased 5%.[2]

[1] In 2009, the California Department of Transportation instituted the Mobility Performance Report (MPR), which replaced the Highway Congestion Monitoring Program (HICOMP). The MPR uses different methodology to measure congestion and should not be compared to congestion data previously reported.
[2] The Orange County Line runs between Oceanside and downtown Los Angeles; the 91 Line parallels State Route 91; and the Inland Empire/Orange County Line runs between San Bernardino and San Juan Capistrano.

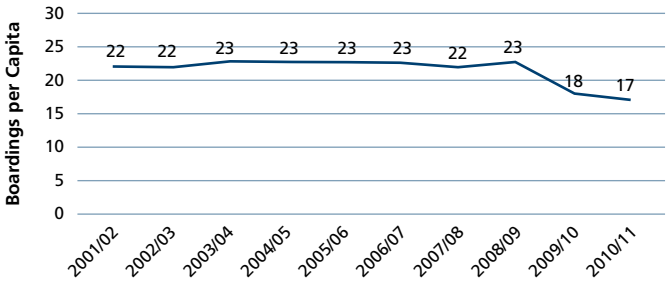
Annual Vehicle Hours of Delay
Regional Comparison, 2009



Note: As defined by the California Department of Transportation, the following regional boundaries include: Sacramento (Butte, Colusa, El Dorado, Glenn, Nevada, Placer, Sacramento, Sierra, Sutter, Yolo, and Yuba counties); San Francisco/San Jose (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties); Los Angeles (Los Angeles and Ventura counties); and San Diego (Imperial and San Diego counties).

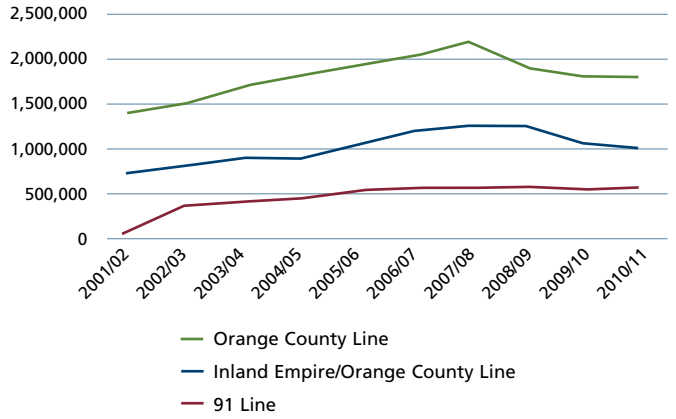
Source: California Department of Transportation Mobility Performance Report, 2010 (www.dot.ca.gov)

OCTA Bus Passenger Boardings, 2002-2011



Source: Orange County Transportation Authority

Commuter Rail Ridership
Orange County, 91 and Inland Empire/Orange County Lines, 2002-2011



Source: Metrolink

Technology and Innovation

Orange County has the second most diverse high-tech sector in the nation. Venture capital investment in the county increased and shows continuing strength. At the same time, patents granted for inventions rose for the third year. Roughly 17% of all undergraduate degrees and 22% of graduate degrees granted by Orange County universities were tech-related.

NATIONAL PEERS

Austin, Boston, Dallas, Minneapolis, Seattle

CALIFORNIA PEERS

San Francisco, San Jose

NEIGHBORS

Los Angeles, Riverside/San Bernardino, San Diego

Diversity Increases; Tech Output Growth is Moderate

Description of Indicator

This indicator measures high-tech sector employment concentration, diversity, and output growth. Regions with employment concentration values higher than 1.0 in a particular industry have a greater concentration than the national average. A larger number of concentrated high-tech industries indicates a more diversified technology employment base. High-tech sector output growth is relative to the national average (100.0).

Why is it Important?

High-tech industries provide strong economic growth potential, offer higher than average wages, and support a broad range of skilled workers and professional services. Regions with a large and diverse high-tech economy have an edge in attracting and retaining high-tech firms because of their deep employment pool and other factors that encourage industry clustering. A diverse high-tech sector is also more resilient during economic downturns than markets that are more reliant upon a particular industry.

How is Orange County Doing?

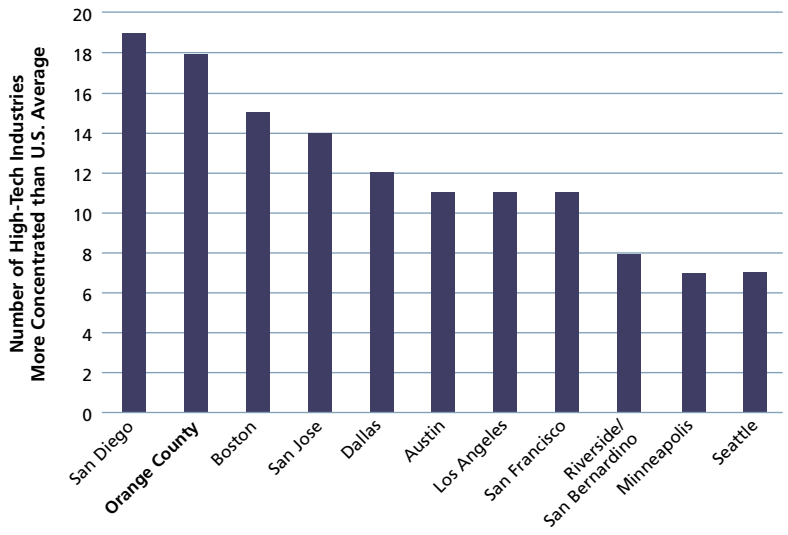
Compared to 200 large metro areas, Orange County ranks second in high-tech sector diversity:

- In 2010, Orange County's employment concentration was above the national average in 18 of 25 high-tech industries measured.
- Since 2003, the number of Orange County's high-tech industries with higher than average concentration has ranged from 15 to 18.
- With an overall value of 1.43, Orange County's high-tech employment is above the national average of 1.0.

In terms of high-tech output growth, Orange County ranks in the middle among peers compared:

- As of 2010, Orange County's one- and five-year levels of relative high-tech output growth – 98.7 and 96.4, respectively – fall below the national average of 100.0.
- Although Orange County's output growth has trended downward since tracking began in 2004, the growth posted in 2010 marks a substantial reversal of this trend.

High-Tech Sector Diversity
Regional Comparison, 2010



Source: Milken Institute, Best Performing Cities Report (www.milkeninstitute.org)

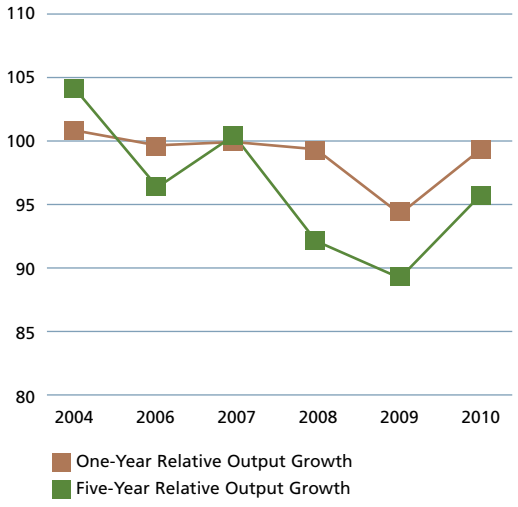
High-Tech Sector Employment Concentration Compared to the U.S. Average
Regional Comparison, 2010

	Employment Concentration Value
San Jose	3.71
Boston	2.93
Seattle	2.61
San Francisco	1.76
San Diego	1.74
Austin	1.74
Los Angeles	1.56
Dallas	1.53
Orange County	**1.43**
United States	*1.00*
Minneapolis	0.97
Riverside/San Bernardino	0.75

Note: "Boston" is the Cambridge-Newton-Framingham Metro Division.

Source: Milken Institute, Best Performing Cities Report (www.milkeninstitute.org)

High-Tech Sector Output Growth Relative to the National Average
Orange County, 2004-2010



Note: Data not available for 2005. U.S. average value is 100.0.

Source: Milken Institute, Best Performing Cities Report (www.milkeninstitute.org)

Access to the Internet Remains Steady

Description of Indicator

This indicator measures the percentage of adults who have access to the Internet either at home or work.

Why is it Important?

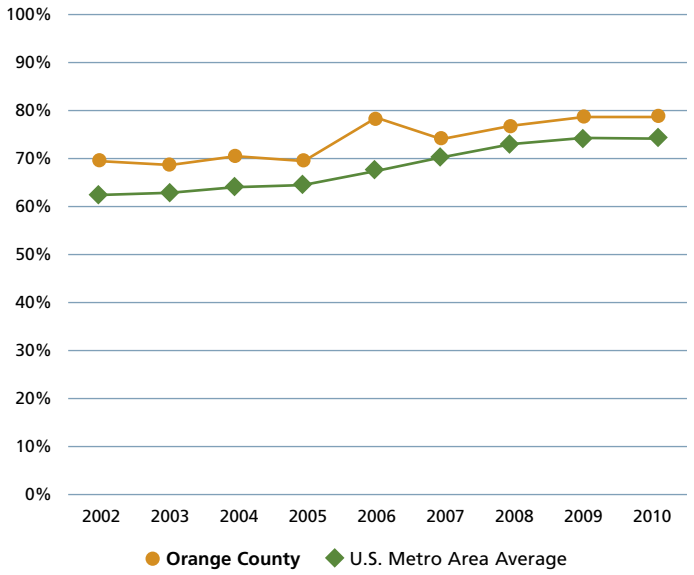
The Internet has become an essential communications platform for work, education, social interaction, and government-related communication. Access to the Internet allows residents to tap into a wealth of information, resources, products, and services. Increased access not only benefits residents and the overall business community, it also significantly expands the marketplace for the sale of goods and services by local businesses.

How is Orange County Doing?

Orange County's Internet access rate remains higher than the U.S. metro area average:

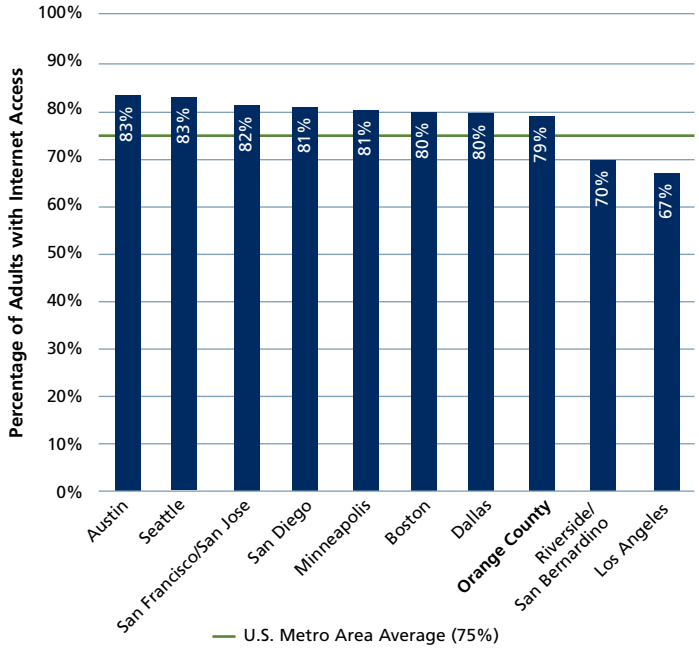
- In 2010, Orange County's Internet access rate for adults was 79%, the same as in 2009.
- While higher than Los Angeles and Riverside/San Bernardino, this rate is lower than all other peers compared.
- Orange County's rate of increase since 1999 roughly mirrors the rate of increase for the U.S. metro area average.

Internet Access Among Adults
Orange County and United States, 2002-2010



Source: Scarborough Research

Internet Access Among Adults
Regional Comparison, 2010



Source: Scarborough Research

Patent Grants Grow; Venture Capital Rebounds

Description of Indicator

This indicator measures Orange County businesses' access to venture capital (financing for new companies) by tracking emerging and early-stage business investment among metro areas. It also measures the number of utility patents, or "patents for inventions" granted to inventors based in Orange County.[1]

Why is it Important?

Innovation and the development of new technology are critical for a regional economy's long-term viability. Venture capital facilitates new business growth and exploits new technologies. The number of patent grants awarded for county businesses and residents is a good barometer of both the ingenuity of the local workforce and businesses' commitment to research and development.

How is Orange County Doing?

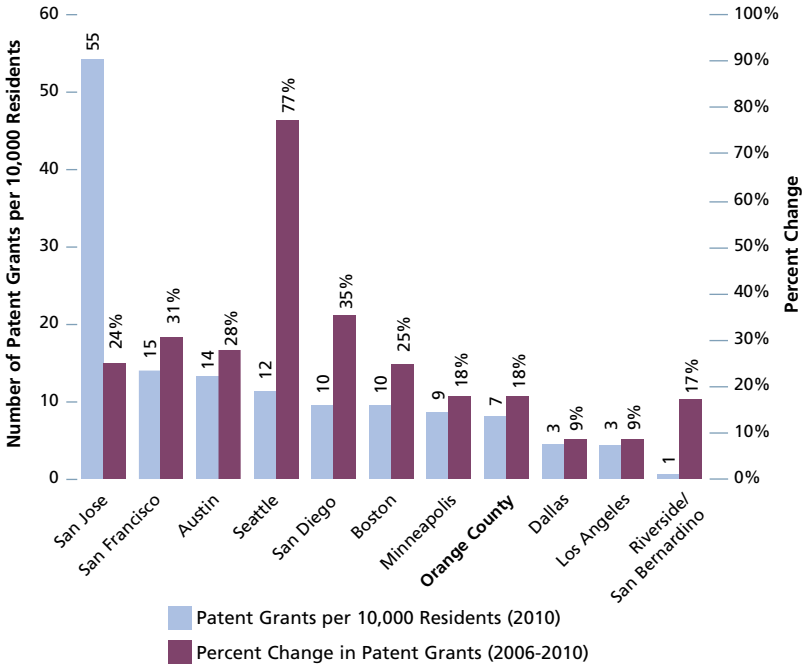
Patents granted for inventions rose 32% in one year:

- In 2010, there were 2,175 patents granted to Orange County inventors, up from 1,648 in 2009 and 1,571 in 2008.
- Despite this growth, Orange County ranked eighth among comparison regions for patents per capita (7 per 10,000) in 2010.
- The county tied for seventh in rate of growth of patents granted between 2006 and 2010 (18%).

Venture capital investment increased in 2010, rising above the 10-year average of $517 million:

- Venture capital funding in 2010 was $624.2 million, compared to $307.8 million in 2009.
- Investments for the first half of 2011 totaled $525.2 million, signaling continued strength.
- Local companies devoted to medical devices and equipment led investments, garnering 48% of the total venture capital invested in Orange County during the second quarter of 2011.
- The industrial/energy sector (including electric vehicle design and manufacturing) received 36% during the same period.
- In 2010, Orange County's share of national venture capital was approximately 2.7%.

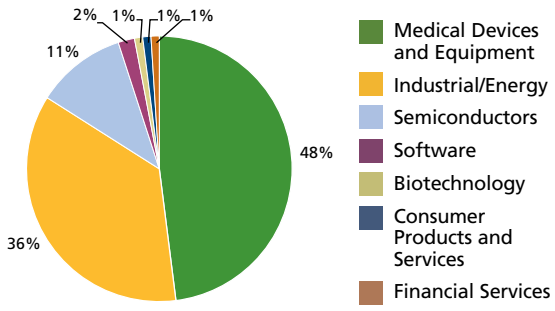
Regional Comparison of the Number of Patent Grants per Capita (2010) and the Percent Change in Patents Grants Awarded (2006-2010)



Note: Percent change calculations are based on the raw number of patents granted.

Sources: U.S. Patent and Trademark Office (www.uspto.gov); U.S. Census Bureau, American Community Survey 1-Year Estimates (www.census.gov)

Venture Capital Investment, by Sector
Orange County, Second Quarter 2011



Source: MoneyTree Report prepared by National Venture Capital Association and PricewaterhouseCoopers, based on data provided by Thomson Reuters (www.pwcmoneytree.com/MTPublic/ns/index.jsp)

Venture Capital Investment
Orange County, 2001-2011 (First Half)

Source: Thomson Reuters data prepared by National Venture Capital Association

[1] The data for this indicator has been revised and should not be compared with data previously reported.

Math and Science Enrollment Stable; Proficiency Improves

Description of Indicator

This indicator measures the scientific and technological know-how of Orange County's future workforce using four metrics: the percentage of public high school students enrolled in an upper level math or science course (Intermediate Algebra/Algebra II, other advanced math, first year Chemistry, or first year Physics); the percentage of eighth through 11th grade students who demonstrate achievement in these courses by scoring at a proficient level or better at course completion; the number of K-12 students per computer; and the number of classrooms with Internet access.

Why is it Important?

Computer, math, and science competency are critical in our knowledge- and computer-driven economy. Computer and Internet access are important instructional devices and provide students with indispensible research tools. In addition, enrollment and achievement in upper level math and science courses are required for UC/CSU entry and provide the necessary background for many college-level courses and tech-related jobs (see the Technology-Related Degrees and Employment indicators).

How is Orange County Doing?

Enrollment in upper level math and science courses remains largely unchanged:[1]

- In 2010/11, approximately 20% of high school students enrolled in Intermediate Algebra/Algebra II, and 13% took other advanced math courses.
- 14% of high school students enrolled in Chemistry, while 6% took Physics.
- Female enrollment was higher in all subjects except Physics, where enrollment was the same for male and female students.
- Compared to 2008/09, course-taking rates remained largely unchanged, with the exception of enrollment in other advanced math courses, which dropped from 18% to 13%.

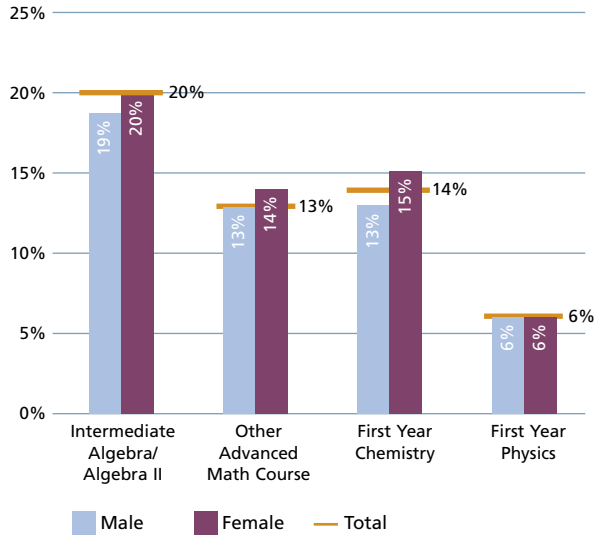
Test scores have gradually improved among eighth through 11th grade students completing upper level math and science courses:

- Between 2007 and 2011, the proportion of students scoring proficient or better in Physics after completing the course increased from 58% to 66%.
- Over the same period, proficiency in Chemistry improved from 49% to 55% of students tested at course completion.
- Algebra II proficiency at course completion improved from 41% to 47% between 2007 and 2011.

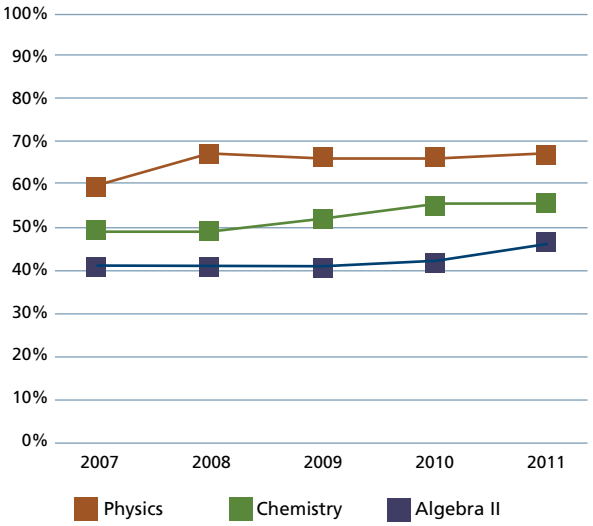
Internet access in schools continues to increase, but aging equipment is a growing problem:

- The number of students per computer less than four years old jumped to 6.5 in 2009/10, up from 4.7 students per computer in 2005/06.
- The number of Orange County classrooms with high-speed Internet access increased 4% between 2005/06 and 2009/10.[2]

Upper Level Math and Science Course Enrollment as Percent of Total Enrollment for Grades 9-12
Orange County, 2010/11



Percent of Students Scoring Proficient or Better in Math and Science Testing at Course Completion
Orange County, 2007-2011



Source: California Department of Education (http://data1.cde.ca.gov/dataquest)

[1] Course enrollment data published in the 2011 Community Indicators report was subsequently revised by the data source; comparisons to 2008/09 data reflect currently published statistics by the California Department of Education (CDE). Course enrollment data is not available for 2009/10. The 2010/11 figures are a Community Indicators report calculation based on information and data provided by the CDE.

[2] The number of classrooms with Internet access includes all classrooms and other instructional settings at the school (such as a computer lab, library or career center) with an Internet connection. If a classroom has more than one Internet connection, that classroom is still only counted once.

More Technical Degrees Granted

Description of Indicator

This indicator measures the number of tech-related degrees conferred by Orange County universities that offer tech-related graduate and undergraduate degrees, including California State University, Fullerton, Chapman University, and University of California, Irvine.[1]

Why is it Important?

A workforce trained in the STEM disciplines (science, technology, engineering, and mathematics) supports Orange County's high-tech sector, nurtures innovation, and contributes to our overall economic wellbeing. High-tech jobs provide good wages for employees and a technically-skilled pool of local graduates reduces the need for employers to recruit workers from outside the county.

How is Orange County Doing?

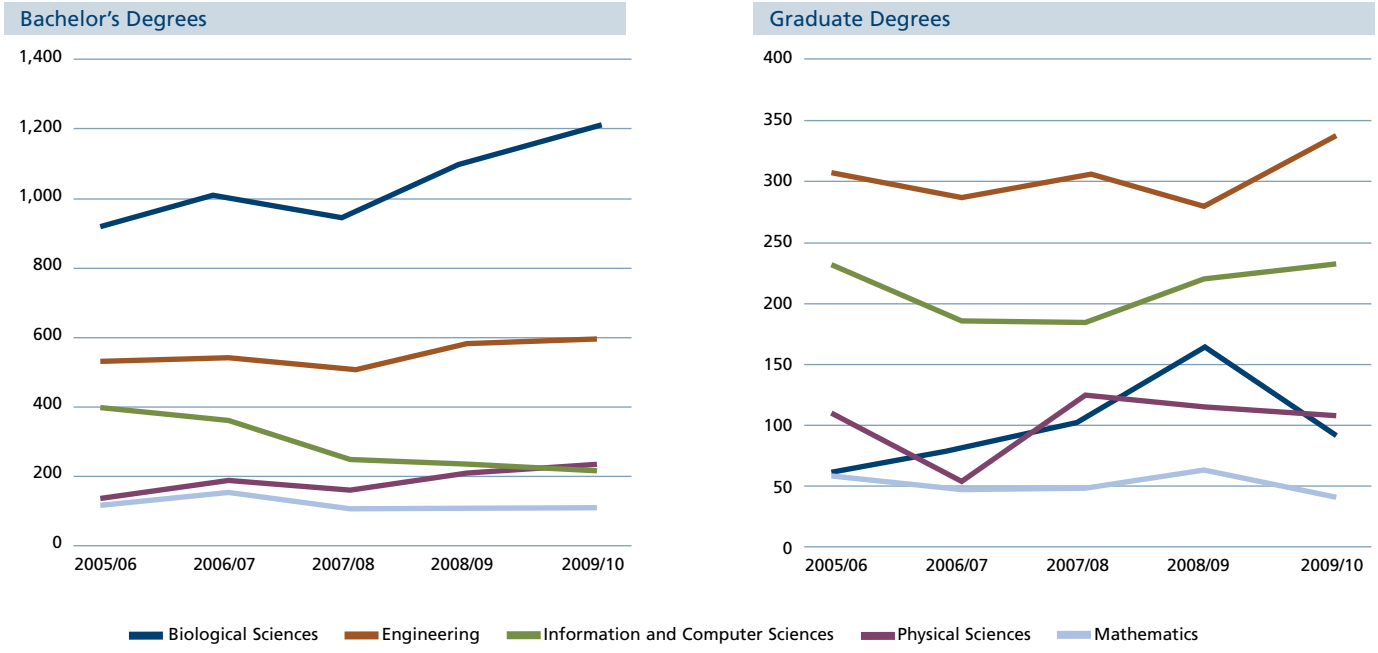
In 2009/10, roughly 17% of all undergraduate degrees were tech-related:

- The number of tech-related undergraduate degrees granted increased 5% in one year and 10% since 2005/06.
- Since 2005/06, undergraduate degrees granted in physical sciences grew 47%, while biological sciences degrees grew 29%, and engineering degrees grew 10%.
- During the same period, undergraduate degrees granted in information and computer science dropped 45%, while mathematics fell 9%.

Just over 22% of all graduate degrees in 2009/10 were tech-related:

- The number of tech-related graduate degrees fell 4% in one year, but still shows positive growth (+7%) since 2005/06.
- Since 2005/06, graduate degrees granted in biological sciences grew 56%, and engineering degrees grew 11%, while information and computer science degrees remained largely unchanged at +1%.
- During the same period, mathematics dropped 25%, while physical sciences fell 3%.

Tech-Related Degrees Conferred at Orange County Universities, 2006-2010



Total Tech-Related Degrees

	2005	2006	2007	2008	2009
Bachelor's	2,149	2,246	2,031	2,248	2,361
Graduate	764	659	763	848	818
Total	2,913	2,905	2,794	3,096	3,179

Sources: California State University, Fullerton (www.calstate.edu); Chapman University (www.chapman.edu); and University of California, Irvine (www.oir.uci.edu).

[1] Data have been revised since previously published to include mathematics dregrees from all three universities and to omit food science and physical therapy degrees.

Education

Orange County K-12 students outperformed students statewide, with 63% proficient in English-language arts and 60% proficient in math. More students are staying in high school, yet 14% drop out over the course of four years. Of those students, a disproportionate 69% were Hispanic. Community college and ROP placement rates declined, but remain strong at 88% and 80%, respectively.

NATIONAL PEERS

Boston, Dallas, Minneapolis, Phoenix

CALIFORNIA PEERS

Sacramento, San Jose, San Francisco

NEIGHBORS

Los Angeles, Riverside/San Bernardino, San Diego

Job Placement Dips for Career Tech Students

Description of Indicator

This indicator aggregates and reports career technical education (CTE) data from the Orange County Regional Occupational Programs (ROP) and Orange County community colleges. This data enables the community to assess the ability of CTE providers to supply the local economy with a diverse and appropriately trained labor force.

Why is it Important?

Career technical education helps high school students connect their academic learning to real-world training and prepares graduates to enter a career or advanced education. CTE allows adults to acquire specialized job skills, providing opportunities for those reentering the workforce, changing careers, or needing on-the-job skill upgrades.

How is Orange County Doing?

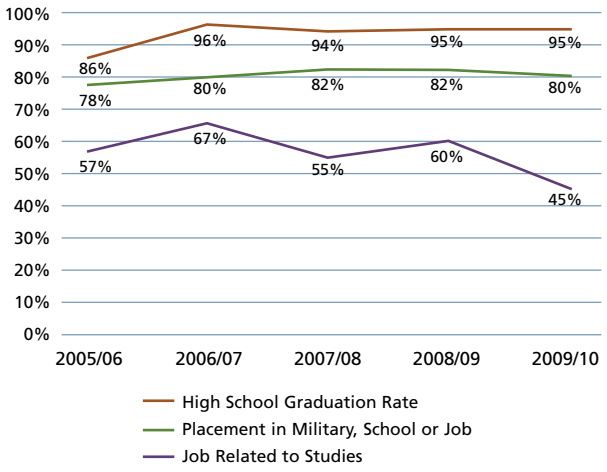
ROP enrollment is shifting:

- Due in part to new limitations on adult enrollment, the number of adults in ROP fell 55% between 2008/09 and 2009/10. Adults currently make up 14% of overall ROP enrollment.
- Meanwhile, ROP enrollment among high school students grew 13% to 38,270 between 2008/09 and 2009/10.
- Community college enrollment continues to decline, falling 1.2% between 2009/10 and 2010/11.
- As many as 22% of all Orange County high school students participate in ROP and 9% of all adult residents are enrolled in an Orange County community college.

Placement rates declined:

- 80% of ROP students were placed within six months of graduating in 2009/10, down from 82% the previous year.
- Of the 80% of ROP students placed, 45% obtained jobs related to their field of study – a decrease of 15% from the previous year.
- For community college CTE students, 88% were placed within a year of completing their course of study in 2008/09, compared to 91% the previous year.
- While overall rates declined, placement in the three most popular community college CTE concentrations – Engineering and Industrial Technology, Business and Management, and Health – improved for students completing their studies in 2008/09.
- Placement rates for the next two most popular concentrations – Public and Protective Services, and Commercial Services – remained the same from 2007/08 to 2008/09.

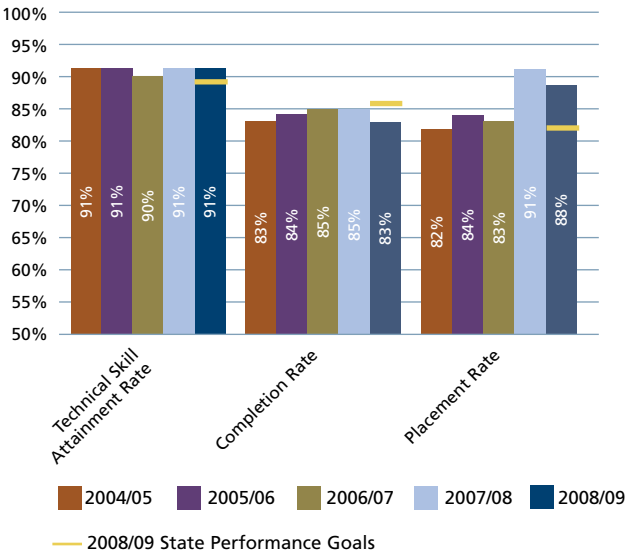
Regional Occupational Programs Student Performance
Orange County, 2006-2010



Note: "Placement" and "Job Related to Studies" include both high school and adult students.

Sources: California Department of Education; Capistrano-Laguna, Coastline, Central County, and North County Regional Occupational Programs

Community College CTE Student Performance
Orange County, 2005-2009



Note: Data has been updated since previously reported. The core performance indicators are defined as follows: "Technical Skill Attainment" is earning a "C" grade or better; "Completion" is receiving a credential, certificate or degree; and "Placement" is finding employment, an apprenticeship, or joining the military.

Source: California Community Colleges, Chancellor's Office, Vocational Education (https://misweb.ccco.edu/perkins/main.aspx)

Placement Rate for Five Most Popular Community College Career Technical Concentrations
Orange County, 2007/08 and 2008/09

	2007/08	2008/09
Engineering and Industrial Technologies	88%	93%
Business and Management	70%	80%
Health	90%	94%
Public and Protective Services	91%	91%
Commercial Services	79%	79%

Source: California Community Colleges, Chancellor's Office, Vocational Education (https://misweb.ccco.edu/perkins/main.aspx)

More Students Complete High School

Description of Indicator

This indicator measures the educational attainment of Orange County residents over age 25 compared to the state, nation, and peer regions. It also measures the percentage of public high school students who drop out annually, in total and by race/ethnicity.

Why is it Important?

A high school diploma or college degree increases the range of career opportunities available, enabling residents to seek out higher paying fields. Research shows that each percentage point increase in the proportion of college-educated residents is directly associated with an increase in per capita income, benefiting both the individual and the community.[1] Additionally, the education level of residents reflects the quality of the labor pool – an important factor for business attraction, expansion, and retention.

How is Orange County Doing?

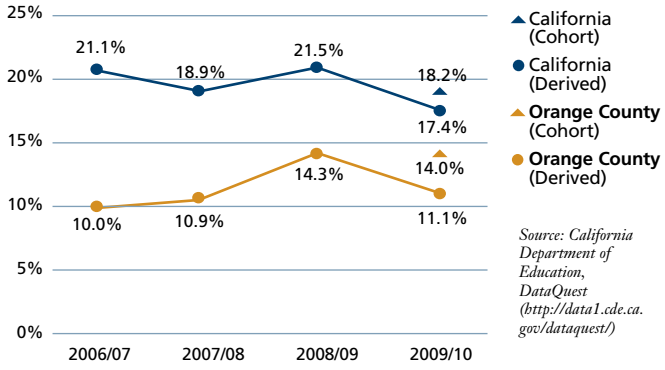
More Orange County students are staying in school:

- The newly available cohort dropout rate – calculated by tracking a class of students through their four years of high school – indicates that 14.0% of the class of 2009/10 dropped out before graduating.[2]
- This is lower than the statewide cohort dropout rate of 18.2%.
- The derived dropout rate – the previous calculation methodology – fell from 14.3% in 2008/09 to 11.1% in 2009/10.[3]
- Among all dropouts in 2009/10, Hispanic and White students were the two largest groups (69% and 17%, respectively).
- Compared to enrollment, the dropout rate among Hispanic students is disproportionately high.

Broad economic and educational disparities persist:

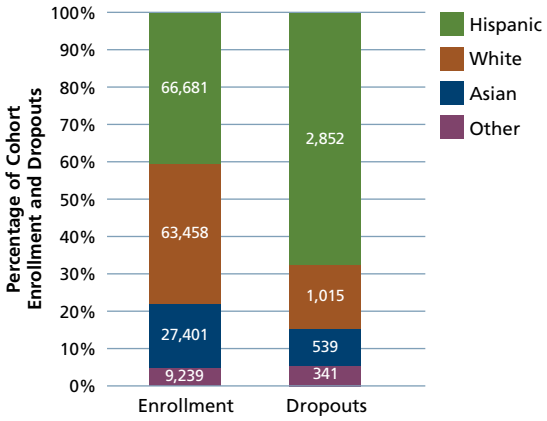
- The county has more college-educated residents and fewer high school graduates than the national averages.
- Countywide, the proportion of residents over age 25 with Bachelor's degrees rose from 35% in 2009 to 37% in 2010.
- In 2010, 83% of residents over age 25 had a high school diploma or GED, the same as in 2009.

Dropout Rates (Cohort and Adjusted Grade 9-12 Four-Year Derived)
Orange County and California, 2007-2010



Source: California Department of Education, DataQuest (http://data1.cde.ca.gov/dataquest/)

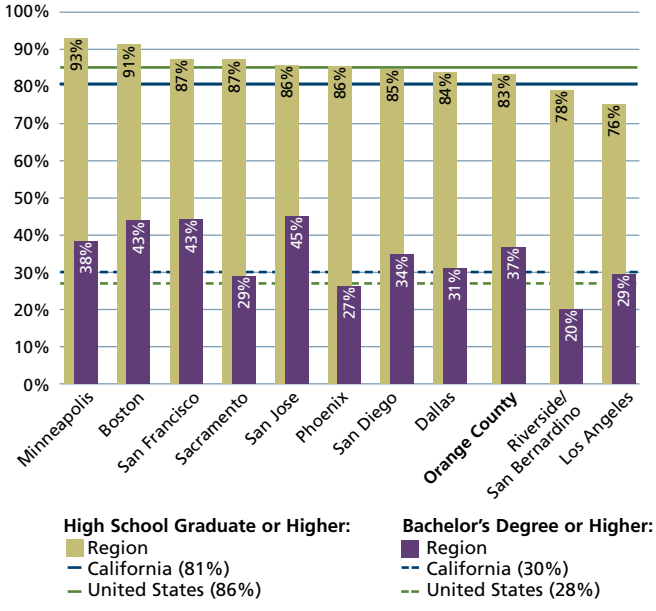
Class of 2009/10 Enrollment and Dropouts, by Race/Ethnicity
Orange County, 2009/10



Note: "Asian" includes students identified as Asian, Pacific Islander, and Filipino. "Other" includes all races and/or ethnicities not otherwise shown in this chart, as well as multiple or no response.

Source: California Department of Education, DataQuest (http://data1.cde.ca.gov/dataquest/)

Percent Over Age 25 with a High School Diploma/GED or Bachelor's Degree
Regional Comparison, 2010



Source: U.S. Census Bureau, American Community Survey, 2010 (http://factfinder2.census.gov)

[1] CEOs for Cities, Talent Dividend (www.ceosforcities.org/work/city_dividends)
[2] The California Longitudinal Pupil Achievement Data System (CALPADS), initiated in 2006, allows tracking a class of students through their four years of high school to determine what proportion of that class dropped out over that period. The class of 2009/10 is the first class for which the cohort dropout rate could be calculated.
[3] The adjusted four-year derived dropout rate estimates the four-year dropout rate based on a single-year of dropout data from CALPADS.

No Gains in College Readiness

Description of Indicator

This indicator measures the number of public high school graduates who have fulfilled minimum course requirements to be eligible for admission to University of California (UC) or California State University (CSU) campuses. It also includes the percentage of high school graduates taking the SAT and the percentage of students scoring 1,500 or better.

Why is it Important?

A college education is important for many jobs in Orange County. To gain entry to most four-year universities, high school students must complete the necessary coursework and take standardized tests.

How is Orange County Doing?

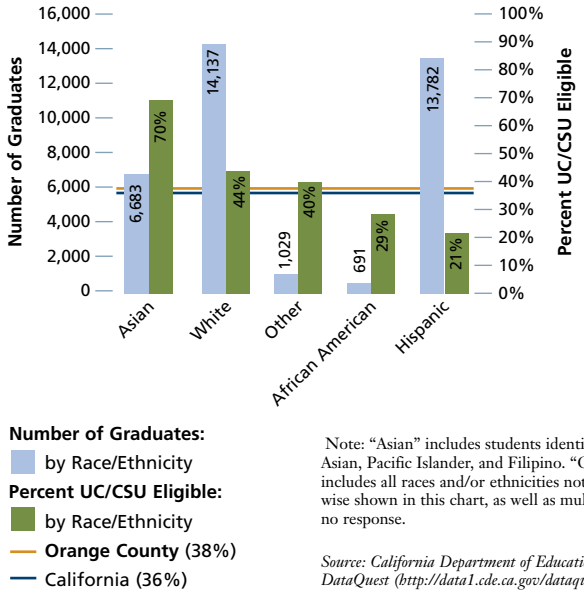
UC/CSU eligibility matches the 15-year average:

- During the 2009/10 school year, 38% of Orange County students completed the necessary coursework to be UC or CSU eligible, compared to 36% statewide.
- Despite falling eligibility rates over the past two years, the long-term trend remains modestly upward.

Scores rise as fewer take the SAT:

- In 2009/10, 38% of 12th grade students took the SAT, down from 41% the previous year, contributing to a slight downward trend over the past decade.
- 64% of Orange County test-takers scored above 1,500 points, which is higher than in 2008/09 (62%) and well above the California average of 51%.
- Compared to California peer and neighboring metro areas, Orange County's average SAT score of 1,621 trails only the San Jose metro area.

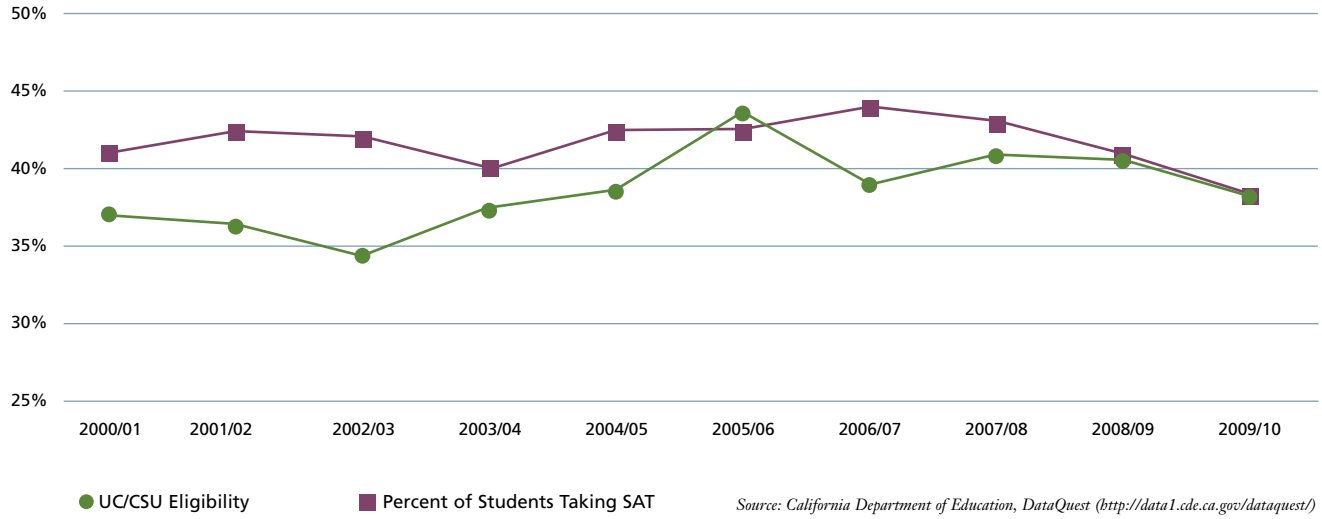
Percent of High School Graduates Eligible for UC/CSU Compared to Number of Graduates, by Race/Ethnicity
Orange County, 2009/10



Note: "Asian" includes students identified as Asian, Pacific Islander, and Filipino. "Other" includes all races and/or ethnicities not otherwise shown in this chart, as well as multiple or no response.

Source: California Department of Education, DataQuest (http://data1.cde.ca.gov/dataquest/)

Percent of 12th Grade Students Taking the SAT and Percent of High School Graduates Eligible for UC/CSU
Orange County, 2001-2010

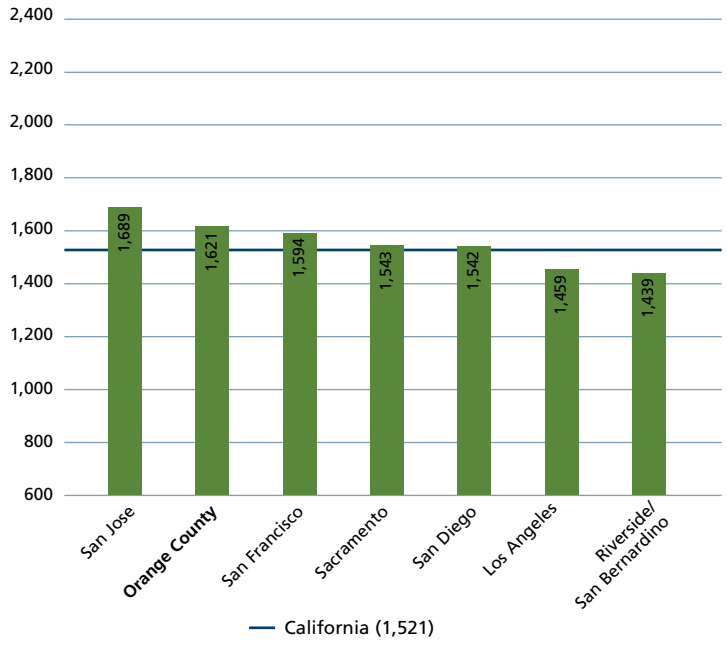


Source: California Department of Education, DataQuest (http://data1.cde.ca.gov/dataquest/)

Wide disparities in SAT test-taking, scores, and UC/CSU eligibility persist:

- In 2009/10, 87% of students in Irvine Unified School District scored above 1,500 on the SAT, compared to 34% in Santa Ana Unified School District.
- Asian students are the most likely to be UC/CSU eligible (70%), but comprise only 18% of all high school graduates.
- Hispanic students are the least likely to be UC/CSU eligible (21%), but comprise 38% of all high school graduates.
- However, eligibility among Hispanic students has improved approximately 4% annually since 2001, compared to 3% among Asian students, and no change among White students.

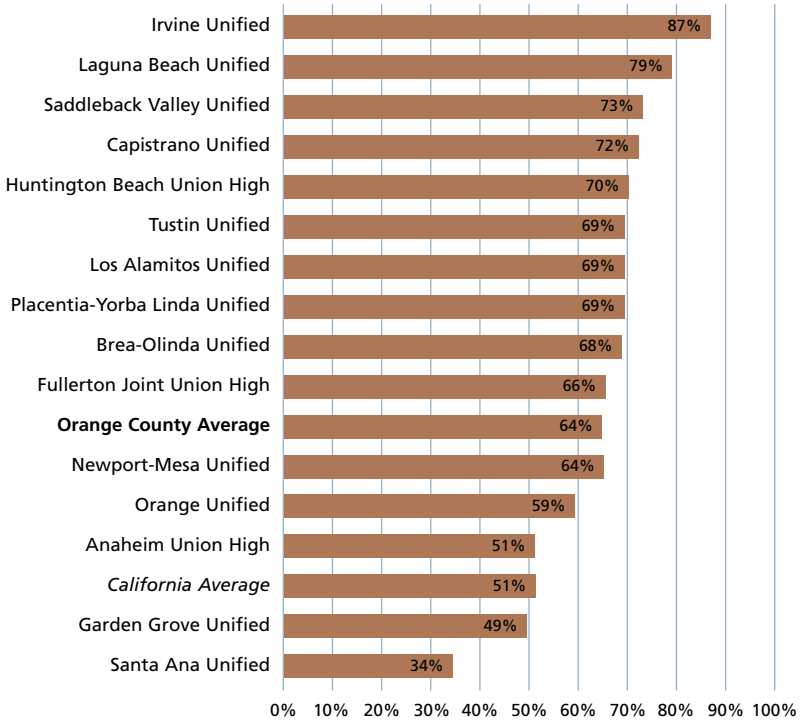
Average SAT Scores
Regional Comparison, 2009/10



Note: The highest score possible is 2,400.

Source: California Department of Education, DataQuest (http://data1.cde.ca.gov/dataquest/)

Percent of Students Scoring 1,500 or Better on the SAT, by District
Orange County, 2009/10



Source: California Department of Education, DataQuest (http://data1.cde.ca.gov/dataquest/)

More than 60% of Students Proficient or Better

Description of Indicator

This indicator measures academic performance using two metrics: the California Academic Performance Index (API), which summarizes progress toward achievement of academic growth targets for K-12 public schools and districts; and the California Standards Test in English-language arts (ELA) and mathematics, which reports the proportion of students testing proficient or better.

Why is it Important?

Tracking academic performance enables school administrators and the public to evaluate how well Orange County schools are meeting state standards and how well students are performing in core academic disciplines.

How is Orange County Doing?

On average, Orange County's school district API scores remained constant in 2011:

- 22 out of 27 school districts achieved Academic Performance Index (API) scores above the statewide target of 800 – the same as in 2010.
- The average API score among Orange County school districts – currently 833 – rose 17% since 2002, but less than one percent since 2010.
- Since 2002, Santa Ana Unified School District demonstrated the fastest rate of improvement, increasing their API score by 30%.
- 88% of Orange County public schools met their individualized, state-identified API improvement target (districts do not have individualized improvement targets).

Orange County students outperformed students statewide:

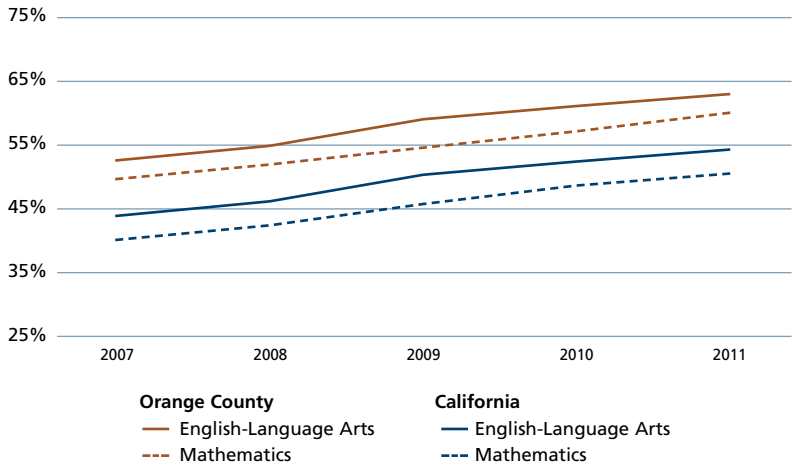
- In 2011, 63% of Orange County students scored proficient or better in ELA and 60% scored proficient or better in math, marking two- and three-percentage point improvements since 2009, respectively.
- Compared to the state, more Orange County students scored proficient or better in both ELA and math; however, students statewide have improved at a slightly faster rate than Orange County students since 2007.
- Since 2007, students statewide have improved 26% in ELA and 24% in math, whereas Orange County students have improved 21% in ELA and 23% in math.

Average Academic Performance Index Scores
Orange County, 2011

	School District (Percent of Total County Enrollment)	2011 API
Above State API Target	Irvine Unified (5%)	921
	Los Alamitos Unified (2%)	912
	Laguna Beach Unified (1%)	904
	Huntington Beach City Elementary (1%)	895
	Fountain Valley Elementary (1%)	892
	Cypress Elementary (1%)	878
	Capistrano Unified (11%)	875
	Brea-Olinda Unified (1%)	869
	Ocean View Elementary (2%)	868
	Saddleback Valley Unified (6%)	862
	Fullerton Elementary (3%)	861
	Placentia-Yorba Linda Unified (5%)	859
	Tustin Unified (5%)	857
	Centralia Elementary (1%)	846
	Huntington Beach Union High (3%)	834
	Orange County Average	**833**
	Newport-Mesa Unified (4%)	830
	Orange Unified (6%)	823
	Westminster Elementary (2%)	821
	Fullerton Joint Union High (3%)	817
	Buena Park Elementary (1%)	816
	Garden Grove Unified (10%)	815
	Magnolia Elementary (1%)	808
Below State API Target	Savanna Elementary (0.5%)	795
	La Habra City Elementary (1%)	781
	Anaheim City (4%)	773
	Anaheim Union High (7%)	762
	Santa Ana Unified (11%)	740

Source: California Department of Education, DataQuest (www.data1.cde.ca.gov/dataquest/)

Percent of Students Proficient or Above in English-Language Arts or Mathematics
Orange County and California, 2007-2011



Source: California Department of Education, DataQuest (www.data1.cde.ca.gov/dataquest/)

Community Health and Prosperity

Early prenatal care rates improved, leading causes of death for young children declined, and four leading killers of adults – cancer, heart disease, stroke and diabetes – also declined. However, more families need public assistance, more children have insecure housing and qualify for subsidized school meals, and more seniors live in poverty.

CALIFORNIA PEERS

Sacramento, San Francisco, San Jose

NEIGHBORS

Los Angeles, Riverside/San Bernardino, San Diego

Prenatal Care Rate Continues Rebound

Description of Indicator

This indicator measures the percentage of live births to Orange County women who began prenatal care during the first three months of pregnancy, including racial and ethnic detail. Additionally, these rates are compared to peer regions and the state. An analysis of Orange County's live births by race and ethnicity is also included.[1]

Why is it Important?

Early prenatal care provides an effective and cost-efficient way to prevent, detect and treat maternal and fetal medical problems. It provides an excellent opportunity for health care providers to offer counseling on healthy living habits that lead to optimal birth outcomes. Late or no prenatal care substantially increases the likelihood that an infant will require admission to a neonatal intensive care unit or require a longer stay in the hospital at substantial cost to the family and the health care system.[2] Assessing Orange County's total live births by race and ethnicity provides a perspective on the future school age population and overall demographic shifts in the county.

How is Orange County Doing?

Early prenatal care rates improved in 2010:

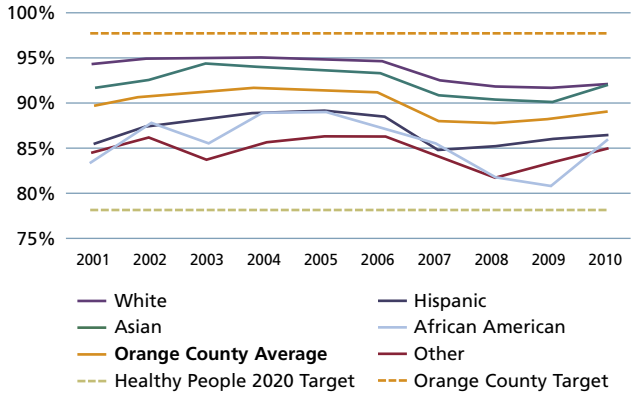
- Orange County's early prenatal care rate rose 0.8 percentage points to 89.0% in 2010.
- However, due to a marked decline in rates between 2006 and 2007, Orange County is still below the highest rate on record of 91.6%, achieved in 2004.
- Orange County exceeded the statewide rate of 81.7% in 2010 and has the highest early prenatal care rate compared to peer and neighboring regions.
- In 2010, levels of early prenatal care for all racial and ethnic groups in Orange County showed improvement.
- The national Healthy People 2020 target for early prenatal care is 77.9% – a level Orange County has surpassed for many years.
- A 10% improvement over Orange County's average early prenatal care rate in 2010 establishes a local 2020 target of 97.9%.[3]
- The majority of births in Orange County are to Hispanic mothers (49.5% or 18,930 births), followed by White mothers (31.1% or 11,874 births), and Asian mothers (16.4% or 6,269 births).
- Since 2000, the number of live births in Orange County has dropped 19%, from 46,990 in 2000 to 38,237 in 2010.

[1] The ethnic category "Hispanic" includes any race; the racial categories "White," "Asian," and "African American" are all non-Hispanic. "Other" includes the categories of two or more races, Pacific Islander, and American Indian/Native Alaskan.

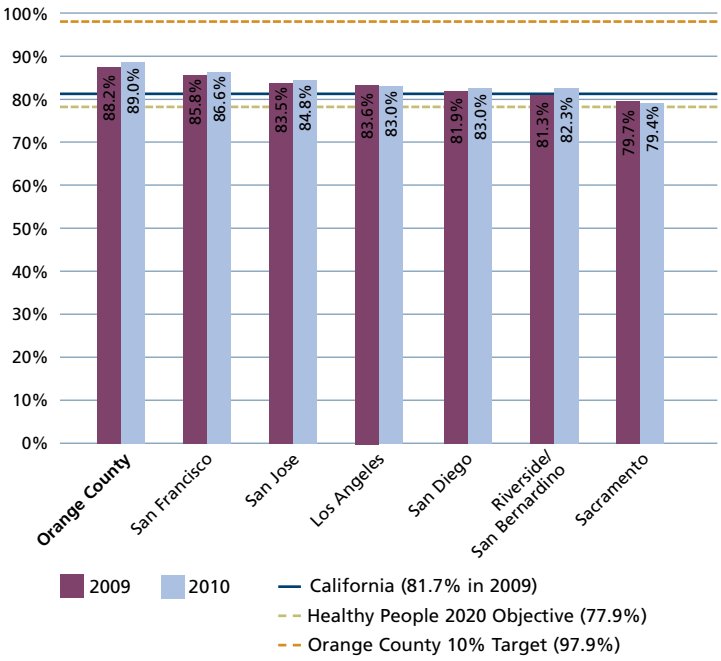
[2] Saeid B, Amini, Patrick AA, Catalano and Leon I. Mann, "Effect of Prenatal Care on Obstetrical Outcome," Journal of Maternal-Fetal and Neonatal Medicine 1996 5:3, 142-150

[3] See page 46 for more information about health targets.

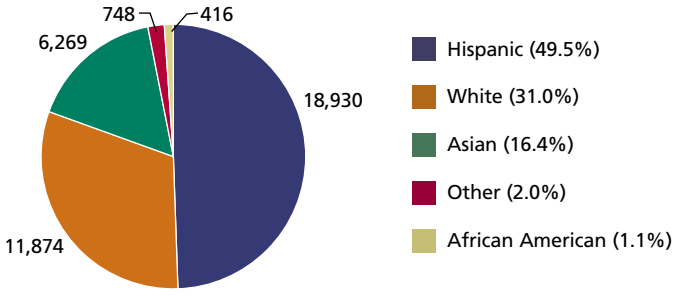
Percent of Mothers Receiving Early Prenatal Care by Race and Ethnicity
Orange County, 2001-2010



Percent of Mothers Receiving Early Prenatal Care
Regional Comparison, 2009 and 2010



Live Births by Race and Ethnicity
Orange County, 2010



Source: California Department of Public Health, Vital Statistics Query System (www.apps.cdph.ca.gov/vsq/)

Deaths Due to Prematurity Decline by 50%

Description of Indicator

This indicator measures the leading causes of death for infants less than one year old and children ages one through four in Orange County (shown as raw number of deaths). Also shown are deaths for children ages birth through four years due to all causes compared to peer California regions (shown as number of deaths per 100,000 children).

Why is it Important?

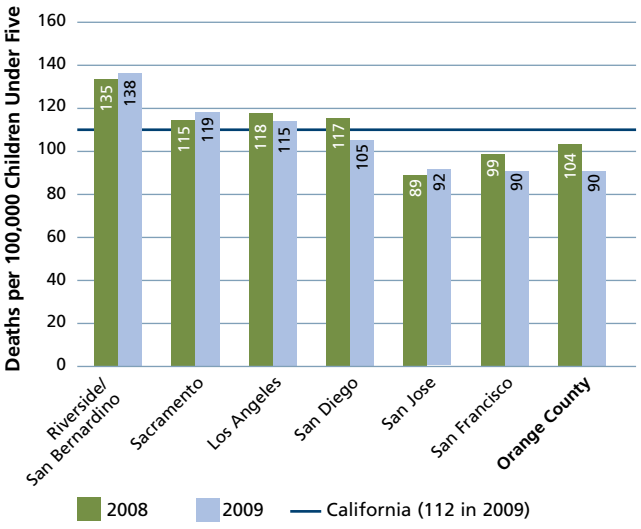
Awareness of the leading causes of death for children can lead to intervention strategies that can help prevent mortality. Many of these deaths are preventable through preconception health care, early and ongoing prenatal care, and education.

How is Orange County Doing?

In 2009, Orange County had the lowest rate of infant and young child death among California neighbors and peers:

- The number of deaths among infants declined from 202 in 2008 to 165 in 2009, contributing to a 26% drop in the total number of deaths for children under five since 2000.
- There were 36 deaths among children ages one through four in 2009, up from 30 in 2008.
- In 2009, there was approximately one death for every 275 infants under age one in Orange County, and one in 4,956 among children ages one through four.
- Deaths due to prematurity or low birth weight among infants dropped significantly in 2009, with only five deaths due to this cause. This number of deaths is well below the previous 10-year average (between 1999 and 2008) of 21 deaths annually.
- Conversely, deaths due to assault/homicide among young children more than doubled in 2009, rising to seven deaths in 2009 compared to the previous 10-year average of two deaths annually.
- Accidents – the leading cause of death for young children – continue to trend downward.

Death Rate Due to All Causes for Children Under Five
Regional Comparison, 2008 and 2009



Source: California Department of Public Health, Vital Statistics Query System (www.apps.cdph.ca.gov/vsq/)

Leading Causes of Death for Infants and Young Children
Orange County, 2009*

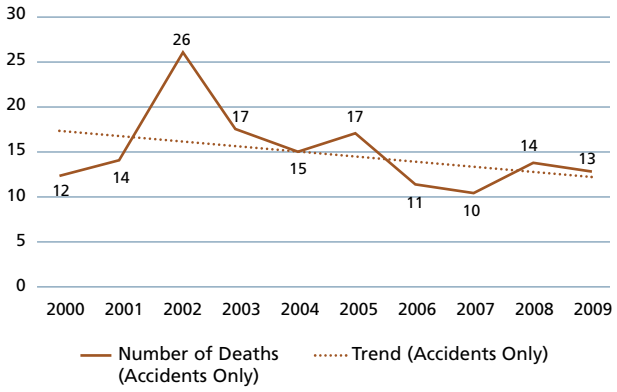
Cause of Death	Number of Deaths
Infants (Under Age One)	
Congenital Defects/Chromosomal Abnormalities	56
Maternal Pregnancy Complications Affecting Newborn	15
Cord, Placenta or Membranes Complications	13
Circulatory System Diseases	8
Assault	6
Prematurity/Low Birth Weight	5
All other causes	62
Total	**165**
Young Children (Ages 1-4)	
Accidents	
Motor Vehicle Accidents	3
Drowning	2
Falls	1
Other	3
Assault/Homicide	7
Cancer	3
Congenital Defects/Chromosomal Abnormalities	3
All other causes	14
Total	**36**

Note: Causes with fewer than five deaths for infants and fewer than two deaths for young children are included in "all other causes."

Source: County of Orange Health Care Agency, Family Health Division

*2009 cause of death data is considered preliminary.

Number of Accidental Deaths Among Children Ages 0-4
Orange County, 2000-2009*



Source: County of Orange Health Care Agency, Family Health Division

*2009 cause of death data is considered preliminary.

Vaccine-Preventable Disease Increases 62%

Description of Indicator

This indicator measures immunization rates for children at two years of age and reported cases of vaccine-preventable disease (VPD) among children less than six years of age.

Why is it Important?

Immunization is one of the most important interventions available for preventing serious diseases among infants and children.

How is Orange County Doing?

Immunization rates dipped:

- According to the analysis of kindergarten immunization records from spring 2011, 75% of Orange County children were adequately immunized at age two, down from 77% in 2010.[1]
- Taking into account the margin of error, Orange County's early immunization rates have remained roughly on par with state and national averages in recent years.
- The Healthy People 2020 national target is that 80% of children ages 19 to 35 months be protected by universally recommended vaccines.[2]

In 2010, a significant outbreak of pertussis (whooping cough) among children less than six years of age reversed Orange County's previous gains in reducing VPD incidence:

- There were 206 cases of VPD in 2010; the majority (120) among children under age one.
- Of those 206 cases, 194 were cases of whooping cough.[3]
- Infants under age one are most at risk of contracting a VPD until they have full vaccination coverage by age two.
- However, 87 children ages two through five contracted a VPD (53 of which were whooping cough).
- Preliminary 2011 figures indicate fewer whooping cough cases (167), however this level is still well above average.
- The high incidence suggests that many children are not receiving vaccinations on schedule, putting younger, more vulnerable siblings at increased risk of getting a VPD.

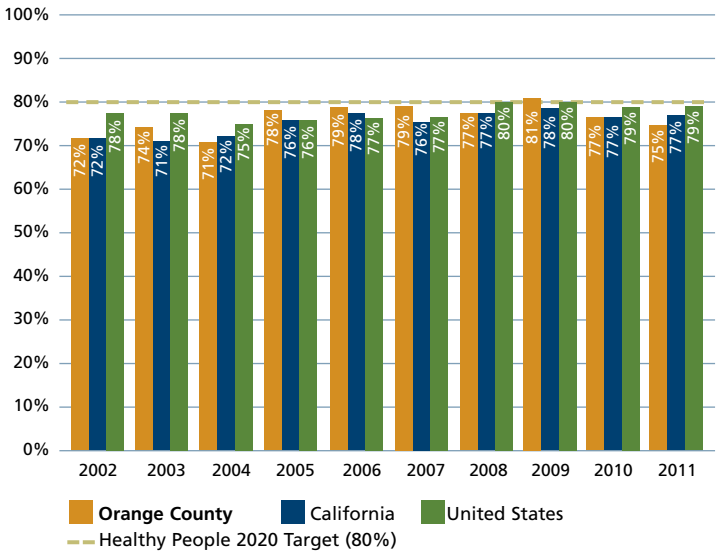
Immunization Registry

As of April 2011, there were 158,438 Orange County children age five and under enrolled in the web-based California Immunization Registry. This represents a 6.3% increase in the number of children enrolled in the registry since April 2010. The Healthy People 2020 objective is for 95% of children ages zero to five to be enrolled in an immunization registry. Currently, 68% of Orange County children ages zero to five are enrolled.

Source: 17th Annual Report on the Conditions of Children in Orange County (www.occhildrenandfamilies.com)

[1] Immunization rate data presented for "Orange County" includes Imperial, San Bernardino, Riverside, San Diego, and Orange counties in the analysis. Since this is a retrospective survey of kindergarten students, the estimates represent immunization levels of the students when they were two years old, which was mostly in 2007, depending on the age the child started kindergarten.
[2] See page 46 for more information about health targets.
[3] Pertussis totals include 188 confirmed cases and six suspected cases.

Percent of Children Adequately Immunized at Two Years of Age
Orange County and California, 2002-2011



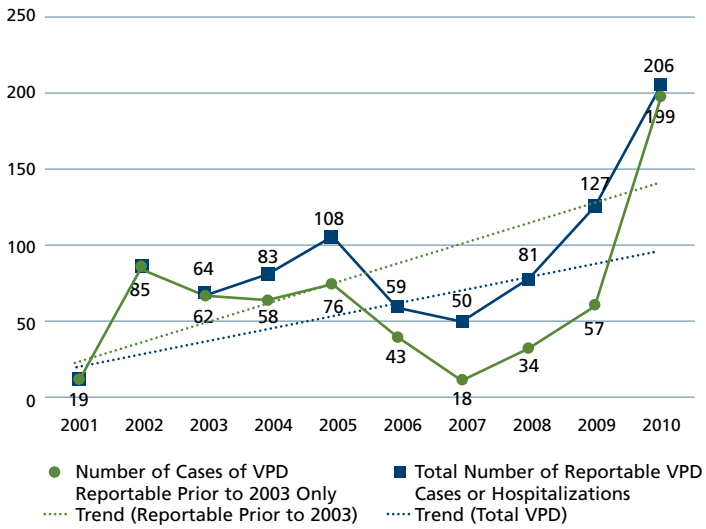
Sources: California Department of Public Health, Immunization Branch, Kindergarten Retrospective Survey (www.cdph.ca.gov/programs/immunize/Pages/ImmunizationLevels.aspx); Centers for Disease Control and Prevention, National Immunization Survey (www.cdc.gov/vaccines/stats-surv/nis/)

Adequately Immunized

To be considered "adequately immunized" at age two, a child must have: four doses of diphtheria/tetanus/pertussis (DTaP), three doses of polio, and one dose of measles/mumps/rubella (MMR). Other vaccines recommended by age two include: hemophilus influenza type B (Hib), hepatitis A, hepatitis B, pneumococcal disease, varicella (chicken pox), and annual flu shots.

Source: California Department of Public Health

Vaccine-Preventable Disease (VPD) Cases or Hospitalizations Among Children Ages Zero to Five
Orange County, 2001-2010



Note: VPD since 1999 includes polio, tetanus, diphtheria, pertussis, hepatitis A, hepatitis B, HIB, mumps, measles, and rubella. Total VPD includes all of the above plus pneumococcal disease (as of 2003), varicella (chicken pox) hospitalization (as of 2004), and serious influenza hospitalization (as of 2008).

Source: County of Orange Health Care Agency, Epidemiology and Assessment

Half of Orange County Adults are Overweight/Obese

Description of Indicator

This indicator measures the weight status of Orange County's children and adults. Children's weight status is based on the California Department of Education (CDE) Physical Fitness Test, which evaluates the proportion of students in fifth, seventh, and ninth grades with an unhealthy body composition (overweight or underweight). The weight status of adults is measured using the California Health Interview Survey and the National Health Interview Survey.

Why is it Important?

Overweight children are more likely to become overweight or obese adults. A sedentary lifestyle and being overweight are among the primary risk factors for many health problems and premature death. Building a commitment to fitness and maintaining a healthy body weight can have positive impacts on physical and mental health.

How is Orange County Doing?

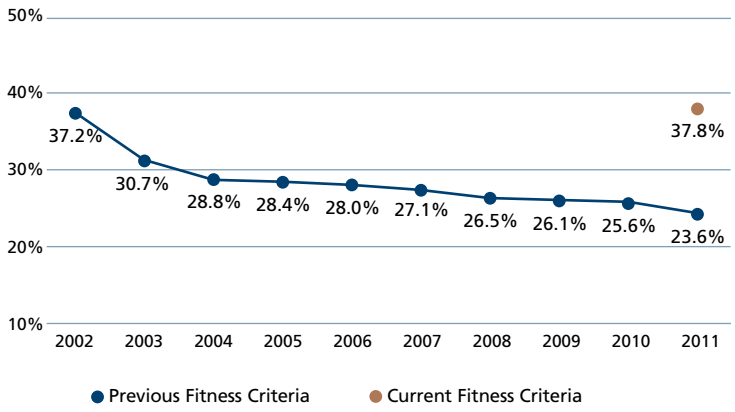
The healthy weight range was modified for the 2011 CDE fitness test to better represent a level of fitness that helps prevent diseases resulting from physical inactivity. As a result, weight status for Orange County students is mixed:

- In 2011, 37.8% of Orange County students in the grades tested had an unhealthy body composition, compared to 44.4% statewide.
- Of the Orange County students with an unhealthy body composition, 23.9% were considered "high risk" (far outside the healthy range), while the remaining 13.8% had "some risk."
- To enable continuing trend analysis, the 2010 fitness criteria can be applied to the 2011 results. Using the 2010 criteria, 23.6% of Orange County students in 2011 would be considered to have unhealthy body composition, down from 25.6% in 2010.

More Orange County adults have a healthy body weight than in the state and nation:

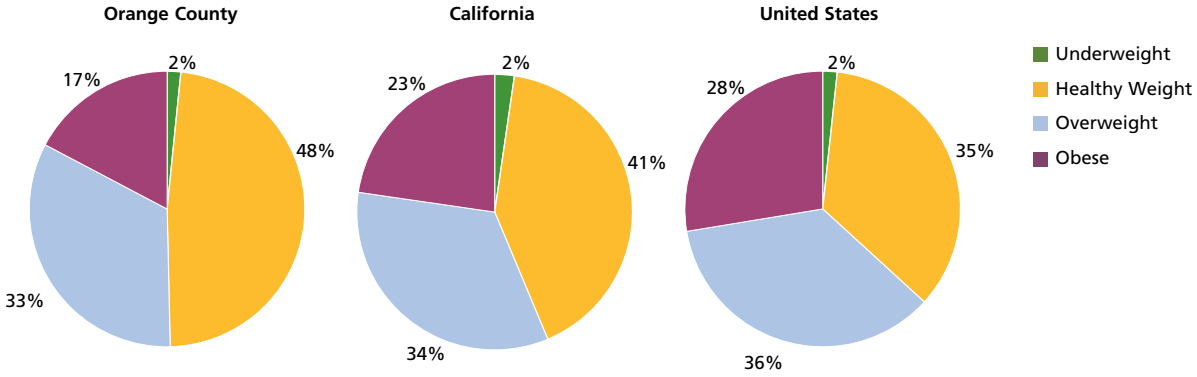
- In 2009, 33.1% of Orange County adults were considered overweight and 17.3% obese.
- Nearly half (48.1%) of Orange County adults had a healthy body weight.
- In comparison, 41.4% of adults statewide and 35.1% of adults nationwide had a healthy body weight.

Percent of 5th, 7th, and 9th Grade Students with Unhealthy Body Composition, Based on Previous and Current Fitness Criteria
Orange County, 2002-2011



Source: Orange County Community Indicators analysis of the California Department of Education Physical Fitness Test (http://data1.cde.ca.gov/dataquest/)

Weight Status of Adults
Orange County, California and United States, 2009



Note: Data have been revised since previously reported. Percentages may not total 100% due to rounding.

Sources: University of California, Los Angeles, Center for Health Policy Research, California Health Interview Survey (www.chis.ucla.edu); Centers for Disease Control and Prevention, National Health Interview Survey (www.cdc.gov/nchs/products/series/series10.htm)

Poverty and Public Assistance Enrollment Growing

Description of Indicator

This indicator measures Orange County families' progress toward self-sufficiency and economic stability by tracking enrollment in core public assistance programs and the proportion of children living in low-income families.

Why is it Important?

Economic stability can have lasting and measurable benefits for both parents and children. The challenges associated with poverty such as stress, strained family relationships, substandard housing, lower educational attainment, limited employment skills, unaffordable child care, and transportation difficulties can make it hard for low-income families to obtain and maintain employment.

How is Orange County Doing?

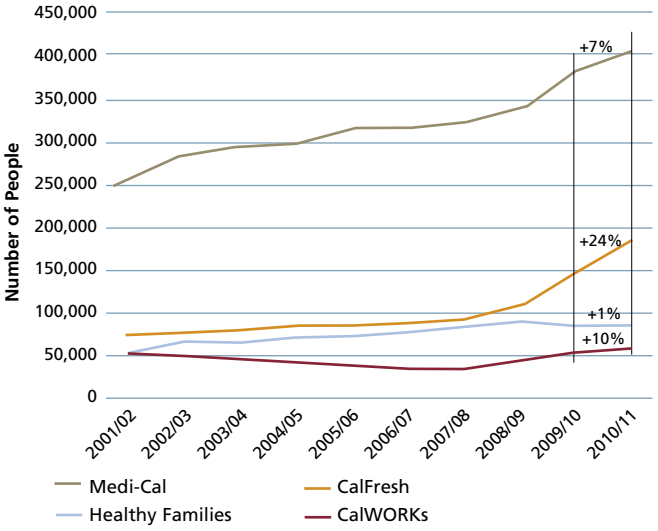
Enrollment in public assistance programs continues to grow:

- The number of people receiving CalWORKs cash assistance increased 10% in one year, rising to a monthly average of 58,007 in 2010/11.
- CalFresh (formerly Food Stamps) enrollment jumped 24% during the same time period, on top of a 37% rise in 2009/10.
- Enrollment data reveals a monthly average of 185,489 residents received CalFresh in 2010/11, equivalent to 6.1% of the county's total population.[1]
- Medi-Cal enrollment grew 7%, while Healthy Families enrollment grew 1%.
- The increasing enrollment in public assistance programs may reflect current economic conditions, expanded eligibility, and greater efforts to enroll income-eligible residents.

The proportion of children living in low-income families also continues to grow:

- Nearly 46% of students were eligible for free or reduced-price school meals in 2010/11 – an increase of 19% over the past 10 years.
- A child is eligible if his or her family's income is below 185% of the Federal Poverty Guidelines (e.g. $41,348 for a family of four in 2011).[2]
- In Orange County, wide disparities persist with the highest rate of eligibility in Anaheim City School District (86%) and the lowest rate of eligibility in Los Alamitos Unified School District (10%).

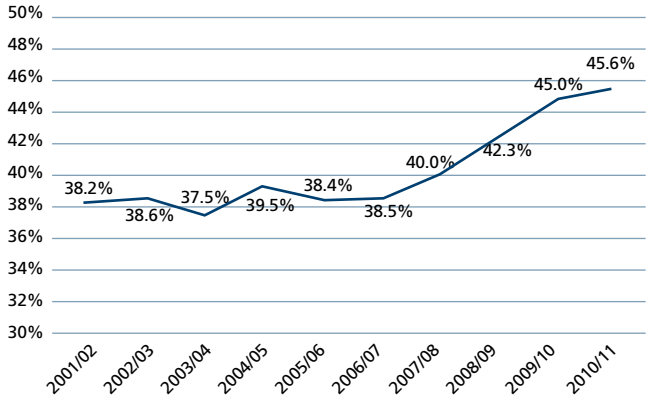
Major Public Assistance Program Enrollment
Orange County, 2002-2011



Note: CalFresh and Medi-Cal counts include all persons who receive Medi-Cal and CalFresh - both those who receive CalWORKs and those who do not.

Sources: County of Orange Social Services Agency; State of California, Managed Risk Medical Insurance Board, Healthy Families (www.mrmib.ca.gov/MRMIB/HFPReportsJune10.shtml)

Children Eligible for Free or Reduced-Price School Meals
Orange County, 2002-2011



Source: California Department of Education (http://data1.cde.ca.gov/dataquest/ and www.cde.ca.gov/ds/sh/cw/filesafdc.asp)

Program Descriptions

Most programs require income and asset limitations, as well as citizenship or permanent legal resident status. Other eligibility factors may apply such as county or state residency, age, or time in the program (time-limits).

- **CalWORKS** provides cash benefits for the care of low-income children.
- **CalFresh** (formerly Food Stamps) provides low-income households with assistance for the purchase of food. Due to a federal waiver in 2010, there are no longer asset limitations in this program.
- **Medi-Cal** is a health care program for low-income populations.
- **Healthy Families** is a health insurance program for children under age 19 who do not qualify for free (zero share-of-cost) Medi-Cal.

[1] California Department of Finance, Table E-4 (www.dof.ca.gov/research/demographic/reports/view.php)
[2] Health and Human Services Federal Poverty Guidelines 2011 (http://aspe.hhs.gov/poverty/11poverty.shtml)

More Children Facing Housing Insecurity

Description of Indicator

This indicator measures Orange County families' progress toward housing stability by tracking the number of preschool through 12th grade students that are homeless or living in insecure housing arrangements.[1] The availability of rental assistance is also shown.

Why is it Important?

High housing costs force many families into living conditions they would not choose otherwise. Living doubled- or tripled-up with another family due to economic constraints can place stress on personal relationships, housing stock, public services, and infrastructure. When shared housing is not an option – or if other factors arise such as foreclosure, financial loss, or domestic violence – the result can be homelessness. Housing insecurity among young children is associated with food insecurity and a greater likelihood of poor health and developmental delays.[2]

How is Orange County Doing?

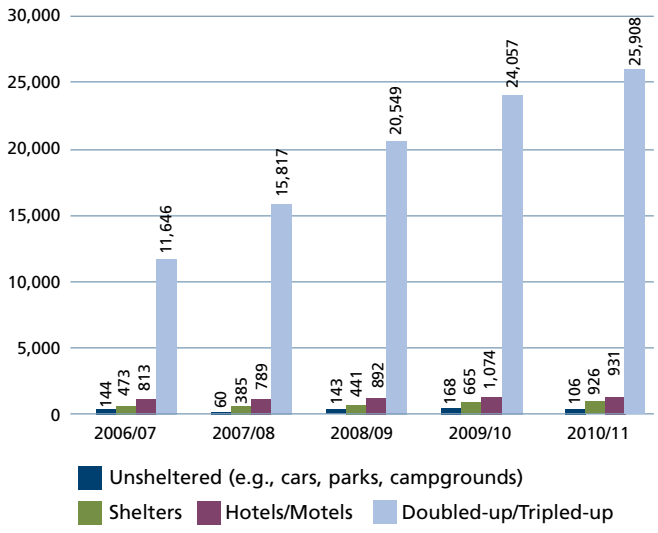
Housing insecurity continues to grow for school-aged children:

- In 2010/11, the number of PreK-12 students who were identified as homeless or living in unstable housing arrangements rose by 7%, bringing the number to 27,871.
- Families living doubled- or tripled-up is the largest and fastest growing cohort; 25,908 students live in these conditions.
- Additionally, 931 students live in motels, 926 in shelters, and 106 unsheltered in cars, parks or campgrounds.
- At 5.5% of total enrollment, Orange County has proportionately more students with insecure housing than the statewide average and all California peers compared except Riverside/San Bernardino.

The Orange County Housing Authority (OCHA) will open its rental assistance waiting list for a two-week period in 2012:

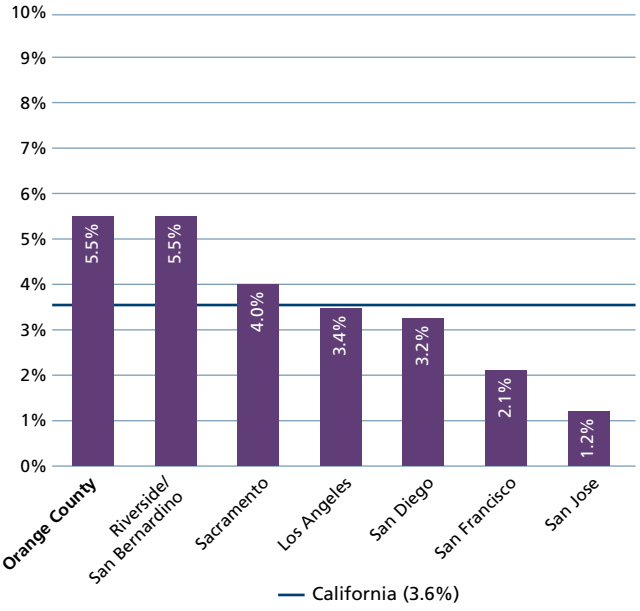
- For the first time since 2005 (when more than 18,000 applications were received), residents may apply for rental assistance.
- As of September 2011, there were approximately 4,800 applicants still on the waiting list since applying in 2005.
- As of November 2011, there were 21,857 assisted households countywide (more than 51,000 individuals), including 7,191 families with school-age children.[3]
- Among those assisted, elderly households were the largest cohort (41%), followed by families with children (33%), disabled (15%), and singles or couples (11%).

Homeless and Housing Insecure Students, by Primary Nighttime Residence
Orange County, 2007-2011



Source: Orange County Department of Education

Homeless and Housing Insecure Students, by Percentage of Total Enrollment
Regional Comparison, 2010/11



Sources: Orange County Department of Education; California Department of Education, December 2011

High Demand for Rental Assistance Among Families with Children
Families with children represent the largest proportion of applicants to OCHA (37%). However, this group is not the largest cohort of assisted households due to higher mobility and preference criteria that favor elderly and disabled applicants ahead of other applicants. Households with children assisted by OCHA have an average annual income of $20,712, of which the average earned income from wages is $13,322.

Source: Orange County Housing Authority

[1] Federal law requires public school districts to report the number of students living in shelters or unsheltered in cars, parks or campgrounds, as well as students living in motels or with another family due to economic hardship. Homeless student data is subject to revision. Preschool counts only include students enrolled in a program administered by a public school district, such as Head Start.
[2] Children's HealthWatch (www.childrenshealthwatch.org/page/policyactionbriefs)
[3] Totals reflect clients assisted by the four Housing Authorities serving Orange County: Anaheim, Garden Grove, Santa Ana, and Orange County. Source: Housing and Urban Development, Public and Indian Housing, Resident Characteristics Report, (https://pic.hud.gov/pic/RCRPublic/rcrmain.asp)

One in Six Residents are Uninsured

Description of Indicator

This indicator measures the proportion of residents who did not have health insurance coverage at the time of the survey. Results by age, race and ethnicity, and income are provided.

Why is it Important?

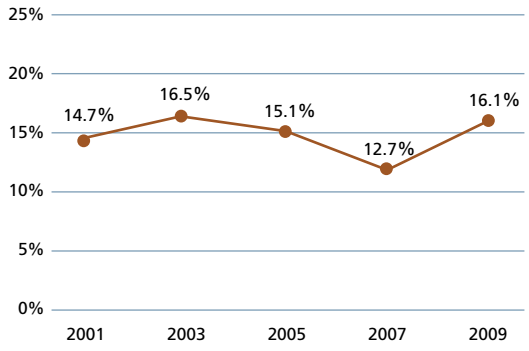
Access to quality health care is heavily influenced by health insurance coverage. Due to the high cost of health care, individuals who have health insurance are more likely to seek routine medical care and to take advantage of preventive health screening services than those without such coverage. This results in a healthier population and more cost-effective health care.

How is Orange County Doing?

Estimates indicate approximately one in six residents are uninsured:

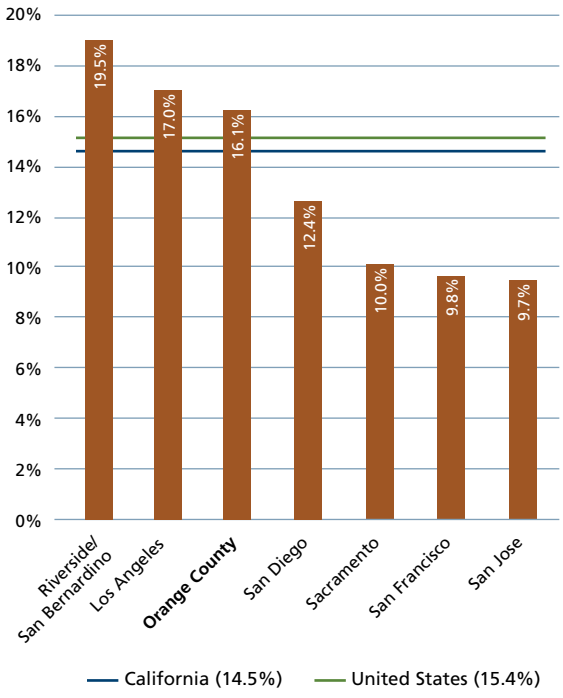
- In 2009, 16.1% of Orange County residents surveyed reported being uninsured.[1]
- This proportion is higher than both the United States and California averages.
- Young adults were the most likely to be uninsured (32%), followed by low-income residents (25%).

Uninsured (All Ages)
Orange County, 2001-2009



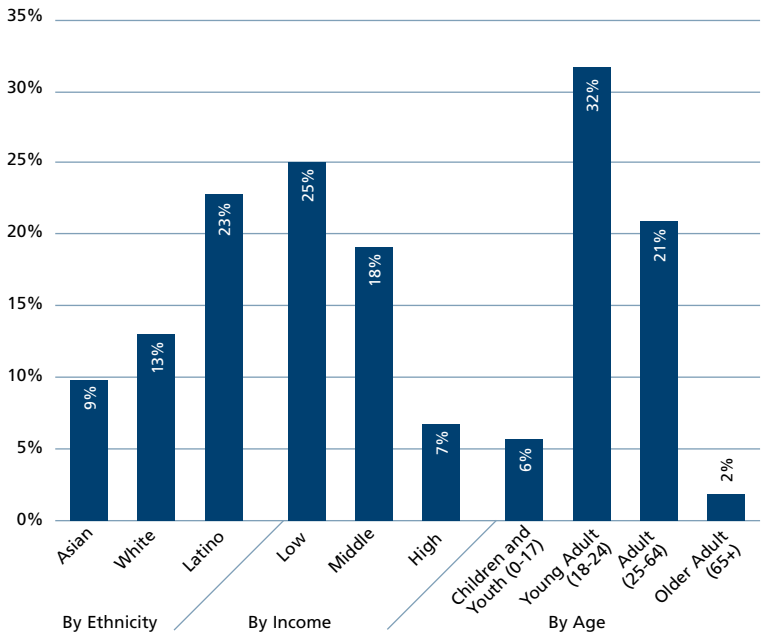
Source: California Health Interview Survey, University of California, Los Angeles (www.chis.ucla.edu)

Uninsured (All Ages)
Regional Comparison, 2009



Sources: California Health Interview Survey, University of California, Los Angeles (www.chis.ucla.edu); National Health Interview Survey, Centers for Disease Control and Prevention (www.cdc.gov/nchs)

Uninsured by Race/Ethnicity, Income, and Age
Orange County, 2009



Note: Estimates for the subpopulations "White" and "Older Adult" are considered unstable and should be interpreted with caution. Prevalence data by income bracket relates to the 2009 Federal Poverty Guidelines. For a family of four, "Low" is considered to be an annual income of $44,100 or below, "Middle" ranges from $44,101 - $88,200, and "High" is $88,201 and above. These income brackets are not comparable to data by income bracket reported in Health Insurance Coverage prior to the 2011 report.

Source: California Health Interview Survey, University of California, Los Angeles (www.chis.ucla.edu)

[1] The margin of error for this estimate is plus or minus four percentage points.

Increasing Challenges for Seniors and Service Providers

Description of Indicator

This indicator measures the economic, safety, and health status of Orange County older adults (65 years of age and over).[1]

Why is it Important?

Orange County's older population is expected to continue to increase and experience a significant shift in racial and ethnic composition. These trends will place greater and changing demands on health, transportation and support services for this population.

How is Orange County Doing?

Poverty among Orange County's older adults rose:

- In 2010, approximately 8.7% of older adults were living under the official poverty level, compared to 6.9% in 2009.
- Between 2001 and 2010, the official poverty rate among Orange County's older adults increased an average of 4% each year, compared to an average annual increase of 2% statewide and a 1% decrease nationwide.
- According to a Census Bureau report that measured poverty differently than the official method – factoring in costs of living as well as benefits received – the poverty rate for Americans 65 or older was 16%. Among all age groups, senior poverty is considered the most underestimated, largely due to out-of-pocket medical expenses that are unaccounted for in the official rate.[2]
- The 2009 median household income of Orange County's older adults is $46,184, compared to the county median of $70,880.

Most older adults in Orange County are healthy:

- The 2009 California Health Interview Survey reports 70% of older adults rate their health as "excellent," "very good" or "good." The remaining 30% rate their health as "fair" or "poor."
- As residents live longer and deaths due to common causes such as heart disease and stroke decline, deaths due to Alzheimer's increased 39% between 2005 and 2009.[3]
- Medicare and Medicaid payments for people with Alzheimer's and other dementias range from three to nine times higher than patients without these conditions.[4]

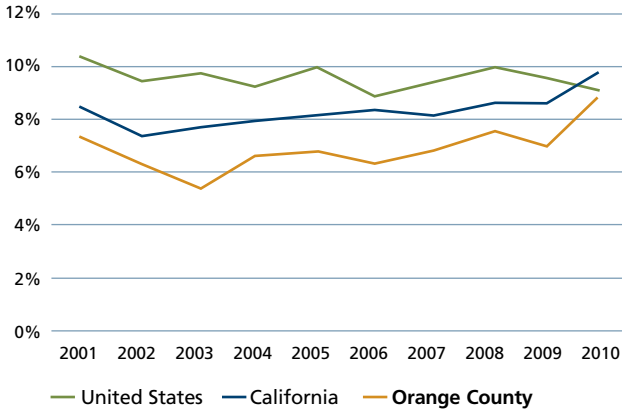
Demand for support services is increasing:

- Congregate and in-home meals served to seniors in 2010/11 by the County of Orange Office on Aging increased 15% since 2006/07.
- The County of Orange Social Services Agency's (SSA) In-Home Supportive Services senior caseload increased 190% over the past 10 years.
- Between 2009/10 and 2010/11, seniors enrolled in Medi-Cal increased 7% and CalFresh senior enrollment rose 45%.

Elder abuse reports showed little change in the past year:

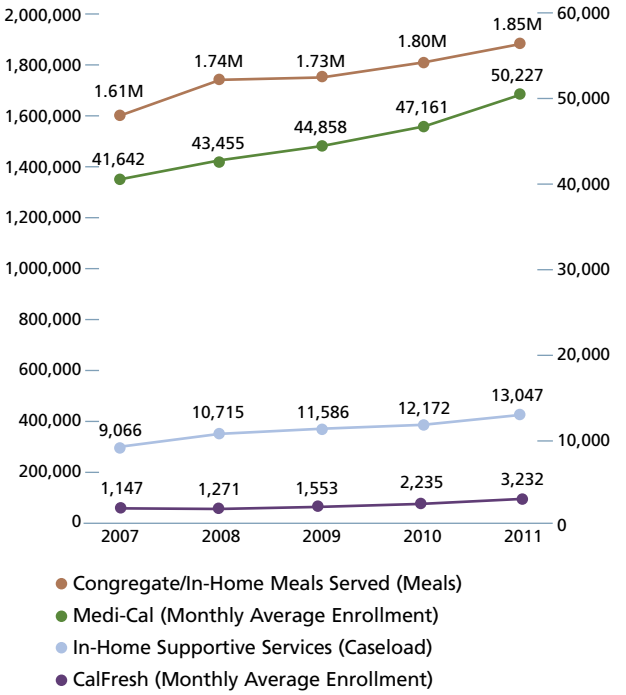
- Elder abuse reported to SSA fell to 430 reports in 2010/11, down from 433 in 2009/10. However, over the past five years, abuse reports have increased 38%.
- Elder abuse includes self-neglect (the most common form of abuse) as well as abuse by others including neglect, and financial, physical, or emotional abuse.

Percent Age 65 and Over Living in Poverty
Orange County, California, and United States, 2001-2010



Source: U.S. Census Bureau, American Community Survey and Supplementary Survey

Older Adult Support Services
Orange County, 2007-2011



Note: Data for In-Home Supportive Services is the caseload as of June of a given year; Congregate/In-Home Meals served, Medi-Cal enrollment and CalFresh enrollment are by fiscal year (2011 refers to 2010/11). In-Home Supportive Services include domestic assistance, personal and paramedical care, and protective supervision to prevent self-harm.

Sources: County of Orange Social Services Agency (IHSS, Medi-Cal, CalFresh); Orange County Community Services/Office on Aging (C/IHMS)

[1] Data are from the U.S. Census Bureau, 2010 American Community Survey unless otherwise noted.
[2] U.S. Census Bureau, November 2011 (www.census.gov/newsroom/releases/archives/poverty/cb11-tps44.html)
[3] California Department of Public Health (age-adjusted death rates)
[4] Centers for Disease Control and Prevention (www.cdc.gov/mentalhealth/data_stats/alzheimers.htm)

Gallup-Healthways Index Tracks Residents' Wellbeing

Description of Indicator

This indictor measures residents' sense of wellbeing about their lives and overall emotional health based on data derived from the Gallup-Healthways Well-Being Index.

Why is it Important?

Life satisfaction and emotional health have profound impacts on individuals as well as the home, workplace, and community. Public and private entities can use this data to identify problems and develop strategies to overcome these difficulties, helping the community thrive.

How is Orange County Doing?

Life satisfaction among residents remained relatively constant:

- At 57.3% in 2011, slightly fewer Orange County residents were "thriving" than a year ago (57.9%), but since 2008, life evaluation has improved nearly five percentage points.
- Also in 2011, 40.7% were "struggling" and 2.0% were "suffering."
- Orange County's overall Life Evaluation Index score was 55.3 in 2011, up from 54.9 in 2010.
- In 2010, Orange County's Life Evaluation Index score was higher than the state (50.0) and nation (50.3).
- Similarly, Orange County's 2010 Emotional Health Index score of 81.2 was higher than the state (78.9) and nation (79.4).
- In 2011, Orange County's Emotional Health Index score fell slightly, dropping from 81.2 in 2010 to 80.3 in 2011.
- A strong majority of residents consider themselves treated with respect (94%) and happy (88%).
- 39% indicated they are currently living with stress, and 12.5% reported they were diagnosed with clinical depression at some point in their lives.

Gallup-Healthways Well-Being Index

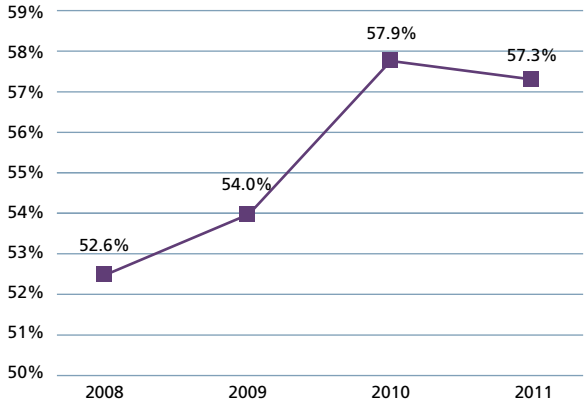
The Well-Being Index measures health through six sub-indices including Emotional Health and Life Evaluation:

Emotional Health Index
Measures daily experiences including smiling or laughter, being treated with respect, enjoyment, happiness, worry, sadness, anger, stress, learning or doing something interesting, and depression.

Life Evaluation Index
Measures how residents evaluate their current status and outlook for the future on a scale of zero to 10. The results are then categorized with the highest rankings considered "thriving," the middle rankings considered "struggling," and the lowest rankings considered "suffering."

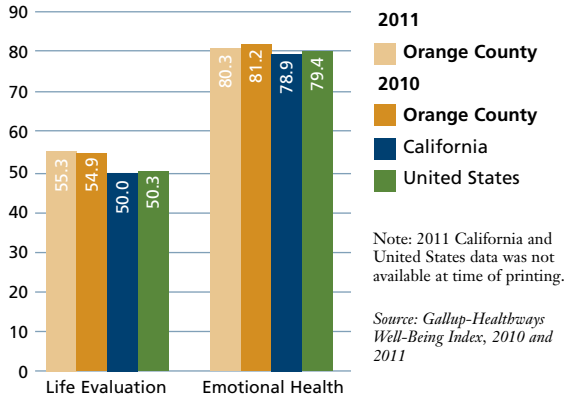
For more information, visit: www.well-beingindex.com.

Life Evaluation Index: Percent "Thriving"
Orange County, 2008-2011



Source: Gallup-Healthways Well-Being Index, 2008-2011

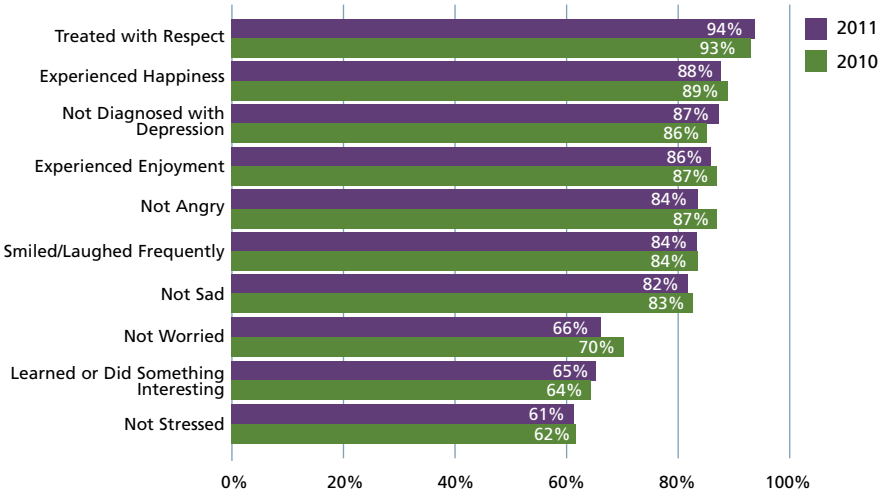
Life Evaluation and Emotional Health Composite Index Scores
Orange County, California and United States, 2010 and 2011



Note: 2011 California and United States data was not available at time of printing.

Source: Gallup-Healthways Well-Being Index, 2010 and 2011

Emotional Health Index
Orange County, 2010 and 2011



Source: Gallup-Healthways Well-Being Index, 2010 and 2011

Decline in Leading Causes of Death

Description of Indicator

This indicator reports mortality rates (age-adjusted deaths per 100,000 people) and progress toward the Healthy People 2020 objectives for 18 commonly measured causes of death, with detailed trend analysis for five leading causes.[1]

Why is it Important?

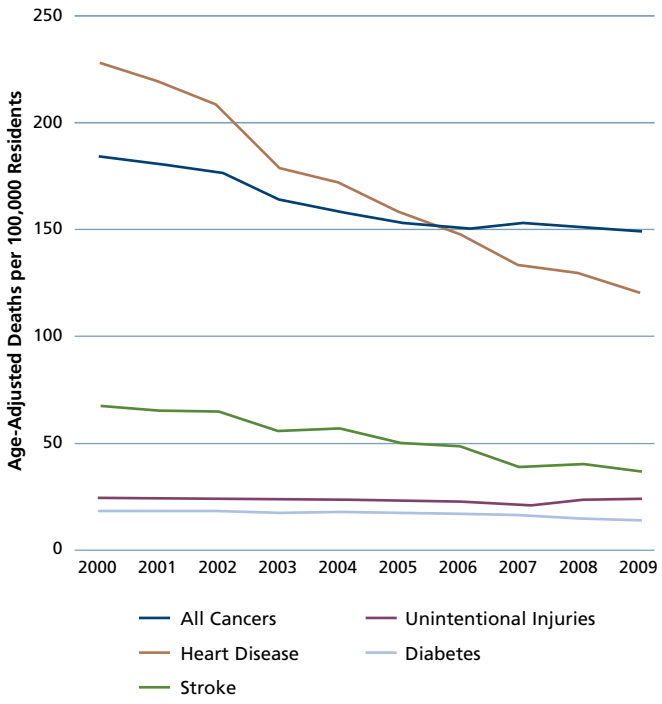
Viewing the county in relation to statewide averages and national health objectives identifies public health issues that are comparatively more or less pronounced in Orange County. This information helps the development and prioritization of public health initiatives.

How is Orange County Doing?

Death rates for cancer, heart disease, stroke, and diabetes continue to fall, while unintentional injury deaths show little change:

- Based on 2009 death rates, Orange County has met Healthy People 2020 objectives for all causes of death measured except unintentional injuries, heart disease, chronic liver disease or cirrhosis, and stroke.
- Orange County's death rates are lower than the California average for all causes compared except Alzheimer's and influenza or pneumonia.
- Cancer has been the leading cause of death in Orange County since 2006; however, the rate of death has decreased 19% since 2000.
- Although heart disease deaths have declined 47% since 2000, newly set Healthy People 2020 targets indicate that this rate must be even lower to achieve national objectives.
- Compared to California peers, Orange County deaths due to heart disease rank in the bottom third, also suggesting room for improvement.
- Since 2000, deaths due to stroke dropped 45% and deaths due to diabetes dropped 24%, but deaths due to unintentional injury show little change over the same period.

Age-Adjusted Death Rates for Leading Causes of Death
Orange County, 2000-2009



Source: California Department of Public Health, County Health Status Profiles (www.cdph.ca.gov/programs/ohir/Pages/CHSP.aspx)

Orange County Age-Adjusted Death Rate Ranking and Comparison to California Average, 2009

Rank Among California Counties	Cause of Death	Death Rate per 100,000
4	Firearms Injury ✔	4.5
8	Unintentional Injuries	23.0
8	Motor Vehicle Accidents ✔	6.1
9	Suicide ✔	8.6
14	Chronic Lower Respiratory Disease*	32.9
14	Homicide ✔	2.4
17	All Cancers ✔	148.3
17	Diabetes*	14.2
17	Drug-Induced ✔	9.7
18	Chronic Liver Disease and Cirrhosis	9.4
19	Colon Cancer ✔	13.0
19	Lung Cancer ✔	35.8
23	Breast Cancer ✔	20.1
25	Prostate Cancer ✔	21.0
25	Stroke	37.1
37	Heart Disease	119.8
39	Influenza or Pneumonia*	19.0
46	Alzheimer's Disease	30.9

Note: Ordered by Orange County's rank among California counties (one is best, 58 is worst).

Better than California Average
Worse than California Average
✔ Healthy People 2020 target achieved
* No Healthy People 2020 target set or objective does not align with how deaths are categorized

Source: California Department of Public Health, County Health Status Profiles (www.cdph.ca.gov/programs/ohir/Pages/CHSP.aspx)

[1] See page 46 for more information about health targets. Data reflect three-year averages. For example, "2009" is an average of 2007, 2008, and 2009 data. Counties with varying age compositions can have widely disparate death rates since the risk of dying is largely a function of age. Age-adjusted rates control for this variability and enable county comparisons and the ability to track progress toward Healthy People 2020 objectives, which are also based on age-adjusted rates.

Healthy People 2020 and Local Improvement Targets

Healthy People 2020 is a health promotion and disease prevention initiative which establishes national objectives to improve the health of all Americans, eliminate disparities, and increase the years and quality of healthy life. Compared to Healthy People 2010 targets, Healthy People 2020 targets were modified significantly to coincide with the current national status on a particular health measure, which in many cases led to a more achievable target. Communities are also encouraged to set their own targets of 10% improvement over the current local status on health measures. For purposes of this report, Orange County's progress is compared to the Healthy People 2020 target when the target has not yet been achieved. If Orange County has already achieved the Healthy People 2020 target, a local target of 10% improvement over a baseline year of 2010 is provided. For more information, visit: www.healthypeople.gov.

Public Safety

Orange County's crime rate has dropped nearly 20% in the past 10 years and juvenile arrests are also declining. However, gangs continue to be a concern with gang membership rising and more victims of gang-related homicides. In addition, the number of children entering foster care and domestic violence-related calls for assistance rose again.

NATIONAL PEERS

Phoenix, Seattle

CALIFORNIA PEERS

Sacramento, San Francisco, San Jose

NEIGHBORS

Los Angeles, Riverside/San Bernardino, San Diego

Foster Care Placement Remains Low

Description of Indicator

This indicator tracks confirmed child abuse and neglect reports (substantiated referrals) and the number of children entering foster care. Domestic violence is tracked by measuring calls for assistance.

Why is it Important?

Foster care placement is often the final act to protect children from abuse and neglect after repeated attempts to stabilize their families have failed. Domestic violence threatens the physical and emotional wellbeing of children and women in particular, and can have lasting negative impacts. It can also lead to homelessness when the abused flees a dangerous environment.

How is Orange County Doing?

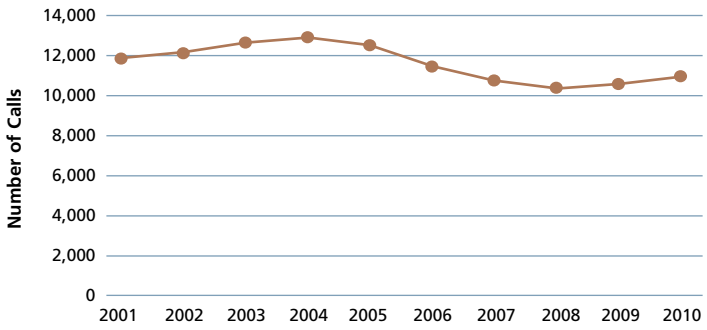
Child abuse and neglect reports continue to decline:

- In 2010, Orange County had slightly more substantiated child abuse and neglect referrals per 1,000 children (ages 0-17) than the statewide average, yet a 7% decrease over 2009 levels.
- While the number of children entering foster care increased 5% between 2009 and 2010, Orange County had the second lowest rate of children entering foster care (1.8 per 1,000 children) among regions compared.
- When possible, the Orange County Social Services Agency keeps families intact while providing stabilizing services. This may account for the fact that only 19% of substantiated referrals in Orange County result in foster care placement, compared to between 31% and 49% in peer regions.

Domestic violence-related calls for assistance rose:

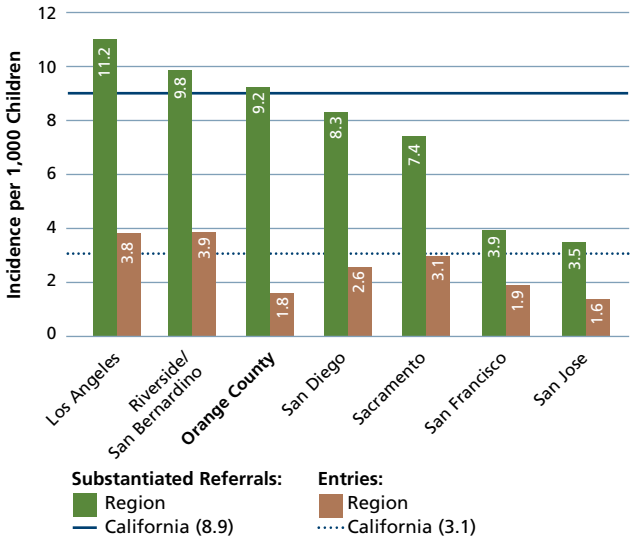
- In 2010, there were 11,003 domestic violence-related calls for assistance, compared to 10,377 in 2009.
- Despite the increase, the 10-year trend in calls for assistance remains downward, falling 13% since 2001.

Domestic Violence-Related Calls for Assistance
Orange County, 2001-2010



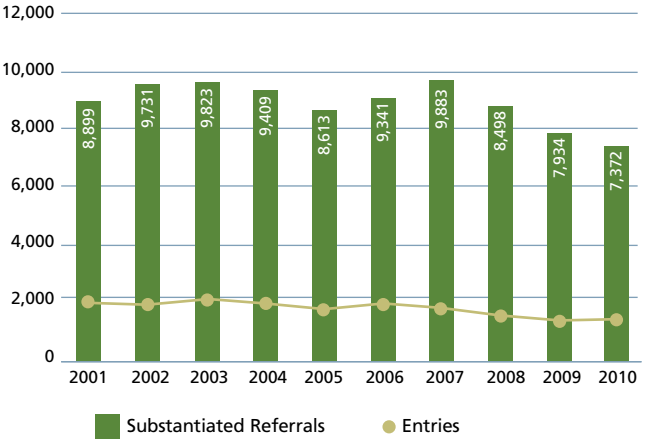
Source: California Department of Justice, Criminal Justice Statistics Center, Special Requests Unit

Substantiated Referrals and Entries to Foster Care
Regional Comparison, 2010



Source: University of California Berkeley, Center for Social Services Research, Child Welfare Research Center (http://cssr.berkeley.edu/ucb_childwelfare/)

Substantiated Referrals and Entries to Foster Care
Orange County, 2001-2010



Source: University of California Berkeley, Center for Social Services Research, Child Welfare Research Center (http://cssr.berkeley.edu/ucb_childwelfare/)

Crime Rate Falls for Sixth Consecutive Year

Description of Indicator

This indicator uses FBI Uniform Crime Reports to compare crime rates among regions and to track crime rate trends. This analysis includes violent felonies (homicide, forcible rape, robbery, and aggravated assault) and property felonies (burglary, motor vehicle theft, and larceny-theft). Also included are the number of homicide victims by race or ethnicity and juvenile crime trends (the number of juvenile arrests and proportion of students expelled from school).

Why is it Important?

Crime impacts both real and perceived safety in a community. It can also negatively affect investment in a community if a neighborhood is considered unsafe. Tracking juvenile arrests helps the community understand the level of major and minor crime in Orange County and the extent to which youth contribute to that crime. Intervening early with at-risk youth can help reduce criminal activity in their adult lives.

How is Orange County Doing?

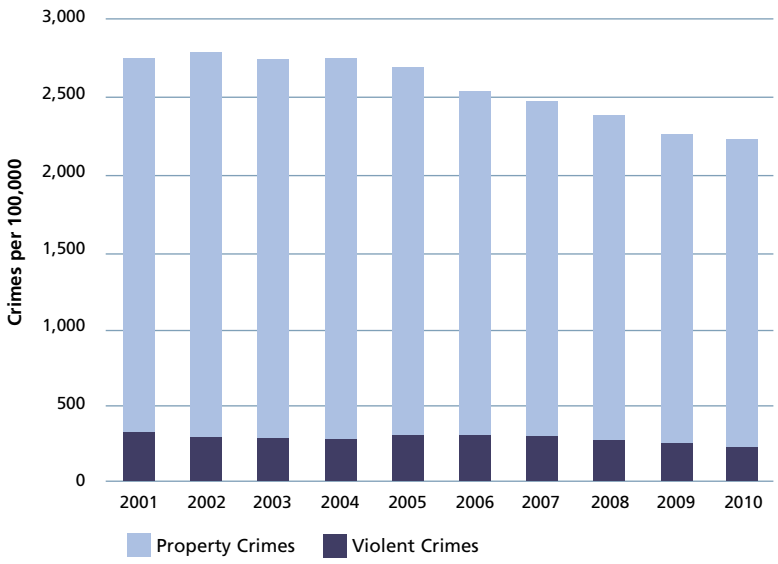
Although already low, Orange County's crime rate continues to fall:

- Between 2009 and 2010, Orange County's crime rate fell 1%.
- Over the past 10 years, reported crime in Orange County dropped a total of 19%, falling an average of 3% annually since 2004.
- Compared to peers, Orange County has the lowest overall crime rate, as well as the lowest violent and property crime rates.

Hispanic residents continue to be disproportionately more affected by homicides than other segments of the population:

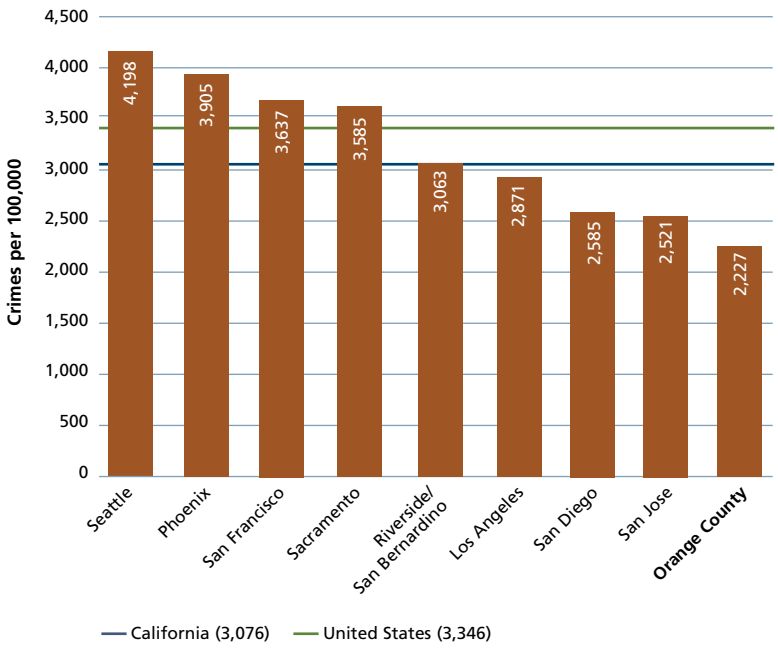
- Of the 67 homicides in Orange County in 2010, 37 of the victims were Hispanic, 13 were White, and the remaining 17 victims were Asian/Pacific Islander or some other race.
- Overall, homicides are trending downward, falling 15% since 2006.

Crime Rate
Orange County, 2001-2010



Source: Federal Bureau of Investigation, Uniform Crime Reporting Program (www.fbi.gov/ucr/ucr.htm)

Crime Rate
Regional Comparison, 2010



Source: Federal Bureau of Investigation, Uniform Crime Reporting Program (www.fbi.gov/ucr/ucr.htm)

Juvenile Crime

Most juvenile arrests in 2010 (69%) were for misdemeanors:

- Juvenile arrests dropped 6% between 2009 and 2010, to a total of 11,903 arrests.
- Juvenile arrests in Orange County fluctuate from year-to-year but dropped an average of 1% annually since 1994.
- Typically, juveniles account for 15% of all arrests.
- The rate of students expelled from school due to violent or dangerous behavior, or for committing a drug or firearm offense on school grounds, fell in 2010/11.

Expulsions per 1,000 Students Enrolled
Orange County and California, 2007-2011

	2006/07	2007/08	2008/09	2009/10	2010/11
Orange County	**2.0**	**1.7**	**2.2**	**2.4**	**1.7**
California	5.2	2.8	2.7	3.4	3.0

Source: California Department of Education, DataQuest (http://data1.cde.ca.gov/Dataquest/)

Gang-Related Crime Dips; Membership Creeps Upward

Description of Indicator

This indicator measures gang-related crime filings, homicides, and the percentage of countywide filings that are gang-related.[1] Also measured are the numbers of gang members and gangs known to law enforcement in Orange County.

Why is it Important?

Tracking gang-related crime can help the community gauge the extent and nature of gang participation in crime. It can also aid policymakers in decisions regarding the effectiveness of programs designed to combat gang-related crime and the level of funding needed to support these programs now and in the future.

How is Orange County Doing?

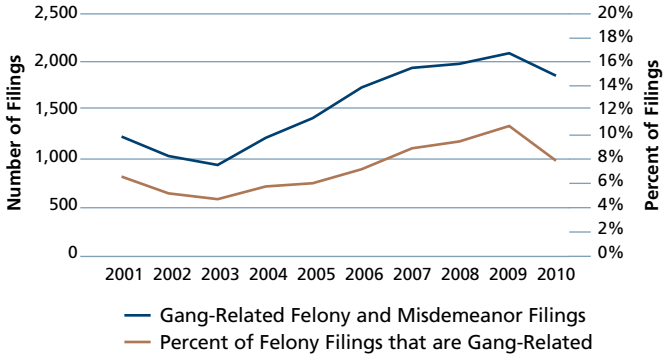
The proportion of serious crime that is gang-related dropped:

- In 2010, 7.9% of all felony filings in Orange County were gang-related, down from the 10-year record of 10.5% in 2009.[2]
- Gang members were responsible for 45% of countywide felony homicide/manslaughter filings, 36% of felony weapons filings, and 26% of all felony robbery charges in 2010.
- Gang-related misdemeanor and felony filings fell to 1,792; however, this figure is above the previous 10-year average of 1,486 filings.
- The number of victims of gang-related homicides increased from 19 in 2009 to 21 in 2010, which is slightly below the previous 10-year average of 25.
- The number of gang members rose for the third consecutive year (up 2% between 2009 and 2010), while the number of gangs grew marginally (up 1%).
- According to the 2007-09 California Healthy Kids Survey, 9% of Orange County 9th and 11th grade students consider themselves a member of a gang, compared to 10% of 9th graders and 9% of 11th graders statewide.

Gang Membership

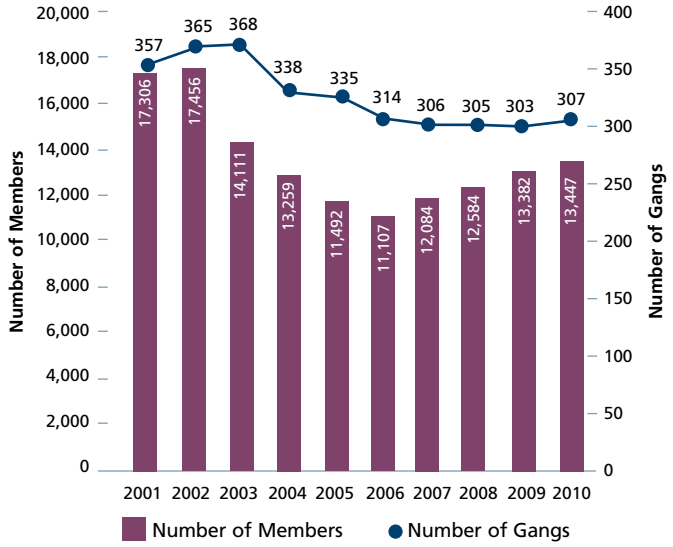
Using a detailed set of criteria, law enforcement agencies submit information on gang members to a statewide law enforcement database. Gang members are removed from the state database if they have not had contact with law enforcement in the last five years.

Gang-Related Filings and Proportion of all Felony Filings that are Gang-Related
Orange County, 2001-2010



Gang-Related Felony Filings as a Percentage of all District Attorney Filings, by Offense
Orange County, 2006-2010

Gangs and Gang Membership
Orange County, 2001-2010



Source: County of Orange Office of the District Attorney

[1] Gang-related data includes crimes filed by anti-gang units, crimes tagged as gang-related by the filing deputy district attorney, or charges specific to gangs.
[2] A filing is a charging document filed with the superior court clerk by a prosecuting attorney alleging that a person committed or attempted to commit a crime.

Environment

Both waste generation and water use continue to decline. At the same time, air quality improved with only one day in the unhealthy range. Renewable energy and solar installations are also on the rise, gaining a larger portion of the energy portfolio. Although the number of sewage spills dropped, several of the spills were large enough to reach ocean waters, leading to a significant jump in beach closures.

NATIONAL PEERS

Boston, Minneapolis, Phoenix, Seattle

CALIFORNIA PEERS

Sacramento, San Francisco, San Jose

NEIGHBORS

Los Angeles, Riverside/San Bernardino, San Diego

Renewable Energy Production Continues to Rise

Description of Indicator

This indicator assesses the percentage of electricity generated from eligible renewable sources by Orange County's three major electricity suppliers. It also measures grid-connected solar installations completed through the California Solar Initiative (CSI).

Why is it Important?

Generating energy from domestic, renewable sources reduces a community's impact on the environment. It also addresses resource supply challenges from nonrenewable sources and contributes to national security. Increasing the proportion of electricity from carbon-neutral sources (such as solar) in Orange County's energy portfolio – along with reduced auto emissions – will help meet statewide greenhouse gas reduction goals and improve air quality.

How is Orange County Doing?

In 2010, the amount of Orange County's electricity generated from renewable sources increased for all providers:

- Southern California Edison, which provides most of Orange County's electricity, supplied 19.3% from renewable energy sources, up from 16.8% in 2009.
- San Diego Gas & Electric, which serves many South County residents, increased its renewable energy from 10.2% in 2009 to 11.9% in 2010.
- The City of Anaheim, which has its own utility, increased renewable energy from 9.4% in 2009 to 11.0% in 2010.
- In comparison, the 2010 California and national averages for renewable energy sources were 17.9% and 10.7%, respectively.

Orange County's solar capacity increased substantially:

- Over 18,000 kilowatts of grid-connected capacity was added in 2011, compared to just under 10,000 kilowatts in 2010.
- Orange County ranks in the middle among California peers and neighboring regions for the number of kilowatts of solar capacity added per 100,000 residents in 2011.

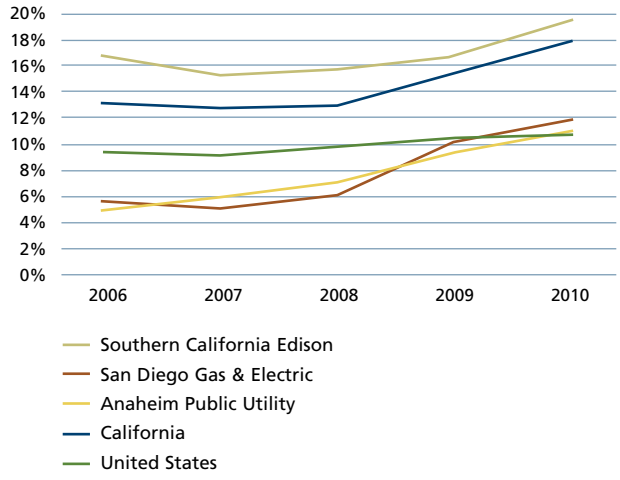
Renewables Portfolio Standard

California's Renewables Portfolio Standard (RPS) is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33% of total procurement by 2020. Eligible renewable sources include geothermal, biomass and waste, wind, small hydroelectric, and solar. Non-eligible sources, such as large hydroelectric projects and customer-owned generation (e.g. rooftop solar panels), do not count toward the 33%.

Source: California Public Utilities Commission (www.cpuc.ca.gov/PUC/energy/Renewables/overview.htm)

Percent of Electricity Generated from Renewable Sources

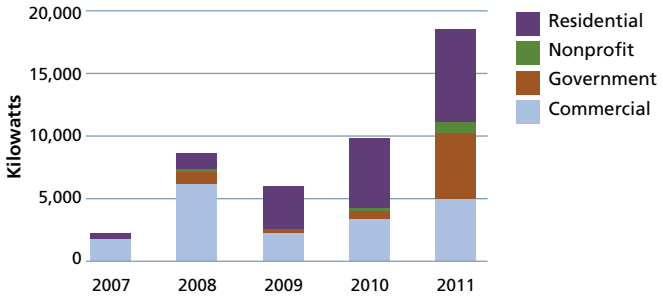
Orange County, California, and United States, 2006-2010



Sources: Anaheim Public Utilities (www.anaheim.net); California Public Utilities Commission (www.cpuc.ca.gov); San Diego Gas & Electric (www.sdge.com); Southern California Edison (www.sce.com); U.S. Energy Information Administration (www.eia.doe.gov)

Grid-Connected Solar Installations Completed Annually, by Capacity and Sector

Orange County, 2007-2011



Source: California Solar Statistics (www.californiasolarstatistics.ca.gov)

Completed Grid-Connected Solar Installations

Regional Comparison, 2011

Region	Kilowatts per 100,000 Residents
San Jose	1,343
San Diego	998
California	*697*
San Francisco	622
Orange County	**618**
Riverside/San Bernardino	565
Sacramento	419
Los Angeles	414

Note: Figures represent kilowatts completed in 2011, not cumulative solar capacity.

Sources: California Solar Statistics (www.californiasolarstatistics.ca.gov); California Department of Finance, Table E-2, July 2011 (www.dof.ca.gov/research/demographic/reports/view.php)

Grid-Connected Solar Installations

To be eligible for rebates in California, photovoltaic (PV) energy systems installed on residential, commercial, nonprofit or governmental buildings must be connected to the utility company electrical grid. As a customer's PV system produces electricity, the kilowatts are first used for any electric needs in the home or business. If more electricity is generated than the customer needs, the extra kilowatts are fed into the utility grid and customers receive the full retail value of the extra electricity their system generates.

Source: California Energy Commission & California Public Utilities Commission (www.gosolarcalifornia.ca.gov)

Fewer Sewage Spills, but Significant Jump in Beach Closures

Description of Indicator

This indicator measures coastal water quality by tracking when ocean and bay waters are closed to the public (closures) or warning signs have been posted (postings) due to a sewage spill or other contamination. Closures and postings are shown by Beach Mile Days, which is calculated by multiplying the number of days of closure or posting by the number of miles of beach closed or posted. This measurement takes into account both the length of time and amount of beach that is unavailable for recreational use due to a closure or posting. For additional information, visit www.ocbeachinfo.com.

Why is it Important?

When ocean or bay waters are closed to the public or warnings are posted on beaches that indicate the water quality is poor, tourists and local residents are discouraged from visiting Orange County's beaches. This results in less consumer traffic in the beach communities and diminishes our overall sense of quality of life. Furthermore, pollutants that enter the ocean or bays through urban runoff and sewage spills have the potential to compromise public health and endanger marine life.

How is Orange County Doing?

Although postings reached the lowest level on record, the number of closures rose substantially:

- In 2010, there were 68 Beach Mile Days of closures, compared to six in 2009 and 30 in 2008.
- Pipeline blockages and breaks were responsible for the majority of the closures, with more than half of all closures due to large sewage spills (1,000 gallons or more) significant enough to reach the ocean.
- In 2010, the number of Beach Mile Days of postings dropped 76% from the 10-year high in 2002 to the lowest level on record.

Sewage spills reported by sanitation districts, cities that operate sewage collections systems, and private property owners decreased for the eighth consecutive year:

- There were 188 sewage spills reported in 2010, continuing the downward trend that began in 2003.
- This low level of spills is especially noteworthy given that 2010 had the highest number of Rain Advisory Days on record.

Closures
By state law, recreational ocean or bay waters must be closed when they have been directly contaminated by sewage or when the streams, creeks, and rivers that discharge into them have been contaminated by sewage.

Postings
The Orange County Health Care Agency is required to post warning signs when water quality exceeds state bacteriological standards. This poor water quality is largely attributed to urban runoff.

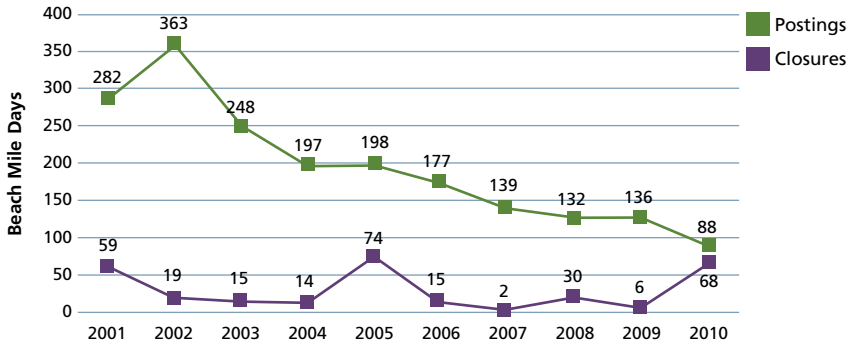
Sewage Spills
Sewage spills occur when wastewater in underground pipes overflows through a manhole, cleanout or broken pipe. Although intense rain can overwhelm the sewer system and lead to spills, only a small fraction of all sewage spills reach the ocean causing beach closures.

Pipeline Blockages and Breaks
Roots and grease build-up are the most common causes of pipeline blockages.

Infrastructure Capacity
Intense rain can overwhelm certain portions of a sewer system and lead to sewage spills. An aging sewer system in need of maintenance is also at increased risk of blockages and breaks.

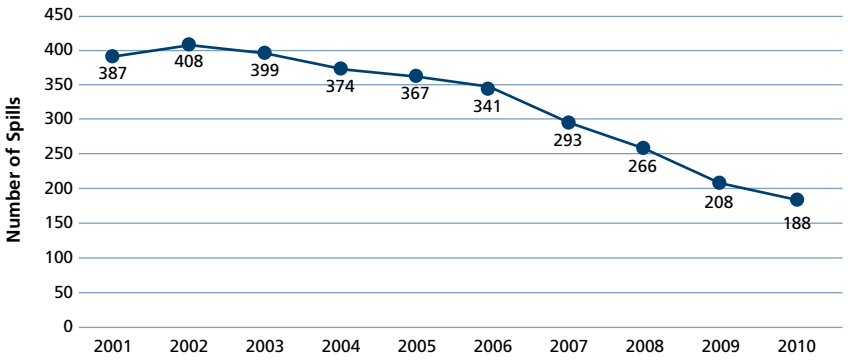
Rain Advisory Days
Because rain can carry urban runoff (such as fertilizers, road oils, litter and large amounts of bacteria from a variety of sources) into the ocean, bays and harbors, residents are warned via a Rain Advisory to avoid contact with recreational waters during or following a rain event of 0.2 inches or more.

Beach Mile Days of Ocean Water Postings and Closures
Orange County, 2001-2010



Note: Due to the reduction of the monitoring period, posting data reflects monitoring from April 1 through October 31 and is not comparable to calendar year data presented prior to the 2011 Community Indicators report.

Reported Sewage Spills
Orange County, 2001-2010



Source: Orange County Health Care Agency, Public Health Services, Environmental Health

Solid Waste Production and Disposal Hit 14-Year Low

Description of Indicator

This indicator measures the tons of commercial and residential solid waste deposited in Orange County landfills and provides a regional comparison of jurisdictions meeting state-defined waste diversion targets. It also measures the pounds of household hazardous waste (such as oil, paint, batteries, cell phones, computers, and monitors) collected at Orange County's four regional collection facilities and the number of annual participants.

Why is it Important?

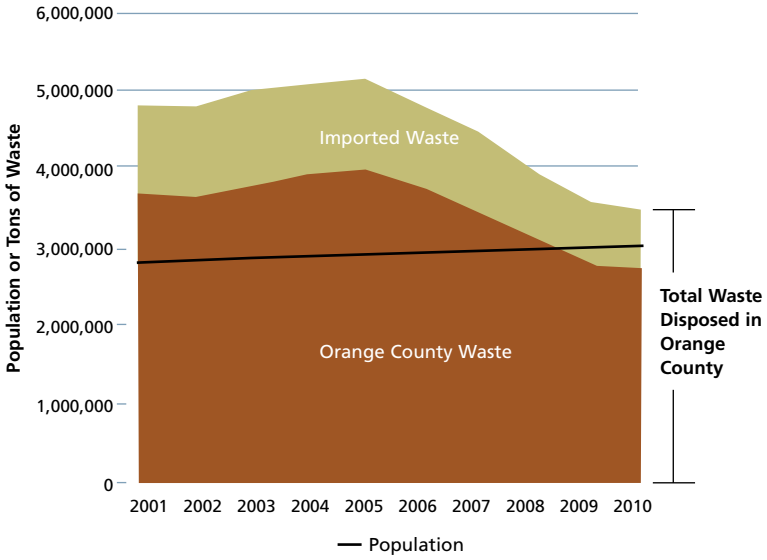
Reducing solid waste production and diverting recyclables and green waste extends the life of landfills, decreases the need for costly alternatives, and reduces environmental impact. Collection of household hazardous waste helps protect the environment and public health by reducing illegal and improper disposal.

How is Orange County Doing?

Waste disposal continues to decrease:

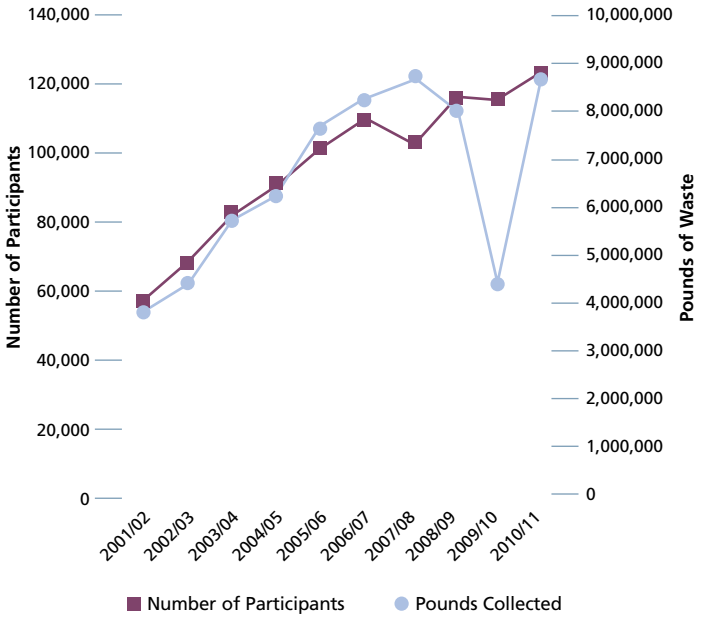
- Waste generated and disposed in Orange County landfills dropped for the fifth consecutive year, reaching the lowest level since 1996.
- Recent reductions in waste disposal have shifted the 10-year trend in the amount disposed by Orange County residents to an average of nearly -3% annually. This is in contrast to the county's average annual population growth rate of 0.6% since 2000.
- In 2009, all Orange County jurisdictions met their population-based waste diversion targets, and all but one met their employment-based targets.[1]
- The number of residents bringing household hazardous waste to regional collection centers continues to increase each year, rising to 123,539 participants in 2010/11 – a 6% increase over the previous year.
- The number of pounds collected rebounded to 8,710,153 pounds, up 95% from the prior year, possibly aided by increased public outreach on the part of OC Waste & Recycling to encourage proper disposal of household hazardous waste.
- In addition to public outreach, economic factors tend to drive solid and hazardous waste trends, with waste collection declining during economic downturns.

Solid Waste Disposal in Orange County Landfills Compared to Population Growth, 2001-2010



Source: OC Waste & Recycling

Household Hazardous Waste
Orange County, 2002-2011



Source: OC Waste & Recycling

[1] Annually, the California Integrated Waste Management Board calculates a jurisdiction's per capita (per resident and per employee) disposal rates; targets for each jurisdiction are based on these calculations. Data is considered preliminary and may be subject to change.

Air Quality Improves Markedly

Description of Indicator

This indicator measures Orange County's air quality (including specific pollutants) compared to neighbors and peer regions using the Air Quality Index (AQI).[1]

Why is it Important?

Air pollution can cause irritation and illness in an otherwise healthy population and plays a well-documented role in the aggravation of symptoms of existing heart or lung ailments, including asthma. Long-term exposure also increases risks for many health conditions such as lung cancer and cardiovascular disease. Children exposed to air pollution have an increased likelihood of impaired lung development.[2]

How is Orange County Doing?

In 2010, Orange County's air quality was among the best compared to peers:

- Most days (292 or 80%) were in the "good" range, which is well above average for the previous 10 years (2000-2009).
- This is followed by 70 days (or 19%) in the "moderate" range and two days (or 1%) considered "unhealthy for sensitive groups."
- One day was in the "unhealthy" range.
- Among peers compared, Orange County ranked third on the AQI, with Seattle experiencing the best air quality and Riverside/San Bernardino experiencing the worst.

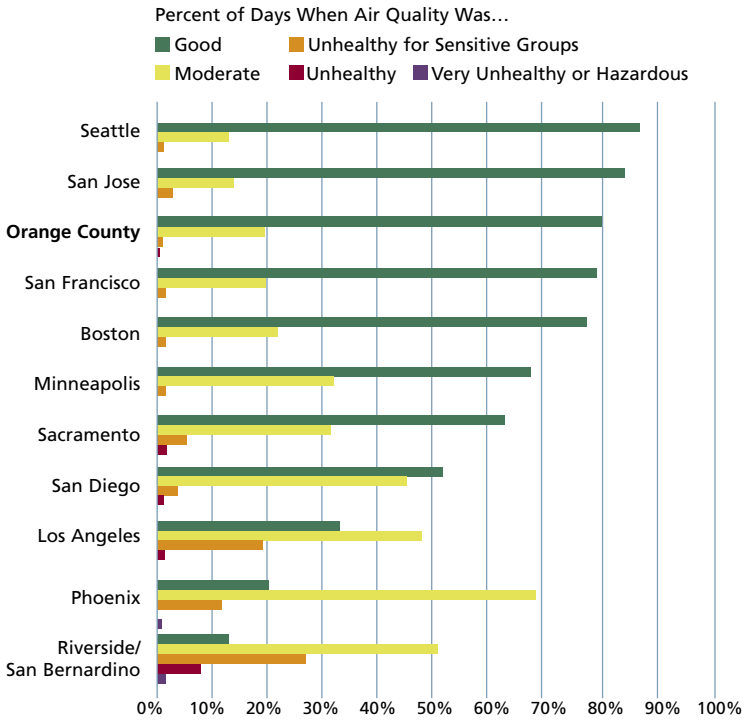
Air Quality Index

The Air Quality Index is calculated for ground-level ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide. The number 100 corresponds to the national air quality standard for the pollutant.

AQI Values	Health Categories
0 - 50	Good
51 - 100	Moderate
101 - 150	Unhealthy for Sensitive Groups
151 - 200	Unhealthy
201 - 300	Very Unhealthy
301 - 500	Hazardous

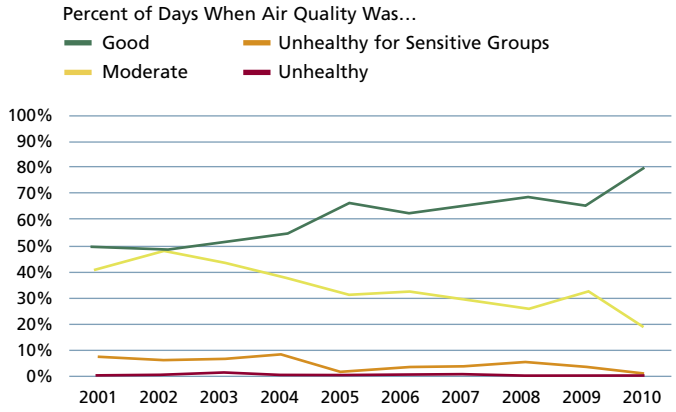
Source: U.S. Environmental Protection Agency (http://airnow.gov/)

Air Quality Index
Regional Comparison, 2010



Source: U.S. Environmental Protection Agency, Air Explorer (www.epa.gov/airexplorer/)

Air Quality Index
Orange County, 2001-2010



Source: U.S. Environmental Protection Agency, Air Data (www.epa.gov/air/data/index.html) and Air Explorer (www.epa.gov/airexplorer/)

[1] Air Quality Index (AQI) calculations are based on data downloaded from Air Explorer (an online portal for accessing EPA Air Quality System data) and have not been modified.
[2] California Air Resources Board (www.arb.ca.gov/research/asthma/asthma.htm), Environmental Protection Agency (www.epa.gov/ebtpages/airairpohealtheffects.html)

Water Usage Down for Fourth Consecutive Year

Description of Indicator

This indicator measures Orange County's annual urban (residential and commercial) water usage. It also includes known and estimated costs of water by source, as well as projected water use and supply through 2030.

Why is it Important?

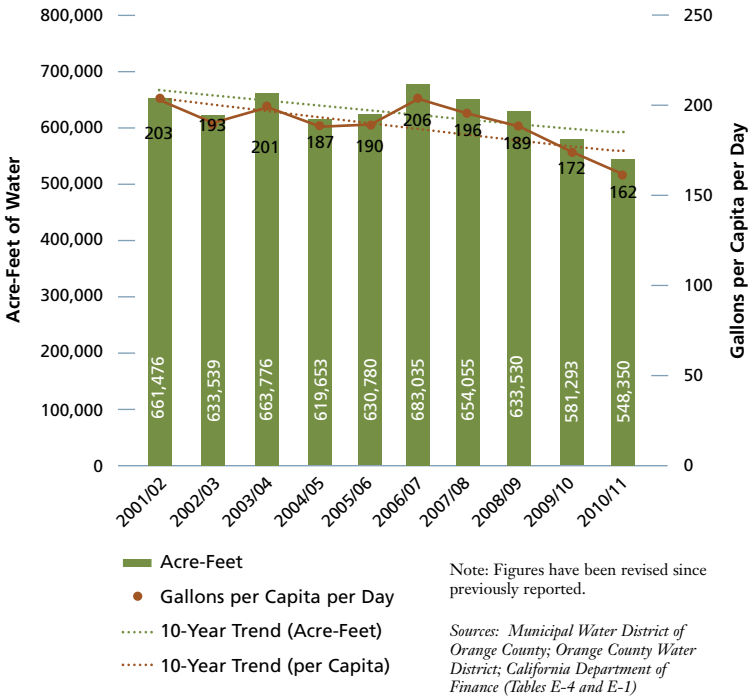
Effective water management is essential to ensure that the county has an ample water supply now and in the future. As population and business growth drives demand, reliance on imported water will continue. The county's long-term sustainability will also rely on increased conservation and investment in water supplies such as groundwater basin replenishment and desalination.

How is Orange County Doing?

Urban water usage dropped again in 2010/11:

- Between 2009/10 and 2010/11, both per capita usage and total acre-feet usage declined by 6%.
- The low demand in recent years is attributed to mandatory conservation, above-average rainfall, rate increases, and the economic recession.
- Although usage fluctuates from year-to-year, long-term trends show per capita usage rates falling by approximately 2% annually, and overall acre-feet usage declining by approximately 1% annually – even while population grew roughly 1% each year.
- However, long-term projections still anticipate increases in overall water use.
- SB 7 passed by the state legislature requires an approximate 20% reduction in per capita usage by 2020.
- Local groundwater and conservation are the least costly sources of water, while ocean water desalination and recycled water are the most costly.
- Over the past five years, average imported water costs increased approximately 61%.

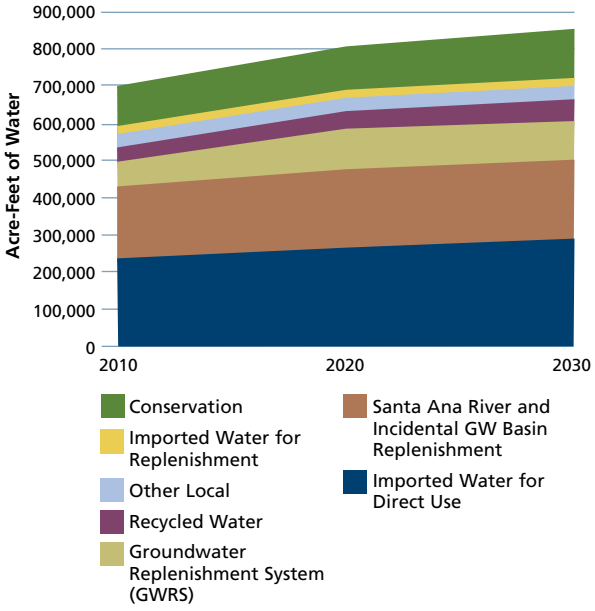
Urban Water Usage
Orange County, 2002-2011



Note: Figures have been revised since previously reported.

Sources: Municipal Water District of Orange County; Orange County Water District; California Department of Finance (Tables E-4 and E-1)

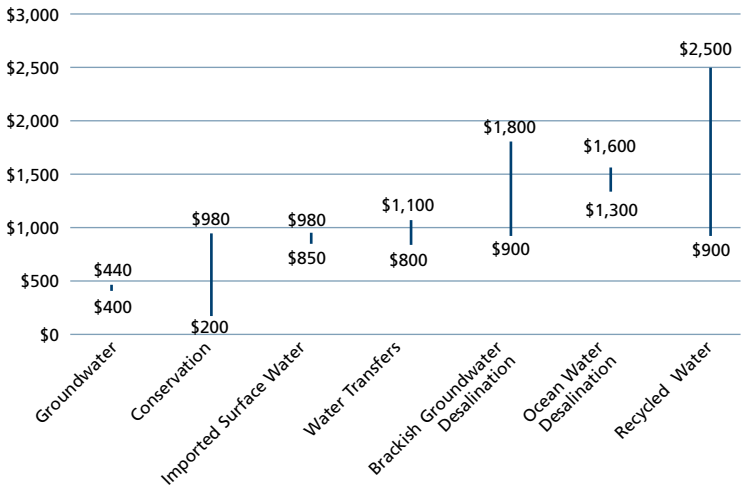
Water Sources Projection
Orange County, 2010-2030



Note: 2010 figures reflect 2009/10 actual use. Projections have been revised since previously reported.

Sources: Municipal Water District of Orange County; Orange County Water District

Cost of Water per Acre-Foot to Wholesaler, by Source
Orange County, 2011



Sources: Municipal Water District of Orange County; Orange County Water District

Civic Engagement

The number of charitable organizations in Orange County increased, as did their annual revenues. Still, the county has fewer nonprofits per capita than most regions compared. Registered voter turnout in 2010 was low compared to peer regions; it remains to be seen whether more residents will vote in the 2012 elections.

NATIONAL PEERS

Austin, Boston, Dallas, Minneapolis, Seattle

CALIFORNIA PEERS

Sacramento, San Francisco, San Jose

NEIGHBORS

Los Angeles, Riverside/San Bernardino, San Diego

Voting by Mail Increases

Description of Indicator

This indicator measures voter registration and voter turnout. Voter turnout is measured among registered voters and the voting eligible population. Also shown are percentages of Orange County's electorate who are voting by mail.

Why is it Important?

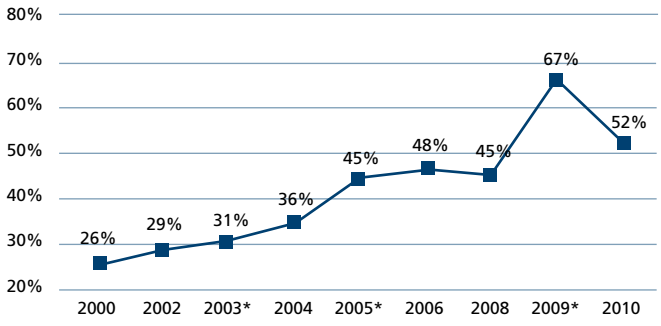
Voter participation measures civic interest and the public's optimism regarding their impact on the decision-making process. A high level of citizen involvement increases personal investment in community issues and government accountability. An increase in the number of constituents voting by mail may reduce the cost of holding elections.

How is Orange County Doing?

While turnout varies depending on how it is measured, Orange County maintains high voter registration:

- As of October 2010, 86% of Orange County residents who are eligible to vote were registered.
- This rate is greater than state and national averages, and 10% greater than all peers compared, including Los Angeles, Sacramento, San Francisco, San Diego, San Jose, and Riverside/San Bernardino.
- Among registered Orange County voters, 55% chose to vote in the November 2010 mid-term election, which is lower than the statewide average and all peer counties compared except Los Angeles.
- Among Orange County residents eligible to vote, 48% voted in the 2010 mid-term election.
- This participation rate for the voting eligible population is higher than the statewide average and several peer counties compared.
- In 2010, 52% of Orange County voters chose to vote by mail, compared with 49% of voters statewide.
- Since 2000, the percentage of voters who vote by mail has steadily increased.

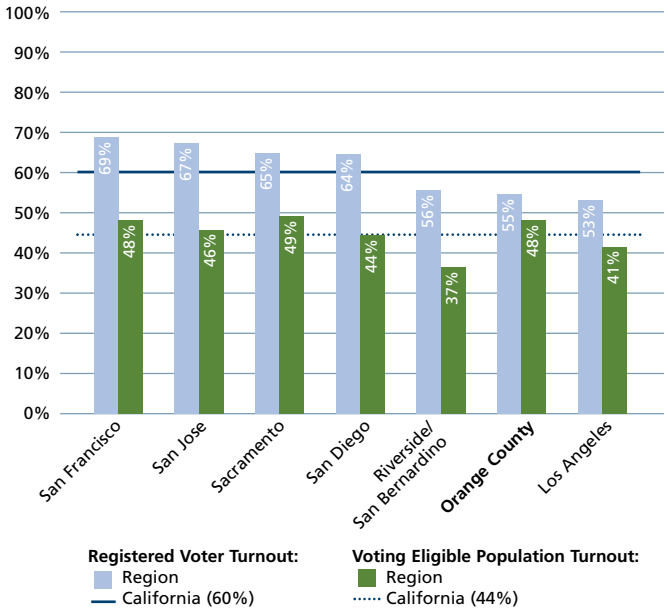
Percentage Voting by Mail in General, Mid-Term and Special Elections
Orange County, 2000-2010



*Special Elections

Source: Orange County Registrar of Voters

Mid-Term Election Turnout Among Registered Voters and Voting Eligible Population
Regional Comparison, 2010

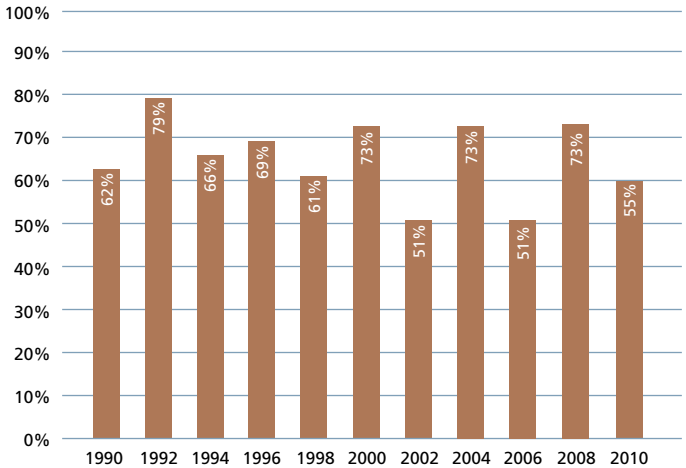


Source: California Secretary of State, 2010 Returns (www.sos.ca.gov/elections/elections_u.htm)

Registered Voter Turnout
The number of votes cast in any given election divided by the number of residents who are registered to vote.

Voting Eligible Population Turnout
The number of votes cast in any given election divided by the number of all eligible residents (U.S. Citizens 18 years of age or older who are not convicted felons in prison or on parole).

General and Mid-Term Election Turnout Among Registered Voters
Orange County, 1990-2010



Source: California Secretary of State (www.sos.ca.gov)

Charities per Capita Remain Comparatively Low

Description of Indicator

This indicator assesses Orange County's nonprofit sector by measuring the number of organizations as well as per capita revenue and assets.

Why is it Important?

A well-funded and supported nonprofit sector is an integral part of a healthy and stable community. Nonprofit service organizations help bridge the gap between government programs and local needs, and are a valuable contributor to the economy.

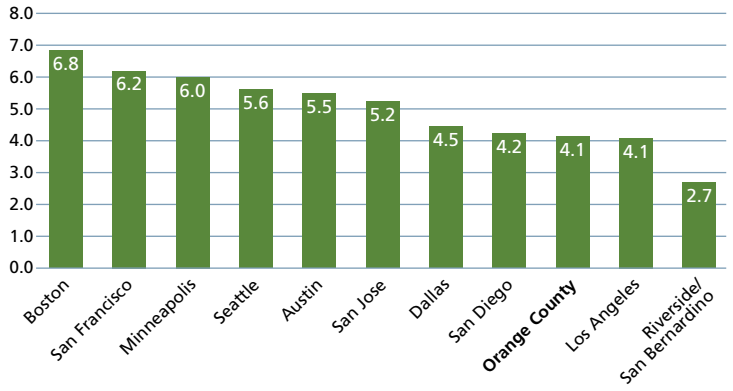
How is Orange County Doing?

While the number of nonprofit organizations is rising, Orange County has fewer nonprofit organizations per capita than most comparison regions:

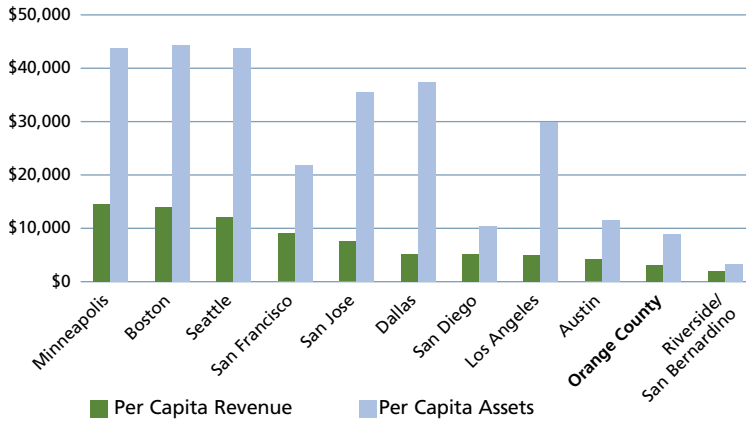
- In 2011, there were 12,461 registered nonprofit organizations in Orange County.
- This equates to 4.1 nonprofit organizations per 1,000 residents, which is the same rate as Los Angeles, but lower than all other regions compared except Riverside/San Bernardino.
- Since 2002, the number of Orange County nonprofit organizations increased a total of 44%.
- Public/Societal Benefit organizations comprise the highest percentage of nonprofits (26%), followed by Human Service (21%), and Religious (20%).
- In 2011, annual revenues grew 5% to $10.5 billion, while assets increased 3% to $27.4 billion.
- However, Orange County lagged behind all neighbors and peers compared – except Riverside/San Bernardino – in per capita revenues ($3,496) and assets ($9,091).
- Since 2002, annual revenues and assets increased by approximately 7% and 10% per year, respectively.

Coming Soon: Improved Orange County Nonprofit Data
A new report with updated information on Orange County's nonprofit sector is planned for release in spring 2012. A collaboration between OneOC and Cal State Fullerton's Gianneschi Center for Nonprofit Research, the *Nonprofit Sector: Orange County* report will provide a fresh snapshot of Orange County's working nonprofits, as well as recent trends in growth or downsizing. The report will clarify the often conflicting data about the size of this dynamic sector and its role in the economy and society.

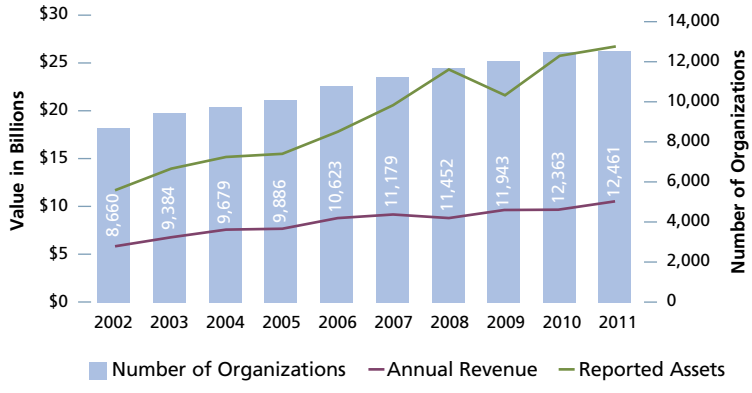
Registered Nonprofit Organizations per 1,000 Residents
Regional Comparison, 2011



Nonprofit Per Capita Total Revenue and Assets
Regional Comparison, 2011



Nonprofit Organizations and Reported Annual Revenue and Assets
Orange County, 2002-2011



Note: Data for 2008 and 2010 have been revised since previously reported.

Source: National Center for Charitable Statistics (http://nccs.urban.org/statistics/index.cfm)

The Community Indicators report sponsors would like to thank the following organizations for providing data and expertise in support of this effort:

Anaheim Public Utilities
California Air Resources Board
California Association of Realtors
California Community Colleges, Chancellor's Office
California Department of Education
California Department of Finance
California Department of Justice, Criminal Justice Statistics Center
California Department of Public Health
California Department of Transportation
California Division of Tourism
California Employment Development Department
California Energy Commission
California Integrated Waste Management Board
California Managed Risk Medical Insurance Board
California Public Utilities Commission
California Secretary of State
California Solar Statistics
California State University, Fullerton
Capistrano-Laguna Regional Occupational Programs
Center for Community Collaboration at California State University, Fullerton
Center for Demographic Research at California State University, Fullerton
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County of Orange Community Services/Office on Aging
County of Orange Community Services/Orange County Housing Authority
County of Orange Health Care Agency/Environmental Health
County of Orange Health Care Agency/Epidemiology and Assessment
County of Orange Health Care Agency/Family Health Division
County of Orange Office of the District Attorney
County of Orange Public Works
County of Orange Registrar of Voters
County of Orange Social Services Agency
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Forbes magazine
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Healthy People 2020
Institute for Economic and Environmental Studies at California State University, Fullerton
Metrolink
Milken Institute
Municipal Water District of Orange County
National Center for Charitable Statistics
National Low Income Housing Coalition
National Venture Capital Association
North Orange County Regional Occupational Programs
Orange County Department of Education
Orange County Funders Roundtable
Orange County Transportation Authority
Orange County Waste & Recycling
Orange County Water District
Orangewood Children's Foundation
PricewaterhouseCoopers/PwC
PublicCEO
San Diego Gas & Electric
Scarborough Research
South Coast Air Quality Management District
Southern California Edison
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University of California, Irvine
University of California, Los Angeles/Center for Health Policy Research
Urban Land Institute
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Wallace Walrod, Tech Coast Consulting Group

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Irvine, California 92614

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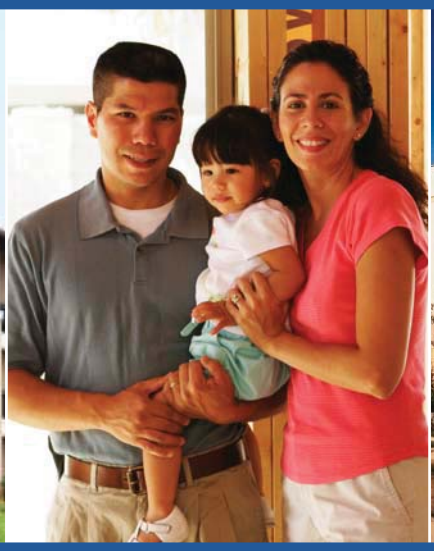
www.ocgov.com/ceocommunity.asp

Appendix G: 2012 Orange County Workforce Housing Scorecard



2012 ORANGE COUNTY

WORKFORCE HOUSING SCORECARD

ORANGE COUNTY
BUSINESS COUNCIL

TABLE OF CONTENTS

FOREWORD AND ACKNOWLEDGEMENTS

Orange County Business Council (OCBC) is the leading voice of business on important issues locally, regionally and nationally. The organization works to enhance Orange County's economic development and prosperity to preserve a high quality of life.

As America's sixth largest county, Orange County is one of the most desirable places in the nation to live, work, raise families and enjoy an excellent quality of life. OCBC serves pro-business interests so that the region's vibrant economy will continue to expand, bringing the benefits of prosperity to every corner of the county.

OCBC accomplishes its mission by leading a high profile, proactive advocacy program for business interests throughout California and the nation, focusing on four core initiatives: Infrastructure, Workforce Development, Economic Development, and Workforce Housing.

The term "workforce housing" has many definitions, but the framework of this report defines workforce housing as the necessary infrastructure that Orange County and its cities must provide to house current and future employees of every income category, and includes single family residences, apartment units, and other types of housing. It is more than "affordable housing" by traditional definitions. Much as the Orange County Transportation Authority (OCTA) and other transportation agencies create long-term plans to meet a region's current and projected future transportation needs over 30 years, local governments must consider the demand for adequate workforce housing, based on long-term regional and city job projections.

OCBC's goal in this report is to examine and analyze key current and projected workforce housing trends in order to provide a preview of where Orange County is headed in terms of workforce housing and how it will impact demographic, economic, and business competitiveness factors. This report seeks to answer four key questions:

i. **How has the Great Recession impacted workforce housing?**

ii. **How are current trends in Orange County and its cities impacting workforce housing?**

iii. **What will be the state of workforce housing in 2020 and 2035?**

iv. **What actions or policies will increase the supply, availability, and affordability of workforce housing?**

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Katherine Reedy, Director of Communications, Orange County Business Council

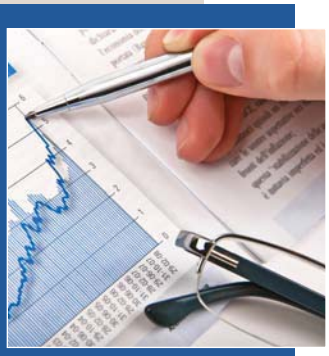
Delaine Moore, Communications and Events Specialist, Orange County Business Council

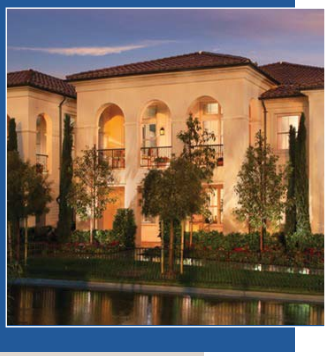
Joe Pearson II, Research Associate, Orange County Business Council

Monty Jarecke, Research Associate, Orange County Business Council

INTRODUCTION

In 2008, Orange County Business Council (OCBC) released the inaugural Workforce Housing Scorecard, a report that outlined a significant business issue then—how to attract and retain key workforce talent when Orange County's housing supply and affordability levels were impeding business competitiveness. That inaugural report generated a valuable dialogue about the importance of workforce housing to long-term regional economic success and the key role of individual Orange County jurisdictions play in providing workforce housing. Subsequently, OCBC's report spurred Los Angeles and San Diego to create similar housing scorecards.





Flash forward to 2012: The previous Workforce Housing Scorecard was released near the height of the "housing bubble" of rapidly accelerating home price appreciation, which burst, contributing to the current "Great Recession." Orange County's housing market rapidly deteriorated from mid-2007 through early 2009. Dataquick reported an average loss in Orange County home values of over 40% in just 18 months, a collapse that led the region into deep recession. Recovery from the price lows of 2009 has been slow and uneven, rising in fits and starts with intermittent drops. However, from a workforce housing perspective, the resulting housing price decline has a silver lining: housing affordability unseen in more than a decade. The California Association of Realtors (CAR) reported that Orange County's Housing Affordability Index (percentage of households that can afford to purchase a median-priced home) rose to 39 in 2012, and the First-Time Buyer Affordability level (percentage of households that can afford to purchase an entry-level home) reached 58.

Once again, the OCBC Workforce Housing Scorecard is released at a turning point for the Orange County housing market—but this time in a positive direction. This 2012–2013 report shows a housing market that appears to have bottomed, as trends appear to be inflecting upwards this time rather than tipping over to the downside as in the 2008 report. For example, in September 2012, the Federal Reserve reported broad improvement in national housing market trends. The Fed's "beige book" reported that existing home sales strengthened in all 12 Fed districts, while selling prices rose or held steady, and observed that "residential real estate showed widespread improvement since the last report." The Fed noted that shrinking housing inventories and growing demand was driving price increases in most districts, while construction of multifamily units also saw robust growth.

The Fed's report reinforced a host of recent data suggesting the housing market's turnaround is picking up steam and recovering faster than most economists and industry experts had predicted, including:

- CoreLogic, a leading real estate data and analytics firm, reported that national home prices were up 4.6 percent in August 2012 compared with August 2011, the largest year-over-year gain in six years. August 2012 was the sixth consecutive month that home prices were up on a month-over-month basis.

- In August 2012, existing single-family home sales were up 9 percent year over year and the supply of listed homes for sale was down 18 percent, according to the National Association of Realtors. Sales of previously occupied homes reached their highest level in more than two years in August 2012.

- The Commerce Department reported that September 2012 construction of houses and apartment buildings rose to a seasonally adjusted annual rate of 872,000, marking the third straight month of improvement. The figures surpassed economists' expectations of about 770,000 annually and were the best monthly performance in more than four years (since July 2008). Compared with September 2011, new housing starts jumped 34.8 percent. Although the annual rate of new home construction is still far below the peak of more than 2.2 million units, the pace has picked up dramatically from the low of 478,000 in April 2009.

- Building permits for private housing construction, a sign of future activity, also jumped in September, up 11.6 percent from August and 45.1 percent from a year earlier.

- In the third quarter of 2012, the number of Californians entering foreclosure dropped to the lowest level since early 2007, according to Dataquick. Foreclosure filings have fallen as banks have completed more loan modifications and short sales. Notices of default fell 10.2 percent from the prior quarter and 31.2 percent from the same period last year, a 63 percent decline from the first quarter of 2009, when notices of default peaked in the state.

- In August 2012, CAR reported that the share of REO (Real Estate Owned) sales in California shrank to 14.4 percent, down from 17.4 percent in July and 27.8 percent in August 2011. Conversely, the share of equity sales—or non-distressed property sales—grew to its largest level in four years, increasing to 62.2 percent, up from 59.5 percent in July.

- In Orange County, the amount of equity sales rose to 75 percent in September 2012, up from 64 percent in September 2011. Only 25 percent of Orange County sales classified were listed as distressed in September 2012, down from 36 percent in September 2011.

- Nationally, in the first half of 2012, 1.3 million homeowners moved from being underwater to having positive equity, according to CoreLogic. Approximately 20 percent of mortgages remained underwater, according to CoreLogic, while Zillow's estimate was 30 percent.

Recent demand for housing has surged as mortgage interest rates are at historic lows (an all-time low average of 3.4 percent for a fixed 30-year loan), and while still down an average of 30 percent from their 2006 peak, home prices and sales activity in many markets appear to have bottomed and are starting to rise. If the housing recovery continues to take hold, the turnaround in prices and record-low supply of newly built homes constructed during the downturn will also spur additional demand for new construction. Rising prices are also helping homeowners in properties that for several years have been underwater. If the gains in housing hold, they could give consumer confidence a boost and help the broader economy recover. Housing has played an important role in lifting the nation out of past downturns but has been hampered this time by the severity of the Great Recession and the large number of vacant and foreclosed homes dragging down the market for years.

Additionally, because of the Great Recession and related financial crisis, supply levels (new construction) have barely increased in the past few years and only a small amount of new housing units have been built in Orange County during the last five years compared to the long-term needs of a large and rebounding economy. In fact, in the 36 months between January 2008 and December 2010, approximately 8,500 new housing units were permitted, far below Orange County's long-term annual average of more than 10,000 units per year.

In the coming years, this slow pace in new housing construction must increase significantly, even above the improved pace of around 5,000 annual units since January 2011. This minimal amount of new housing construction has led to significant pent-up demand that was suppressed during the recession, but eventually simple demographics kick in, and demand for new housing units subsequently bounces back. Several complicated factors—available financing, employment levels, and family dynamics—make pinpointing housing demand difficult, but new household formation primarily drives housing demand. Generally, new household formation slows during recessionary periods, and that has been particularly true for the current recession. In particular, many young adults exiting college have moved back home with their parents instead of starting their own households.

OCBC WORKFORCE HOUSING SCORECARD: A USER'S GUIDE

The OCBC Workforce Housing Scorecard presents a picture of the state of workforce housing in Orange County to foster discussion and dialogue about key trends in housing supply and affordability, and the related implications for the overall regional economy and business community.

The scorecard examines workforce housing in Orange County over the long term as it pertains to affordability, density, population, and housing-unit numbers, as well as the relationship between jobs and housing units. To introduce much needed transparency and accountability into the role workforce housing plays in Orange County's economic competitiveness, this report tracks these key trends at both the county and city levels. Included is a breakdown of Orange County cities' projected contributions to the regional workforce housing market (new housing unit production), job growth, and density trends.

As the housing market shows signs of improvement, a key question looms: How large is the size of pent-up demand? CAR's Dr. Selma Hepp estimated statewide pent-up demand at between 575,000 and 696,000 additional households. 58 percent of California households are owner-occupied. Applying that rate to current pent-up demand translates to need for 333,000 to 403,000 owner-occupied housing units. Some households who are currently renting can be expected to choose homeownership, which adds approximately another 100,000 potential homebuyers. These numbers suggest that Orange County's pent-up demand for additional new housing could range between 40,000 and 50,000 units.

Although uncertainty over the foreclosure crisis and economic recovery still lingers, the size of pent-up demand implies that a housing market rebound could quickly follow any signs of sustainable economic recovery. The meager new construction during the economic downturn did not make a dent in the deficit accumulated over more than a decade of building insufficient quantities of workforce housing in Orange County.

Increased municipal and policy support for the development of workforce housing is essential because, as this report will show, workforce housing will once again be critical for the continued economic growth and prosperity of the county. Prior to the housing crash, the average home price in Orange county was over $700,000. A silver lining to the economic downturn, and steep drop in home prices, was that housing affordability improved significantly. The impact of this continued lack of affordability in Orange County's housing market went beyond potential homebuyers and began to impact Orange County on many social and economic fronts. Once again Orange County may face the threat of an outflow of young skilled workers due to housing affordability and rising rents, accelerating the rapid overall aging of Orange County's population, and increasing the number of commuters and their commute times. Without sufficient workforce housing infrastructure, Orange County employers will find it increasingly difficult to meet their employee demand compared to other locations.

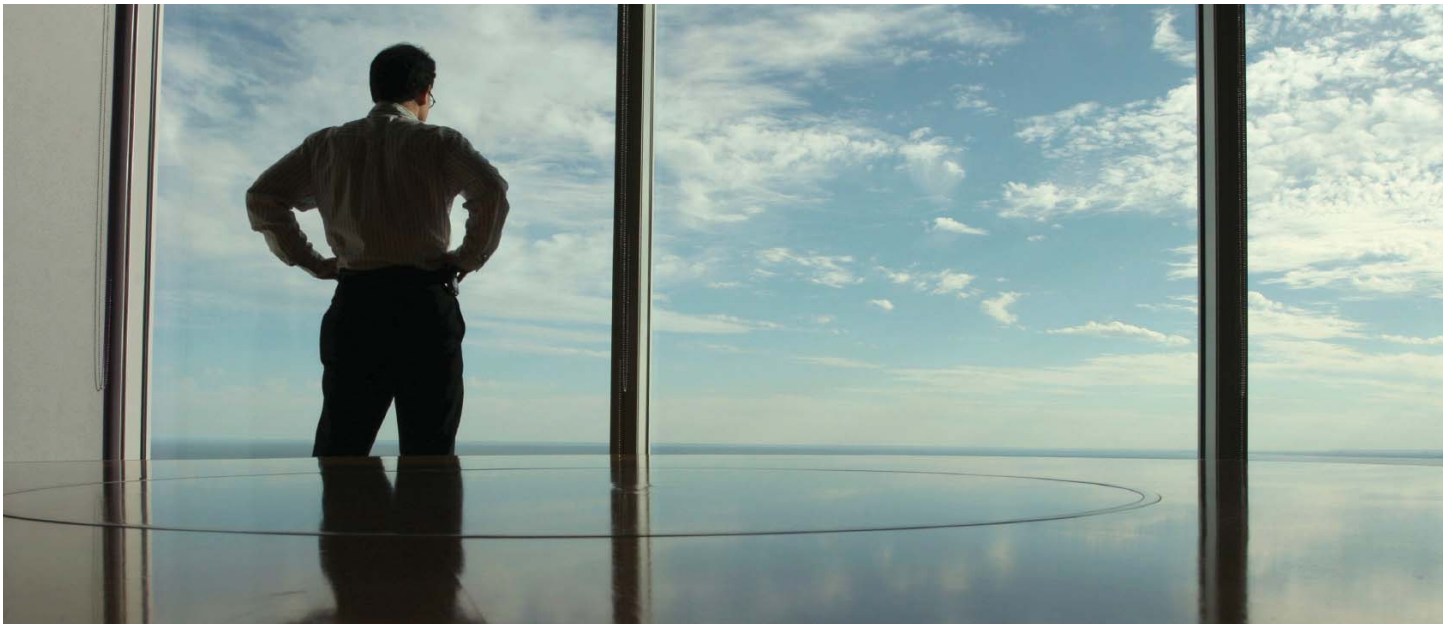
Now that the Orange County economy is recovering and creating jobs again at a good pace (35,000 new private-sector jobs so far in 2012), renewed attention must be focused on long-term provision of workforce housing. Without this attention, Orange County's ability to compete for key workforce talent will be harmed, many employees will live elsewhere and face long commutes contributing to congestion and an overburdened transportation system, and young, educated talent will be more likely to leave Orange County for places with available, affordable workforce housing options. Once again, provision of workforce housing is a significant issue for Orange County's future.

THE CHALLENGE AHEAD

Current trends and projections point again to an increasing imbalance between jobs and housing in the near future as Orange County's job growth continues to outpace housing growth. Inevitably, this long-term cumulative housing deficit will lead to a rise in home prices and a decline in affordability. Addressing this problem will require attention to public policy, economic factors, and local land-use decisions, and ultimately, will need cooperation of all stakeholders. The OCBC Workforce Housing Scorecard aims to foster continued education and awareness about workforce housing issues facing Orange County. By increasing exposure to cities' track records and plans for provision of workforce housing, greater interest and advocacy can be drawn towards this underreported, often invisible issue.

While Orange County's housing infrastructure needs to grow and change to accommodate a large, growing, and diverse population and workforce, opposition—including California Environmental Quality Act litigation and NIMBY (Not in My Back Yard) attitudes—often halts plans to increase housing and offer higher density developments. Since housing is largely addressed at the city level (heavily influenced by city councils, planning commissions, general plans, housing elements, Regional Housing Needs Allocations, and local leaders), this report primarily analyzes city housing data, while examining the regional level for the overall demand and economic outlook. By emphasizing each city's contribution to sufficient workforce housing, this report highlights the importance of land-use planning decisions at the city level, where most important housing decisions are made.

In the following pages, this report explores why affordability in housing continues to be a long-term issue for the county, even with the challenges and opportunities emerging from the shadow of the Great Recession. In addition, the report analyzes city projections of population, employment, and housing to forecast what the Orange County housing market will look like through 2035.



WHAT THE SCORECARD DOESN'T ANSWER

The OCBC Workforce Housing Scorecard methodology is limited to four criteria: Number of jobs created, housing unit density, the ratio of jobs to housing units, and regional workforce housing contribution (the number of housing units each city adds to the total needed at the regional level). Consequently, the scorecard is not a comprehensive examination of housing in the county, but begins with the assertion that an inadequate housing supply and the related high housing costs are detrimental to the business environment, and then examines this problem from a supply-demand perspective.

While the Scorecard does not present a comprehensive analysis of the state of county housing, it does address the crucial relationship between job creation, housing supply, workforce development, affordability, and business competitiveness in Orange County.

1. IMPACT OF THE GREAT RECESSION ON WORKFORCE HOUSING

FALL OF THE HOUSING MARKET—AND RECOVERY?

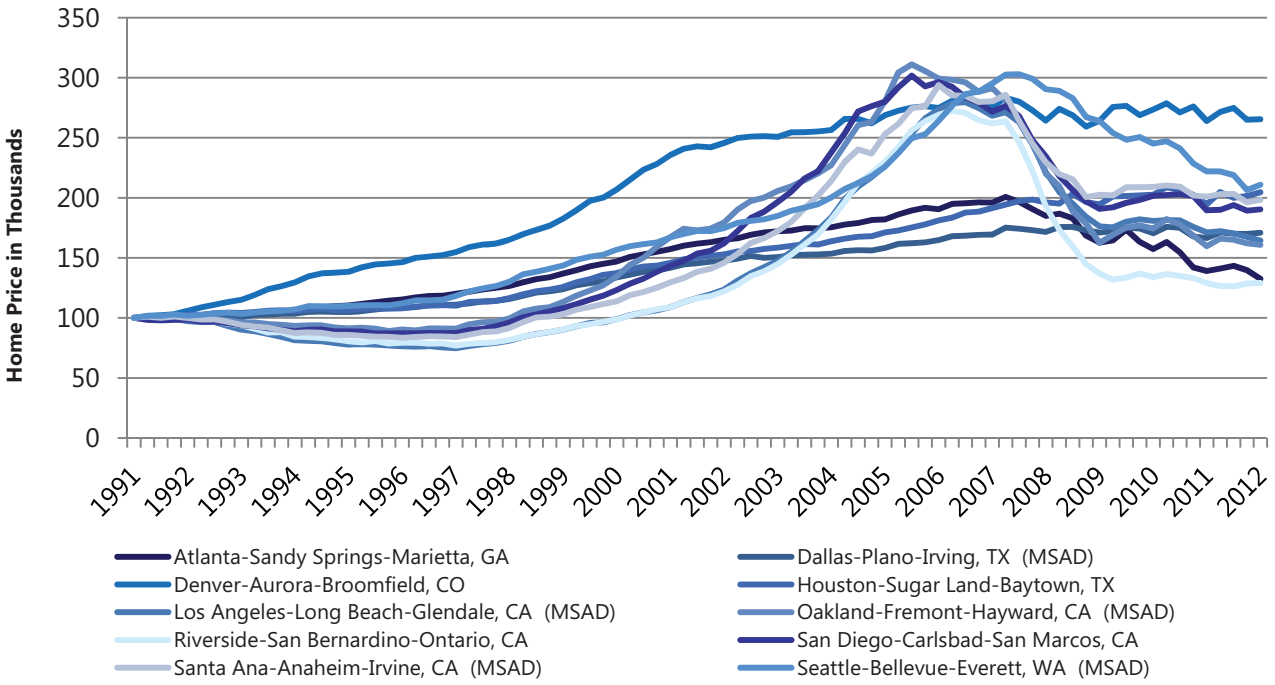
Prior to the onset of the Great Recession, rapid growth in population, economic activity, and jobs created unprecedented prosperity throughout much of Orange County. With a population of over three million and a workforce of over 1.6 million, Orange County is one of the most densely populated metropolitan areas in California. No longer simply a bedroom community, Orange County has become Southern California's economic engine, a unique, vibrant region where the suburban infrastructure conceals a job-rich urban environment.

At the peak of prosperity between 1990 and 2006, Orange County saw employment growth of 345,300 jobs, or about 30 percent. This rapid growth pushed up demand for additional housing units, severely outpacing new housing growth for almost two decades. The supply shortage added to rapid housing price inflation that negatively impacted housing affordability, commute times, and location advantages for businesses. Insufficient housing supply and the lack of affordability began to have detrimental economic and social impacts, such as many Orange County workers' moving to surrounding counties and commuting to their jobs. In the early to mid-2000s, Orange County even experienced population loss as 25- to 34-year-olds began to relocate outside the region.

When the economic crisis of 2007–2009 struck, economic growth in Orange County abruptly halted, and employment fell by more than 100,000 jobs. Unemployment spiked to approximately 10 percent in 2010, well above the range of 3.1 to 4.9 percent in mid-2003 through mid-2008. The drop in employment and potential homebuyers drove down market demand for housing, even as a significant number of foreclosures temporarily increased housing supply. As housing supply increased, home prices fell throughout the nation, hitting California particularly hard, and some counties and cities even harder than others. For instance, the Inland Empire—which has long been Orange County's "safety valve" for workforce housing—was hit much harder than Orange County.

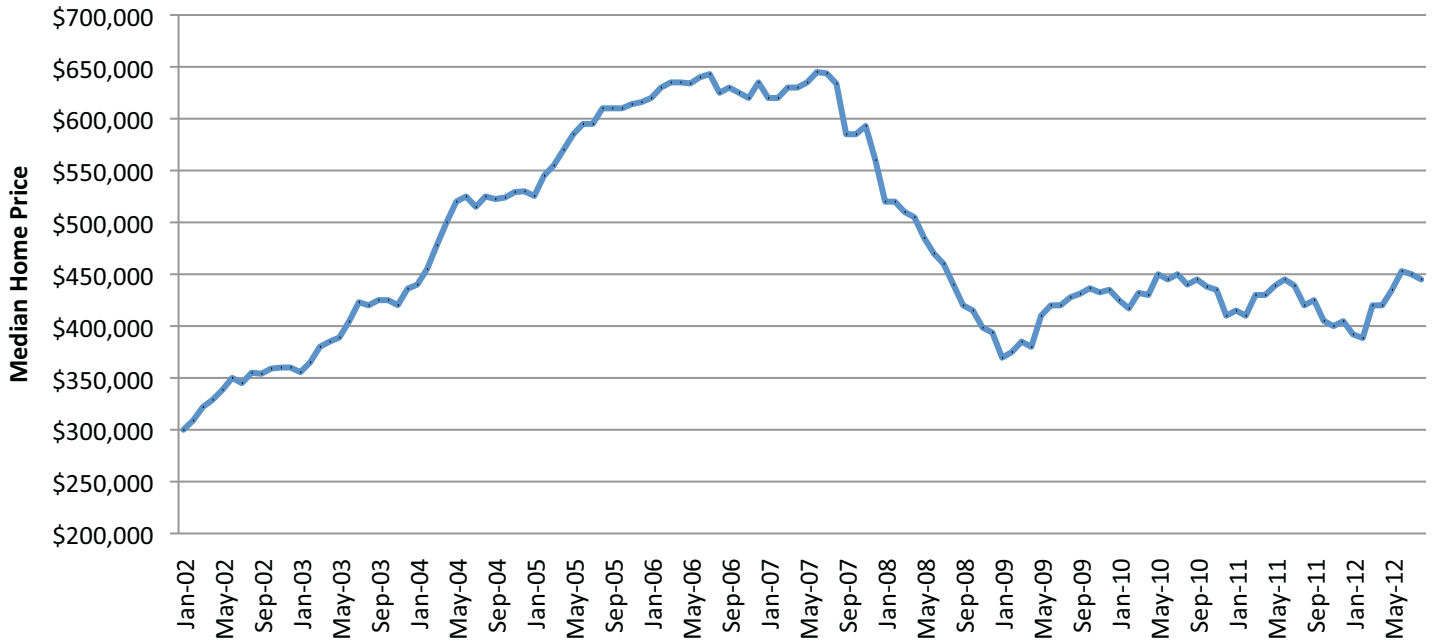
The Great Recession sent Orange County home prices into a steep decline and subsequent trough that lasted until 2012. During that time, home prices fell almost a full third from their peak in early 2006, as shown in Figures 1.1 and 1.2. In contrast to other California regions, Orange County was able to emerge more quickly from the spiraling downturn because of the county's economic competitiveness, labor market strength, vibrant business environment, and highly desirable quality of life. Much of the steep decline ended in 2008, but housing prices had yet to recover and sales prices hit their current post-recession low at the end of 2011. Falling home prices hit many individual homeowners and communities especially hard; however, in the long-term, the price drop benefitted Orange County by increasing affordability. While long-term housing price inflation in a desirable place like Orange County is unavoidable, housing supply must keep pace with job creation and rising incomes.

FIGURE 1.1 – REGIONAL QUARTERLY SALES PRICE INDEX COMPARISON, 1991—2012



SOURCE: FEDERAL HOUSING FINANCE AGENCY UNADJUSTED QUARTERLY SALES PRICE INDEX

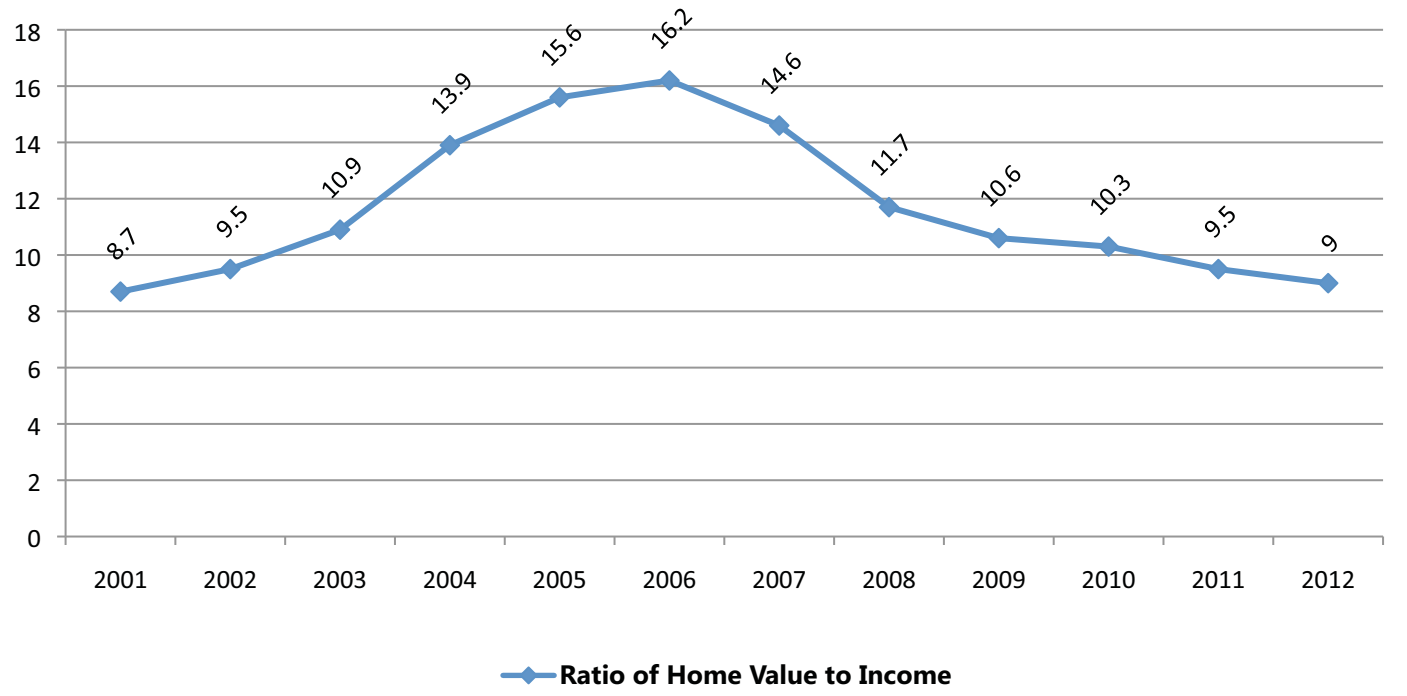
FIGURE 1.2 – ORANGE COUNTY MEDIAN HOME PRICES 2002-2012: AUGUST 2012—$445,000



SOURCE: DATAQUICK

Before the Great Recession, inflation in home prices far exceeded income growth, as indicated in Figure 1.3. Following the steep recessionary decline, the ratio between housing prices and incomes adjusted to where it would have been were it not for the housing bubble of the early 2000s.

FIGURE 1.3 – COMPARING HOME PRICES AND INCOME, 2001–2012

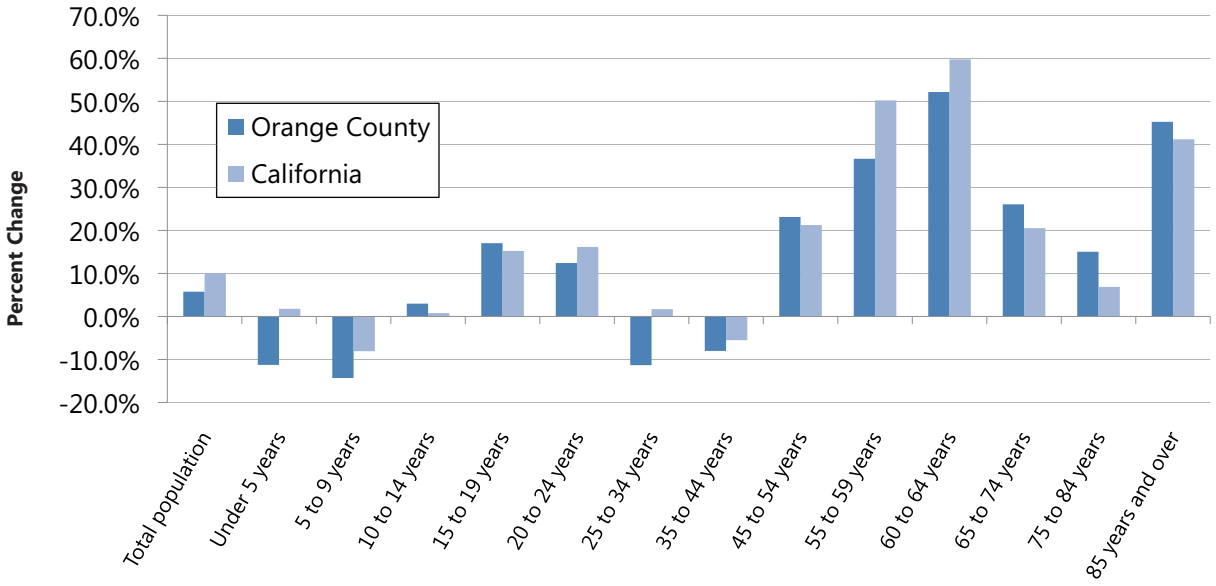


SOURCE: ZILLOW HOME VALUE INDEX AND CALIFORNIA EMPLOYMENT DEVELOPMENT DEPARTMENT

DEMOGRAPHIC AND POPULATION TRENDS

In many cases, the Great Recession eroded the home equity that older county residents had planned to use to move to retirement communities farther away from job centers, and some even found themselves underwater in their mortgages. Tied financially to their homes, these older residents added to the county's growing senior population, as Orange County has always attracted retirees. At the same time, Orange County's high cost of living has led many younger residents to move to surrounding regions and other states in search of lower housing costs. Consequently, the proportion of Orange County's population 65 years and older has increased, reaching 11.9 percent in 2011 and is projected to almost double by 2050, reaching about 21 percent. This trend is problematic because the increasing older, nonworking population will take up an increasing amount of valuable workforce housing, leaving insufficient housing for the current and future workforce.

FIGURE 1.4 - ORANGE COUNTY AND CALIFORNIA POPULATION CHANGE BY AGE, 2000—2012

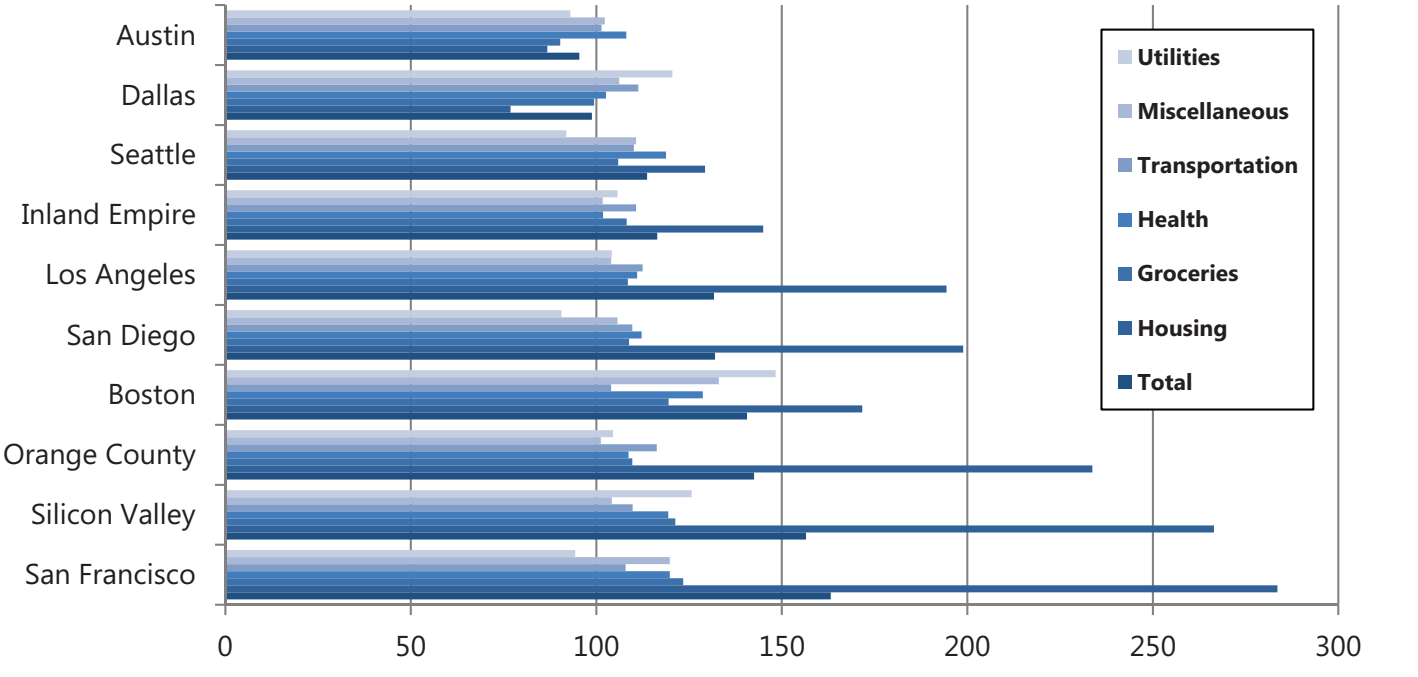


SOURCE: U.S. CENSUS BUREAU, 2000 AND 2010 CENSUS

COST OF LIVING

In terms of cost of living, Orange County is currently the eighth most expensive place to live among 300 metropolitan regions. This ranking is almost entirely due to high housing costs, which are the fifth highest in the nation.

FIGURE 1.5 - COST OF LIVING INDEX, SECOND QUARTER 2012



SOURCE: THE COUNCIL FOR COMMUNITY AND ECONOMIC RESEARCH

UNDERWATER MORTGAGES

When housing prices suddenly declined, many homebuyers who had purchased homes or refinanced between 2004 and 2008 found themselves underwater on their mortgages. Zillow estimates that 24 percent of Orange County homeowners are still underwater, a number considerably below that in surrounding Southern California counties and the state overall. Nevertheless, when many homeowners owe more on their mortgages than their homes are worth, the traditional "move up" cycle is broken because they can no longer use the equity gained in their homes to purchase new properties to meet their lifestyle preferences or needs. As a consequence, other potential new homebuyers, particularly young families, are blocked from entering the housing market, and new stricter lending requirements exacerbate the issue.

FORECLOSURE RATES

Job losses in the recession have led to more homeowners finding themselves deeply underwater. Consequently, foreclosure rates sharply increased throughout the state, and Orange County was no exception. Although the level of foreclosures in Orange County never reached those in other regions, foreclosures continue to be an issue. In August 2012, 14,747 Orange County housing units were at some point in the foreclosure process. This number is down almost 30 percent from the prior year, but still is much higher than traditionally seen in the county. Some contend that foreclosures and "short sales" create a "shadow inventory" in the housing market that competes with newly constructed housing units and the traditional resale market. The primary issue is the time it takes for the foreclosed property to be absorbed back into the market. The foreclosure process ties up an important lower-cost portion of Orange County's housing market, which already is in scarce supply.

Recently, Orange County and California foreclosure trends have improved, with the number of Californians entering foreclosure dropping in the third quarter to its lowest level since early 2007. Foreclosure filings have fallen as banks complete more loan modifications and short sales. An improving economy and rising prices also have helped. Additionally, short sales have surpassed the foreclosure process as the procedure of choice to deal with homeowner distress.

Notices of default fell 10.2 percent from the prior quarter and were down 31.2 percent compared with the same period last year, according to Dataquick. A total of 49,026 notices of default—the first stage of foreclosure in California—were filed on homes in the Golden State last quarter. That was the lowest number since the first quarter of 2007, and a 63 percent decline from the first quarter of 2009, when default filings peaked in the state. The number of homes lost to foreclosure was up 5 percent from the prior quarter but down 41 percent from the same period a year ago. A total of 22,949 homes were lost to foreclosure last quarter.

DECLINING HOMEOWNERSHIP LEVELS

Homeownership has declined significantly in Orange County from its peak of 62.7 percent in 2007. Between 2008 and 2011, homeownership levels fell to 58.6 percent. In some cities hit hardest by the downturn—such as Santa Ana, Anaheim, and Costa Mesa—homeownership remained below 50 percent in 2011. The drop can be partially attributed to the steep increase in unemployment that accompanied the housing crisis. The significant drop in employment not only meant that some homeowners could no longer afford their homes, leading them to foreclosure, but it also reduced the purchasing power and ability to buy of many potential new homeowners. Additionally, some potential homebuyers have made the decision not to enter the housing market as a result of the continuing uncertainty of the job market and housing prices. The fear of being underwater like many current homeowners has led potential homeowners to delay homeownership and opt to rent instead.

RENTAL MARKET DEMAND

Rental market demand has grown rapidly as a result of uncertainty in the homeownership market. In 2011, renters made up more than 41 percent of the housing market, an even larger proportion in many large cities (see Figure 1.6). In addition, some studies have indicated that younger workers, the so-called Generation Y or Millennials, prefer more flexibility in housing because they are likely to switch jobs often, especially early in their careers. A study of over 1,000 Millennial workers showed that many expected to stay in their current position for three years or less. This high turnover rate and migration plans among younger workers creates uncertainty about whether the current trend of declining homeownership will be reversed, even as Orange County continues toward economic recovery, and tempers the likely increased demand for more stable growth in the housing and job markets.

FIGURE 1.6: 2011 ORANGE COUNTY RENTAL CITIES

	Costa Mesa	Anaheim	Santa Ana	Irvine	Newport Beach	Garden Grove	Westminster	Tustin	Fullerton	Huntington Beach
Owner	36.1%	46.3%	49.1%	51.8%	52.8%	53.2%	55.0%	55.4%	55.6%	58.3%
Renter	63.9%	53.7%	50.9%	48.2%	47.2%	46.8%	45.0%	4.6%	44.4%	41.7%

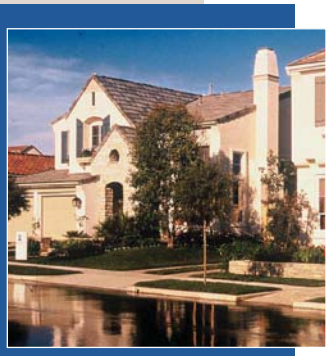
SOURCE: U.S. CENSUS, 2011 AMERICAN COMMUNITY SURVEY

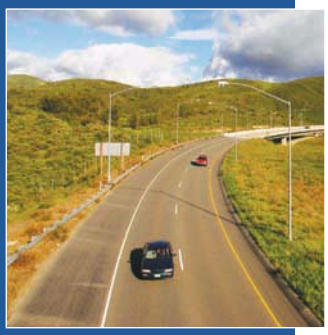
Investors and developers have capitalized on this uncertainty and increased rental demand by progressively investing in the rental market. Increasingly, investors are purchasing foreclosed homes to place in the rental market, and trends show developers are moving toward higher density multifamily housing. After bottoming out in 2009, multifamily building permits increased to almost 90 percent in 2010 and 70 percent in 2011. As a result, the number of multifamily permits exceeded single-family permits by almost 40 percent in 2011.

2. SUPPLY AND DEMAND TRENDS 2000-2010

THE THREE BASIC COMPONENTS OF DEMAND

POPULATION: Population growth and new household formation are primary drivers of new housing demand. Between 2000 and 2011, the county's population grew by 6 percent, compared with 19 percent the previous decade, 1990–2001. Five cities—Irvine, San Clemente, Anaheim, Fullerton, and Newport Beach—accounted for 67 percent of the latest growth (See Figure 2.1).



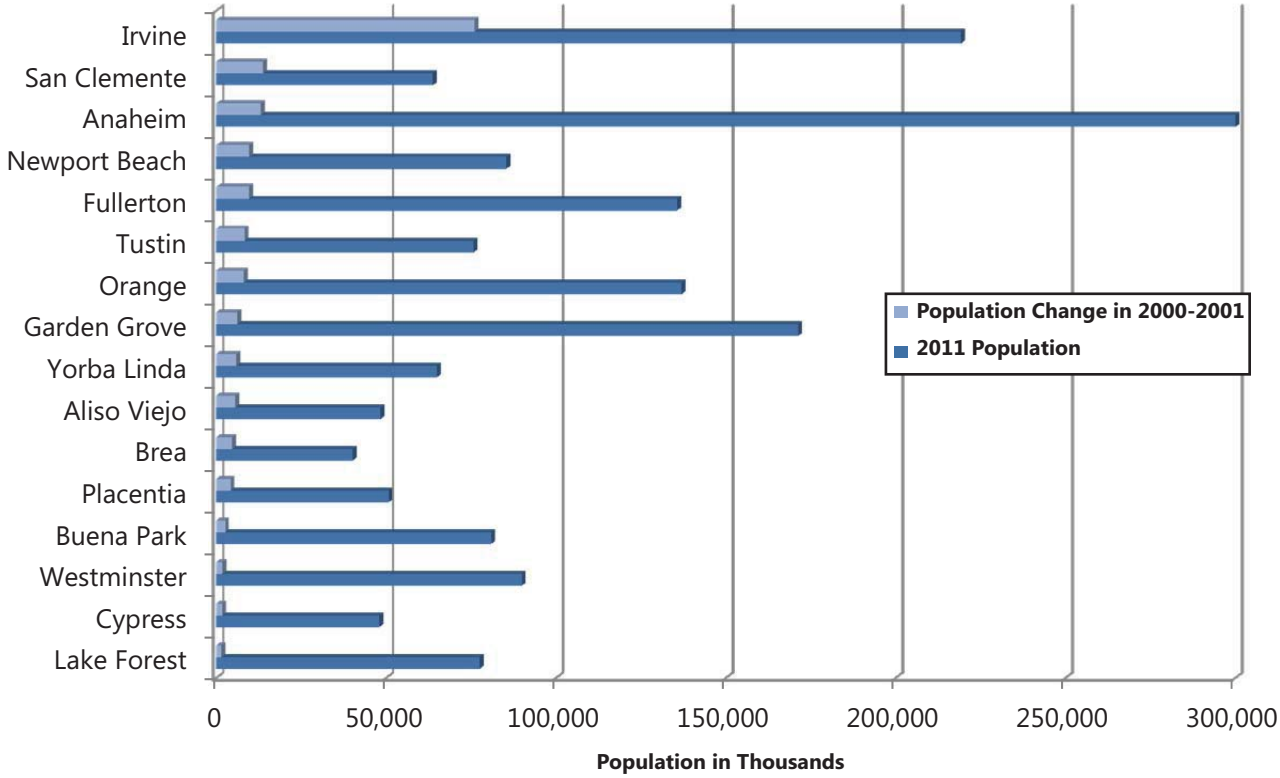


The cities with the fastest growth rate were Irvine and San Clemente at 53 percent and 27 percent, respectively. Only five other cities grew by more than 10 percent, none of which increased more than 14 percent. Meanwhile, some parts of the county saw negative growth, and seven cities showed a loss in population. Although demand for housing as a result of new population growth in Orange County has slowed and is unlikely to be as strong as in 1990–2001, the population continues to increase naturally, and additional housing will be necessary.

EMPLOYMENT TRENDS: From 2000–2011, Orange County added 35,300 jobs, only a 2.5 percent increase. This rather stunted increase was in large part because of the Great Recession. A comparison of employment gains before, during, and after the Great Recession yields a better depiction of the county's economic performance. From 2000–2006, Orange County gained 118,000 jobs, an increase of 8.3 percent. Then from 2006–2010, the county lost 106,900 jobs, a decrease of 6.9 percent. As the economy has begun to turn around, Orange County grew 35,000 private-sector jobs so far in 2012. Most local economic forecasts, such as that from California State University, Fullerton, have projected continued job growth in 2013 and 2014, which is a strong indicator that housing demand will return to previous levels and the need for growth in new housing units remains vital (See Figure 2.2).

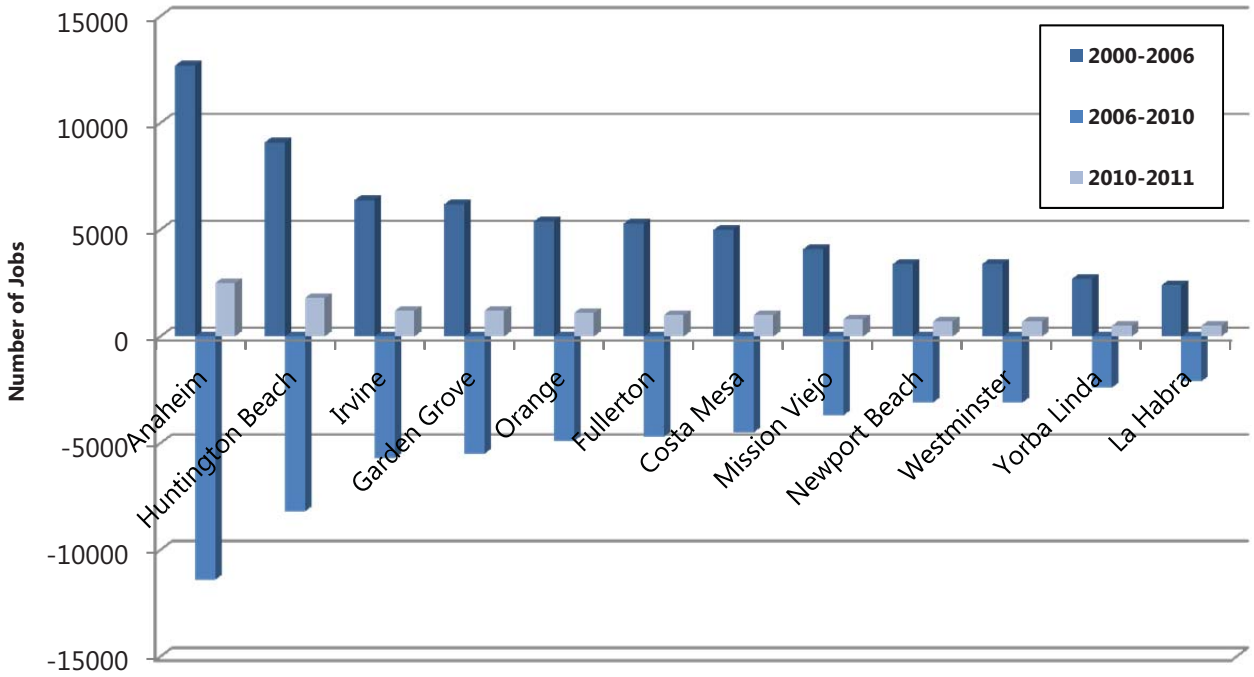
INCOME TRENDS: The third element affecting housing market demand is income appreciation. During 2000–2010, the median household income in Orange County grew by 26 percent, from $59,000 to $74,000. However, home values appreciated by 125 percent during the same period (see Figure 2.3). Despite the housing collapse that severely decreased median home prices, the imbalance between household income and home prices makes homeownership difficult. According to 2012 second-quarter data, the California Association of Realtors (CAR) ranked Orange County in the bottom 25 percent of California counties on its Housing Affordability Index. However, this is an improvement from affordability trends prior to the Great Recession. In fact, CAR reported in 2012 that Orange County's Housing Affordability Index rose to 39 (percentage of households that can afford to purchase a median-priced home) compared to 11 percent in 2006, and the First-Time Buyer Affordability level reached 58 (percentage of households that can afford to purchase an entry-level home) compared to 24 percent in 2006.

FIGURE 2.1 - ORANGE COUNTY POPULATION GROWTH, 2000—2011



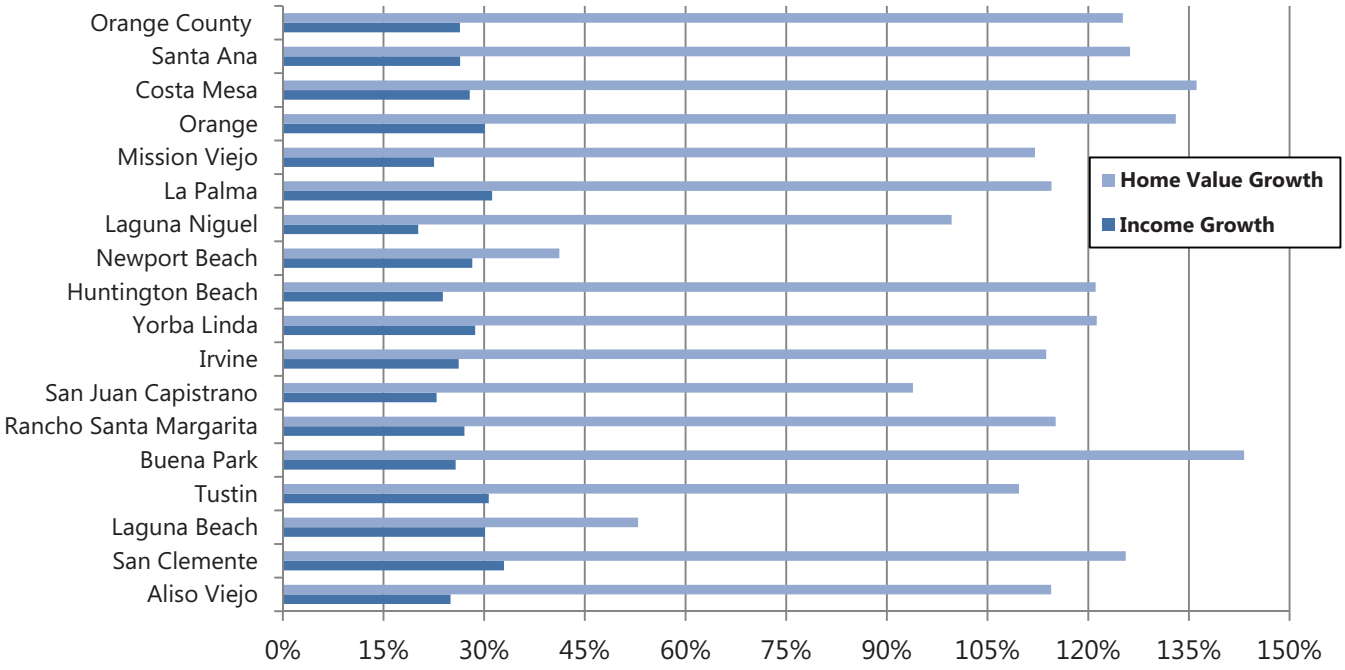
SOURCE: CALIFORNIA STATE UNIVERSITY, FULLERTON CENTER FOR DEMOGRAPHIC RESEARCH

FIGURE 2.2 - ORANGE COUNTY TOTAL JOB GROWTH, 2000—2011



SOURCE: CALIFORNIA EMPLOYMENT DEVELOPMENT DEPARTMENT

FIGURE 2.3 - ORANGE COUNTY HOUSEHOLD INCOME VS. HOME APPRECIATION, 2000—2012



SOURCE: U.S. CENSUS, AMERICAN FACT FINDER

SUMMARIZING THE TRENDS AFFECTING WORKFORCE HOUSING DEMAND IN ORANGE COUNTY SINCE 2000:

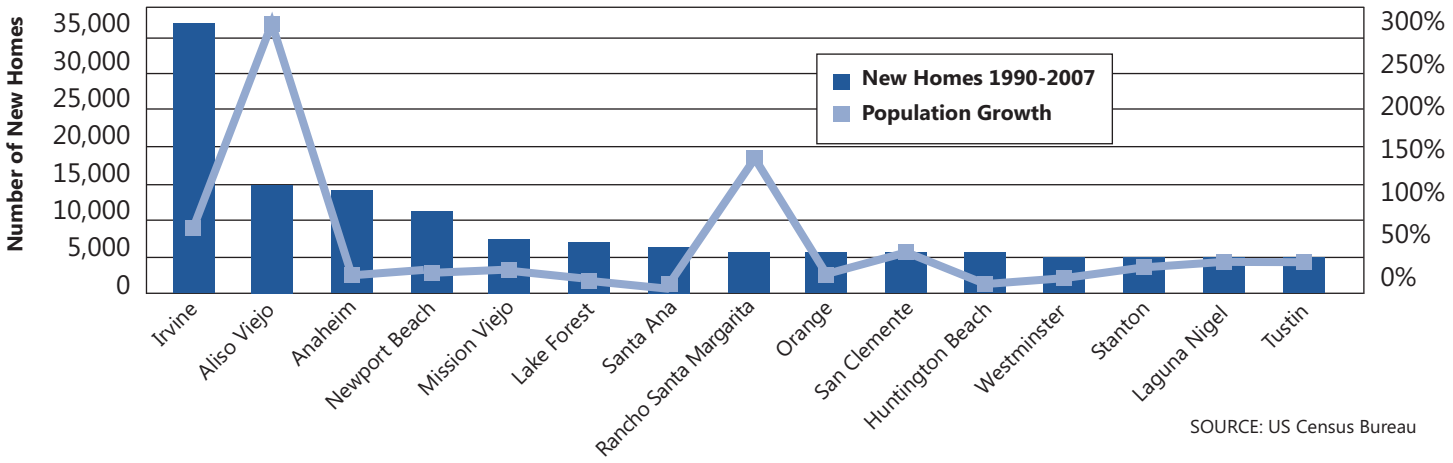
- Orange County's population increased by 6 percent, or 183,570 people. Two-thirds of the new residents during 2000–2011 chose to live in Irvine, San Clemente, Anaheim, Fullerton, and Newport Beach. During the same period, the population of seven Orange County cities decreased, with Dana Point and Santa Ana shrinking by at least 4 percent.
- Jobs increased by 35,300 during 2000–2011, down from an increase of 345,700 between 1991 and 2005. This slower growth is attributed to the Great Recession in which 107,000 jobs were lost between 2006 and 2010.
- During 2000–2010, Orange County's Median Household Income increased from $59,000 to $74,000.
- The median price of homes sold in Orange County during 2000–2011 increased 125 percent.

CHARTING WORKFORCE HOUSING SUPPLY: 1990—2007

In 1991, Orange County had roughly 1,150,000 jobs and 815,000 housing units, giving the county a near ideal ratio of 1.4 jobs to every housing unit. From 1990–2007, Orange County added 196,000 houses, a 24 percent increase in the supply of housing. But as Orange County continued to grow steadily from 1991–2005, job growth largely outpaced housing growth, with the county producing only one home for every 2.2 jobs created.

Cities differed in their ability to add housing units to meet demand. Figure 3.4 illustrates the cities that generated the greatest amount of housing development during 1990–2007, when Irvine, Aliso Viejo, Anaheim, Newport Beach, and Mission Viejo accounted for nearly half of all Orange County housing growth.

FIGURE 2.4 - ORANGE COUNTY HOUSING GROWTH LEADERS, 1900-2007

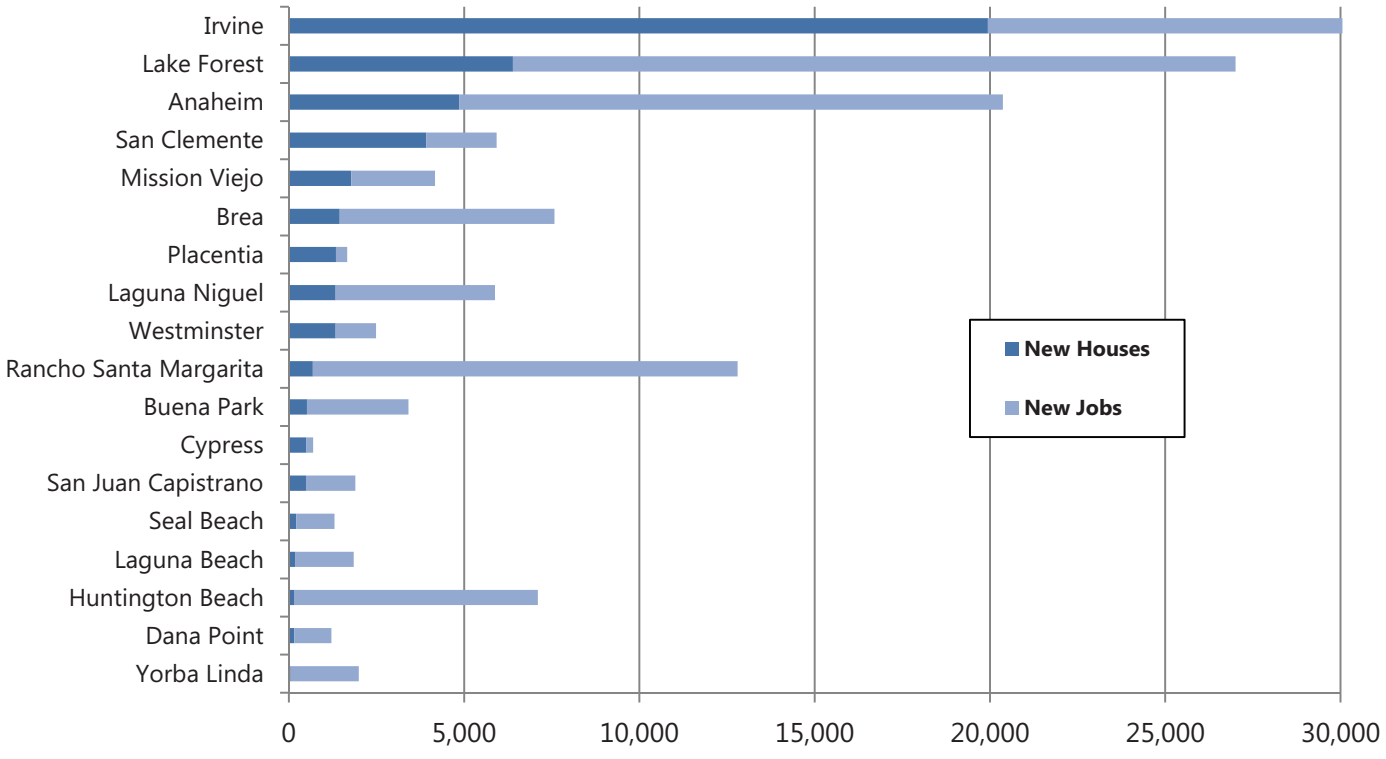


SOURCE: US Census Bureau

Even with this increase in workforce housing during 1990–2007, these cities were unable to keep pace with the large increase in job growth during that period, when the county's population grew by 21 percent (from 2.4 to 2.9 million) and employment increased by 41 percent (over 474,000 jobs), as Figure 2.5 shows. Orange County produced almost 2.5 new jobs for every new housing unit built, a rate that created a large deficit in available housing to meet workforce demand.

As a result, Orange County's ideal jobs-to-housing ratio increased, pushing housing prices higher. By 2007, the ratio had moved from 1.4 jobs for every home in 1991 to 1.6 jobs for every home, and the median home price rose to over $700,000.

FIGURE 2.5 – ORANGE COUNTY HOUSING LEADERS TRAIL JOB GROWTH, 2000—2007



SOURCE: U.S. CENSUS BUREAU, NATIONAL ESTABLISHMENT TIME SERIES

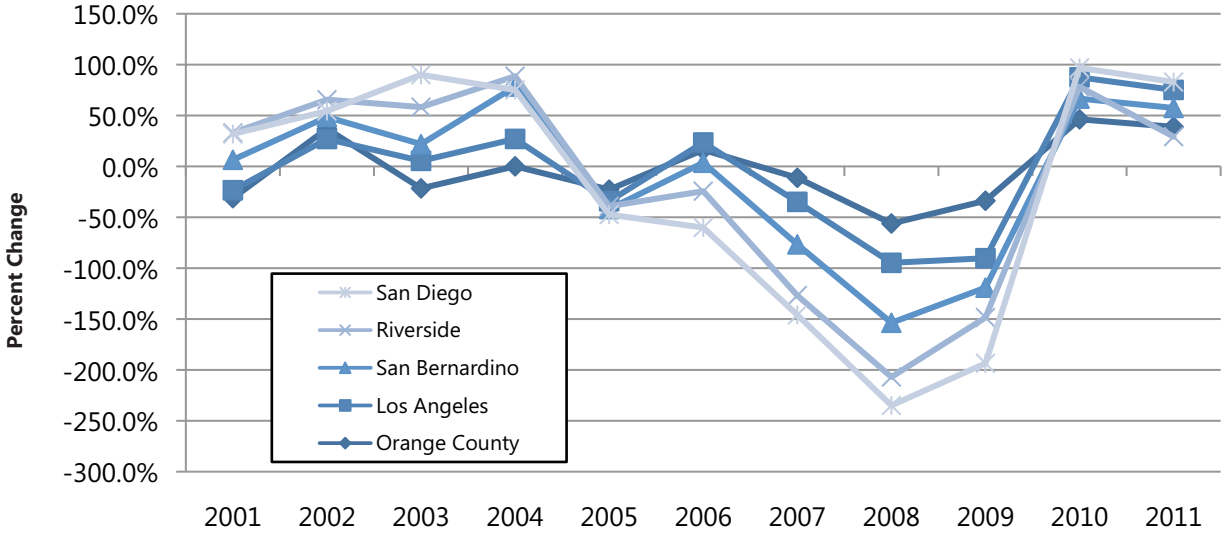
HOUSING SUPPLY TRENDS DURING THE GREAT RECESSION

Workforce housing supply trends after the Great Recession look very different from those in the preceding decade. All three of the factors that create demand in housing markets—population, employment, and income trends—decreased sharply or slowed during the recession. As a result, demand for new housing in the county dropped severely, temporarily creating an artificial balance of jobs to homes and decreasing property values throughout the region.

Construction activity for new housing units fell sharply during the recession, creating a larger gap in the number of housing units available and the number expected to be required through simple population growth trends and new household formation. During 2000–2007, Orange County averaged approximately 10,000 building permits per year. However, during the Great Recession, the number of approved building permits fell sharply—65 percent lower than average in 2008, 77 percent lower in 2009, and 66 percent lower in 2010. Most new housing units during this time were constructed in just a few pockets of Orange County. Due to this downturn in construction activity, previous built-up shortfalls and deficits in the supply of housing have worsened and will not likely be able to provide for the even larger future projected pent-up demand of new homeowners.

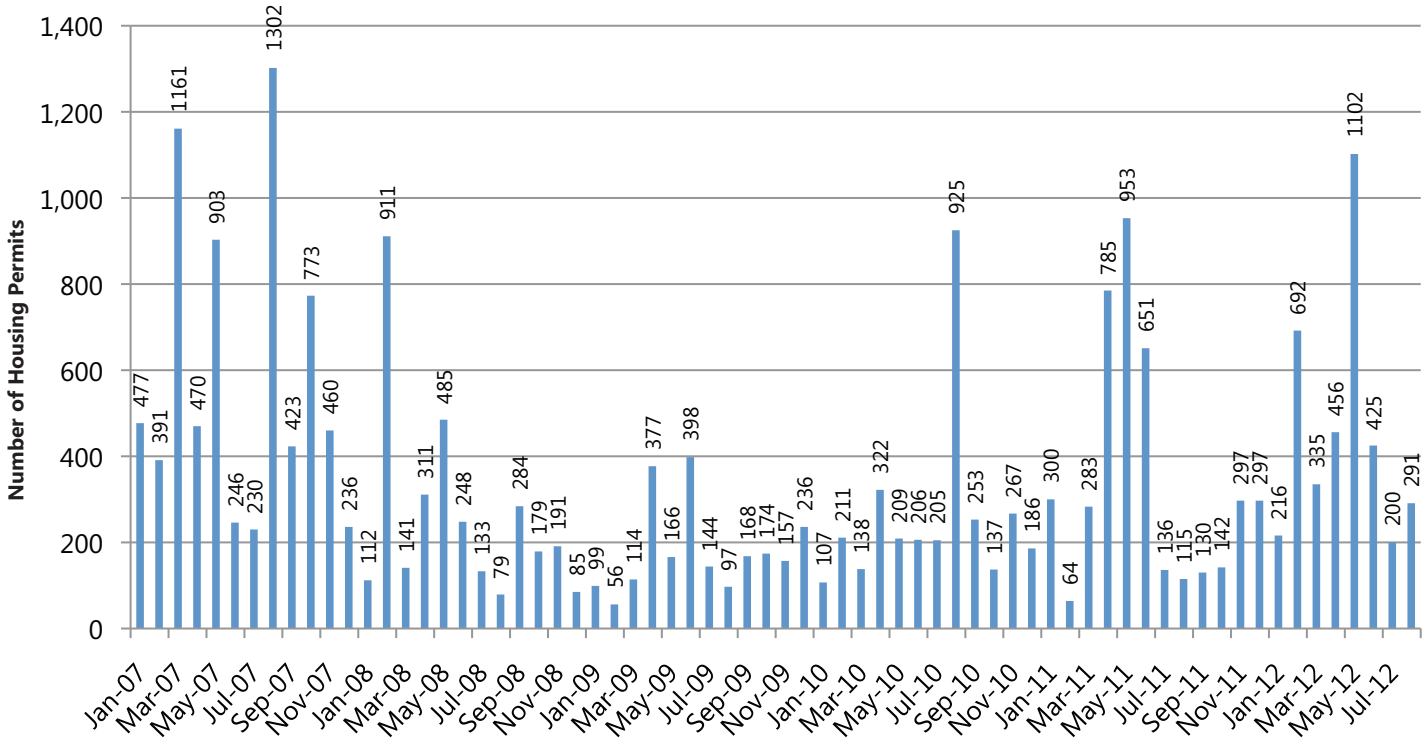
While new construction activity slowed down to a halt, the Great Recession did not stop population growth in Orange County. The lack of new housing units constructed during the downturn will make it more difficult to match long-term workforce housing demand trends, much less "catch up" for decades of under-building before the downturn, leading eventually to an even greater shortage of workforce housing. The gap between workforce housing supply and demand was already reaching critical levels at the time of the last OCBC Housing Scorecard. Despite the respite provided by the onset of the Great Recession, without sufficient new housing construction the issue of workforce housing will again become worse as population, job creation, and new household formation continue to grow. Additionally, new construction activity is traditionally a key driver of regional economic growth and job creation in Orange County.

FIGURE 2.6 – PERCENT CHANGE OF BUILDING PERMITS FOR CA COUNTIES, 2001—2011



SOURCE: U.S. DEPARTMENT OF COMMERCE

FIGURE 2.7 - ORANGE COUNTY TOTAL HOUSING PERMITS 2007—2012



SOURCE: CONSTRUCTION INDUSTRY RESEARCH BOARD AND US CENSUS BUREAU

The Great Recession's strong negative impact on housing demand restored Orange County's jobs-to-housing ratio to the 1991 level of 1.4 jobs for every home. But this balance was an artificial one, driven largely by the loss of more than 100,000 jobs. As a result of decreased demand, median home prices dropped a dramatic 42 percent, from $645,000 to $370,000.

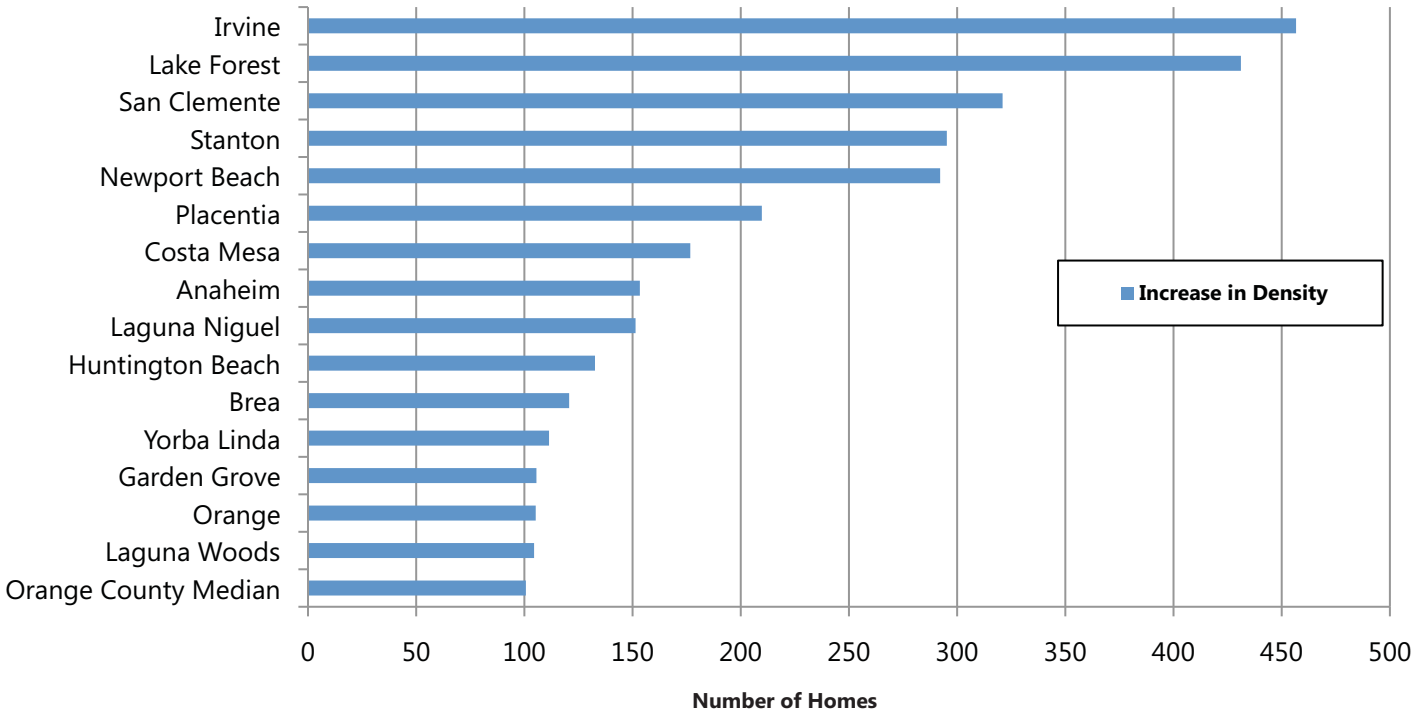
ORANGE COUNTY'S DENSITY

According to the 2010 Census, Orange County is the state's most densely populated county behind only San Francisco. Because available raw land is scarce, housing growth will occur primarily through greater density or infill opportunities.

For instance, Anaheim, Irvine, and Santa Ana have adopted vertical models of development. Increased housing density affords greater variety in housing type (multifamily, flat, apartment, condominium, high-rise, and so on), and increased supply contributes to housing affordability. An increase in the infill affordable housing development in established parts of Orange County may result in workers' living closer to their jobs, thereby reducing commutes and urban sprawl. The densification of Orange County housing is forecast to accommodate population growth and locate residents proximate to employment centers, shopping and recreation opportunities, and major transportation routes, often including the High Frequency Corridors and Metrolink stations.

In many Orange County cities, housing units per square mile increased during the last decade because of the scarcity of land (Figure 2.8). Cities moved to increase multifamily housing and to rezone land for more efficient usage. Increased density can be expected as Orange County attempts to meet the workforce housing demand in the face of land constrictions.

FIGURE 2.8 - ORANGE COUNTY CITY CHANGE IN HOUSING DENSITY, 2000—2010



SOURCE: U.S. CENSUS, OCBC ANALYSIS

EMERGING FROM THE GREAT RECESSION

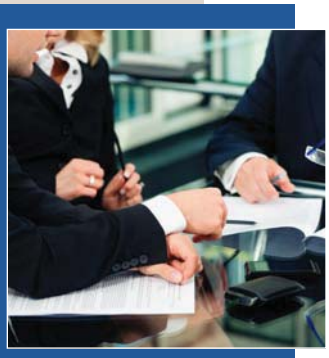
Beginning in 2010, economic growth and job creation slowly accelerated, and Orange County began to return to the rapid job growth characteristic of the years prior to 2007. The remainder of this report discusses how this growth may impact current workforce housing demand.

Orange County's faster recovery compared with surrounding counties has underlined once again the longstanding challenge of providing housing for the projected future workforce. As job growth and home prices slowly begin to rise, the ability to meet demand will be even more difficult because of the curtailed residential construction during the Great Recession.

Between 2010–2015, Orange County is projected to gain more than 56,000 jobs and create only 25,000 housing units, a ratio of approximately 2.25 new jobs for each new housing unit. Added pressure will come from an increase in home values over time, which are expected to rise by 2 percent in 2012 and by 7.1 percent in 2013, according to Chapman University's Anderson Center for Economic Research. California State University, Fullerton projects that home prices will appreciate between 2 and 4 percent in 2013 and 4 and 7 percent between 2014–2016, while Zillow forecasts that home prices will rise modestly for the next two to four years.

3. WHAT IS THE ROLE OF HOUSING POLICY?

Housing policy is an important tool to address issues such as homelessness, poverty, and the needs of special populations including senior citizens and other vunerable groups. In addition, workforce housing is a fundamental—and often overlooked—component of housing policy that impacts the county's employers and workers and sustains economic growth. This report focuses on Orange County's ability to provide a wide variety of workforce housing options to meet the needs of a diverse workforce.



THE EFFECT OF CEQA AND OTHER REGULATORY MECHANISMS ON PROVISION OF WORKFORCE HOUSING

Although not the focus of this report, two issues that often impede adequate workforce housing must be mentioned briefly. One of the most serious of these is the constant threat of litigation arising from the California Environmental Quality Act (CEQA). CEQA provides a mechanism for groups that want to halt development for one reason or another to delay housing projects for many years.

In addition, CEQA places a financial burden on homebuilders, leading to higher costs and reduced affordability. As the state expanded CEQA to include private development, the production of Environmental Impact Assessments and Environmental Impact Reports made predevelopment more costly and time consuming for developers and homebuilders. Other burdensome costs include potential mitigation fees due to environmental impacts, which, along with other costs, are added to the final product.

"NIMBY-ism" also blocks many workforce housing projects. Neighborhood groups may fear the infringement of development on their communities such as increases in school population and traffic and decreases in property values. These groups may pressure policymakers to enact urban growth boundaries, create restrictions on housing unit approvals, or outright reject new housing projects. As a result, new housing development slows and costs and prices rise.

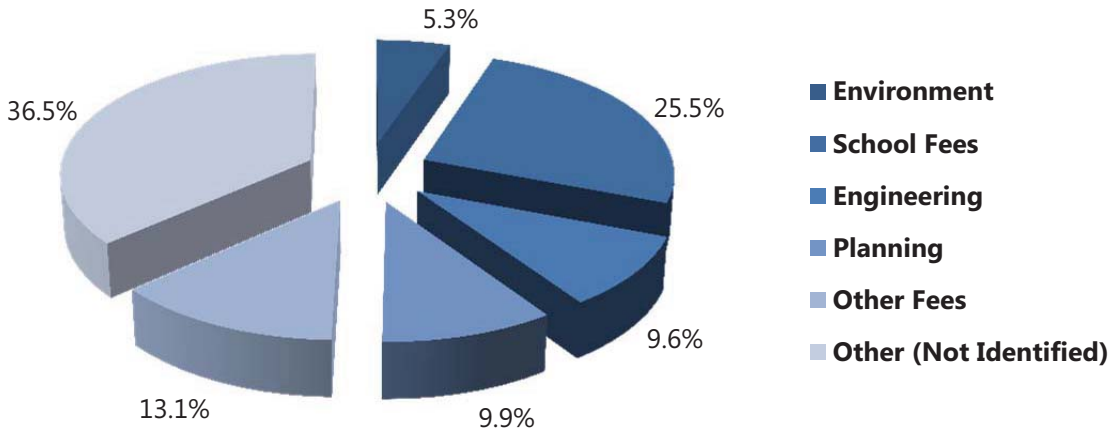
DEVELOPER FEES

Jurisdictions commonly use developer fees, or impact fees, to mitigate the added costs cities must incur as a result of increased demand on city utilities and services from development. Fees are calculated whereby the developer of a new project must pay for services such as transportation, schools, water, and sewer that must expand to accommodate development.

These fees, along with traditional building permit fees, increase housing prices because developers typically pass along these costs to buyers. Thus, developer fees can make the affordable workforce housing even more difficult to achieve.

Since the Great Recession, developer fee mechanisms in many Orange County jurisdictions have been altered to accommodate a struggling economy. Overall, permit fees have remained unchanged and in some cases have even decreased. At the same time, some cities have offered programs to defer permit fees until their housing units have been occupied. However, in cases where the demand for multifamily unit developments has been much higher since the recession, some cities have boosted their "cost of recovery" rates to make up for losses in revenue.

FIGURE 3.1 – HOUSING PERMIT FEE BREAKDOWN, ORANGE COUNTY SAMPLE



SOURCE: BUILDING INDUSTRY ASSOCIATION OF SOUTHERN CALIFORNIA, 2012 FEE SURVEY

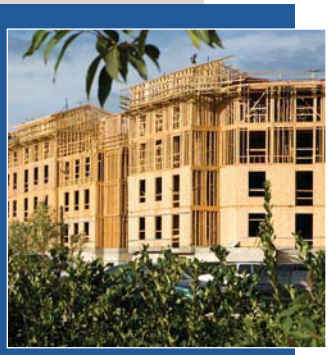
AFFORDABLE HOUSING PROGRAMS

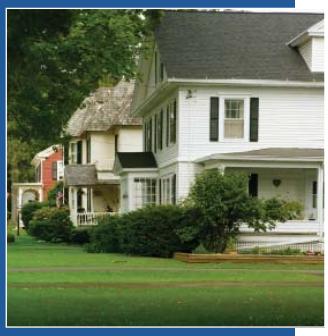
Orange County and its three largest municipalities—Santa Ana, Garden Grove, and Anaheim—have affordable housing programs to assist low-income families. Through the Section 8 program, local housing authorities can offer affordable housing assistance to families who are unable to pay the cost of a two-bedroom rental home. However, due to these programs' popularity, available assistance is very limited and local housing authorities cannot meet the demand.

As of 2005, the overall waitlist for Section 8 housing assistance in Orange County was over 50,000 applicants, and since then, the number has skyrocketed to 96,000, an increase of 92 percent. The waitlist for the Orange County Housing Authority is over 48,000, and those for Santa Ana and Garden Grove are over 5,000 and 17,000, respectively. In Anaheim, the waitlist has grown to roughly 26,000 applicants. While these increases seem large, they do not accurately reflect the number of citizens who may wish to receive housing assistance because national funding for Section 8 assistance has decreased during this period.

4. WORKFORCE HOUSING TRENDS - ORANGE COUNTY IN 2020 AND 2035

As a result of events during the past decade, workforce housing continues to play a key role in Orange County's business competitiveness, especially in terms of housing supply, availability, and affordability. Although the recession lowered home prices, it also increased unemployment, decreased wages and salaries, and halted most housing construction. But Orange County will begin to experience demand for new housing as job creation increases and the housing market emerges from a sharp slump. Construction of needed new housing units will likely lag job creation. A key question is whether new housing construction can keep pace with the needs of a growing workforce. This section examines how future housing plans among Orange County's cities will impact workforce housing through 2035.





DENSITY

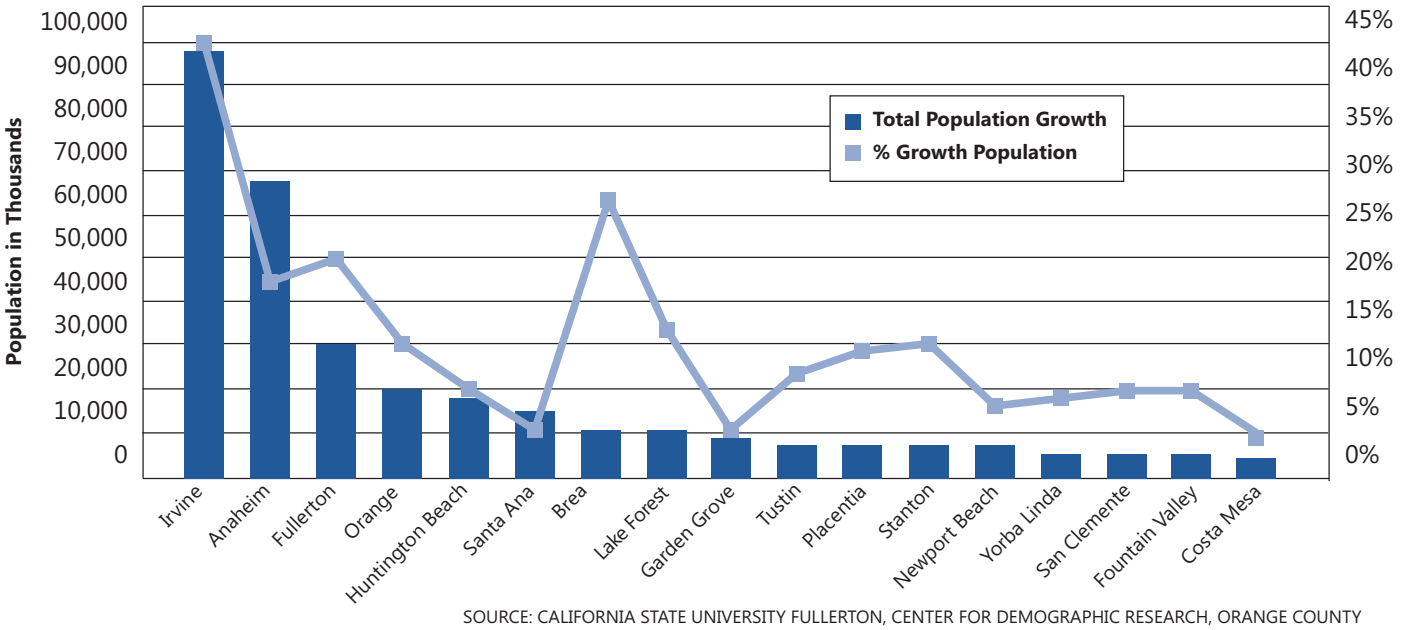
Orange County's existing housing stock includes a variety of densities, and only about half of the current housing inventory is single-family detached units. But by 2035, housing developments will be denser, and attached units will become the majority among the housing stock. Approximately three out of every four housing units projected to be built by 2035 will be some type of attached unit. The result will be denser housing developments and a future housing stock whose makeup will have a majority of attached units instead of a housing stock with a majority of single-family detached structures.

Housing unit growth and unit density is expected to increase throughout the county, but will be concentrated in the traditional urban cores. According to the Orange County Sustainable Communities Strategy (OCSCS), the county will have a net gain of 139,907 housing units between 2008 and 2035, based upon the jurisdictions' information. About a third of these (36.9 percent or 51,663 housing units) are planned on raw land. (For this purpose, raw land is defined as that not previously developed or that is a decommissioned military base and is not a protected, open space or habitat area.) The remaining two thirds, or 88,244 housing units (63.1 percent), will be infill or redevelopment projects. Of the total, 38,821 (27.7 percent) are projected to be single-family detached units and 101,086 (72.3 percent) attached units. Thus, three of every four units to be built between 2008–2035 are projected to be some sort of attached unit, such as a condominium, townhome, or apartment.

ORANGE COUNTY POPULATION GROWTH

Between 2010–2035, Orange County's population is expected to grow by 13 percent or approximately 400,000 new residents, for a total of 3,421,228. Figure 4.1 indicates the cities projected to exceed Orange County's median population growth.

FIGURE 4.1 - POPULATION GROWTH BY CITY, 2010-2035

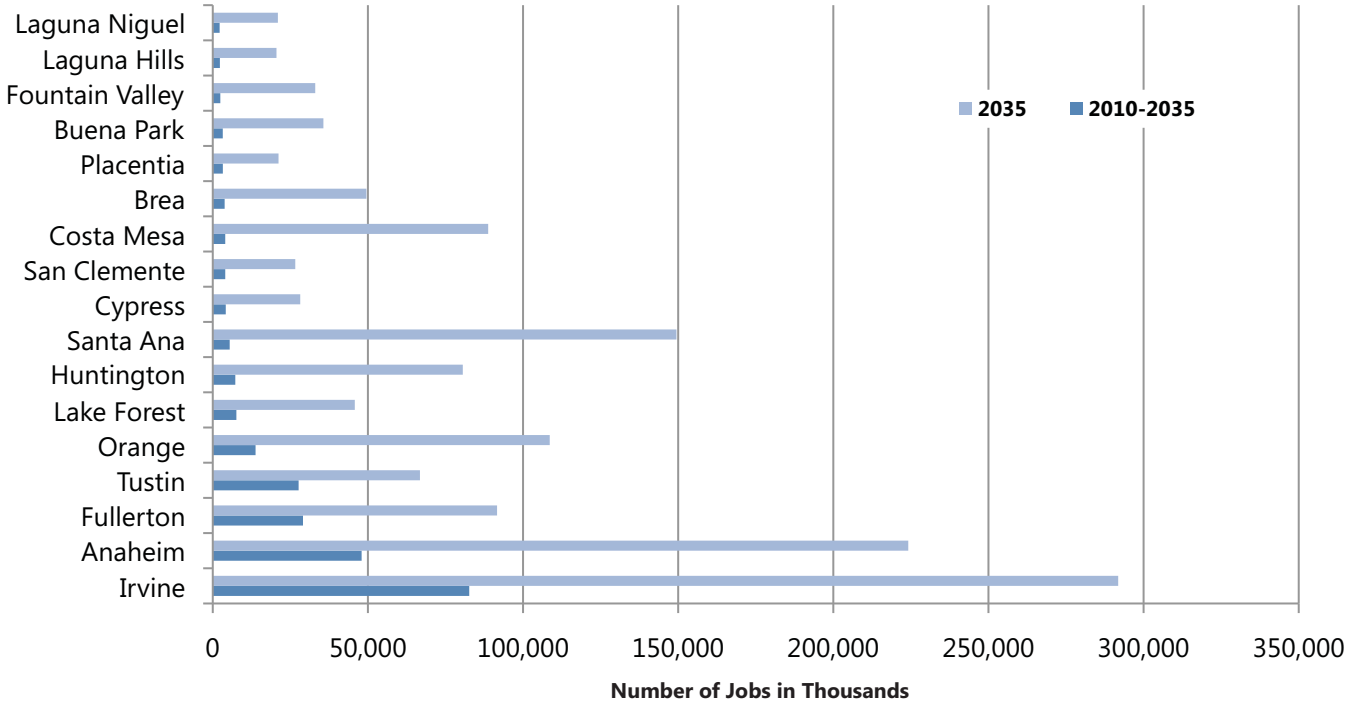


SOURCE: CALIFORNIA STATE UNIVERSITY FULLERTON, CENTER FOR DEMOGRAPHIC RESEARCH, ORANGE COUNTY

ORANGE COUNTY JOB GROWTH BY CITY

Between 2010–2035, Orange County is projected to add 288,549 jobs, a total job growth rate of just over 19 percent. Figure 4.2 shows the cities expected to exceed the county's median job growth.

FIGURE 4.2 – ORANGE COUNTY JOB GROWTH BY CITY, 2010—2035

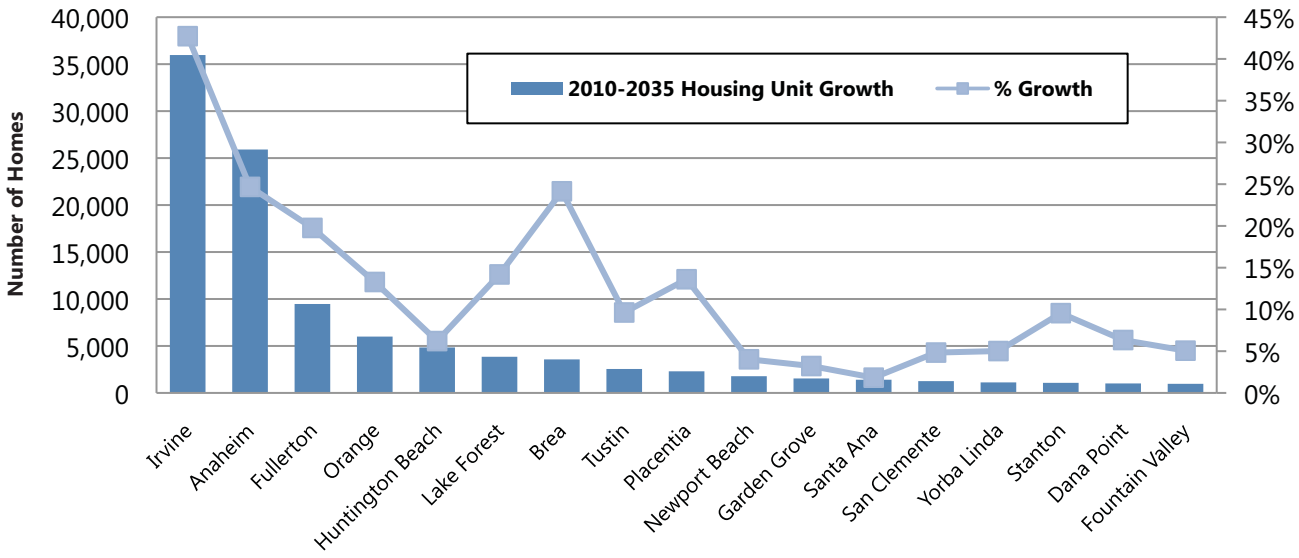


SOURCE: CALIFORNIA STATE UNIVERSITY FULLERTON CENTER FOR DEMOGRAPHIC RESEARCH, ORANGE COUNTY PROJECTIONS 2010

ORANGE COUNTY HOUSING PROJECTIONS BY CITY

As the county's population grows by 13 percent and employment by 19 percent, housing is projected to grow approximately 12 percent (130,599 units) between 2010 and 2035. Figure 4.3 shows the cities that will exceed the median city housing growth rate projections. Note that housing growth is projected to occur substantially in and adjacent to areas forecast to have increased employment growth.

FIGURE 4.3 – ORANGE COUNTY HOUSING PROJECTIONS BY CITY, 2010–2035



SOURCE: CALIFORNIA STATE UNIVERSITY FULLERTON CENTER FOR DEMOGRAPHIC RESEARCH, ORANGE COUNTY PROJECTIONS 2010

WHAT IS A GOOD JOBS/HOUSING RATIO?

Calculated at the city level or aggregated countywide, this ratio compares new jobs created with new housing units. Research at the state and national level supports the idea that the target job-to-housing ratio is 1.5. In other words, for each 1.5 new jobs created in a region, one new housing unit should be built to keep up with workforce demand. For California, this metric is based on academic and policy research, most notably by Dr. John Landis, former chair of the City and Regional Planning Department at the University of California, Berkeley, who argued that a ratio of 1.5 jobs per home constituted an acceptable balance for workforce housing. A higher ratio would indicate more jobs per home, or greater scarcity of housing for workers.

IS 1.5 A GOOD RATIO FOR ORANGE COUNTY?

In 2010, the Orange County job/housing ratio was 1.4, and is projected to increase to 1.5 by 2035. Based on these current and projected ratios, Orange County will continue to achieve an overall target job/housing ratio at the regional level. But is 1.5 a good standard for Orange County? Here are some issues to consider:

1. Job/housing imbalances within cities. Orange County's overall job/housing ratio masks large imbalances at the city level on both ends of the spectrum.

2. Demographic factors, including an aging population and Orange County's prestige that attracts high-wage workers from surrounding counties. These populations occupy housing units in Orange County and impede the housing infrastructure from serving the current and future workforce. Units that currently house one or two workers will house no workers as Baby Boomers retire "in place."

3. Vacancy rates as a result of housing in transition. The job/housing ratio moves higher after accounting for the 4 to 6 percent of all housing units that are vacant at any one time.

4. Housing affordability. If a constrained supply is not sufficient to meet growing workforce housing demand due to job creation, prices rise beyond affordability.

These factors lead to the conclusion that an effective job/housing ratio for Orange County might be somewhat less than 1.5 in the future.

ORANGE COUNTY JOBS-TO-HOUSING RATIO

According to California State University, Fullerton's Center for Demographic Research projections, the jobs-to-housing ratio in Orange County will rise to approximately 1.5 in 2035 from the current 1.4. (Although a 1.5 ratio indicates a jobs-to-housing balance, many underlying factors are not accounted for in this number and very well could create an increasing workforce housing imbalance; see textbox).

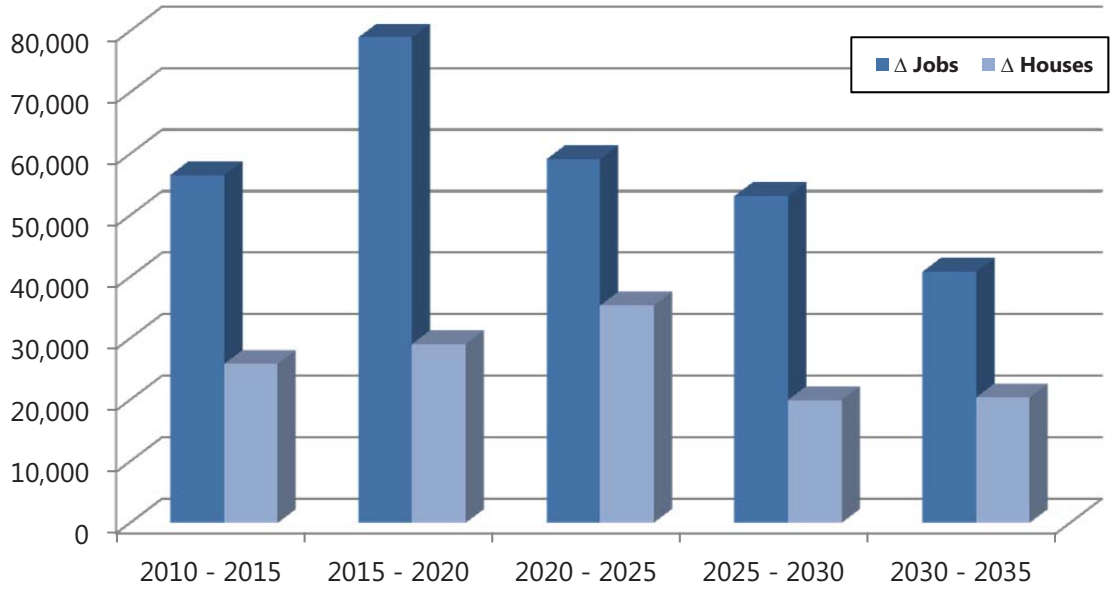
In no five-year period between 2010–2035 will more than one new housing unit be built for each 1.5 jobs created, and estimates foresee only one time period (2020–2025) in which more than one new housing unit will be built for every two new jobs created. Overall, through 2035, only one housing unit will be built for every 2.2 jobs in Orange County.

FIGURE 4.4 – PROJECTED NEW JOBS/NEW HOUSING UNIT RATIO, ORANGE COUNTY 2010—2035

Time Period	2010-2015	2015-2020	2020-2025	2020-2025	2030-2035
New Jobs Created/ New Housing Units Projected Ratio	2.19	2.71	1.67	2.66	2.00

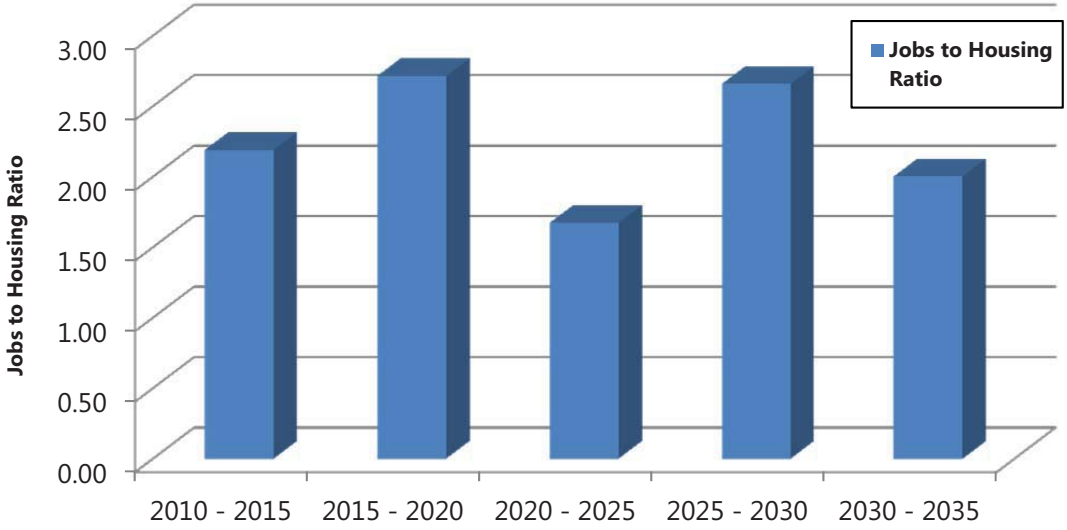
SOURCE: CALIFORNIA STATE UNIVERSITY FULLERTON CENTER FOR DEMOGRAPHIC RESEARCH, ORANGE COUNTY PROJECTIONS 2010; OCBC ANALYSIS

FIGURE 4.5 – FUTURE INCREASE IN JOBS AND HOUSING IN ORANGE COUNTY, 2010—2035



SOURCE: CALIFORNIA STATE UNIVERSITY FULLERTON CENTER FOR DEMOGRAPHIC RESEARCH

FIGURE 4.6 – FUTURE JOBS TO HOUSING RATIO IN ORANGE COUNTY, 2010–2035



SOURCE: CALIFORNIA STATE UNIVERSITY FULLERTON CENTER FOR DEMOGRAPHIC RESEARCH

Based on the ideal density of 1.5 workers per unit, as many as 92,650 new workers will be forced to live in overcrowded conditions or move to surrounding regions, and Orange County will continue to face decreased housing affordability, longer commutes, increased traffic, decreased air quality, and reduced business competitiveness.

5. LONG-TERM CONSEQUENCES OF AN INSUFFICIENT WORKFORCE HOUSING SUPPLY

The projections indicate a workforce housing supply in Orange County that continues to be insufficient and unaffordable. This section examines the potential demographic, social, and economic consequences.

THE LOSS OF YOUNGER RESIDENTS

Despite the Great Recession's lowering of housing prices, many young residents still cannot afford housing in Orange County. As a result, young adults continue to move out of Orange County, a trend that can be expected to worsen as the jobs-to-housing balance deteriorates.

In 2011, the county's three largest universities (University of California, Irvine, California State University, Fullerton, and Chapman University) graduated approximately 20,000 highly skilled potential workers. The continued strength of Orange County's workforce depends on retaining these young adults. Yet, between 2000 and 2010, 52,796 residents between the ages of 20 and 34 left Orange County, despite increasing university enrollment rates. Perhaps not surprisingly, the neighboring region encompassing the Inland Empire and San Diego County experienced a 21 percent growth in population (282,155 residents) among this age group in 2000–2010.

Lack of affordability is not the only factor that drives younger residents out. Demand is growing among younger populations for high-density mixed-use developments, in contrast with Orange County's traditional large suburban development that has attracted higher-income middle-aged and older populations. Generation Y has shown a preference for price/affordability, walkability, and proximity to work in their housing choices (RCLCO Consumer Research).

Continued loss of this vital younger population will weaken Orange County's future workforce and negatively impact the economy. Cities will suffer losses in sales tax revenue and local public school enrollment will continue to decline as young families migrate out of Orange County. In the 2011–2012 school year, enrollment in Orange County schools reached its lowest level since 2000–2001, meaning school districts face declines in critical apportionment funding.

EMPLOYERS

Orange County's high cost of housing also creates problems for employers seeking to attract new talent and companies and entrepreneurs seeking to relocate to the county's vibrant business environment. According to projections, Orange County will add 288,549 jobs to the economy by 2035, yet housing trends create uncertainty about the county's ability to fill these jobs with young, educated workers.

As the Baby Boomer generation begins to retire, the lack of a young, emerging workforce to fill these vacancies will make it difficult for current employers. Considering only job creation and new employment growth masks underlying occupational trends that point to workforce shortages unless addressed. Projections of job growth provide valuable insight into future employment opportunities because each new job created is an opening for a worker entering an occupation. However, employment opportunities also arise when workers leave their occupations and need to be replaced, such as workers retiring from or permanently leaving an occupation. In most occupations, replacement needs provide many more job openings than does employment growth. For example, the state projects Orange County employment growth to be about 15,000 new jobs per year from 2008–2018, but these new job numbers are dwarfed by "replacement jobs" of more than 37,000 per year during the same time period, or 2.5 times new job growth. Through 2018, some key occupational categories are especially skewed towards worker retirement, including management occupations (approximately 80 percent replacement jobs) and manufacturing occupations (approximately 90 percent replacement jobs).

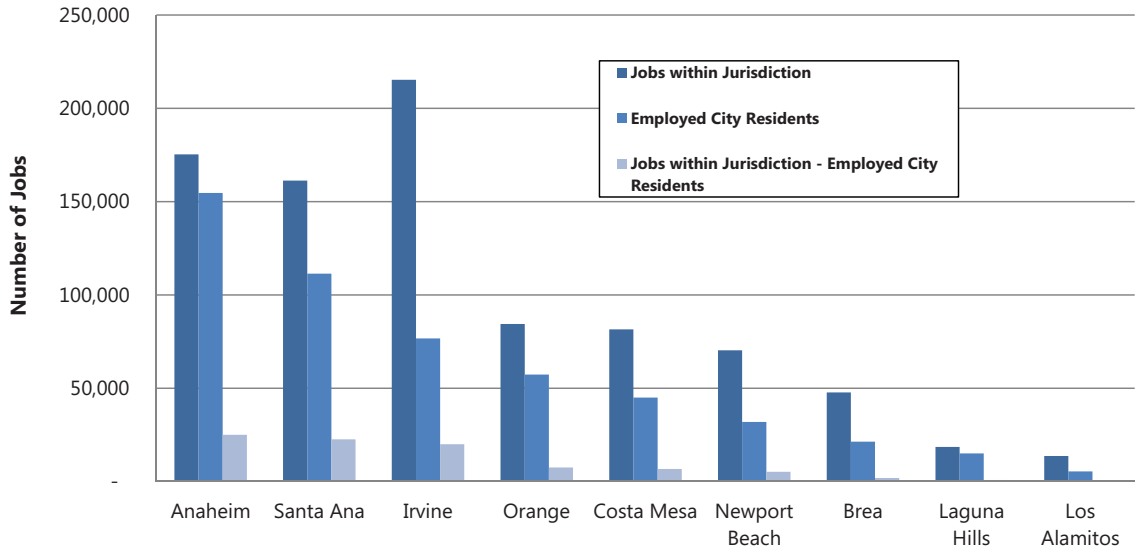
Approximately one million Orange County workers can be expected to retire between 2010–2035, based on the number of current residents between ages 40 and 64, and that replacement demand will compound job growth from new and expanding businesses. Should current demographic and job replacement trends continue, Orange County employers will find it difficult, if not impossible, to fill these jobs without sufficient, affordable workforce housing. Key employers may be forced to explore other options, such as downsizing their Orange County operations and expanding elsewhere.

In addition, the high cost of housing means Orange County employers must offer higher wages to attract and retain employees. This increased cost of living impacts companies' strategic plans, cost-benefit site selection analysis, and long-term location decisions—most significantly among employers offering middle- to low-wage jobs—and plays a significant role as employers struggle to recover from the Great Recession and consider remaining or expanding in Orange County.

TRANSPORTATION AND COMMUTERS

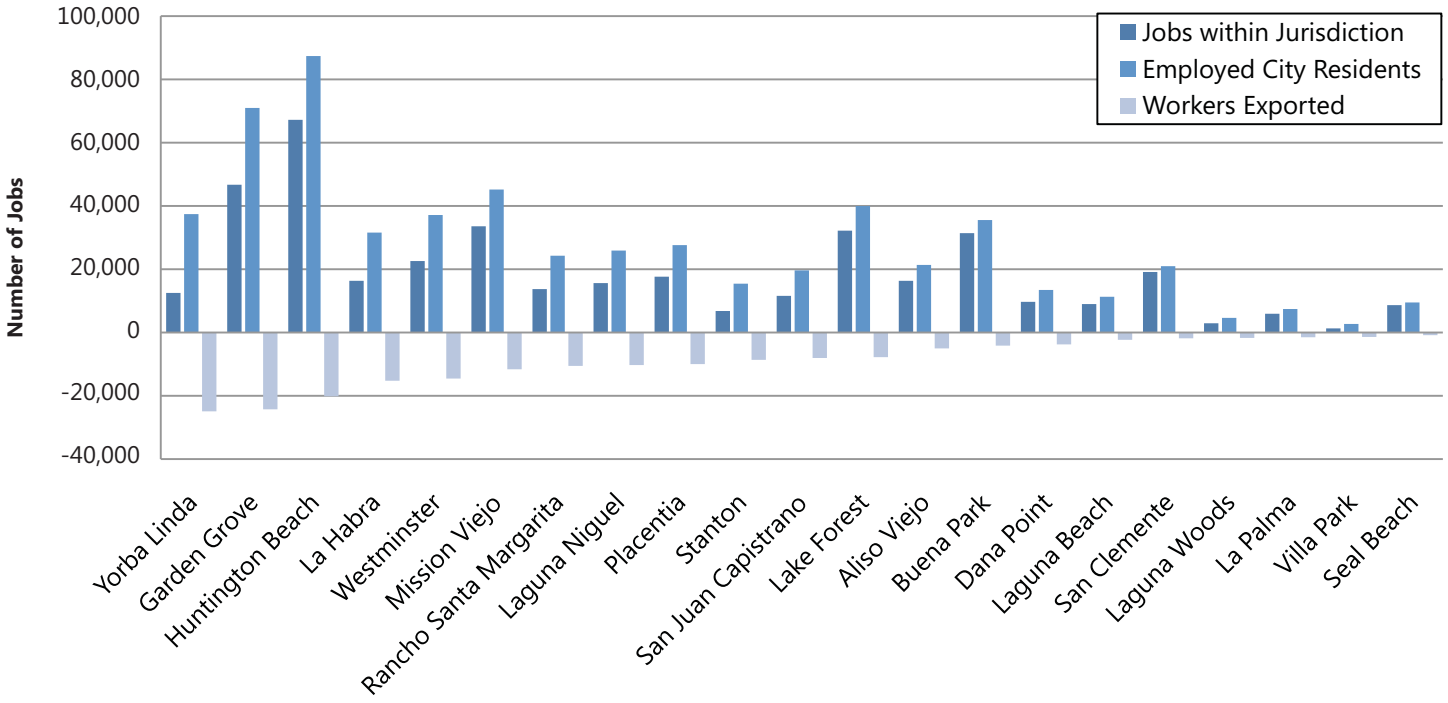
A jobs/housing imbalance increases distances between where individuals live and work—a reality leading to greater dependence on motor vehicles, long commutes, and increased strain on an already burdened transportation infrastructure in terms of capacity and wear-and-tear on freeways and highways. Commute times to and from the county can be expected to worsen if the workforce housing situation is not adequately addressed. Two primary indicators of jobs/housing imbalance are Vehicle Miles Traveled (VMT) and commute times. Although Orange County made significant investments in its transportation infrastructure through Measure M, VMTs and commute times have remained relatively constant. These indicators can be expected to increase with a continued lack of affordable housing in Orange County that forces workers to live in surrounding regions. In 2010, only 58 percent of those who worked in Orange County lived in Orange County; among the remainder, 20.5 percent lived in Los Angeles County, 11.8 percent in the Inland Empire,5.2 percent in San Diego County, and 27.8 percent commuted 25 miles or more. Figure 5.1 shows that Orange County's nine largest employment centers attracted almost 350,000 employees from surrounding Orange County cities and other counties.

FIGURE 5.1 – ORANGE COUNTY EMPLOYMENT MAGNETS, 2010



Although some workers commute from surrounding regions, many come from other Orange County cities that have a surplus of workers. Twenty Orange County cities in 2010 accounted for a surplus of 188,533 workers.

FIGURE 5.2 – ORANGE COUNTY WORKER EXPORTERS, 2010



As commute times increase, housing affordability in Orange County decreases because affordability of housing choices includes housing prices and transportation costs. The Affordability Index—developed by the Center for Neighborhood Technology and the Center for Transit Oriented Development—calculates the additional cost that transportation places on housing to create an index that reflects true housing costs. For example, currently, 62.8 percent of Orange County residents' income is spent on housing and transportation costs (39.2 percent for housing and 23.6 percent for transportation). If trends continue and commute times increase, transportation costs will increase as a percent of worker incomes, leaving less disposable household income for retail purchases, education, and other needs.

RENTERS

The number of renters will likely remain high in Orange County because of the large percentage of households that cannot afford the median-priced home, the constrained housing market, and tight lending as a result of the housing crash. The percentage of renter-occupied housing units has increased steadily since the downturn, reaching 41.4 percent in 2011. This increased demand has raised rents and the relative income required to afford a rental. Over the past year, Orange County rents increased by 5.1 percent. In June 2012, the average rent for a two-bedroom unit reached $1,653, more than twice the $416 that a minimum-wage worker could afford to pay. A report by the National Low Income Housing Coalition stated that the average hourly wage needed to afford a two-bedroom rental in Orange County was $31.77 in 2012, making it the fifth most expensive region in the nation.

According to apartment research firm RealFacts, local rents dropped for five quarters during the recession and then accelerated higher in 10 of the past 11 quarters. In September 2012, Orange County apartment rents reached an all-time high with the average large-complex tenant paying $1,628 a month. (Dataquick estimated the average rent at $1,610 for the same time period.) Based on RealFacts' survey, current Orange County rents are $24 more than last spring's average and $73 a month more year over year. (The survey included nearly 131,000 apartments in more than 500 complexes of 90 or more units, representing a third of all rentals in the county.)

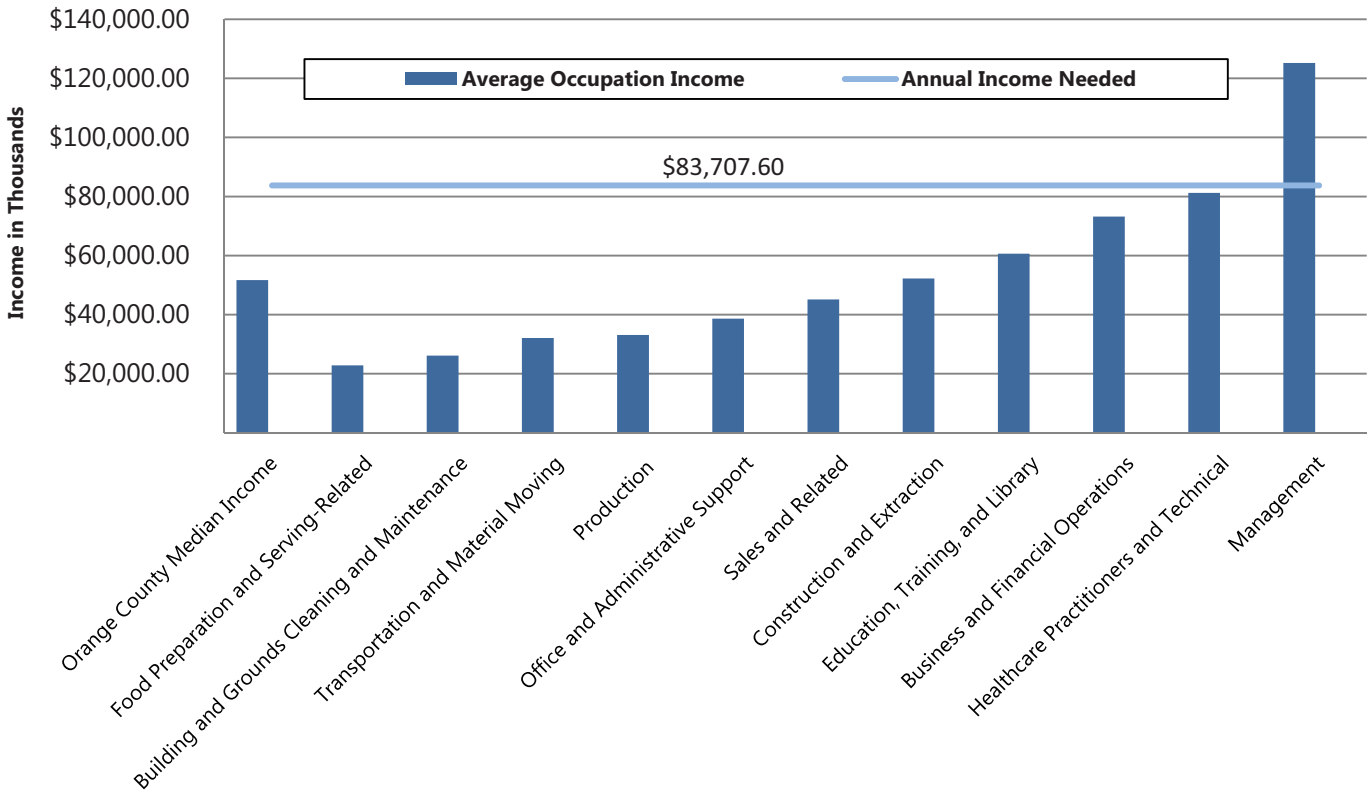
RealFacts reported that 94.6 percent of large-complex apartments were occupied during the summer, a rate generally considered to be close to full occupancy. Meanwhile, apartment construction only recently picked up, and most new construction is for higher-end rental units.

Orange County has the fifth highest average rent among the top 26 metro areas in California, trailing only Silicon Valley, San Francisco, Los Angeles, and Santa Cruz. By comparison, Orange County's average home mortgage payment was $1,987 a month in September, according to Dataquick. The online real estate site Trulia estimated last spring that Orange County home prices were 13.5 times greater than the annual cost of renting, indicating that buying is a better choice than renting for those who plan to live in the home at least five years.

ORANGE COUNTY'S BUSINESS COMPETITIVENESS

Orange County's long-term trend of rising housing prices demonstrates the county's economic success and high quality of life, but increasingly makes it difficult to attract a quality workforce. The constrained Orange County housing market impacts potential individual homebuyers, young residents, employers, commuters, and current homeowners. Indeed, housing costs shape the county overall. For example, the particularly high cost of housing in South County has created a socioeconomic divide between the north and south. Many lower-wage service workers cannot afford to live near their workplaces and must commute from lower-cost neighborhoods in North County or surrounding regions, straining an already challenged transit and bus system. As shown in Figure 5.3, homeownership in Orange County is out of reach for many middle- and low-wage occupation workers. Even among those who can afford housing, many may choose more affordable property outside of Orange County.

FIGURE 5.3 – INCOME NEEDED TO AFFORD MEDIAN PRICED HOME ($450,000) COMPARE TO TYPICAL SALARIES 2012



High home prices may end up pushing out young and talented workers who cannot afford housing. This will accelerate the aging of the county and impact the quality of its workforce, which may cause problems as waves of Orange County workers approach retirement age and continue to occupy the limited housing infrastructure. Should the current trend of slow housing growth and an aging population continue, the market will become increasingly constrained leading to increased affordability challenges throughout the county.

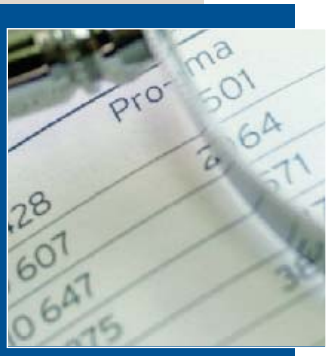
CONCLUSION

In many ways, sufficient, affordable workforce housing is crucial to Orange County's long-term prosperity and economic competitiveness. The salient question is no longer *when* will the economy and housing market rebound from the 2008 collapse, but rather, *can* Orange County sufficiently, appropriately, and proactively address the long-standing, long-term issue of workforce housing to support and sustain job growth, or will this issue continue to impede business competitiveness and economic resurgence?

Excitement around the noticeable upturn in new construction trends must be tempered by the fact that needed new construction will not come on line for at least two years. By that time, projected job creation once again will pressure the demand for workforce housing. Even in the near term, record-low mortgage rates may increase housing demand. If Orange County cities remain reluctant to address their supplies of workforce housing, this critical imbalance will continue to negatively impact Orange County's future.

6. ORANGE COUNTY BUSINESS COUNCIL WORKFORCE HOUSING SCORECARD

Looking at 1991-2010, many different types of cities rank as leaders in the provision of workforce housing. No one common quality or attribute is apparent: Central, North, and South Orange County cities are represented in the top 10, as are coastal and inland cities and those of various sizes.



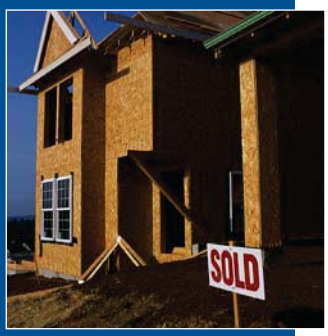


FIGURE 6.1 – ORANGE COUNTY BUSINESS COUNCIL WORKFORCE HOUSING SCORECARD, 1991–2010

Rank	City	Cumulative	Total Job Growth	Housing as a Percent of Total OC Housing	Jobs-to-Housing Ratio	Change in Housing Density
1	Aliso Viejo	19	13	2	3	1
2	Irvine	27	1	1	14	11
3	Tustin	33	18	7	6	2
4	Huntington Beach	36	10	6	13	7
5	Mission Viejo	42	11	10	15	6
6	San Clemente	46	15	11	10	10
7	Orange	49	4	8	21	16
8	Anaheim	50	2	3	20	25
9	Placentia	51	12	18	18	3
10	Westminster	52	20	16	11	5
11	Laguna Niguel	53	25	14	5	9
12	Rancho Santa Margarita	56	16	4	4	32
13	Santa Ana	58	5	12	23	18
14	Newport Beach	61	7	5	16	33
15	Stanton	62	32	24	2	4
16	Fullerton	63	3	13	30	17
17	Laguna Hills	65	34	22	1	8
18	Lake Forest	66	9	9	17	31
19	San Juan Capistrano	68	26	20	7	15
20	Yorba Linda	68	22	15	9	22
21	Garden Grove	72	8	17	27	20
22	Costa Mesa	73	6	19	29	19
23	La Habra	73	28	23	8	14
24	Cypress	83	17	25	28	13
25	Brea	84	14	21	22	27
26	Dana Point	86	21	28	25	12
27	Buena Park	92	24	26	19	23
28	Fountain Valley	94	19	27	24	24
29	La Palma	97	33	31	12	21
30	Seal Beach	112	30	30	26	26
31	Laguna Beach	113	23	29	31	30
32	Los Alamitos	122	29	32	32	29
33	Villa Park	125	31	33	33	28
34	Laguna Woods	129	27	34	34	34

See page 40 for details

WHAT THE NUMBERS MEAN: A CLOSER LOOK AT THE 1991—2010 RANKINGS - WESTMINSTER

Westminster's Rank of 10th consists of 4 separate ranking factors that are summed up to derive an overall cumulative Scorecard ranking:

Rank	City	Cumulative	Total Job Growth	Housing as a Percent of Total OC Housing	Jobs-to-Housing Ratio	Change in Housing Density
10	Westminster	52	20	16	11	5

Ranked 20th out of 34 Orange County cities in terms of Total Job Growth from 1991-2010.

Ranked 16th out of 34 Orange County cities in terms of Housing as a Percent of Total Orange County Housing.

Ranked 11th out of 34 Orange County cities in terms of Jobs/Housing Ratio.

Ranked 5th out of 34 Orange County cities in Change in Housing Density.

Summing up these four rankings leads to a total cumulative score of 52, which places Westminster at 10th out of 34 Orange County cities on the 1991-2010 Workforce Housing Scorecard rankings. (A fuller description of the Scorecard Methodology is located on Pages 45-46.)

ASSESSING THE STATE OF HOUSING IN YOUR CITY

Any understanding of the present and future must begin with an examination of the past. The historical actions of an individual city regarding land use and housing development are important elements in understanding the way things are today, but population change over time may be the most important element. After all, housing only exists because people do—no people, no housing. More importantly, less people means less housing and more people, more housing. Understanding a city and the regional historical population trends enlightens the present and helps forecast the future.

Employment trends are highly correlated with population trends, especially within the region. Depending on the relative mobility of commuters, the growth and reduction of jobs centers will impact housing patterns. However, given Orange County's receptivity to wide-ranging commutes, housing in your city may show no patterned response to regional employment trends. As long as employment merely shifts around the region rather than leaves the area, population and housing may not be affected. If employees commute into a city, both declining and growing employment centers may not impact housing in that city. The impact really depends on the commuting culture, especially on the threshold for physical distance; that is, how much time are employees willingly to spend on the road to and from their workplaces before they decide to change residences? Commuting culture is elastic and will change with time given interaction with other trends like population and employment.

Another essential element is median home price. As the Workforce Housing Scorecard demonstrates, the median home price in Orange County changes the housing landscape by pricing out of the market workforce talent who previously lived in the county.

LOOKING FORWARD: ORANGE COUNTY BUSINESS COUNCIL WORKFORCE HOUSING SCORECARD, 2010–2020

The 2010–2020 scorecard rankings reflect a significant change in the type of future housing that will be developed in Orange County. As available undeveloped land diminishes, housing will be developed increasingly in more urbanized areas of Orange County where jobs, commercial activity, and recreational opportunities already exist, such as Anaheim, Brea, Fullerton, Irvine, Tustin, and Huntington Beach. Furthermore, since older and more urbanized jurisdictions have fewer undeveloped parcels for infill development, higher density housing will likely become more common.

Prior to 2010, much of the development in Orange County was constructed on previously undeveloped land. As the amount of undeveloped land in Orange County diminishes, development will take advantage of infill opportunities. As these decrease, higher density developments will be encouraged for infill housing projects. Redevelopment projects, which recently took a hit when the state government disbanded local redevelopment agencies, will be primarily focused in older, more urbanized areas of Orange County. However, in many cities projected job growth still outpaces housing growth, indicated by the negative correlation between job growth performance and jobs-to-housing ratios.

Compared with 1991–2010 rankings (as shown on page 39), several cities rose considerably in this scorecard, notably Brea, Lake Forest, Fullerton, and Dana Point.

FIGURE 6.2 – ORANGE COUNTY BUSINESS COUNCIL WORKFORCE HOUSING SCORECARD, 2010–2020

Rank	City	Cumulative	Total Job Growth	Housing as a Percent of Total OC Housing	Jobs-to-Housing Ratio	Change in Housing Density
1	Irvine	12	1	1	9	1
2	Brea	19	9	4	4	2
3	Anaheim	20	2	2	12	4
4	Lake Forest	20	12	3	2	3
5	Tustin	39	3	6	25	5
6	Fullerton	41	26	5	1	9
7	Huntington Beach	41	5	7	17	12
8	San Clemente	46	6	9	15	16
9	Dana Point	48	22	13	6	7
10	Aliso Viejo	50	20	12	10	8
11	San Juan Capistrano	50	16	10	13	11
12	Garden Grove	53	17	11	8	17
13	Yorba Linda	54	29	8	3	14
14	Placentia	57	10	16	21	10
15	Stanton	63	31	19	7	6
16	Fountain Valley	66	13	17	18	18
17	Santa Ana	67	15	15	14	23
18	Cypress	68	8	20	27	13
19	Newport Beach	68	28	14	5	21
20	Buena Park	70	11	18	22	19
21	Laguna Woods	83	24	25	19	15
22	Laguna Hills	84	14	22	28	20
23	Orange	84	4	21	32	27
24	Laguna Niguel	87	19	23	20	25
25	La Habra	88	18	24	24	22
26	Costa Mesa	93	7	27	30	29
27	Mission Viejo	100	30	26	16	28
28	Westminster	101	21	28	26	26
29	Villa Park	107	34	32	11	30
30	Los Alamitos	108	32	29	23	24
31	Laguna Beach	117	23	31	31	32
32	Rancho Santa Margarita	117	25	30	29	33
33	Seal Beach	129	27	34	34	34
34	La Palma	130	33	33	33	31

ORANGE COUNTY BUSINESS COUNCIL WORKFORCE HOUSING SCORECARD, 2020–2035

By 2020–2035, the county's already limited number of undeveloped properties will have been developed or will be in the entitlement process. Consequently, the Scorecard rankings for the second period, from 2020–2035, reflect the fact that, for the most part, the already limited number of undeveloped properties will have been developed or are in the entitlement process. As a result older urbanized areas near jobs, commercial activities, and recreational opportunities will become the focus of cities' redevelopment, as these areas already have the amenities to support increased population. Increased housing densities will result. The close relationship between job and housing growth in Anaheim, Irvine, and Fullerton indicates an increasing trend toward mixed-use developments. Even with high housing and job growth going hand in hand, job growth continues to outpace housing growth, as indicated by the progressively negative correlation between city job growth scores and city jobs-to-housing ratio score.

Over time, there is less diversity in the characteristics of cities near the top of the rankings, and South County cities are notably absent. As South County is built out, homeowners associations and accompanying land-use CCRs (covenants, conditions, and restrictions), which predominate in that area, may tend to prevent the local land use flexibility and policies necessary to address the workforce housing challenges that Orange County faces over the long-term.

FIGURE 6.3 – ORANGE COUNTY BUSINESS COUNCIL WORKFORCE HOUSING SCORECARD, 2020–2035

Rank	City	Cumulative	Total Job Growth	Housing as a Percent of Total OC Housing	Jobs-to-Housing Ratio	Change in Housing Density
1	Anaheim	24	2	1	20	1
2	Orange	27	6	4	12	5
3	Huntington Beach	29	14	5	3	7
4	Irvine	30	1	2	23	4
5	Fullerton	32	3	3	24	2
6	Newport Beach	41	11	7	10	13
7	Placentia	43	33	6	1	3
8	Stanton	43	20	11	6	6
9	Brea	44	13	10	11	10
10	Tustin	50	4	8	30	8
11	Cypress	51	10	15	17	9
12	Fountain Valley	53	23	14	5	11
13	Costa Mesa	55	15	13	13	14
14	Garden Grove	56	27	12	2	15
15	Santa Ana	59	7	9	26	17
16	Mission Viejo	61	9	16	18	18
17	Dana Point	62	19	17	14	12
18	Buena Park	64	21	18	9	16
19	San Clemente	72	18	19	16	19
20	Westminster	77	29	20	7	21
21	Laguna Woods	84	12	24	28	20
22	Yorba Linda	86	31	21	8	26
23	Villa Park	88	34	28	4	22
24	Laguna Hills	91	24	22	21	24
25	Laguna Niguel	91	8	23	31	29
26	Los Alamitos	95	32	25	15	23
27	Lake Forest	100	5	31	32	32
28	La Habra	101	26	26	22	27
29	Laguna Beach	104	30	27	19	28
30	La Palma	106	22	32	27	25
31	Seal Beach	107	17	30	29	31
32	San Juan Capistrano	109	25	29	25	30
33	Rancho Santa Margarita	118	16	34	34	34
34	Aliso Viejo	127	28	33	33	33

THE ORANGE COUNTY BUSINESS COUNCIL WORKFORCE HOUSING SCORECARD, CUMULATIVE, 2010—2035

For the entire period, 2010–2035, job and housing growth will likely be primarily among the Central and North County cities—some larger, some smaller—and the smaller communities particularly in South County will grow fewer jobs or workforce housing units.

Midway through the period, housing growth will stagnate in many South County cities as they reach "build-out" due to trends toward higher density not being widely accepted. Homeowners associations and their related CCRs, the predominant development form after the 1970s that most of South Orange County was developed under, further constrains South County's future workforce housing picture. Larger northern and central cities will continue to score high in job growth, housing, and housing density. Particularly cities like Anaheim and Fullerton have more urban redevelopment opportunities and are projected to experience significant job and housing growth in the later period. In the second period, many Orange County cities will struggle to create enough new housing units to keep up with workforce demand created by new job growth. Rapid job growth can be expected to continue to outpace housing, even in the highest housing growth cities, further contributing to the county's jobs/housing imbalance.

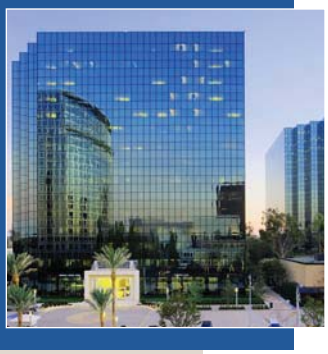
With limited development opportunities and choices, the top cumulative scoring cities are those that have embraced the higher density mixed-use developments. If the majority of Orange County cities continue to reject this option, not only will their growth be stunted, but they also will contribute to the countywide imbalance in workforce housing.

In general, the larger, more urbanized cities have made greater strides to balance housing and job growth, resulting in a higher ranking. Smaller communities with a higher concentration of single-family residential housing and little job growth ranked lower. Among coastal cities, Huntington Beach and Newport Beach received relatively high rankings throughout both timeframes. Larger inland cities such as Anaheim, Brea, Fullerton, Tustin, and Garden Grove will see greater housing supply growth and should be highlighted as the cities showing the greatest improvement in balancing the dual pressures of growing jobs and growing housing supply. Irvine continues to be the city with the highest cumulative ranking when taking into account both time periods. Given the shifting trends in terms of job growth and housing development over time, Irvine's and Anaheim's long-standing commitment to balance job creation with appropriate growth in new housing units is commendable.

FIGURE 6.4 – ORANGE COUNTY BUSINESS COUNCIL WORKFORCE HOUSING SCORECARD, CUMULATIVE, 2010–2035

Rank	City	Cumulative	2010-2020				2020-2035			
			Total Job Growth	Housing as a Percent of Total OC Housing	Jobs-to-Housing Ratio	Change in Housing Density	Total Job Growth	Housing as a Percent of Total OC Housing	Jobs-to-Housing Ratio	Change in Housing Density
1	Irvine	42	1	1	9	1	1	2	23	4
2	Anaheim	44	2	2	12	4	2	1	20	1
3	Brea	63	9	4	4	2	13	10	11	10
4	Huntington Beach	70	5	7	17	12	14	5	3	7
5	Fullerton	73	26	5	1	9	3	3	24	2
6	Tustin	89	3	6	25	5	4	8	30	8
7	Placentia	100	10	16	21	10	33	6	1	3
8	Stanton	106	31	19	7	6	20	11	6	6
9	Garden Grove	109	17	11	8	17	27	12	2	15
10	Newport Beach	109	28	14	5	21	11	7	10	13
11	Dana Point	110	22	13	6	7	19	17	14	12
12	Orange	111	4	21	32	27	6	4	12	5
13	San Clemente	118	6	9	15	16	18	19	16	19
14	Cypress	119	8	20	27	13	10	15	17	9
15	Fountain Valley	119	13	17	18	18	23	14	5	11
16	Lake Forest	120	12	3	2	3	5	31	32	32
17	Santa Ana	126	15	15	14	23	7	9	26	17
18	Buena Park	134	11	18	22	19	21	18	9	16
19	Yorba Linda	140	29	8	3	14	31	21	8	26
20	Costa Mesa	148	7	27	30	29	15	13	13	14
21	San Juan Capistrano	159	16	10	13	11	25	29	25	30
22	Mission Viejo	161	30	26	16	28	9	16	18	18
23	Laguna Woods	167	24	25	19	15	12	24	28	20
24	Laguna Hills	175	14	22	28	20	24	22	21	24
25	Aliso Viejo	177	20	12	10	8	28	33	33	33
26	Laguna Niguel	178	19	23	20	25	8	23	31	29
27	Westminster	178	21	28	26	26	29	20	7	21
28	La Habra	189	18	24	24	22	26	26	22	27
29	Villa Park	195	34	32	11	30	34	28	4	22
30	Los Alamitos	203	32	29	23	24	32	25	15	23
31	Laguna Beach	221	23	31	31	32	30	27	19	28
32	Rancho Santa Margarita	235	25	30	29	33	16	34	34	34
33	La Palma	236	33	33	33	31	22	32	27	25
34	Seal Beach	236	27	34	34	34	17	30	29	31

WORKFORCE HOUSING SCORECARD: METHODOLOGY



The Workforce Housing Scorecard assesses each Orange County city's contribution to the region's workforce housing, and ultimately, the health and competitiveness of the local and regional economy. The foundation of OCBC's report is based on past, present, and future housing growth, juxtaposed with job creation and population growth during the same time periods.

The key metric used to measure these trends is the jobs-to-housing ratio. An important qualifier added to this ratio is that no city can earn a favorable ranking by losing jobs.

This report relied on historical data on housing and employment from individual cities and the California Employment Development Department, California Department of Finance, the National Establishment Time Series, and the Center for Demographic Research at California State University, Fullerton. Projections for 2010–2035 were provided by California State University, Fullerton Center for Demographic Research, Orange County Projections 2010.

After establishing the jobs-to-housing foundation, demographics and data on real estate market trends provided proper context. Although essential, the jobs-to-housing ratio does not adequately explain other important factors such as density, land use, and the regulatory environment. To assess the county's recent and projected trends in density, the report incorporated the aforementioned housing unit numbers with city square mileage information taken from the 1990, 2000, and 2010 U.S. Census.

Changes in density are important because they reflect a city's ability to accommodate more workers through increased multifamily housing development. This criterion helps qualify the type of housing built in a period; that is, if two cities build 100 homes each, the city that creates the greater proportion of multifamily housing compared with single-family housing should come out ahead in this category.

Each city's overall contribution was tracked against the county's overall workforce housing need, which accounts for the greater impact larger cities have on the county as a whole. A small residential community may boast a superior jobs-to-housing ratio and increased density, yet still make a minor contribution to the overall economy. In contrast, the cities of Irvine and Anaheim are projected to create a substantial share of the county's housing between 2010 and 2035.

The same line of reasoning inspired the inclusion of a criterion for a city's contribution to regional job creation, as the core indicator of jobs-to-housing ratio is just as much affected by job creation as growth in new housing units. Orange County's future prosperity and success hinges on the region's ability to create a healthy, prosperous economy that promotes both jobs and housing, not one at the expense of the other.

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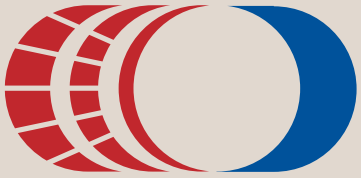

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BUSINESS COUNCIL

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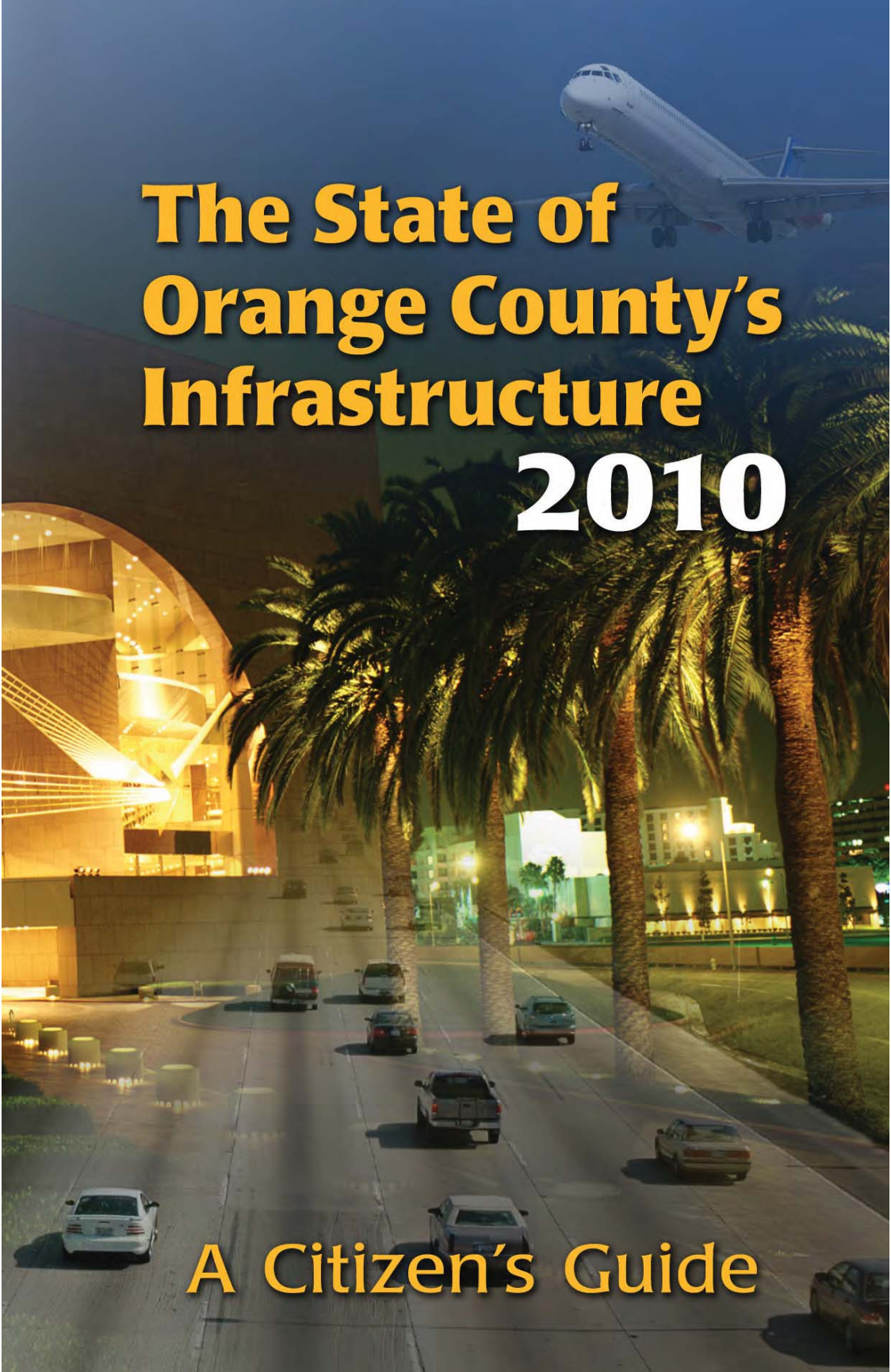
Appendix H: 2010 State of Orange County's Infrastructure Report Card



The State of Orange County's Infrastructure 2010

A Citizen's Guide

A Message from ASCE

"Continued investment in Orange County's infrastructure is the key in sustaining its economic engine and maintaining our quality of life."

Blake Anderson, PE
Co-Chair, Report Card Executive Committee
President
Blake Anderson Consulting

Jan Scherfig, Ph.D., P.E.
Co-Chair, Report Card Executive Committee
Professor Emeritus
Civil & Environmental Engineering
University of California, Irvine

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Message from UCI Civil and Environmental Engineering Affiliates

Dear Friends and Colleagues:

Orange County's infrastructure is one of the most important components contributing to our healthy communities and quality of life. Our infrastructure is aging, and as the backbone of our local civilization, it continuously must bear the burden of our population's use and increasing needs. Orange County, like our nation, is racing against time to keep up with the need for infrastructure. Concurrently it is competing for the financial resources to sustain the world, our nation and our state.

Eight years ago, through the efforts of the UC Irvine CEE Affiliates and ASCE, Orange County became the first county in California to release a comprehensive Infrastructure Report Card. The report card received local and national media coverage and helped focus needed attention on the condition of our infrastructure. One of the main reasons for this level of attention was that the overall Grade Point Average for Orange County's infrastructure was a "C". This was not consistent with the overall image and high quality of life we associate with Orange County. The 2005 report card showed some improvement in Aviation, School Facilities, Transportation and Urban Runoff/Flood Control. The overall grade point average for Orange County's infrastructure went up from a "C" to a "C+" in 2005. This still conveyed a powerful message that even one of the most affluent, desirable places to live in the world is not immune to the effects of deteriorating infrastructure.

Last year, we began a process of reviewing and updating the work that was done on the 2005 Orange County Infrastructure Report Card. We were fortunate to be able to gather many of the same dedicated individuals, as well as some new and energetic industry professionals, to work together to complete the 2010 report card. The result of their dedication and hard work is the updated 2010 edition, released in March of 2010. Energy and Surface Water Quality have been added as important elements of our infrastructure since the last report card in 2005. We have earned an overall GPA of "C+" for 2010, on even par with our 2005 GPA.

Developing the report card is only a first step in highlighting the importance of infrastructure construction and maintenance. As you will see in this report card, the grades are still not all good. Much work needs to be done county-wide to improve the grades and maintain our quality of life in Orange County. Over the next 20 years, growth is expected in Orange County. As we transition from a suburban county to an urban county, the main burden we bear will be upon our infrastructure.

Regardless of economic conditions, it is the responsibility of our engineering community as well as every citizen to understand and work toward improvement. Educating our public on the importance of infrastructure maintenance, encouraging our colleagues in the public sector to continue to seek infrastructure funding and actively communicating to our elected officials the important role that infrastructure plays in our lives are the first and foremost steps to success. The importance of infrastructure in our lives cannot be underestimated. It is key to our quality of life and healthy communities.

Sincerely,

Cindy Miller, PE
President
UC Irvine Civil & Environmental Engineering Affiliates

Introduction

Orange County's Infrastructure: Local Initiative/Local Control Produces Sustainable Results…What Does the Future Hold?

Orange County is a remarkable place. Terrific weather, wonderful quality of life, diverse employment base, a region filled with opportunities for tourism, sports, recreation and entertainment, homes and apartments that meet every need and many great colleges and universities.

What goes unnoticed by many of us is how the public infrastructure facilities around us underpin all of these qualities and make possible everything we do. Our morning showers and morning coffee depend upon a reliable water supply, wastewater treatment system and an electricity delivery system - all provided to our homes with little thought by us. Our drives to the store, bus rides across town, airline flights out of state and rail commutes to downtown Los Angeles are made possible by ground transportation and airport systems that are well planned, well maintained and better funded than most. And yet, congestion slows us down, wastes time and wastes fuel. The intense winter rainstorms we experience during El Nino years normally roll over us with little threat of flooding or property damage. The thousands of tons of trash and recyclables our families and businesses produce every day are safely and reliably whisked away for management and disposal at in-County sites by a remarkably complex system of public agencies and private companies. Our parks, ocean fronts, harbors, waterways, lake fronts and parkways are managed by city and county agencies that provide the people and resources necessary to make them clean, safe and secure. And finally, our public schools facilities are planned, built and maintained by school districts that provide a place for learning and growth. And yet, some of our schools are in need of maintenance.

How Are We Doing?

While these systems are not perfect, as measured by most National and International standards, Orange County is doing better than most and improving in many areas. The 2010 Orange County report had earned an average grade of C^+. By contrast, the American Society of Civil Engineers graded the Nation as a D.

Orange County vs. the Nation

Competent and sustainable public infrastructure requires a few key ingredients: thoughtful planning, well-designed systems, well-constructed facilities, proactive maintenance and reliable funding sources. Local and regional initiatives that are managed by local decision-makers are most likely to be responsive and relevant to the needs of the communities served. What are difficult to manage are

initiatives that require multiple layers of decision-makers or remotely located decision-makers. This is not to say that statewide or national standards aren't important - they oftentimes are - but once in place, the creative and discretionary decision-making of local authorities here in Orange County can be timely and focused.

Orange County's infrastructure is faring better than the rest of the Nation for a number of reasons. First, severe freezing winter weather causes infrastructure to wear and age more quickly. Secondly, much of Orange County's infrastructure is simply younger than what is found in the Mid-West and East Coast. Third, our willingness to provide locally derived funding for the construction or replacement of infrastructure is something we do well here. Passage of Measure M and the Measure M extension of a self-imposed half-cent sales tax by our citizens is testimony that this County is willing to pay for needed infrastructure. The recently completed Groundwater Replenishment System (the World's largest water reclamation plant) is a locally initiated project paid primarily with locally derived funds. Our landfills and water supply systems are in good shape because of long-term investment in them.

Grading Our Public Infrastructure.

During 2009 and early 2010, ten working committees of infrastructure experts employed by public agencies, consulting firms and watchdog groups assembled data and drafted reports on ten infrastructure categories. The condition, capacity and performance of these ten now and in the future were evaluated and assigned grades. Independent review committees read over the reports of the working committees, made comments and editorial changes and adjusted the grades if so warranted. The results for 2010 and the grades from prior years are shown here:

	2002	2005	2010
Aviation	C+	B	B
Energy	-	-	C+
Flood Control and Levees	D	C-	C-
Ground Transportation	C	C+	B-
Parks/Recreation/Environment	C	C	C+
School Facilities	D	C+	C+
Solid Waste	B	B+	B+
Surface Water Quality	-	-	D
Wastewater	C+	C+	B
Water Supply	B	B	B-
OC's Infrastructure GPA	C	C+	C+

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Who Pays for Infrastructure?

Public infrastructure is a public asset. We all have a stake in its upkeep and operation, and we all share in the expense of construction and maintenance.

Sometimes, infrastructure is paid for by those who actually use it most through tolls, utility bills, user fees or proportional taxes paid on gasoline and airline tickets. But because infrastructure improvements affect us all by supporting our economy and providing fundamental

community services, a portion of the cost is borne by general tax revenue derived from property tax, sales tax and income tax.

For years, federal and state government played a large role in collecting and distributing funds for large-scale infrastructure improvements. Increasingly, with the budgetary woes of federal and state government, more of the cost is borne by local government and by private enterprise. To some degree, this shift to local funding causes a beneficial effect: local decision-making accompanies local funding. When this happens, local needs can be addressed with more accuracy and more accountability. But we unfortunately take on more of a funding burden as the tax dollars we send to the state and federal governments are not finding their way home.

About What Do We Have Most to Worry?

Orange County has three major areas to worry about: water supply and quality, flood control, and electrical supply.

Water Supply and Quality

Most of our water supply is imported from the Colorado River and from the San Francisco Bay Delta. These 240-mile and 715-mile aqueducts, respectively, provide over half of the water we consume. Each has reservoirs along the way, but a major earthquake along either or a failure of the earthen dikes in the San Francisco Bay Delta could mean serious disruptions that would interrupt our water supply. Investment in a reliable conveyance system is essential. The combination of increased beach attendance, tourism, population growth, and urbanization has put a strain on the Orange County waterways and coastline, affecting surface water quality.

Flood Control

The challenge to continuously upgrade and maintain flood control systems, while daunting, is essential to public safety. This challenge has been exacerbated by the recent economic downturn, as flood control engineers attempt to strike a balance between eco-friendly flood control infrastructure, exceedingly stringent regulatory requirements, recreational considerations, and reasonable construction (and maintenance) costs.

Electrical Supply

We cannot live and work without a continuous and long-term power supply. Electrical rate increases, approved by the California Utility Commission, may be adequate to maintain minimum reliability standards, yet will be insufficient to fund the pace of work necessary to replace and upgrade the region-wide and countywide systems on which we depend for a high degree of reliability. As the infrastructure continues to age, the potential exists for less reliable service.

What Can You Do?

Conservation and reuse of our resources are the single most important actions you can take every day. In your home, at work and in your travels, there are always opportunities to minimize waste and to recycle what you do use.

Maintain your understanding of the public infrastructure issues that abound here in Orange County, in California and in the Nation. Stay informed, form an opinion and then regularly express your opinion to the policy-makers and regulators that influence the infrastructure around you. Read print and electronic media. Subscribe to on-line newsletters and your local newspaper. Stay abreast of the major issues under consideration by local, county and state legislators and tell them what you think.

Support well thought out fees and bonds that are proposed for public infrastructure, such as the upcoming water bond. Like everything you own, the reality is that stuff wears out, becomes obsolete or needs to be upsized. Without funding to maintain our infrastructure, the water, roads, electricity and other necessities of daily life may not be there at the moment you need it, or at the quality level you've come to expect.

Think of the vehicles, appliances and electronic devices owned by your own family. All segments of public infrastructure, just like at home, require regular attention and reinvestment. Without it, the high quality of life that we enjoy here in Orange County will diminish.

Understanding Infrastructure Issues

As you read Orange County's infrastructure report card, you may begin to ask what your role is in improving our County's and cities' infrastructure.

Infrastructure is a complex network of public works, which includes roads, bridges, airports, dams, parks, school facilities, and utilities. The rules and practices governing its planning, financing, construction, and upkeep are complex. Whether your interest is to shorten your daily commute, attract new business to your community, or protect the environment for your children, gaining a better understanding of these issues is the first step toward becoming an advocate for infrastructure renewal in your community.

As you read through this Citizen's Guide, think about the following:

Be an informed citizen.

Public officials are emboldened to make tough decisions when there are strong voices of support for their actions. In order to educate public officials about infrastructure needs in your community, you must understand what those needs are. Consider the Infrastructure Report Card. How does our community measure up?

Demand continuous and timely maintenance.

If infrastructure facilities like transportation, water, flood contorl and schools are not kept in sound condition, they cannot support the level of service they are designed to handle. Regular maintenance prolongs use and minimizes the need for costly emergency repairs. The money saved can be used to fund other community priorities.

Think long-term.

Maintaining and renewing Orange County's infrastructure is an ambitious goal. It cannot be achieved overnight. Furthermore, the airports, roads, bridges, wastewater treatment plants, and other facilities built today must serve for decades to come. Comprehensive planning and long-term investment are key to sound decisions about infrastructure.

Consider all the factors influencing infrastructure decisions.

Transportation corridor improvements may displace existing property use or existing natural habitat. New schools or public buildings may increase traffic. New water or wastewater facilities increase electrical demand. These considerations must be understood to make informed public policy decisions.

Do more with less.

Money alone will not solve our infrastructure problems. Solutions to urban problems such as traffic congestion and contaminated water require new technologies and approaches and our personal involvement. Research can help identify more efficient designs and longer-lasting, maintenance-free materials. And, we can change our behavior - using recycling, telecommuting, and mass transit, as examples for reducing the demand on our infrastructure.

Preserve the environment.

To use the Nation's resources most effectively, we must balance environmental and economic goals. Land use and transportation patterns designed to foster economic growth and personal mobility can be developed in harmony with environmental benefits.

Look at the big picture.

Remember that beyond the immediate, individual benefits gained from infrastructure improvements, there are broader community benefits. For example, even though you may not use a new mass transit system, its construction will reduce traffic congestion on local roads, increase nearby property values and support commerce and tourism.

B | Aviation

The aviation demand in Orange County will grow to about 37 million annual passengers in the next 15 years, while the current negotiated passenger limit is only 10.8 million. One solution may be to develop high-speed rail transportation to underutilized regional airports. The condition of John Wayne Airport is excellent.

C+ | Energy

The energy needs of Orange County are served by regional systems involving infrastructure both internal and external to the County. The present state of system reliability is high and the supporting energy infrastructure can be characterized as adequate. However, there is concern that reliability may decline due to limited investment in system upgrades and replacement of aging infrastructure. Usage rates must match the demand for additional funding.

C- | Flood Control and Levees

The backbone flood control and drainage systems serving Orange County, including channels, retarding basins, dams and pump stations, vary widely in condition and capacity to prevent flooding from major storms. Current funding shortfalls for needed upgrades to regional flood control facilities in the County are estimated to be in excess of $2.5 billion.

B- | Ground Transportation

Orange County infrastructure provides bus, rail, highway and freeway systems that move people and goods throughout the region. Improvements are needed to relieve congestion points. Income from Measure M sales tax provides considerable, but insufficient, funding for the capital and operating needs of these systems. Federal, state, local and private sources of funds are essential to building and maintaining an adequate system. High-speed rail is a promising way to meet long-term capacity needs.

C+ | Parks / Recreation / Environment

Between 2005 and 2008, there were improvements in park programs investment that brought the overall grade up from a C to a C+ in 2010. However, the changing economic conditions in 2008-09 stopped 110 projects totaling $70 million dollars in Orange County. And, there is insufficient funding to meet the $680 million necessary for new projects needed in the next five years.

C+ | School Facilities

The condition and capacity of school facilities to serve the needs of Orange County have improved over the past 5 years due to investments available from bond funds. The majority of school districts' enrollment have either decreased or remained constant, easing near-term demand to expand and add new facilities. Deferred maintenance and upgrading of older school buildings continues to be a daunting problem to solve.

B+ | Solid Waste

Recycling and waste diversion are well established and significantly reduce the amount of waste that must be disposed in landfills. The three landfills in Orange County have a combined life of over 40 years. Income from tipping fees and other sources provide a well-funded system of public facilities. Privately owned transfer, recycling and transportation companies provide a well-run and sustainable system.

D | Surface Waters

The combination of increased beach attendance, tourism, population growth, and urbanization have added pollution to urban runoff causing an impact on our waterways and coastline. The County must seek State and Federal support for new water quality projects. In 2008, bond proceeds for projects were frozen due to state budget cuts.

B | Wastewater

The sewer and wastewater treatment systems in Orange County are generally well run and comply with state and federal requirements. Water reclamation is well advanced and additional facilities are planned or underway. Aging portions of the sewer infrastructure system must be replaced, and the funding and planning necessary to do so are being provided. Funding and reserves are generally adequate. User rates must be raised to meet future funding demands.

B- | Water Supply

Orange County's most vulnerable areas of risk are the long-distance conveyance and storage systems that are responsible for supplying most of the water used here. Local planning, construction and maintenance is sufficient and well managed. Water conservation and water recycling are essential ingredients for today's water resources and will be more important in the future.

Aviation

2002	2005	2010
C+	B	B

The ability to meet the growing demand for air transportation service is important to sustain both the local and regional economy and the overall quality of life of residents. The Orange County system of airport infrastructure includes the John Wayne Airport (SNA), Los Alamitos Army Airfield (SLI), and Fullerton Municipal Airport (FUL). General aviation is served by both John Wayne and Fullerton Airports. Los Alamitos Army Airfield is the home base for operations of certain units of the California National Guard and the Army Reserve. Fullerton Municipal Airport has approximately 68,000 general aviation operations annually and, along with JWA, provides the County with all general aviation facility assets.

John Wayne Airport is the most significant with respect to operations because it is the only one of the three Orange County airports that serves commercial aviation operations, although general aviation generates approximately fifty seven percent of John Wayne Airport's take-offs and landings.

Based on a countywide vote, the former Marine Corps Air Station El Toro is not available as a location to accommodate aviation. Capacity is constrained at the John Wayne Airport by the Settlement Agreement. The Settlement Agreement provides the regulatory framework for construction of new facilities to accommodate 10.8 Million Annual Passengers. The Airport Improvement Program (AIP) that provides the facilities is currently underway with scheduled for completion in late 2011.

Within Orange County, demand for commercial air travel will increasingly exceed capacity. The Regional Aviation Plan for the 2008 Regional Transportation Plan (RTP) published by Southern California Association of Governments (SCAG) forecasts the demand for the entire region to be near 165 million annual passengers by the year 2035.

The current RTP assumes high speed regional mass surface transportation systems to move passengers to under-utilized regional airports will be the solution to these capacity shortfalls. The Aviation Infrastructure Working Group thus accepts the fact that, under present prevailing circumstances, commercial aviation demand by Orange County citizens will not be met with Orange County capacity.

Consequently, in this 2009 report card, the capacity criterion for the year 2015 has been applied only to the legal limit of 10.8 million passengers.

The facilities at John Wayne Airport are in excellent condition, with a reported very low dollar value for the backlog of deferred maintenance. Annual expenditures for maintenance and repair are sufficient to sustain the desired facility condition without affecting capacity. Proactive facility maintenance management practices are in existence and have been for several years. Facilities at the Fullerton Municipal Airport are in average condition. The Los Alamitos Airport facilities are in need of significant repair particularly in the area of maintenance and improvements to both runway and operations facilities. All three aviation facilities are operated well within applicable Federal Aviation standards and are in compliance with other environmental and safety standards. Of particular note is JWA's recent record of performance on Federal Aviation Regulation Part 139 Annual Inspection. For the past four years, the Airport has not received a single non-compliance citation.

Public Policy Considerations

The primary infrastructure issue related to aviation is the need to construct the high speed regional mass surface transportation systems between Orange County and the under-utilized and proposed airports in Riverside and San Bernardino Counties specified in the RTP.

Security

John Wayne Airport was one of the first U.S. Airports handling sizeable commercial passenger loads to regain pre-September 11 levels of service. JWA has, as well, been at the forefront of timely compliance with FAA and other Federal initiatives and directives for airlines and airports, post-September 11. An aggressive management philosophy placed the airport in the unique position of achieving Federal Compliance for the installation of Explosive Detection Systems by December 31, 2002. This not only enhances airport security at JWA, but also allows the commercial air traveler to move through the airport and board an aircraft with virtually no delays.

Infrastructure Funding

The cost to maintain the current grade for Aviation is estimated at $500 million over the next five years.

Energy

2002	2005	2010
-	-	C+

The electrical energy infrastructure system for Orange County receives a grade of C+ now, but we forecast a C- in five years. This reflects a concern that reliability may decline due to limited investment in system upgrades and replacement. Prior rate increases approved by the California Public Utilities Commission (CPUC) for Southern California Edison (SCE) and San Diego Gas & Electric (SDG&E) may be adequate to maintain minimum reliability standards, yet be insufficient to fund the pace of work necessary to replace and upgrade the region-wide and countywide systems on which we depend for a high degree of reliability. As the infrastructure continues to age, the potential exists for less reliable service.

Background Information

This is the first time that energy infrastructure has been incorporated into the Orange County Report Card. Orange County's energy infrastructure earns a grade of C+ based on the data compiled for this first report. The present state of our reliability is high, and the supporting energy infrastructure can be characterized as adequate. However, decisions and practices made today are potentially driving the condition of our infrastructure in a negative direction. The pace of replacement and upgrade projects may be insufficient to maintain the high degree of reliability upon which we depend. For this reason, the projected grade forecasted for 2015 is a possible C-.

We have used publicly available information to develop this report, and citations are provided for those who wish to delve further into the details of this topic. Due to National Critical Energy Infrastructure Information (CEII) issues, we have not obtained or used any confidential or overly specific information that would compromise security.

We focused our efforts on assessing those portions of the electric power systems of SCE and SDG&E serving areas of Orange County. We did not assess the condition of the City of Anaheim's electrical energy infrastructure.

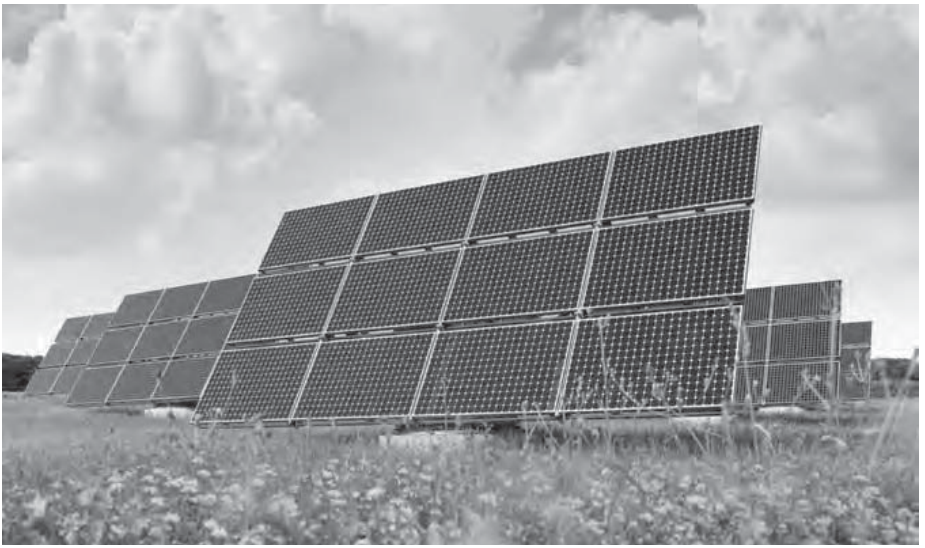
Public Policy Considerations

The range of electric energy infrastructure issues involving Orange County is challenging. There is an extensive network of generation, transmission and distribution facilities often consisting of aging energy infrastructure. SCE and SDG&E, which serve the electrical needs of most of Orange County, are very much aware of the issues and challenges that these systems imply. Decision-making authority that has direct bearing on the future of Orange County is vested well outside of our direct influence and discretionary authority.

The ongoing and future electric energy needs of Orange County are provided not only by the extensive energy infrastructure consisting of transmission and distribution lines within the County, but also by the considerable energy infrastructure external to the County. Electrical production and transmission is provided from well outside of Orange County and is essential to meeting our needs. Both SCE and SDG&E have made significant strides in planning and implementing improvements and continue to do so. In addition to addressing aging existing infrastructure, SCE and SDG&E plan new infrastructure necessary for growing needs and also plan infrastructure improvements such as the new Smart Meter technology. All of these efforts work to the benefit of Orange County, as well as other areas.

In general, our scoring provided lower marks to existing older infrastructure and higher marks for the reliability, planning, and improvements that are underway—but with a very large cautionary note.

The overall grade of C+ indicates that current reliability is high, and some work and progress is occurring to address aging infrastructure issues. However, there is reason for concern based on the trends of relatively low long-term funding and investment, mounting public opposition to infrastructure improvements that involve discernable environmental impacts, and regulatory and mitigation requirements that impede the timely completion of improvements.



Resilience and Security

Infrastructure projects of this type require years of planning, design, environmental evaluation, and regulatory and legal procedures before construction can begin. The first challenge is to forecast needs far enough in advance so that the work can be completed in time. The second challenge is to make the case for sufficient funding to pay for the work.

Infrastructure Funding

SCE and SDG&E each petition the CPUC for rate increases through a General Rate Case (GRC) filing. At any point in time, one or more petitions are typically being processed by the CPUC. The CPUC evaluates the request, publishes its draft findings, sets hearings, conducts them, and then publishes its findings. Vociferous public opposition to rate increases often occurs against the petitioners (SCE or SDG&E), which generally stand alone in making the case for the increase. For this reason, it is essential that local government, business, environmental, and public interest groups provide written and public comment at these hearings expressing support for increased funding to replace aging infrastructure. Orange County has little other influence over the decisions made by the CPUC. Broad-

based public support is the best way to convince the CPUC to grant the increases requested by SCE and SDG&E. These utilities must of course make the case for the rate increases they propose. But once the case has been made, it is essential that broad public and political support be mustered to make the increases a reality on which OC can plan its future.

What You Can Do

The recommended actions that Orange County citizens and businesses must take to ensure that energy infrastructure is adequately maintained are the following:

- Actively support SCE and SDG&E efforts to assess aging infrastructure in Orange County and within the wider regional systems that provide for our electrical power needs.
- Encourage the CPUC to provide additional regulation that would address cost recovery of aging electric infrastructure in a manner to support timely replacement of facilities whose advanced age alone may represent a reliability risk.
- Support clean-burning or renewable energy generation projects in Orange County that will help relieve electric congestion.
- Encourage prospective college students to seriously consider careers in the electric power industry to replace the aging workforce that is nearing retirement age.
- Recognize that any changes in trends will have long lead times. Waiting to act until significant reliability problems actually materialize in aging infrastructure is too late, since any actions to be taken (whether political, social, financial, or otherwise) need to be taken years in advance of when results are to be seen.

In Orange County, the backbone flood control and drainage systems include approximately 260 miles of regional flood control channels (including levees), about 1800 miles of smaller-sized drainage facilities (mostly owned by cities), 15 dams, 11 pump stations, and 34 flood retarding basins. The challenge to continuously upgrade and maintain these systems, while daunting, is essential to public safety.

This challenge has been exacerbated by the recent economic downturn, as flood control engineers attempt to strike a balance between eco-friendly flood control infrastructure, exceedingly stringent regulatory requirements, recreational considerations, and reasonable construction (and maintenance) costs. An example that demonstrates the need to strike a reasonable balance is a recent maintenance project to remove vegetation from a channel to restore its hydraulic capacity. The maintenance work cost approximately $700,000, but the mitigation for this work cost $1,800,000.

Current flood control funding deficiencies in Orange County for regional flood control facilities alone are in excess of $2.5 billion (construction costs only). At the prevailing rate of funding (prior to the economic downturn), it is estimated that it would take over 90 years to upgrade the regional flood control system to a condition and capacity with no deficiencies.

Background Information

Flood control infrastructure is essential for the protection of lives and properties. To that end, the Orange County Flood Control District (OCFCD) and local municipalities (cities) design, construct, and maintain channels, storm drains, retarding basins, dams, and pump stations to reduce the risk of flooding during rain storms.

In normal times, flooding from a rain storm is the furthest thing from the minds of people in the sunny and arid climate of Southern California. Yet hundreds of millions if not billions of dollars worth of property damage could occur and has been recorded in Orange County and elsewhere during catastrophic flooding events. As recently as 2005, a near disaster was averted when a 10-year storm nearly caused a complete breach of a levee in San Juan Capistrano.

Flood control facilities often present a great opportunity for multiple joint uses such as recreation, water conservation, water quality improvement, and environmental enhancement. The challenge facing OCFCD and cities is to identify economically and technically feasible ways to accommodate such opportunities, while providing needed flood control protection.

This report considers the regional backbone drainage system only because such regional flood control facilities provide the primary flood control protection for Orange County. The regional backbone flood control system comprises channels, dams, retarding basins, pump stations, and levees.

Public Policy Considerations

Planning

Because of the limited funds that are available each year for capital improvement projects, the planning and prioritization of flood control projects is done on a countywide basis in conjunction with the City Engineers Flood Control Advisory Committee (CEFCAC). CEFCAC is composed of five City Engineers, each representing a Supervisorial District within Orange County. Each year, CEFCAC meets to prioritize and consider new projects for inclusion in OCFCD's 7-Year Plan. The flood control projects are budgeted for each fiscal year based on this plan. Despite the budgeting of such projects, often the OCFCD is challenged with increasingly restrictive regulatory conditions, which usually delay the implementation of such projects by years.

Resilience and Security

The road ahead to improve Orange County's flood control infrastructure remains difficult, considering the fiscal and regulatory environments. Efforts by the County and cities will continue to identify funding and construct eco-friendly capital infrastructure as well as remove areas in Orange County from the Federal Emergency Management Agency's (FEMA) designated floodplains. Removal of floodplain designations eliminates the requirements for affected property owners to pay federally mandated flood insurance premiums. The FEMA Flood Information Rate Maps (FIRMs) for Orange County were updated in December 2009. As a result, although some areas were removed from the flood plain due to flood control improvements,

other areas were added to the flood plain due to levee systems being decertified as the result of FEMA engineering evaluations of existing structural deficiencies.

Infrastructure Funding

Current flood control funding shortfalls in Orange County, based on budget estimates for regional flood control facilities alone, are in excess of $2.5 billion (construction costs only). With the decline in property values and the resulting decline in OCFCD's property tax revenue, the need for additional sources of funding gains importance to shorten the time needed to upgrade the flood control system. Other sources of funding such as grants from state and federal agencies have been sought with some degree of success. OCFCD can also continue to preserve its limited right-of-way where joint use is possible to develop supplemental revenue streams such as leases.

With the normal design life of flood control facilities being in the range of 50 to 100 years, funding for the future restoration or replacement of these facilities also needs to be considered in determining the overall funding requirements to maintain a 100-year storm capability in each of the regional flood control facilities.

Based on current revenue, it will take over 90 years to achieve our replacement goals! In order to raise the flood control infrastructure grade by one level over a period of five years, it is estimated that it will require approximately $1 billion, or $200 million per year, to fund design, construction, and associated work. This is well in excess of the revenue available to OCFCD each year for capital improvement projects.

What You Can Do

Encourage your local, state, and federal elected officials to increase investment in regional flood control and drainage systems to eliminate critical deficiencies that threaten our quality of life. Support planning and legislation at all levels of government to address structural and nonstructural solutions that reduce the risk of flooding of property and protect lives from the devastation of floods. Investment in flood control infrastructure improvements should always include life-cycle costs as well as design and construction costs.

Orange County's transportation infrastructure provides safe and efficient movement of people and goods. The County has achieved significant improvements in the condition and capacity of its highways, bus system, rail transit, and bridges by the extensive investment paid for by the 1990 voter-approved Measure M, a 20-year, one-half percent sales tax. In 2006, the voters extended Measure M for another 30 years until 2041. This additional funding source will provide significant, though insufficient, funding for future rehabilitation and improvement needs. Forecasted Measure M revenue is significantly less than projected in 2006 because of the drop in sales tax revenue caused by the faltering economy. Additional potential funding sources including, but not limited to, state and federal transportation infrastructure improvement grants, private investment; user fees; and new and adjusted toll revenues will be essential for the long-term sustainability of a system that meets the needs of the County today and in the future. Conventional and high-speed rail projects are essential to provide the capacity required for the long-term sustainability of our economy and quality of life and to provide access to regional airports to supplement capacity over and above John Wayne Airport's annual capacity. Recent federal commitments of funding for high speed rail improvements will benefit Orange County and lead to future development of high speed rail corridors through the developing Anaheim Regional Transportation Intermodal Center (ARTIC).

Background Information

The transportation infrastructure has three components that were evaluated in arriving at the combined grade: highways, transit and bridges, each of which are evaluated with respect to conditions, operation, and capacity.

Highways

For highways and freeways, pavement condition studies conducted in 2006 for highways and in 2008 for freeways determined that the overall condition of pavements in Orange County is good.

Operation of the existing highway system was rated based on existing traffic demand relative to available capacity. This category is a direct evaluation and measure of the benefits received from the Measure M freeway and arterial capacity improvements during the last 20 years and concluded that overall operation of arterials and freeways countywide is marginal to average. This is a far better condition than what would have occurred in the absence of the investments made in these systems.

Present and anticipated future capacity of the highway system considered forecasted population and employment growth and a highway system consistent with Orange County Transportation Authority's (OCTA's) Long-Range Transportation Plan and Renewed Measure M Transportation Investment Plan. This represents a conservative analytical approach and helps to underscore the need for continued city and County efforts above and beyond the Measure M and Renewed Measure M programs. The overall capacity of countywide arterials and freeways is marginal.

Transit

The overall condition and operation of transit facilities is considered to be average to good. The overall capacity of transit facilities is considered to be poor.

For bus transit, the overall performance of the Orange County system is based on the qualitative customer survey conducted by OCTA in 2007. The study found that nearly half of the customers stated they were very satisfied. Almost half of customers said bus service had improved. Customers indicated a preference for more frequent day service and more evening and weekend service. Subsequently, OCTA increased service by 63,300 annual hours (3.4%). Unfortunately, because of falling County, state-derived and federal-derived revenue, OCTA will reduce bus transit service 25% to 30% in 2010 and 2011.

Bus transit operational efficiency is based on boardings per dollar of operating expense. OCTA ranks second among the seven peer agencies selected nationwide, with 0.33 boardings per dollar spent for transit system operation.

Bus transit capacity is based on the amount of service provided versus the County's population, expressed as revenue hours of service per 100,000 population. OCTA ranks 7th compared to the peer group agencies, providing 61,571 revenue hours per 100,000 people. Even at the all-time-high level of service recently achieved, available funding has limited and will continue to limit the capacity of the Orange County bus transit system.

For rail service, there are two segments of the commuter rail infrastructure in Orange County. One is owned by Burlington-Northern Santa Fe (BNSF) Railway and one by OCTA. Both segments were evaluated for overall condition. The OCTA segments are in a good to excellent state of maintenance. The BNSF segments are in an average to very good state of maintenance. BNSF segments are subject to very high levels of freight traffic and thus experience more rapid track wear than the OCTA segments.

The OCTA and BNSF commuter services operate on time 95% of the time. Causes for exceptions to on-time performance are freight train congestion, occasional accidents, and occasional signal and communication system failures. Metrolink and its member agencies, including OCTA, will fully deploy Positive Train Control (PTC) by the end of 2012 to improve train routing efficiency and to prevent train-to-train collisions.

Mid-2010, mainline and terminal station improvements will nearly double train service capacity between Fullerton and Laguna Niguel. Increased through-passenger traffic from Los Angeles to San Diego is constrained by limitations on the BNSF segment west of Fullerton and by the single-track segments south of Laguna Niguel and into San Diego County. Overall, the capacity constraints in Southern Orange County, San Diego County, and Los Angeles County severely limit the potential functionality of this interregional corridor.

The BNSF segments are at or over capacity on peak days. Projected growth in both passenger and freight traffic is driving BNSF and Caltrans to fund incremental expansion of third main track segments between Los Angeles and Fullerton. Uncorrected, the BNSF segments are unable to sustain projected traffic beyond 2010.

Local transportation infrastructure will be improved by the proposed Anaheim Regional Transportation Intermodal Center (ARTIC). The Metrolink train and OCTA bus systems will each gain efficiency. Access to popular tourist attractions and sporting events will be improved and they will, in turn, support the growth of the tourism industry now providing 86,000 jobs in Orange County.

In October 2008, the Orange County Business Council completed a study evaluating the impact of high-speed trains on Orange County jobs. The study concluded that Orange County could gain nearly 23,000 jobs by 2030. High-speed trains will add capacity for passenger and commercial cargo movement by providing efficient long-distance travel to locations in California. Passenger traffic that diverts from air travel to high-speed rail can mean access to more air cargo flights that will add commercial cargo capabilities for "just-in-time" goods movement and overall economic efficiency.

Goods movement through Southern California is a significant challenge. As a region, the five Southern California county transportation commissions (LACMTA, OCTA, SANBAG, RCTC, and VCTC), four Southern California Caltrans districts, and SCAG are funding the "Southern California Multi-County Goods Movement Action Plan." This plan evaluates goods movement issues and strategies for the region as a whole and for each individual county. According to SCAG, the region's need for new goods movement projects during the next 10 years is $30 billion.

Bridges

The condition of bridges in Orange County is very good to excellent. Caltrans has developed the California Bridge Health Index to rate the performance of bridge maintenance and rehabilitation. The Bridge Health Index is a 0–100 numerical rating that utilizes inspection data to determine the remaining asset value of a bridge or network of bridges. The 606 bridges in Orange County earn a Network Health Index (NHI) of 98.8. The state average NHI is 94.0.

Public Policy Considerations

Resiliency

Resilient infrastructure is a component, system, or facility that is able to withstand damage or disruption, and if affected, can be readily and cost-effectively restored. The existing system of arterial highways, freeways and transit systems provides an inherently resilient transportation system. There are two notable exceptions: State Route 91 between Orange County and Riverside County and Interstate 5 between Orange County and San Diego County. For both facilities, improvement work is planned.

Infrastructure Funding

Adequate long-term funding is essential to sustain a balanced multi-modal transportation system, provide near-term relief of highway and freeway congestion, upgrade obsolete bridges, and expand mass transit systems. The public acknowledged this truth in 1990 by approving the Measure M sales tax initiative (one-half percent for 20 years) for funding countywide transportation improvements. In 2006, nearly 70% of voters approved the renewal of Measure M for an additional 30 years beginning in 2011. Also in 2006, voters approved statewide Proposition 1B authorizing $19.9 billion in bonds to assist county and local jurisdictions with transportation improvements.

Because of the 2008 economic downturn, alternate funding sources are now essential to backfill the losses caused by less-than-anticipated sales tax income.

According to the 2006 Orange County Long Range Transportation Plan (LRTP), a long-term investment of $40.9 billion in our transportation system is necessary. A mix of Measure M sales tax revenue; other OCTA revenues; Caltrans funds; Federal Highway Administration and Federal Transit Administration discretionary funds; and funds from Transportation Corridor Agencies, local jurisdictions, and private sources are needed to achieve full funding of the LRTP. A key assumption of the 2006 LRTP was that the Renewed Measure M would provide $11.8 billion. However, less than that is anticipated now because of the economic downturn.

What You Can Do

The single most important thing you can do is support public and private investment in ground transportation planning, construction and management. The Public Policy Institute of California (PPIC) reports that infrastructure funding is one of California's primary challenges and primary needs. All goods and services manufactured, sold, and used here require reliable transportation. Nearly all education, employment, commerce, and leisure activities depend on an adequate transportation system. PPIC concluded that for the foreseeable future, transportation system costs will rise faster than sales taxes and other sources of revenue. In the short term, in fact, overall revenue will decrease and will continue to do so until a growth economy returns and persists.

Tell your elected officials that it is imperative that the County seek federal grants such as American Recovery and Reinvestment Act (ARRA) funds to supplement Measure M sales tax income. Further, our US Senators and Representatives must support the reauthorization of the federal Transportation Act, SAFETEA-LU and it must contain provisions for projects here in Orange County.

Since 2005, Parks, Recreation, and Environment (PR&E) has seen improvements in the investment of park programs and parklands that have brought the overall grade up from a C to a C+ in 2010. Due to the passage of Park Bond Acts and per capita allocations from Propositions 12 and 40, there has been a flurry of activity related to park rehabilitation and development statewide. However, the 2008/09 economic recession means the outlook for PR&E for the next five years will change.

Due to the changing economic conditions in 2008/09, the state issued a "stop work order" in December 2008 that required every contractor or grantee working on projects funded with state bond dollars to stop work. This had a devastating effect on conservation projects throughout the state. In fact, $2.274 billion in funding was halted affecting 3,271 projects statewide. Orange County had 110 projects totaling $70 million dollars frozen.

Because of seriously changing cultural and economic conditions, getting children outdoors is a growing challenge, which cannot be met with a once-a-year field trip to the out-of-doors or by watching nature programs on television.

Background Information

According to a Gallup poll taken in 2009, for the first time in 25 years, Americans say that the economy takes precedence over the environment because of overwhelming personal financial worries, unemployment, and restricted budgets. Yet, according to a market research study commissioned by the California Park and Recreation Society in March 2009, "98% of California households report having visited a park or participated in a program during the past year and two in every three households did so at least once in the past month." With the state's unemployment rate of 11.0% (2.0 million individuals) and Orange County's unemployment rate of 8.3% (261,000 individuals), access to recreation areas and local programs is essential.

Regardless of the current economic trends, in the long term "to protect public lands for future generations, all segments of the population need to be engaged and have a sense of ownership," says George McDonald, who coordinates the National Park Service's Youth Programs.

Public Policy Considerations

The Economy

Economically, there has been good news and bad news. On the positive side, from 2005 through 2008, funding for parks and park programs increased significantly. Voters approved several propositions in 2000 and 2002 totaling $4.7 billion, with roughly one third of it earmarked for urban recreation projects and allocated on a per capita basis to local jurisdictions. These funds began flowing into parks and park programs after the 2005 Report Card was completed. On the negative side, however, the 2008-2009 state budget was cut by over $18 billion and the 2009-2010 budget by $8.6 billion. In June 2009, Governor Schwarzenegger proposed cutting $143 million of General Fund support to the California Department of Parks and Recreation - an 86% decrease in support, which would have meant closing 220 of the state's 270+ state park units. This brought a significant public outcry; in the two weeks after the proposal came to light, 36,000 individuals sent more than 90,000 letters to the Governor and legislators. In the end, the Governor only took $14.2 million from Parks and Recreation. Additionally, in August 2009, there was an increase for state park day use and camping fees to help cover some of the costs of running the parks.

Wildfires

Since 2005, Orange County has endured two of the most catastrophic wildland fires in its history. These are due in part to a statewide drought, increased development in the wildland urban interface, and more highly flammable vegetation. Plant communities are changing significantly due to the frequency and intensity of wildfires. What were once hillsides covered with an "elfin forest" are now grasslands with weedy, flammable non-native species dotted with a few native oak or walnut trees.

Infrastructure Funding

To accurately reflect the stewardship needs of the surveyed park facilities, each category respondent was asked to provide an estimated dollar figure to meet capital needs over the next five years. These results are broken down by park type as follows:

National Forest	$100.0 million
State Parks & Beaches	88.0 million
County Parks, Beaches & Facilities	31.1 million
Municipal Parks, Beaches & Facilities	462.5 million
Land Reserves & Conservancies	n/a
Special District Parks & Facilities	0.2 million
Total	$681.8 million

What You Can Do

Support the following at the local and county levels:

- Secure Consistent Funding – Develop consistent funding streams from all funding sectors to ensure that projects can be implemented and maintained and develop "programmatic mitigation" methods for more effective use of funds that derive from transportation and other major infrastructure projects.
- Expand Public Awareness – Broaden and strengthen the public's understanding of natural/cultural values that will help protect our resources for the future and result in a more physically and psychologically healthy populace and collaboratively plan, support, and enhance educational opportunities through nature centers, outdoor education programs, and ranger programs such as Orange County Wild.
- Expand Experiences in Nature – There is a need for programs to bring more consistent personal, hands-on experiences in nature that will instill a lifestyle change for young people and thus an enhancement to both humans and the natural environment.
- Update Policy Approaches – Policies and plans to protect natural areas and the overall environment need to be reviewed/changed. Land use policies and development standards must recognize the changes needed to protect both people and the environment from climate changes and fire disasters. All interested parties should participate in collaborative planning opportunities such as Integrated Watershed Management Plans and the Orange County Green Vision Project.

School Facilities

Since the 2005 survey, Orange County school infrastructure has improved. The majority of school districts' enrollment have either decreased or remained the same, which has allowed districts with the financial resources an opportunity to deal with issues such as deferred maintenance and modernization.

The credit for this improvement goes largely to the districts and their constituents. Districts countywide have aggressively pursued a wide range of financing sources, including state and local bond monies, developer fees, and private financing. The continuing success of local bond measures since the 2005 Report Card has substantially enhanced the districts' ability to safely and effectively house and educate their student populations. In addition, state voter-approved modernization funds have been available for qualifying districts.

Unfortunately, not all districts have been successful in increasing their financial capacity. Failed local bond issues and the inability to provide matching funds for state aid have resulted in continued infrastructure deterioration in these districts. Moreover, there is still much work to be done countywide, even in those districts that have successfully floated bonds and captured available state aid, to bring Orange County school infrastructure to a higher grade. The following case studies demonstrate the ongoing need for physical and programmatic improvements to Orange County's school infrastructure.

Background Information

Case Studies

Case Study #1
Irvine Unified School District:
The Irvine Unified School District (IUSD) operates 23 elementary schools, 5 middle schools, 4 comprehensive high schools, 1 continuation high school, and 8 support facilities, totaling over 2 million square feet of building space on nearly 500 acres of land. They serve over 26,000 students in grades K through 12 in the City of Irvine.

IUSD's facilities are in above average to excellent condition. The majority of their schools were constructed in the late 1960s/early 1970s. IUSD has not passed a local general obligation bond, but it is proactive in pursuing a variety of funding sources that can be used to maintain, modernize, and construct their facilities. In addition to being a successful participant in the state's School Facility Program, additional funding sources include Community Development Block Grants (CDBG), parcel taxes, Community Facilities Districts (CFDs) funding, developer Mitigation Agreements, and lease revenues.

IUSD has historically budgeted an average of $1,500,000 annually for maintenance and repair. However, with the current state budget crisis and the decrease in deferred maintenance funds, IUSD may experience a decline in the level of maintenance they are able to complete. Paving, roofing and heating, ventilating, and air conditioning are the building components that are most likely to be adversely affected. For example, in lieu of replacing an entire aging roof, IUSD will only patch and repair specific areas.

IUSD has made a "Green" commitment. Their most recently completed new elementary school, Stonegate Elementary, was designed and constructed to Collaborative for High Performance Schools (CHPS) standards resulting in additional funding from the state. In the last 18 months, IUSD has diverted 56% of its waste from landfills through the successful implementation of recycling and waste diversion programs.

Case Study #2

Huntington Beach Union High School District:

In 2004, voters in Huntington Beach, Fountain Valley, and Westminster passed Measure C, providing the Huntington Beach Union High School District with much needed funding to improve conditions at the District's nine schools. The Facilities Master Plan was promptly implemented in 2005 and is near completion in 2009. All nine schools have benefited from extensive new construction and/or modernization of current facilities. New classroom and science buildings, locker room buildings, infrastructure upgrades, and key modernization projects have been completed and are now successfully serving the District's 16,000+ students.

The District's commitment to additional deferred maintenance funding has allowed more of the Measure C Scope D (optional) work to be performed than planned one year ago. This has allowed the District to continue to modernize facilities, rehabilitate pavement, and continue the replacement of gym and PE locker facilities. This funding has also allowed the replacement of air conditioning at select campuses; data cabling; and new pre-engineered shelter/shade structures. This additional work will continue into 2010.

General Findings

Orange County's school infrastructure was assessed from five perspectives: (1) condition; (2) capacity; (3) cost/operation; (4) resiliency/security; and (5) sustainability. Additionally, the status of security at Orange County schools was generally assessed; however, because of the sensitive nature of such security issues, the Working Group has evaluated security on a strictly "pass-fail" basis.

Since the 2005 survey, the Orange County school infrastructure has remained the same in the categories listed above. Districts have successfully continued to maintain their facilities in an average to slightly above average condition. Capacity has improved because enrollments have begun to level out and, in some cases, shrink.

This allows districts to plan for the removal and/or replacement of old modular classrooms. A number of new schools have been constructed to meet increased enrollment in areas that have experienced increases (counter to the trend). While costs have increased, a variety of school fund augmentation measures have helped meet cost demands – for example, state and local renovation and new construction funding, private infrastructure financing through Community Facilities Districts (CFDs), school mitigation fees, and mitigation agreements. Funding for maintenance and operations, however, has stayed fairly level, resulting in a fairly high level of deferred maintenance. School facility bond monies are restricted in types of expenditures and cannot be used for routine maintenance and operations expenses.

However, Education Code Section 17070.75 requires that all school districts who receive state funds under the Lease Purchase Program (LPP) or the School Facilities Program (SFP) establish a 3% Routine Restricted Maintenance Account (RRMA) within the school district's general fund for ongoing and major maintenance of school buildings. While this requirement has benefited school districts' Deferred Maintenance Programs, the current state budget for the next five fiscal years reduces the amount that districts are required to set aside to 1%. The budget allows for "categorical flexibility," allowing districts to move funding from one categorical program (e.g., class size reduction, special education, adult education, Title 1, transportation, child development and preschool) to another according to local priorities. The Deferred Maintenance Program is one such categorical program, so funding is subject to this flexibility. Thus, the maintenance of school facilities is expected to decline in the next five years as districts are faced with deepening budget cuts in favor of educational programming priorities.

Capacity

Most school districts have faced growing enrollment for the last two decades. In 1996 and 1997, many school districts serving elementary students adopted class-size reduction programs for some or all of grades K through 3 in order to address individual student needs and provide an increased quality of teaching. However, when school

districts experienced student population growth concurrently with a decrease in student class sizes, this growth resulted in a greater demand for classrooms. In most recent years, because there has been a wave of enrollment decline, the pressure to add permanent and modular classrooms has decreased slightly, and the opportunity may exist for school districts to reduce the number of modular classrooms on playground space. However, other factors may weigh in the decision to remove modular space, such as projected enrollment decreases that have not yet manifested, costs of demolition and playground restoration, and district master planning that may repurpose rather than remove the modular units.

Sixty percent (60%) of districts that responded to the survey have begun to incorporate sustainable design criteria into their new construction and modernization projects. Sustainable design criteria aim to reduce the overall impact of the built environment on human health and environment through design, construction, operation, and maintenance that focuses on increasing the efficiency of resources—energy, water, and minerals. Two organizations provide rating criteria to guide districts in implementing sustainable design: Collaborative for High Performance Schools (CHPS) and Leadership in Energy and Environmental Design (LEED). Districts that have not begun to incorporate sustainable design cited that it was either too expensive or that they do not have current projects.

Public Policy Considerations

The key issues to consider are:

- Continue to improve the financing of maintenance to remove the existing approximate $300 million in deferred maintenance;
- Develop programs and financing mechanisms to meet increasing legal/regulatory requirements for accessibility, safety, and quality educational programming.
- Regional education of the general public as to existing school conditions, the mechanics of school district financing, and the need for additional funding to bring school infrastructure to a level of excellence.

Resiliency and Security

District administrators have generally ranked security measures as "satisfactory," even though isolated security incidents have occurred at various schools. Approximately 70% of the districts reported their facilities meeting all security requirements.

Infrastructure Funding

The school districts estimate the cost of deferred facilities maintenance at approximately $175 million and spend over $50 million in routine maintenance of their schools. Given that roughly half of the County's school districts responded to the survey, the actual dollar value of deferred facilities maintenance within County school districts is probably over $525 million. It is further estimated that over $1 billion is needed to bring the School Facilities grade to a "B."

In addition to local bond issues, Orange County school districts have been apportioned $630 million in Modernization projects and $908 million in New Construction from State Propositions 47, 55, and 1D. However, in December 2008, California's fiscal crisis prompted the halt of disbursing cash from the state's Pooled Money Investment Account (PMIA), which is utilized by the Office of Public School Construction (OPSC) to fund Modernization and New Construction projects approved by the State Allocation Board (SAB). It is unknown when the state funding freeze will end, making it difficult for districts to plan and to begin their construction projects.

What You Can Do

- Support the financing of school infrastructure programs at local, regional, and state levels.
- Provide volunteer service to school districts on infrastructure and facility committees.

Solid waste infrastructure provides an essential public service to the citizens and businesses of Orange County. The method of solid waste management involves three integrated components. All three components work together to make the solid waste management system work effectively. The first is the collection of residential, commercial, and industrial waste. The second is processing of the waste to remove recyclable materials from the waste stream. The third is disposal of the residual waste into three landfills. The first two components are usually performed by private industry and sanitary districts under franchise agreements with the cities or occasionally by cities with publicly operated collection systems, while the third component is performed by the County of Orange. This citizen's guide includes an evaluation methodology and findings described in the Issue Brief Report.

Orange County is meeting the 50% diversion mandate of California's AB *939*, and its landfills produce gas that is recovered and used to generate electricity and fuel public transportation buses.

Orange County's three existing landfills have a combined remaining life of over 40 years. The remaining life span could potentially increase, as plans are underway to expand the landfill disposal capacity and conservation initiatives become more pervasive and efficient.

Background Information

The statutory driving force behind Orange County's solid waste infrastructure is California's landmark legislation known as AB *939*, the Integrated Waste Management Act of *1989*, which requires each city, county, and regional agency to divert 50% of all solid waste from disposal through source reduction, recycling, and composting activities by January 1, 2000.

In the past 20 years since passage of AB *939*, the solid waste infrastructure in Orange County has evolved into a robust waste management system. Local government, in partnership with waste management companies, has surpassed the mandate of AB *939* by

implementing various programs that help residents and businesses reduce and recycle the waste generated. Waste management begins at the source by providing residential and commercial waste and recycling and collection service. Timely and regular collection of the waste and recyclables ensures our neighborhoods, parks, and businesses are kept clean and free of litter, vector propagation, and odor generation.

Once the waste and recyclables are collected, recyclable loads are transported to Materials Recovery Facilities (MRFs) for further processing whereby the recyclables are removed from the waste stream, bailed, and shipped to factories to be manufactured into new commodities. These facilities are equipped with state-of-the-art sorting and conveyor systems to maximize the separation of recyclables from the waste stream. A number of green waste facilities are also located throughout the County that convert yard waste into nutrient-rich compost and mulch products that can be used to enrich landscaped areas in our local communities.

Disposal of harmful and/or illegal waste into our local landfills and environment is monitored and controlled at "waste stream" check points throughout the County. The waste stream is scanned at these check points and the undesirable waste materials are removed and disposed of properly. The County also maintains four Household Hazardous Waste Collection Centers strategically located throughout the County available to residents to properly dispose of household hazardous waste free of charge. Working together, solid waste stakeholders have provided a system that accommodates the proper disposal of prohibited waste and reduces the amount of residual waste buried at the landfills.

Any residual waste not processed at the MRFs or green waste facilities is disposed in one of three Orange County landfills. In addition, residential and commercial loads that contain very little recyclable content are directly hauled to the landfills. Once at the landfill, waste is placed in a series of layers within a controlled environment that includes liners, gas collection systems, and groundwater monitors.

Orange County's three existing landfills have a combined remaining life of over 40 years. The remaining life span could potentially increase, as plans are underway to expand the landfill disposal capacity. The implementation of additional recycling programs will further decrease the amount of waste disposed at the landfills.

Once buried, the waste generates landfill gas, which can be harnessed for beneficial reuse. The County's landfill gas collection systems generate enough electrical energy to meet the annual power requirements of approximately 14,000 homes. Plans are underway to construct another electrical generation plant using landfill gas that will supply power to an additional 24,000 homes. In addition, a generating electrical energy, landfill gas is also converted to liquefied natural gas (LNG), which is used to fuel public transportation vehicles.

Public Policy Considerations

AB 939 gave local government the responsibility to reduce the amount of solid waste being disposed in our landfills by 50%. Potential new legislation by the state may increase the required solid waste diversion rate to 75%. Additional new legislation is also being introduced to expand the role of product stewardship to manufacturers, requiring private manufacturing companies to minimize the production of waste during the manufacturing process and to provide "take back" programs once the product has reached the end of its useful life. In addition to legislation, new regulations continue to be developed that prohibit the disposal of harmful and/or hazardous wastes. New legislation and regulations will provide new challenges and will place additional responsibilities for managing and reducing our solid waste stream on local government, the community, and private industry. Under the AB 32 (Global Warming Solutions Act) Scoping Plan, a number of Recycling and Waste Management issues, including Mandatory Commercial Recycling, have been identified as contributing to significant greenhouse gas emissions reductions. The target of the mandatory commercial recycling measure is to reduce between 2 and 3 million tons per year of waste disposal.

The goal of reducing our future waste stream is to extend the effective life and capacity of the County's existing private and public facilities. As we reduce the amount of waste entering our waste management infrastructure system we will also reduce the amount of revenue available to develop and maintain our solid waste infrastructure. The costs associated with operating and maintaining these facilities are "fixed costs." That is, the cost of operating and maintaining the solid waste infrastructure is essentially independent of the amount of waste available to the system. Additional revenue sources, including fee increases, will be required as we become more successful with conservation and management. Recycling, energy production and new fees structures may provide the additional funds required to support the required operational, maintenance and development costs.

Recommendations

There are a number of ways that Orange County can continue to enjoy the benefits of a well-run waste management and waste recycling program:

- Continue monitoring emerging technologies for potential implementation as an alternative to landfills and to extract energy from materials that cannot be easily recycled.
- Continue to encourage government, retailers, and manufacturers to implement extended producer responsibility policies and practices.
- Support development of additional recycling facilities to divert reusable resources from landfills.
- Continue educating the public on the value of recycling and the proper disposal management of household hazardous waste, e-waste, and household medical waste.
- Fully implement energy recovery from landfill gas to reduce dependency on fossil fuels.
- Continue taking steps to combat global warming by reducing the carbon footprint, being more energy efficient, and incorporating "Green Building" practices.

- Ensure adequate revenue sources to maintain existing level of service and fully fund all liabilities for now and generations to come.

Resilience

Orange County's solid waste infrastructure is an integrated system that is built upon the partnership between local and county government and private waste management companies. The collective efforts of the waste industry result in a seamless process dedicated to meeting the service needs of Orange County residents and businesses while protecting public health, safety, and the environment. Multiple facilities and multiple players provide a robust system and market that insures long-term sustainability and competency.

Infrastructure Funding

The cost to maintain the current "B+" grade is estimated at $480 million per year. Primary funding for the management, development, and processing of solid waste is accomplished through user fees. Public and political support for appropriate fee increases has become a fairly well-accepted practice in Orange County. Continued widespread support from business, environmental, and public interests will ensure Orange County's future.

What You Can Do

The most important action that you can take in your home or in your business is to reduce waste in the first place. Look for products with minimal use of packaging. For example, limit your use of bottled water and emphasize the use of counter-top or under-sink water treatment to improve the taste of the water you drink. Shift from hard copy communications and reports to electronic versions. Recycle solid waste and encourage others to do so. Shop and trade with the stores, restaurants, and organizations that pay attention to the products and packaging they use.

You can find additional information by visiting www.wastefreeOC.com

Pacific Ocean views and sand and surf are iconic images of Orange County. The area's warm Mediterranean climate and miles of beaches, streams, and creeks offer year-round water recreational opportunities. These benefits, along with the more than 60,000 acres of wilderness parks and open space lands, attract more than 25 million tourists annually.

Beaches are a hot spot for sunbathing and surfing, while inland tourist destinations include hiking and biking trails as well as numerous theme and water parks. Revenues generated by visitors substantially impact the region's economy. The County's pristine beach properties are some of the most desirable and have the highest real estate values in the country.

The combination of increased beach attendance, tourism, population growth, and urbanization has put a strain on the Orange County waterways and coastline, affecting surface water quality.

Orange County has eight Clean Beach Initiative (CBI) projects underway, including urban runoff diversions and innovative treatment plants intended to reduce bacterial levels.

Seeking support for additional water quality projects continues to be a challenge. In 2008, bonds for CBI projects were frozen due to state budget cuts.

Background Information

In 2002 and 2005, surface water quality was graded as urban runoff within the flood control chapter. For the first time, this important public policy matter is addressed as a separate issue. Orange County streams and beaches are the outlet for urban runoff carrying pollutants. During dry weather periods, urban runoff from excess irrigation, car washes, drained swimming pools, and illicit discharges are routed through the storm drain system to coastal waters and waterways. Combined in previous report cards, Urban Runoff (now

'Surface Water Quality') and Flood Control are separated into different categories in this report card to correctly evaluate their respective goals and purposes.

With urbanization, increased impervious surfaces in the form of roofs, parking lots, driveways, roads, and highways decrease the amount of open space available for the infiltration and percolation of rainfall into the ground. Runoff carries pollutants, sediments, and litter accumulated from the urban areas and non-point sources directly to the ocean. Poor water quality can threaten public health and may have severe economic consequences for businesses dependent on the beaches.

Public Policy Considerations

The objective of improving surface water quality in Orange County is to safeguard public health, the environment, and the economy. Population growth, especially along the coast, has contributed to an increase in urban runoff that flows into the creeks and rivers. Urban runoff is believed to be the prime cause of beach pollution. Untreated urban runoff carries bacteria and viruses directly to the beaches and ocean.

Today an enormous amount of time and funding is invested in water quality monitoring, reporting, and project implementation to protect our coastal waters. Dry-weather-period water samples at the coastal waters were analyzed for fecal coliform, total coliform, and enterococcus. Monitoring data from Orange County is compiled each year by Heal the Bay for its Annual Report Card on the health of California beaches. The worst beaches for high indicator bacteria levels were reported on the 2009 Heal the Bay's Top 10 Beach Bummer list in California. Two Orange County beaches received an overall grade of "F." Doheny Beach at San Juan Creek was listed as No.10, and Poche Beach was ranked No.7.

Overall, there have been dramatic improvements over the past summers, 99 of 103 monitored Orange County beaches scored A's on Heal the Bay's 2009 California End of Summer Beach Report Card

with data collected from Memorial Day through Labor Day. Three other beaches received B's, making Orange County a standout performer in the state this past summer.

Community planning can make an impact in reducing runoff and pollutants discharged into our coastal waters. Integrating Low Impact Development (LID) practices designed to restore predevelopment runoff patterns to new and existing development designs can generate less surface runoff and less pollutants transported to the downstream waters.

Community response to water conservation efforts will also help alleviate urban runoff issues. Water-saving irrigation practices and landscape techniques can reduce dry-weather runoff. Local water districts have developed programs to encourage and provide incentives to implement residential landscaping water conservation practices, such as use of drought-tolerant plants, permeable paving, rain barrels, and cisterns. Individual actions and lifestyle habits in simple day-to-day

activities can also have a positive water quality impact. Maintaining vehicles to eliminate fluid and oil spills; avoiding overuse of fertilizers and pesticides; and ensuring proper disposal of paint, motor oil, and chemicals will significantly decrease urban runoff and pollutants flowing to the beach outlets and improve the County's overall surface water quality.

Infrastructure Funding

With the goal to protect and restore the health of California beaches, the State Water Resources Control Board has provided funds through the Clean Beach Initiative (CBI) to improve water quality of California's most polluted beaches. Orange County has eight CBI projects including urban runoff diversions and innovative treatment plants intended to reduce bacterial levels. Seeking support for additional water quality projects and Best Management Practices (BMPs) continues to be a challenge. In 2008, bonds for CBI projects were frozen due to state budget cuts.

What You Can Do

Community response to water conservation efforts will help alleviate urban runoff issues. Water-saving irrigation practices and landscape techniques can reduce dry-weather runoff. Local water districts have developed programs to encourage and provide incentives to implement residential landscaping water conservation practices, such as use of drought-tolerant plants, permeable paving, rain barrels, and cisterns.

Individual actions and lifestyle habits in simple day-to-day activities can have a positive water quality impact. Maintaining vehicles to eliminate fluid and oil spills; avoiding overuse of fertilizers and pesticides; and ensuring proper disposal of paint, motor oil, and chemicals will significantly decrease urban runoff and pollutants flowing to the beach outlets and improve the County's overall surface water quality.

Well-managed and fully funded wastewater collection and treatment systems are essential to sustaining our quality of life and ensuring the long-term economic vitality of our communities. Protecting public health and the environment and extending the useful life of our wastewater management infrastructure must remain a top priority in today's complex society. In Orange County, wastewater is managed by over 30 special districts and city departments that are responsible for one or more of the steps necessary to collect, treat, and dispose or reuse 250 million gallons per day.

Since the completion of the 2005 Orange County Infrastructure Report Card, sewage spills have continued to decline and our beaches remain among the cleanest in California. The beaches in Orange County are national treasures used by millions of tourists and inland residents and must be protected from all forms of human pollution.

There are rare but significant events that have occurred since the last report card. A power failure at a North County agency caused a large sewage spill into the Santa Ana River that closed the nearby beaches for several days. Two large sewage spills occurred at one South Orange County agency when pumping equipment failed. In both cases, each agency evaluated the root cause of the spills and made appropriate improvements to prevent a similar future occurrence.

Wastewater flows continue to decrease in spite of a growing countywide population. The effects of water conservation, a multiple-year drought, and our recent economic recession have all contributed to the lowest average daily wastewater flows in more than 20 years.

Wastewater treatment plants throughout the County have faced ongoing rehabilitation and upgrades to improve their condition and to meet increasingly stringent effluent quality standards. The Orange County Sanitation District and the Orange County Water District completed the world's largest water reclamation plant using microfiltration and reverse osmosis to produce contaminate-free water suitable for groundwater recharge and direct non-potable uses.

In spite of lower flows and a lack of wet-weather-related problems seen in prior decades, the condition of the collection system continues to be a lingering concern. Significant collection system construction took place during the post World War II building boom of Southern California. Many sanitary sewers built in the late 1940s and early 1950s have reached their original design service life. As their condition deteriorates, these older sewers are more prone to root intrusion, offset joints, debris and grease build-up, and site-specific failures that can cause sewer spills. For these reasons, sustained funding must be continued to support ongoing remote inspections, maintenance, rehabilitation, and replacement of the collection systems.

It is estimated that over $3 billion is needed during the next 10 years here in Orange County to fund the various local and regional rehabilitation projects to maintain and improve systems from current levels up to a good, but not excellent, condition.

Public involvement is an important ingredient in a well-run wastewater management system. Some cities and agencies are using web-based systems to communicate with their citizens about the critical importance of wastewater infrastructure and sewer maintenance programs.

Background Information

Wastewater treatment and water reclamation facilities have historically received greater attention than collection systems (sewers) and are in better overall condition as a result. State and federal regulations, including the California Porter Cologne Act and the Clean Water Act administered by the Environmental Protection Agency and the two California Regional Water Quality Control Boards that regulate Orange County have held local agencies to increasingly stringent standards and comprehensive regulations. Environmental organizations, business groups, and the general public have consistently supported funding.

Since 1972, evolving state and federal regulations have required increasingly stringent effluent quality standards, improved staffing levels, better operator training and certification, better maintenance

practices, and improved long-range planning and capital projects. This has yielded increasingly reliable operation of the systems serving Orange County.

In 2002, the Orange County Sanitation District's Board of Directors, with considerable insistence by the public to do so, committed over $2 billion to upgrade the two regional facilities serving north and central Orange County over the following ten years. Major capital improvement programs also occurred at the other wastewater management agencies serving portions of central and south Orange County.

Wastewater collection systems and pump stations must now meet state-mandated minimum standards. Previously, financial and operational attention was not consistently provided to many sewer systems in Orange County. This has significantly changed during the last five years.

Since 2006, all cities and wastewater collection agencies in the County have been required by the state to adopt and execute "Sewer System Management Plans" that implement measures to reduce sewage spills and mitigate the impacts of sewage spills if they occur. As a condition of these state-approved plans, collection system owners must evaluate the capacity of their systems and provide adequate capacity where needed. They are absolutely obligated to inspect and rehabilitate aging sewers as necessary; adopt and enforce ordinances requiring private property owners to maintain their own sewers; and ensure long-range planning, staff development, and funding mechanisms sufficient to operate, maintain, and improve their systems. System condition assessments are required to guide short- and long-range rehabilitation plans and related financial needs.

Many old sewage pump stations located throughout the County do not meet current design standards and experience significant performance problems due to a lack of replacement parts and backup systems. Other ongoing problems include corrosion, mechanical wear, pump and pipe clogs, and equipment obsolescence. This means increased replacement and rehabilitation costs and increased maintenance needs for these critical assets to extend their useful lives and meet daily performance

needs. But breakdowns occur in these aging systems. Work continues to rehabilitate and replace these systems, but it will be years before the systems have all been fixed.

All of the cities and agencies in Orange County now have enterprise funds dedicated to the single purpose of managing the operations, maintenance, and replacement of their sewer collection systems as a matter of professional practice or to comply with state-mandated standards.

Public Policy Considerations

Beyond the state-mandated standards and practices enumerated above, the successful operation of the wastewater collection and treatment systems in Orange County requires the innovative regional approaches and cooperative projects that are routinely used today by Orange County's agencies. These alliances benefit residents and ratepayers as financing and funding become more challenging. Benefits include improved economies of scale, sharing the most advanced technologies, and leveraging city and agency expertise to solve current and future issues. For instance, a regional sewer collection agency group provides educational workshops and certified training programs for staff that benefit large and small agencies alike.

Resilience and Security

Intense rainstorms, power failures, and earthquakes are the events that threaten the reliable operation of wastewater management systems. Hard rain events are a potential source of inflow and infiltration in sewer systems that are not properly designed and maintained. This can overwhelm the system with excessive flow that causes sewage spills. Lengthy power failures can cause pump stations to fail if backup generators are not available. Earthquakes cause the most damage to systems that are not designed to modern standards.

Orange County systems are generally more resilient to these conditions than in the past because of the significant investment made during the last 10 years. For instance, a series of back-to-back rainstorms

experienced in the winter of 2010 caused no excess flow conditions. In the past, rainstorms of this intensity and duration would have caused localized problems with sewer spills.

With respect to security, the operating agencies in Orange County restrict entrance into their wastewater treatment facilities and securely lock their remote pump stations to limit vandalism and acts of terrorism. Cameras and remote-sensing equipment are used to monitor vulnerable areas.

Infrastructure Funding

Funding to operate, maintain, and construct the facilities needed to convey, treat, and dispose or reuse the approximately 250 million gallons of wastewater that are produced every day in Orange County comes primarily from user fees. Some agencies receive a small amount of property tax income, but the amount has decreased over time because of actions taken in Sacramento during annual budget negotiations.

All of these agencies have well-established sufficient authority to enact and collect user fees. They are, in fact, mandated by the state to do so through the "Waste Discharge Requirements" it adopts for each of them. It is, therefore, required and expected that the decision-makers that oversee these agencies adopt fees that are sufficient to meet their foreseeable operating and capital needs.

State and federal grant and low-interest loan programs for the construction of collection system and treatment plant infrastructure are unpredictable, spotty, complicated, and subject to delay. They have been insufficient to meet the collective needs of Orange County. The grants and loans are usually paid on a reimbursement basis and are frequently delayed because of chronic budget shortfalls in Sacramento. For this reason, it is prudent for wastewater management agencies to secure loans through other means such as bonds and certificates of participation.

It is estimated that over $3 billion is needed during the next 10 years here in Orange County to fund the various local and regional rehabilitation projects to bring systems from current levels up to a good, but not excellent, condition.

What You Can Do

Public involvement is an important ingredient in a well-run wastewater management system. Use the websites operated by these agencies to find announcements and agenda listings. Many agencies provide a free subscription service that sends updates and agendas automatically to your inbox. When important projects and budget matters are under consideration by the decision-makers, your voice in front of the body or conveyed through written comments is a powerful and meaningful part of the public policy making process.

Do not dispose of fats, oils, and greases (FOG) in your sink. Instead, place them in a container and place that it in a trash can. FOG coalesces to form clogs in your service lateral and in the public sewers of your community. FOG is the single most important cause of sewage spills in Orange County.

Imported water provides about 50% of Orange County's water needs. Imported water is delivered from the Colorado River through the Colorado River Aqueduct and from Northern California through the State Water Project. The dependability of these supplies directly influences the reliability of water service to consumers in Orange County. Orange County is continually improving its local programs for developing, storing, treating, and delivering water to consumers. However, Orange County's supply reliability has been impacted by challenges to imported water sources from outside our boundaries - and well outside our political and financial influence.

The Colorado River system has suffered through nine years of drought and reservoir storage has declined to about 50% of capacity. The Colorado River system is oversubscribed, and California faces continuing competition from neighboring states for the system's resources. The Metropolitan Water District of Southern California (Metropolitan) has been successful in developing additional supplies through cooperative transfers and exchange agreements to the extent

that in 2009, the Colorado River Aqueduct will carry about 92% of its capacity into Southern California. Into the future, Metropolitan will have to remain especially vigilant as environmental issues, climate change, and competition threaten long-term reliability.

Supplies from the State Water Project face more uncertainty than the Colorado River supplies do, primarily because of challenges in the Sacramento-San Joaquin River Delta (Delta) system including insufficient upstream storage, inadequate conveyance, wastewater discharges into the system, vulnerable Delta levees, endangered species, invasive species, institutional complexity, regulatory and legal decisions, and others. The Delta's ecosystem is not sustainable in its current form. A time horizon of 15 to 20 years will be needed to implement a "Delta fix" once one is agreed upon. This is the single greatest threat to the long-term interests of the citizens and businesses of Orange County.

Recent legal decisions and federal regulations, known as biological opinions, put in place to protect threatened fish species in the Delta have allocated more and more water to fish and other environmental needs and have restricted the times of the year when water can be pumped to supply agricultural and urban needs. The availability of imported water from the State Water Project to all of its users has been reduced by about 40% (about 800,000 acre-feet per year). This has reduced Orange County's overall water supply by about 10% or approximately 70,000 acre-feet per year.

Another new and not fully understood challenge is climate change. Our growing awareness of natural and human causes of climate change has improved our understanding of the potential impacts on water supply—but large uncertainty remains. The length of this drought cycle is impossible to predict. In the distant past, California's drought cycles have lasted dozens and even hundreds of years.

Background Information

Orange County water retail agencies (cities and local districts) deliver about 228 billion gallons of water each year (about 700,000 acre-feet) to residents and businesses within the County. North and central

Orange County is about two-thirds dependent on groundwater pumped from the Orange County Water District Groundwater Basin, whose primary source is the Santa Ana River, and about one-third dependent on water imported from the Colorado River and Northern California. The south Orange County area is almost entirely dependent on water imported into the County, although recycling, groundwater supplies, and an ocean water desalter are being developed.

Our water infrastructure received an overall grade of B-. While the County's water infrastructure is in good to excellent condition, it will require continuing investments for repair or replacements to keep it in top shape. However, the lack of water supply reliability from outside the region for our imported supplies has currently emerged as an overwhelming issue and has caused a major downgrading from our prior report until it is resolved. Mandatory conservation ordinances have been adopted by nearly all retail water agencies through the fall of 2009. This helps but is insufficient given the trends listed above. The well-worn phrase, "a perfect storm" precisely describes our desperate situation.

Public Policy Considerations

Since the 2005 Report Card, we have identified several priority tasks that must be accomplished to address the risks that threaten us. These include the following:

- Ensure that supplies continue to flow from the State Water Project and the Colorado River.
- Achieve effective agreement on a long-term management fix of the Bay-Delta region.
- Build additional local projects for recycled water, groundwater desalination, and ocean water desalination.
- Maintain our high-quality public water supply by diligently monitoring for and treating for any newly determined contaminants of concern in local or imported water supplies used in Orange County.
- Insist that consumers and businesses use water as efficiently as possible. Water use efficiency is the quickest method of bringing on new "sources" of water.

Resilience and Security

In 2010 and beyond, Orange County must continue to focus on several aspects of water infrastructure to maintain service reliability and to prevent any slippage of the grade. These include:

Maintain Aging Facilities: Though much of our water infrastructure was built within the last 45 years, it will deteriorate and fail at an increasing rate without appropriate investments and planning now. Water agencies must apply proactive maintenance and repairs, including corrosion prevention.

Develop Local Water Supplies: Imported water supplies will always be at risk from adverse water rights reallocations, drought, and contamination. For instance, because Metropolitan no longer has unrestricted access to surplus Colorado River water and the State Water Project is currently in its third year of drought, it implemented a water rationing program on July 1, 2009. Fortunately, Orange County water agencies have begun new initiatives to develop new local supplies. The

Groundwater Replenishment System (GWRS) became operational in 2008 and is now supplying 72,000 acre-feet of water to the groundwater basin. The GWRS will be expanded in the near future to provide even more water. Water recycling, ocean water desalination, and increased water-use efficiency are other possible ways currently under consideration to increase local water supplies.

Retail agencies in Orange County have adopted Water Conservation Ordinances to encourage and mandate reduced water usage. Water-budget-based tiered water rates are being evaluated by a number of agencies. Experience has shown that these rate structures reduce water waste by the highest water users and save the retail entity as much as 20% of overall water use.

Water Quality: Nearly all agencies have expressed concern about possible contaminants in imported and local water sources. We can detect more and more elements at lower and lower concentrations. This gives us more awareness and understanding about what is in the water but we oftentimes do not have the corresponding understanding of the effects so we can act appropriately. Metropolitan must continue to seek water quality improvements in the water delivered through the Delta. It will cost more to provide safe water if and when new contaminants of concern are identified and managed.

System Reliability: Since the last report card, major projects have started construction or design. They will improve system reliability to portions of Orange County that depend heavily on imported water delivered through two major pipelines and one regional filtration plant. These projects include stabilization and seismic strengthening at the Diemer Filtration Plant by MWD, construction of the Irvine interconnections to send water from North Orange County to South Orange County during emergency situations, construction of the 750-acre-foot Upper Chiquita Reservoir, and design of the New Baker Filtration Plant to treat and deliver water to South Orange County. All of these projects will become operational in 2010 or 2011.

Seismic Retrofit: The 2002 Report Card recommended that most retail agencies conduct seismic evaluations of their facilities to meet current standards and protect water supply from a catastrophic earthquake. Many have completed these surveys and some have completed improvements. The remaining work must be completed.

Security: Water agencies were required under federal statute to complete a confidential vulnerability assessment in 2002 or 2003. Most agencies have implemented between 50% and 100% of the suggested improvements.

Infrastructure Funding

Orange County must invest nearly $2 billion over the next ten years to maintain the local infrastructure. Funding to complete a Delta 'fix,' depending on the selected option, will likely require from $10 to $20 billion. It is difficult to estimate how much this will cost Orange County because the costs will be spread between the federal and state governments and water users.

What You Can Do

Water conservation is vital to the long-term interests of California and Orange County. Water use in your home, neighborhood, city, and place of employment all have an incremental impact on water demand. Educate yourself about the possibilities of saving water and then act so that your actions and those around you match what is possible. Every drop counts is more than a catch phrase.

Closely study the issues about water here in Orange County and California. Water reclamation, water conveyance, water storage and water allocation are real and on-going public policy matters that impact you and your family. Sitting back and letting others decide these matters is a mistake. Read, develop an informed opinion and then express it where you can. The opportunities to be heard are nearly endless. Watch the news, get on e-bulletins like BC NEWS, www.bcwaternews.com/cawaternews, and stay abreast of what is happening all around you. And act. It is not an exaggeration to say that the future of California and Orange County depends in large part on what happens in the next ten years on water policy.

Community Hospital Infrastructure In Orange County: A Status Report

The ability of hospitals to keep pace with infrastructure improvements is influenced by a variety of factors, including growing community demand and the nature of that demand, trends in patient care (such as the increasing use of outpatient or ambulatory surgery services and the need for more ICU beds with an aging population), seismic retrofit requirements, and financial and economic considerations. In recent years, studies on efficient hospital design and how hospital design influences patient healing have influenced new hospital construction, and hospitals that have been financially able to seismically retrofit their facilities have done so. Most recently, however, capital decisions have been significantly impacted by the ongoing credit crisis and the nation's faltering economy.

More than a quarter of hospitals statewide saw interest expenses increase in the first quarter of 2009, while many others were frozen out of the credit market entirely. In addition to the challenges of accessing capital, hospitals have seen increases in uninsured patients with consequent increases in bad debt and charity care. This has come at a time when hospitals are burdened with the unfunded seismic mandate estimated at $110 billion statewide. In Orange County 23 of our 32 hospitals are required to meet seismic mandate deadlines of 2013 or 2015. It is estimated that one hundred hospitals statewide will fail to meet their seismic deadlines.

The Hospital Association of Southern California (HASC), the County of Orange, and CalOptima partnered in 2007 to commission the Orange County Healthcare Infrastructure Study to ascertain the extent to which hospital capacity in the county would be sufficient to meet the needs of our growing population. This study was released in early 2008. Hospitals reported expansion plans projected to take place over the next decade. At that time, notwithstanding that hospitals expected to add 567 net beds to their inventories and assuming that service levels stay the same, the total coverage shortfall across the county was projected at 549 beds in 2015. To put this number in perspective, Orange County hospitals are licensed for a total of approximately 6,000 beds and 4,800 of these are "set up", or staffed and currently serving patients.

Other findings:

- Significant variations in hospital facility distribution current exist across the county; however, data represented in the study showed a positive correlation between facilities and population.
- There are only three trauma centers in Orange County; two of these are located in central Orange County.
- ICU is the only bed type well covered through 2015.
- Psychiatric and outpatient bed shortfalls are the highest areas of shortfall in 2010 and 2015.
- No additions of the following bed types are planned during the next decade: Pediatric Intensive Care Unit (PICU), burn, trauma stations, psychiatric, rehab, or skilled nursing.
- The communities of Irvine, Costa Mesa, and Newport Beach will see population increases of nearly 47 percent between 2000 and 2015. This area of the county will experience the highest bed coverage shortfalls over the next 10 years according to existing service levels, as population growth eclipses projected hospital services expansion.
- Hospitals reported deferred or delayed expansion plans due to financial constraints, seismic mandates, nurse/physician shortages, and delays in state approvals.

Orange County residents clearly value the presence and availability of hospitals and emergency rooms in their communities. In late 2005, the Orange County Business Council and Cal State Fullerton Center for Public Policy conducted a survey wherein 89 percent of Orange County residents rated hospitals and emergency rooms to be "very important" to Orange County – even higher than schools, drinking water, roads, streets, and highways.

Not mentioned earlier but significant to the ability of hospitals to keep pace with growing demand is the public policy and regulatory environment. The shape of health care reform will determine whether costs can be adequately covered while coverage is expanded, and this in turn will determine the ability of hospitals to remain economically viable and to secure the capital they need to meet the demands of our growing community.

Methodology

Overall Report Card Objective

To build widespread support and understanding regarding the importance of public infrastructure facilities, systems, and their impact on the quality of life and economic vitality in Orange County.

Organizational Structure

The Report Card was developed through the efforts of three committee levels. The committee members are listed in a separate section of this guide.

The Infrastructure Working Committees consisted of technical experts in the field – including both public and private sector participants. Each committee developed the detailed methodology for its specific category, collected and evaluated the data, prepared its section of the "2005 Report on Orange County's Infrastructure", and assigned the initial grade.

The Review Councils were comprised of leaders in the public sector, consultant/private industry, academia, and the environmental community. Their responsibilities were to review and evaluate the findings of the Working Committees, and to establish public policy considerations for each infrastructure category.

The Executive Committee was responsible for organizing and guiding the overall Report Card effort.

Development of Report Card Grades

In the development of Report Card Grades, four fundamental components of the infrastructure were considered:

Condition

What is the existing or near future condition of the infrastructure facility? In assessing the condition of the infrastructure, the immediate future conditions (up to three years) included improvements funded or in design.

Capacity

Are the current facilities able to support the current population? Will the existing and planned (funded) facilities be able to support the community in ten years? The existence of Master Plans, Funding Plans, and Capital Improvement Programs were key factors in the capacity assessment.

Operations

The Working Committees each developed parameters applicable to their areas. Key issues were: Is the specific infrastructure system complying with existing regulatory requirements? Do the organizations have sufficient funding for facility maintenance.

Security

Does the infrastructure element provide adequately for preparing for, or responding to, natural or manmade, (e.g. terrorism) disasters?

Weighting Factors and Grading Criteria

The weighting factors applied by each working committee are described in their report, using the four categories listed above. The Orange County Report Card effort follows the ASCE National Report Card's approach based on the following scale:

A	=	90-100%
B	=	80-89%
C	=	70-79%
D	=	41-69%
F	=	40% or lower

2010 Orange County Report Card

Executive Committee

	Name	Title/Affiliation
Co-Chairs:	Blake Anderson, PE	President, Blake Anderson Consulting
	Jan Scherfig, PE	Professor Emeritus, UC Irvine, CEE Department
Members:	Bill Bennett, PE	Senior Vice President, HDR Engineering
	Steve Bucknam, PE	President, Bucknam & Associates
	Terry Hartman, PE	Vice President, Community Infrastructure, Irvine Company Community Development
	Bev Perry	Assistant Director, Bedrosian Center on Governance, USC
	Dr. Wallace Walrod	Vice President of Economic Development and Research, Orange County Business Council
	April Heath	Administrative Specialist, UC Irvine, CEE Department
Liaison w/CA ASCE:	Kenneth Rosenfield, PE	Past President, ASCE Orange County Branch
National ASCE:	Robert Bein, PE	Chairman Emeritus, RBF Consulting
Editing, Format and Production	Deanna Rose	Technical Editor, HDR Engineering
	Faye Stroud	Creative Director, RBF Consulting
	Tracy Sanchez	Consolidated Reprographics

WORKING COMMITTEES

Aviation

Co-Chairs:	Michael McGaughey, PE	Senior Project Manager, Hatch Mott MacDonald
	Larry Serafini	Deputy Airport Director, County of Orange, John Wayne Airport
Members:	Kash Hadipour	Vice President, National Aviation Lead, Kleinfelder
	Eric Mimoso	Airport Engineer, County of Orange, John Wayne Airport
	Ambi Thurai, PE	Senior Professional Engineer, County of Orange, John Wayne Airport
Program Manager:	Steve Bucknam, PE	President, Bucknam & Associates

Energy

Co-Chairs:	Quang Vu, PE	President, Dahl Taylor & Associates, Inc.
	Ali Yari	Director, Electric T&D Engineering, San Diego Gas & Electric
Members:	Bob Woods	Manager, Distribution Engineering, Southern California Edison
	Richard Sheaffer, PE	Principal Engineer, Electric T&D Engineering, San Diego Gas & Electric
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Flood Control & Levees

Co-Chairs:	Terry Hartman, PE	Vice President, Community Infrastructure, Irvine Company Community Development
	Nadeem Majaj	Assistant Director, OC Public Works
Members:	Mike Granada, PE	Project Engineer, OC Public Works
	Ziad Mazboudi	Senior Civil Engineer, City of San Juan Capistrano
	John McCarthy	Vice President, RBF Consulting
	Ashutosh Mehta	Chief, Programming, Flood Control, OC Public Works
	Kevin Onuma	Manager, Flood Control Division, OC Public Works
	Mehdi Sobhani, PE	Manager, Flood Control Programs, OC Public Works
Program Manager:	Terry Hartman, PE	Vice President, Community Infrastructure, Irvine Company Community Development

Parks/Recreation/Environment

Co-Chairs:	Jean Watt	Friends of Harbors, Beaches & Parks
	Bev Perry	Assistant Director, Bedrosian Center on Governance, USC
Members:	Pilar Alcivar-McCoy	Recreation & Human Services Manager, Community Services, City of Garden Grove
	John Beauman	Council Member, City of Brea
	Pete Bonano	Deputy Fire Marshal, Orange County Fire Authority
	Ilse Byrnes	State Trails/Greenway Foundation
	Susan Brodeur, PE	Coastal Engineer, OC Public Works
	Mark Denny	Director, OC Parks
	John Graves	Director, Planning & Field Operations, Irvine Ranch Conservancy
	David Pryor	California State Parks, Orange Coast District
	Melanie Schlotterbeck	Conservation Clarity
Program Manager:	Jan Scherfig, PE	Professor Emeritus, UC Irvine, CEE Department

School Facilities

Co-Chairs:	Charlene Yarnall	Principal, PJHM Architects
Members:	James Bucknam	Associate, A4E
	Melanie Houk	Senior Counsel, LENNAR
	Justin Powers	Associate, Bucknam & Associates
	Mike Whipple	President, MF Whipple & Associates
Program Manager:	Steve Bucknam, PE	President, Bucknam & Associates

Solid Waste

Co-Chairs:	Kevin Kondru, PE	Deputy Director, Central Region, OC Waste & Recycling
	Sonia Nasser, PE	Vice President, Sustainable Infrastructure Planning, Bryan A. Stirrat & Associates
Members:	Susan Collins	Director, Southern California Practice, R3 Consulting Group
	Sue Gordon	Vice President, Environmental & Public Affairs, Rainbow Disposal
	Bert Palmer, Ph.D., PE	Vice President, Geosyntec Consultants
	David Ross	Senior District Manager, Waste Management, Inc.
	David Tieu	Civil Engineer, OC Waste & Recycling
Program Manager:	Bill Bennett, PE	Senior Vice President, HDR Engineering

Surface Water Quality

Co-Chairs:	MaryAnne Skorpanich	Director, OC Watersheds Program, County of Orange
	Garry Brown	Executive Director & Coastkeeper, Orange County Coastkeeper
Members:	Tom Bonigut, PE	Assistant City Engineer, City of San Clemente
	Richard Boon	Stormwater Program Manager, County of Orange
	David Hunt, PE	Senior Vice President and Chief Operating Officer, Willdan Engineering
	Ann Mesa	Civil Engineering Assistant, County of Orange
	Joe Parco	Water Quality Engineer, City of Santa Ana
	Ken Susilo, PE	Prinicipal, Geosyntec Consultants
Program Manager:	Jan Scherfig, PE	Professor Emeritus, UC Irvine, CEE Department

Transportation

Co-Chairs:	Bob Kallenbaugh	Chief Executive Officer, RBF Consulting
	Paul Taylor	Deputy CEO, Metropolitan Transportation Authority *(Formerly of Orange County Transportation Authority)*
Members:	Jim Beil	Deputy District Director, Caltrans District 12
	Kia Mortazavi	Director of Development, Orange County Transportation Authority
	Darrell Johnson	Director of Transit Project Delivery Orange County Transportation Authority
	Hamid Bahadori	Principal Transportation Engineer/ Senior Policy Analyst, Automobile Club of Southern California
	Les Card	Chief Executive Officer, LSA Associates, Inc.
	Bo Burick	Vice President, RBF Consulting
	Gary Warkentin	Vice President, RBF Consulting
Program Manager:	Bill Bennett, PE	Senior Vice President, HDR Engineering

Wastewater

Co-Chairs:	Nick Arhontes	Director, Operations & Maintenance & Regional Services, Orange County Sanitation District
	Zeki Kayiran	President, AKM Consulting Engineers
Members:	Jay Elston	Utilities Operations Supervisor, City of San Clemente
	Brennon Flahive	Environmental Compliance Administrator, South Orange County Wastewater Authority
	Brent Hayes	Sanitation Supervisor, Garden Grove Sanitary District
	Mike Lynch	Wastewater Supervisor, City of Newport Beach
	Patrick McNelly	Principal Staff Analyst, Orange County Sanitation District
	Diann Pay	Principal Engineer, AKM Consulting Engineers
	Greg Springman	Collection System Manager, Irvine Ranch Water District
Program Manager:	Blake Anderson, PE	President, Blake Anderson Consulting

Water Supply

Co-Chairs:	Bill Mills	William Mills & Associates
	Greg Heiertz, PE	Director of Planning, Irvine Ranch Water District
Members:	Matt Collings	Assistant Director of Engineering, Moulton Niguel Water District
	Jeff Dunn	Senior Project Manager, Stantec Consulting
	Steve Esmond, PE	California Water Division Manager, KBR Engineering
	Cindy Miller, PE	Vice President, RBF Consulting
	Karl Seckel	Associate General Manager, Municipal Water District of Orange County
Program Manager:	Blake Anderson, PE	President, Blake Anderson Consulting

REVIEW COUNCIL

Aviation

Members:	Jan Mittermeier	Senior Vice President, Operations, Cofiroute USA, LLC., 91 Express Lanes

Energy

Members:	David Mead	Vice President, Engineering and Technical Services, Southern California Edison
	Dave Geier	Vice President, Electric Transmission and Distribution, San Diego Gas & Electric

Flood Control & Levees

Members:	William E. Lawson	Consulting Civil Engineer
	Brian Moore	Deputy District Engineer, LA District, U.S. Army Corps of Engineers

Parks/Recreation/Environment

Members:	Angie Avery	Recreation & Community Services Director, City of Los Alamitos
	Debbie Cook	Past Huntington Beach Mayor and City Council Member
	Claire Schlotterbeck	Executive Director, Hills for Everyone
	Bill Thomas	President, California Association of Parks and Recreation Commissioners and Board Members, Board Member, San Clemente Beaches, Parks & Recreation Commission

School Facilities

Members:	Dr. Gwen Gross	Superintendent, Irvine Unified School District
	Lynn Hartline	Deputy Superintendent, Orange County Board of Education

Solid Waste

Co-Chairs:	Michael Giancola	Director, OC Waste & Recycling
	Bryan A. Stirrat	President, Bryan A. Stirrat & Associates
Members:	Laith B. Ezzet	Senior Vice President, Hilton Farnkopf & Hobson
	Patti Henshaw	Program Manager, Orange County Environmental Health, Solid Waste Local Enforcement

Surface Water Quality

Members:	Roger Mallett	Executive Director, Newport Bay Naturalists & Friends
	Gonzalo Vasquez	Water Quality Engineer, City of Cypress

Transportation

Members:	Peter Buffa	Member, Board of Directors, Orange County Transportation Authority
	Sarah Catz	Director, Center for Urban Infrastructure
	Wally Kreutzen	City Manager, City of Irvine

Wastewater

Members:	Garry Brown	Executive Director & Coastkeeper, Orange County Coastkeeper
	Gerard Thibeault	Executive Officer, California Regional Water Quality Control Board, Santa Ana Region

Water Supply

Members:	Thom Coughran, PE	Water Resources Manager, City of Santa Ana
	Kevin P. Hunt, PE	General Manager, Municipal Water District of Orange County
	Michael Markus, PE	General Manager, Orange County Water District
	Mike Rudinica, PE	Executive Vice President, RBF Consulting

UC Irvine Civil and Environmental Engineering Affiliates

The UCI Civil and Environmental Engineering (CEE) Affiliates provide support and guidance to the Department, its programs and students. It acts as an interface between the professional civil and environmental engineering community in Southern California (particularly Orange County) and the University. The CEE Affiliates include senior executives representing leading civil and environmental engineering firms (both large and small) and public agencies, as well as individual members.

Benefits include the creation of numerous opportunities for its members:

- affiliation with Orange County's only major research university
- maintenance of strong industry/university relations
- distinction of "making a difference" in the development of Civil and Environmental Engineering at UCI
- quarterly seminars and social/student functions
- technical interaction and collaboration with faculty and students
- student recruitment through early contact with top students
- guidance to student projects
- guest speaking opportunities in classes and at student society meetings
- student scholarships

Member annual dues are used to support laboratory and equipment needs, program enhancements in the Department, support of ASCE, ITE, and Chi Epsilon student chapters, student scholarships, and CEE Affiliate meetings and functions.

For more information, contact the Department of Civil and Environmental Engineering, at www.cee.affiliates@uci.edu

ASCE Orange County Branch

The American Society of Civil Engineers enhances the welfare of humanity by advancing the science and profession of engineering.

The Society offers continuing education courses and technical specialty conferences; develops technical codes and standards for safer buildings, water systems, and other civil engineering works; publishes technical and professional journals, manuals, and a variety of books; works closely with Congress, the White House, and federal agencies to build sound national policy on infrastructure and engineering issues; and supports research of new civil engineering technology and materials.

Founded in 1852, ASCE has more than 125,000 members worldwide and is America's oldest national engineering society. The Society is currently celebrating its 150th anniversary.

The local Orange County Branch of ASCE was formed in 1952. The branch has over 1600 members, publishes a local newsletter, and meets on a monthly basis. Information on branch activities is available at: www.asceoc.org or (714) 258-8390.

Promoting Countywide Economic Prosperity

The Orange County Business Council (also known as OCBC and the Business Council) is the leading business organization in Orange County, California.

Orange County Business Council represents and promotes the business community, working with government and academia, to enhance Orange County's economic development and prosperity in order to preserve a high quality of life. To accomplish its mission, OCBC is focusing on its core initiatives:

- Infrastructure: Increase investment in construction, management and maintenance of Orange County's infrastructure integral to the long-term economic vitality of the county and region.
- Workforce Development: Lead the business community's efforts to ensure a high quality workforce that supports the growing technology-based workplace.
- Workforce Housing: Increase the supply, choices and affordability of housing available for a growing Orange County workforce.
- Economic Development: Create a full spectrum of jobs to improve the economic well-being and quality of life for Orange County.

For more than 100 years, OCBC and its predecessor organizations have ensured Orange County thrives and its voice is heard at the regional, stae and national levels. When Orange County thrives, the state thrives, the nation thrives.

OCBC member businessess emply over 250,000 workers in Orange County and 2 million worldwide. Members join an elite group of business leaders, representing the best and the brightest in the county.

www.ocbc.org

References

Only the main references are listed here. The detailed comprehensive references for each individual area are listed in the relevant section of the "2010 Report on Orange County's Infrastructure – Issue Briefs"

2010 Report on Orange County's Infrastructure – Issue Briefs
Civil & Environmental Engineering Affiliates,
UC Irvine March 2010

2005 Report on Orange County's Infrastructure – Issue Briefs
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UC Irvine October 2005

The above reports are available from the Department of Civil & Environmental Engineering, UC Irvine. Irvine CA, *92697*

or on the WEB site:

www.eng.uci.edu/civil
www.eng.uci.edu/ocreportcard

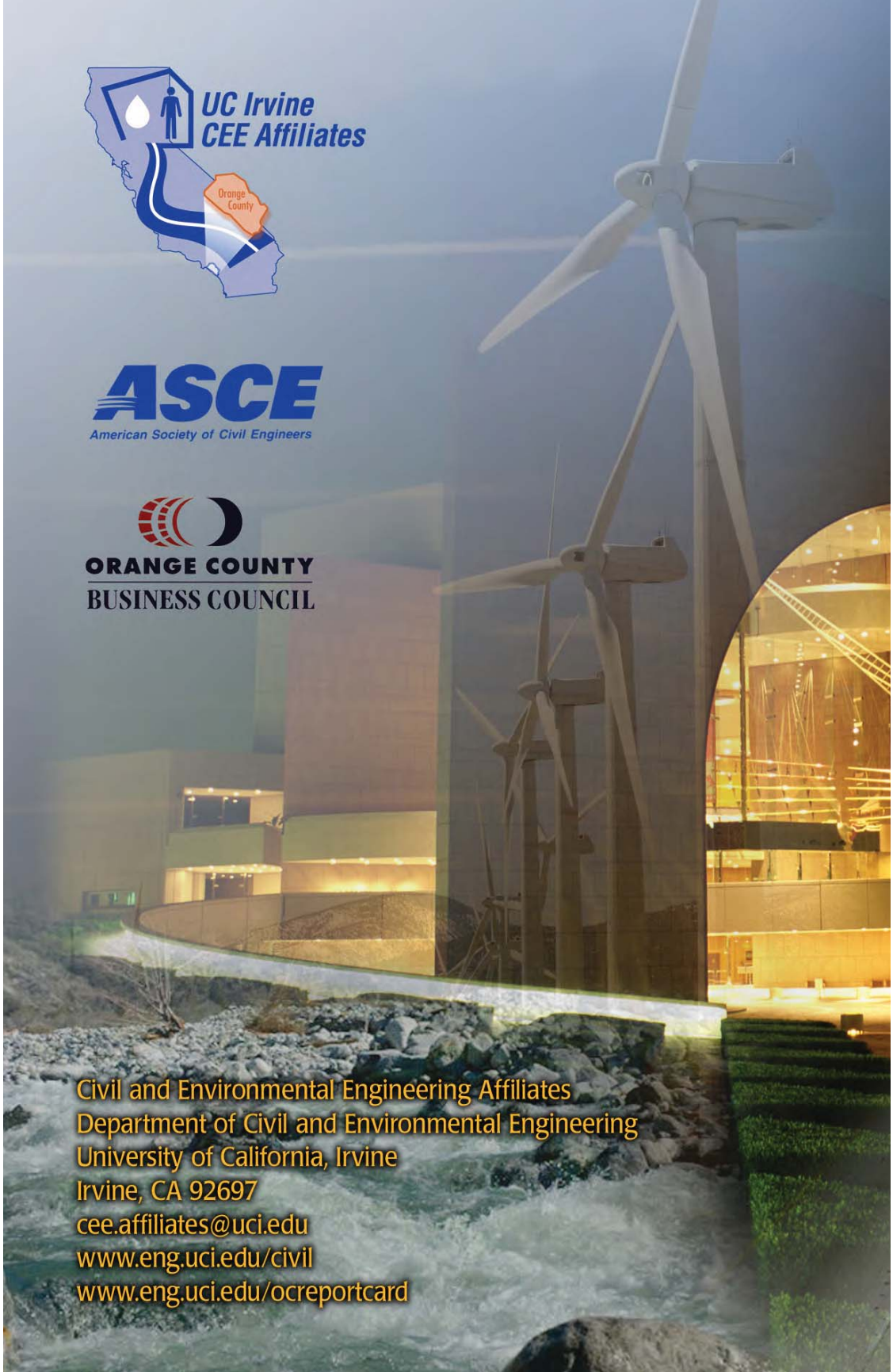
2009 Report Card for America's Infrastructure
American Society of Civil Engineers
March 25, 2009

Renewing America's Infrastructure – A Citizen's Guide
American Society of Civil Engineers
1015 15th Street, N.W. Suite 600
Washington, DC 20005

The above reports are available from ASCE at 1015 15th Street, N.W. Suite 600, Washington, DC 20005

or on the WEB site:

www.asce.org/reportcard



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Appendix I: Project Criteria Rating Sheet

Orange County, California

Comprehensive Economic Development Strategy Committee

Project Criteria Rating Sheet

Criteria	Details			Score
	Select "2" points or "1" for each sub-criteria.			
	• Define Problem	2	1	
1. Project Proposal:	• Solution	2	1	
Date of Rating:	• Outcome	2	1	
	• Amount Requested			(6)
	Select all that applies.			
	• Long Term		7	
2. Ability to promote diverse economic growth (including multiplier effect):	• Medium Term		5	
	• Short Term		3	(15)
	Select all that applies.			
	• Locally		3	
3. Will project promote growth in an identified cluster(s)?	• Regionally		3	(6)
	Select if meets criteria.			
4. Flexibility to anticipate economic changes:			5	(5)

5.	Investment and/or leveraging from other investment sectors (Research, **Education, Business and/or Capital):**	*Select only one applicable point value.* • High • Moderate • Low	8 5 2	(8)
6.	Potential for skill/high wage job creation (sustainable jobs and career advancement potential – entry level through management):	*Select all that applies.* • Long Term • Medium Term • Short Term	3 3 3	(9)
7.	How well will project leverage investment? Project funding requested is: • <25% of total project cost • 25% to 49% of total project cost • ≥ 50% of total project cost	*Select only one applicable point value.* • High • Moderate • Low	10 7 4	(10)

Short Term = 1-3 years Medium Term = 3-5 years Long Term = 5-10 years

Orange County, California

Comprehensive Economic Development Strategy Committee

Project Criteria Rating Sheet

Criteria		Details		Score
		Select only one applicable point value.		
8.	a. Does the project benefit unemployment in the region?	*Regional Benefit*	7	
	Number of jobs created:	• High	5	
		• Moderate	2	
		• Low		
		Select only one applicable point value.		
	b. Does the project benefit a high unemployment area?	*Localized Benefit* • High	9	
	Number of jobs created:	• Moderate	6	
		• Low	3	(16)
		Select only one applicable point value.		
9.	a. Does the project benefit regional income levels?	*Regional Benefit*	7	
	Wage levels:	• High	5	
		• Moderate	2	
		• Low		

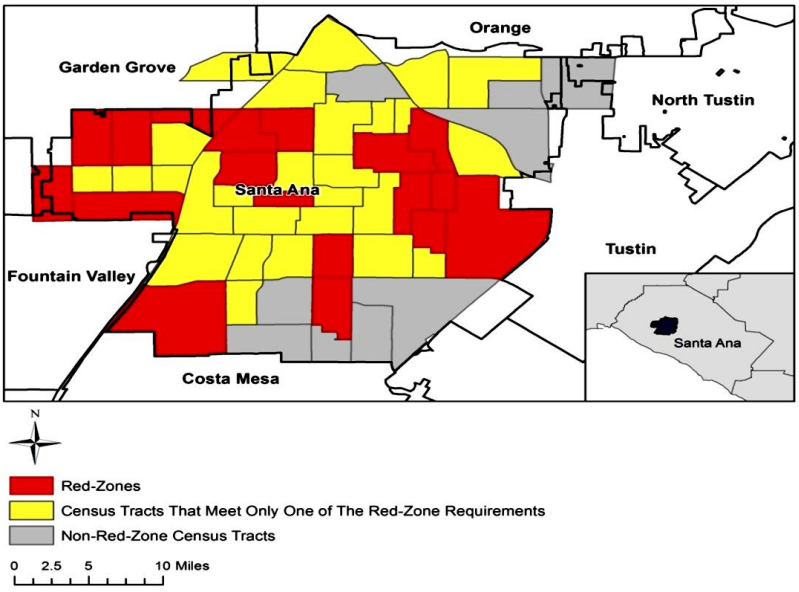
		Select only one applicable point value.			
	b. Does the project benefit a low per capita income area?	*Localized Benefit*			
		• High		9	
	Wage levels:	• Moderate		6	
		• Low		3	(16)
		Select either yes for 3 points or no for zero.			
10.	Is there a plan to evaluate degree to which project achieves outcome?	Yes	No		(3)
		Select only one applicable point value.			
11.	Consistency with CEDS Committee's current goals and objectives?	• Highly Consistent		6	
		• Moderately Consistent		4	
		• Not Consistent/Low Consistent		2	(6)
		Select either yes for 3 points or no for zero.			
12.	Demonstrates coordination, collaboration and endorsement of local resident community.	Yes	No		(3)
				Total *(100 Possible)*	

Short Term = 1-3 years
Medium Term = 3-5 years
Long Term = 5-10 years

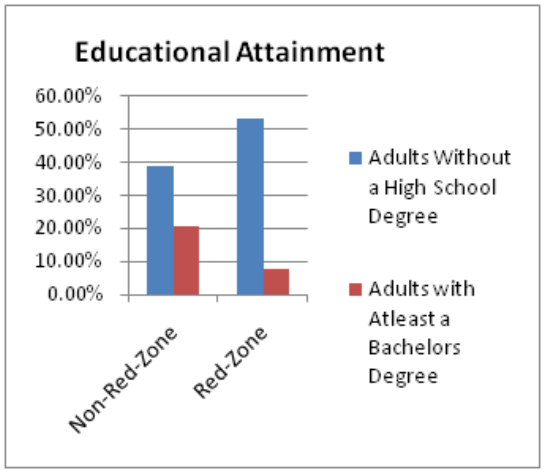
Appendix J: Red-Zone Cities

Santa Ana

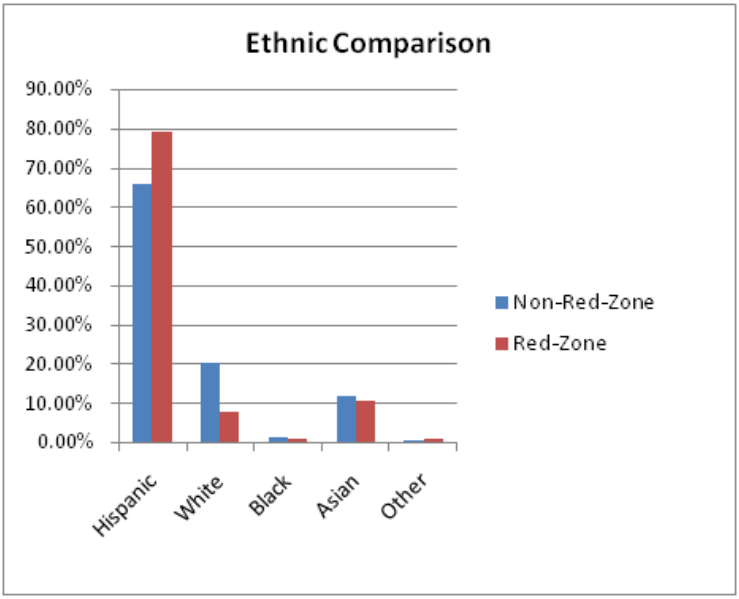
Santa Ana is Orange County's second largest city with over 325,000 documented residents. Currently, Santa Ana contributes 161,928 workers to Orange County's workforce, making Santa Ana particularly important to the Orange County economy. Santa Ana has long been recognized as one of the most economically distressed communities in Orange County, and the recent downturn has only served to worsen economic conditions in Red-Zone areas. With 18 Red-Zone census tracts within the City, Santa Ana is one of the top Red-Zone cities, second only to the City of Anaheim.



As seen in the Red-Zone census tract map above Santa Ana has many communities that suffer from high concentrations of poverty. In comparison to other Red-Zone cities, Santa Ana has the largest Red-Zone population, with 1/3 of it populations living in the economically distressed communities. Comparing the Red-Zone with the non-Red-Zone communities it is clear that there is a severe economic divide. The Red-Zone communities suffer from an unemployment rate that is almost four percentage points higher than the non-Red-Zone communities and a per-capita income that is over 40 percent less than the non-Red-Zone communities.



Within Santa Ana this economic divide can be tied to many other social factors, education, ethnic make-up and Household attributes being the most significant. In terms of educational attainment Red-Zone communities suffer significantly. Within the Red-Zone communities more than half of all adults over 25 lack at least a high school diploma; additionally adults in the non-Red-Zone communities are around 3 times as likely to have at least a bachelor's degree. In addition to traditional education, language skills are significantly lower in Red-Zone communities, with more than 55 percent of the population unable to speak English fluently.



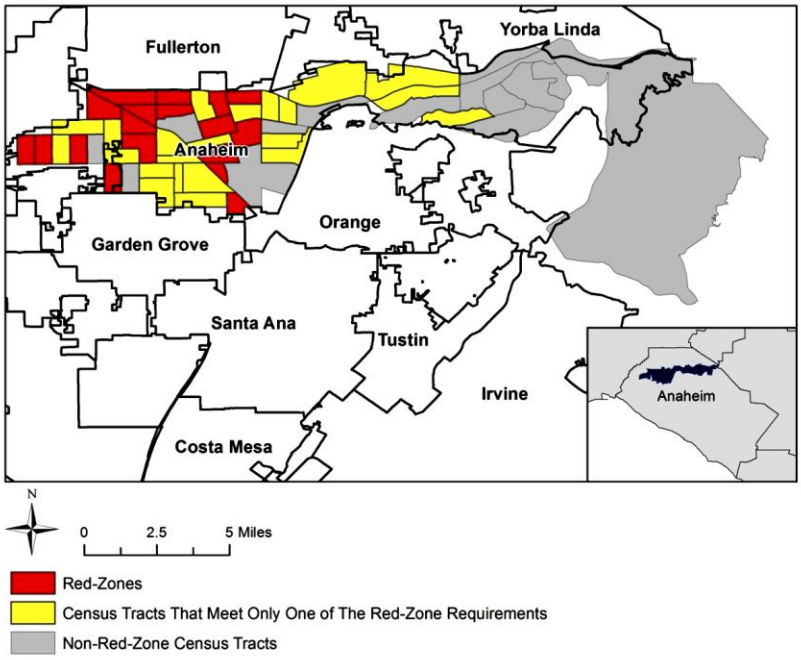
The poor English skills are likely attributed to the significantly higher percentage of minorities, in particular Hispanics, located within the Red-Zone communities. In the Red-Zone Hispanics make-up 13 percentage points more than they do in the non-Red-Zone communities, while Whites make up 11 percentage points less.

Additionally, households within the Red-Zone are more than 10 percent more likely to have school age children. As a result of the increase presence of children in the Red-Zone communities the average household size is larger at 4.78, compared to non-Red-Zone's 4.02. Also, the percentage of single income household in the Red-Zone is also higher, with 27.8 percent of households being single parent households compared to only 22.3 percent in the non Red-Zones.

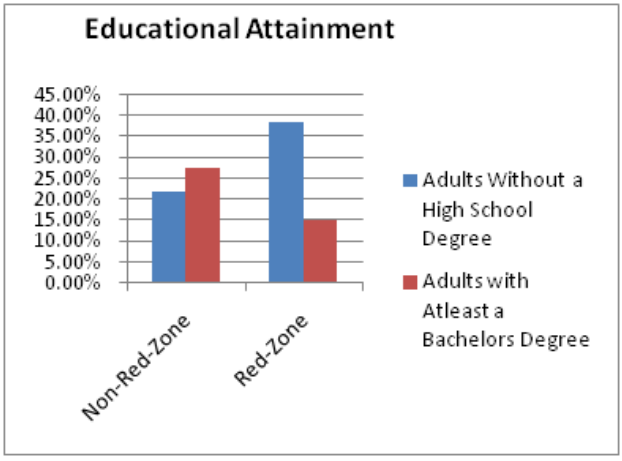
Santa Ana Red-Zone Census Tracts					
Census Tract	Unemployment	Per Capita ($)	Census Tract	Unemployment	Per Capita ($)
740.05	12.1%	15,048	992.03	11.1%	21,442
741.03	11.3%	17,061	746.02	12.0%	13,399
741.06	11.8%	19,938	748.02	12.2%	11,725
744.03	13.3%	10,060	748.06	12.9%	12,683
744.05	12.9%	12,327	752.01	11.4%	12,329
745.01	12.0%	10,297	752.02	13.9%	15,848
745.02	12.3%	11,528	890.01	12.4%	17,332
750.02	11.6%	14,759	891.04	16.1%	12,767
890.04	10.7%	14,880	992.02	12.9%	17,430

Anaheim

Anaheim is Orange County's largest city with over 335,000 documented residents. Currently, Anaheim contributes 173,094 workers to Orange County's workforce, making Anaheim one of the most important cities to the Orange County economy. While significant, Anaheim's contribution has not reached its full potential as Anaheim suffers from a large socio-economic divide between its populations. This divide has only grown larger on account of the recent downturn, as the middle to low wage workers were the hardest hit by the downturn. With 19 Red-Zone census tracts within the City, Anaheim is the top Red-Zone city, as expected due to its large size.

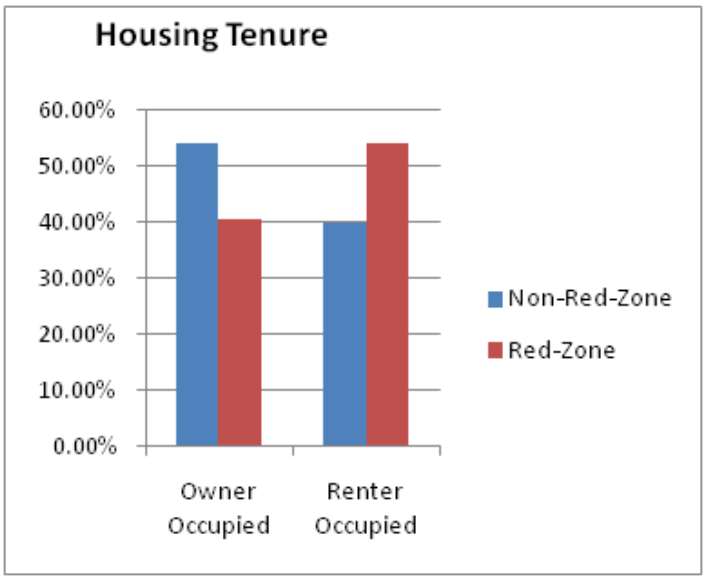


As seen in the Red-Zone census tract map above, Anaheim has many communities that suffer from high concentrations of poverty. The map also show that these distressed census tracts are primarily located in the westerly portion of the city, further indicating the large socio-economic divide in the city. In comparison to other Red-Zone cities, Anaheim has the second largest Red-Zone population, with over 100,000 residents living in the economically distressed communities. Comparing the Red-Zone with the non-Red-Zone communities it is clear that there is a severe economic divide. The Red-Zone



communities suffer from an unemployment rate that is over five percentage points higher than the non-Red-Zone communities and a per-capita income that is over 18 percent less than the non-Red-Zone communities.

Within Anaheim this economic divide can be tied to many other social factors, education, age and housing being the most significant. In terms of the population make-up of the Red-Zone vs. non-Red-Zone, the Red-Zone has a significantly lower median age and a higher concentration of female residents. The median age within the Red-Zones is over 5 years lower, than in non-Red-Zones. Also, within the Red-Zones there is over a 13 percent difference between males and females, with females significantly outnumbering males.



Educational attainment within the Red-Zone communities suffers significantly. Within the Red-Zone communities almost 40 percent of all adults over 25 lacks a least a high school diploma, additionally adults in the non-Red-Zone communities are almost 2 times as likely to have at least a bachelor's degree. In addition to traditional education, language skills are significantly lower in Red-Zone communities, with about 40 percent of the population unable to speak English fluently.

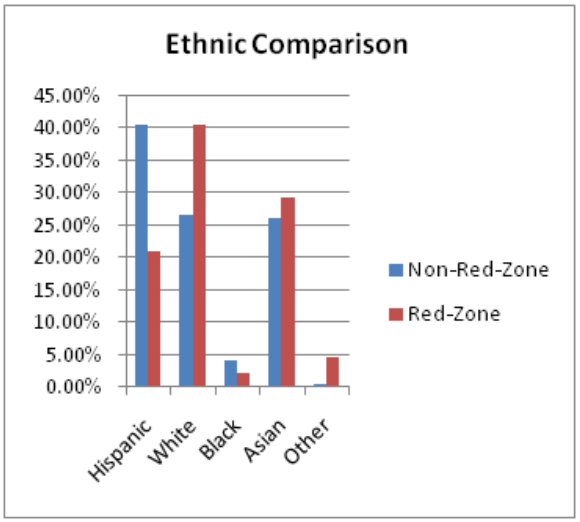
Anaheim Red-Zone Census Tracts					
Census Tract	Unemployment	Per Capita ($)	**Census Tract**	Unemployment	Per Capita ($)
863.01	18.8%	16,251	**870.01**	13.1%	17,483
864.04	14.2%	17,675	**871.02**	13.1%	17,355
865.02	14.7%	11,533	**871.03**	12.1%	20,267
866.01	15.3%	12,509	**873.00**	13.5%	14,912
866.02	15.6%	18,469	**874.03**	17.8%	13,275
867.01	11.6%	21,103	**874.04**	14.4%	11,985
867.02	12.0%	19,403	**874.05**	13.9%	12,154
868.02	15.6%	18,520	**875.04**	12.2%	12,540

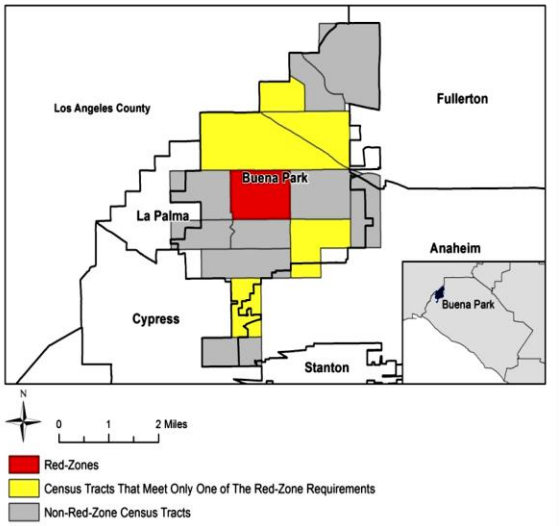
869.01	14.4%	19,001	**877.03**	13.3%	20,448
869.02	13.4%	21,532			

There is also a significant divide in homeownership levels, between the Red-Zones and non-Red-Zones. Within Red-Zones homeownership is 14 percent lower than in non-Red-Zones, and the number of renter occupied units is almost 14 percent higher. In addition, the occurrence of overcrowding is significantly higher in the Red-Zones with 20.1 percent of housing units being considered overcrowded compare to only 14.5 percent in non-Red-Zones.

Buena Park

The city of Buena Park located along the northern border of Orange County has a population of 80,214. Currently, Buena Park contributes 39,725 workers to Orange County's workforce. Buena Park's Red-Zone community suffers from an unemployment rate that is 3 percentage points higher than the non-Red-Zone tracts and a per capita income that is 15 percent lower. In terms of higher education the adults in the Red-Zone are 10 percent less likely to have a bachelor's degree or higher. Unlike, the Red-Zones in many other cities, Buena Park has a higher concentration of minorities, with respect to Hispanics and Blacks, in the non-Red-Zones than in the Red-Zones. Even though Buena Park only has one Red-Zone tract, there are five additional census tracts that still suffer from significant economic distress, many due to their significantly lower per-capita incomes.

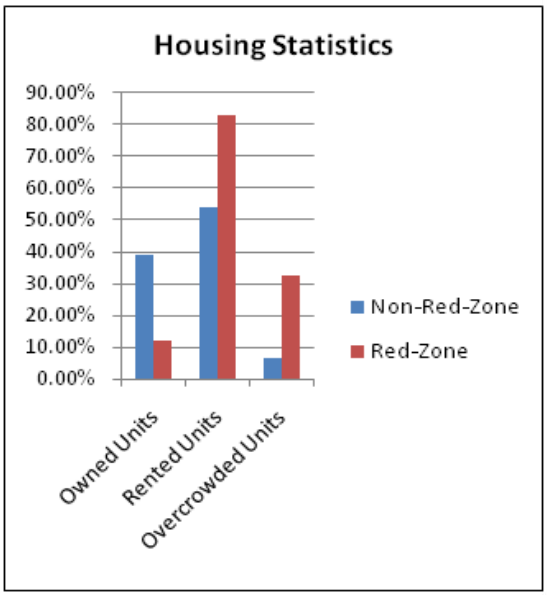


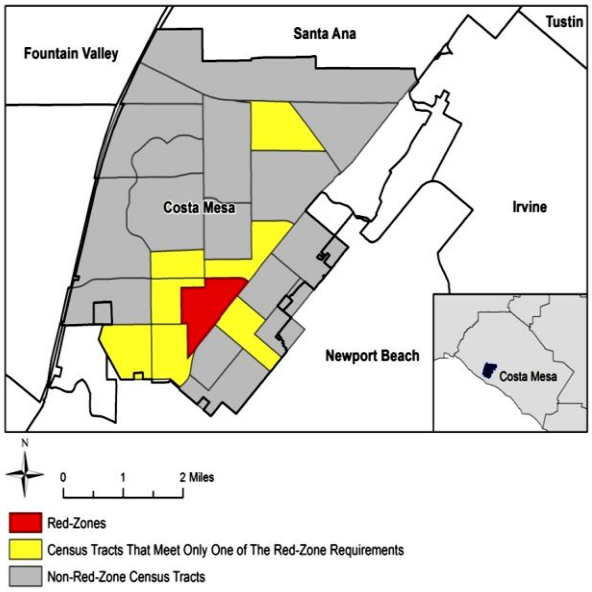


Buena Park Red-Zone Census Tracts		
Census Tract	**Unemployment**	**Per Capita ($)**
1103.02	**10.9%**	**20,520**

Costa Mesa

The city of Costa Mesa located near Orange County's central coast has a population of 109,796. Currently, Costa Mesa contributes 65,241 workers to Orange County's workforce. Costa Mesa's Red-Zone community suffers from an unemployment rate that is over 6 percentage points higher than the non-Red-Zone tracts and a per capita income that is 37.8 percent lower. Almost 50 percent of residents in the Red-Zone are foreign, double the percentage seen in non-Red-Zone communities. This large immigrant population is likely due to the large Hispanic population, which make up 75 percent of Red-Zone residents. Households in the Red-Zone have a significantly higher percentage of single parent households and households with children under 18, at 24.4 and 47.1 percent, compared to 15.6 and 25.1 percent, respectively. Additionally, home ownership is drastically lower in the Red-Zone community, with over 80 percent housing units being rented. Overcrowding is also a major issue in the Red-Zone with a housing unit being five times as likely to be overcrowded.

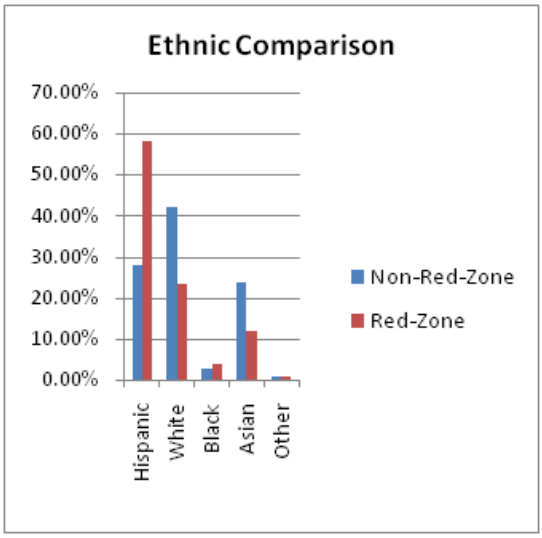


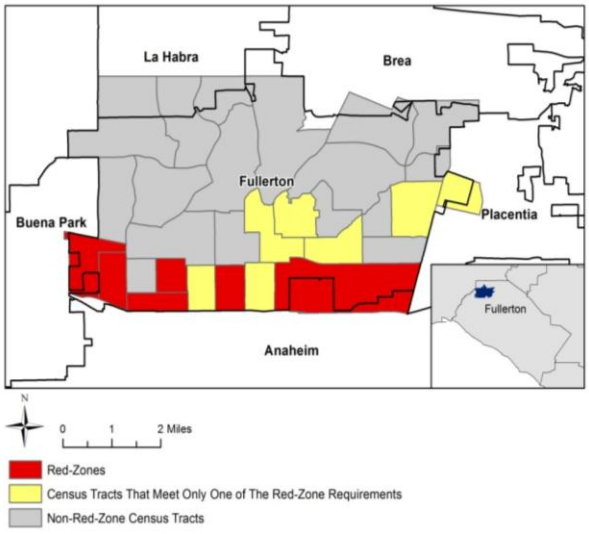


Costa Mesa Red-Zone Census Tracts		
Census Tract	**Unemployment**	**Per Capita ($)**
637.02	**13.4%**	**21,762**

Fullerton

The city of Fullerton located in north Orange County has a population of 134,079. Currently, Fullerton contributes 70,344 workers to Orange County's workforce. Fullerton's Red-Zone community suffers from an unemployment rate that is 3.7 percentage points higher than the non-Red-Zone tracts and a per capita income that is 47.8 percent lower. Red-Zones resident suffer significantly in-terms of education, being almost three times as likely not to have a high school degree and more than twice as likely not to have at least a bachelor's degree, compared to non-Red-Zone residents. In addition, language skills are lower in the Red-Zone, with 28.7 percent of residents being unable to speak English fluently, compared to only 16.8 percent in non-Red-Zones. Additionally, ethnic make in the Red-Zones are significantly different, particularly with respect to the Hispanic population which make up 58.2 percent of Red-Zone residents, more than double that found in non-Red-Zones.

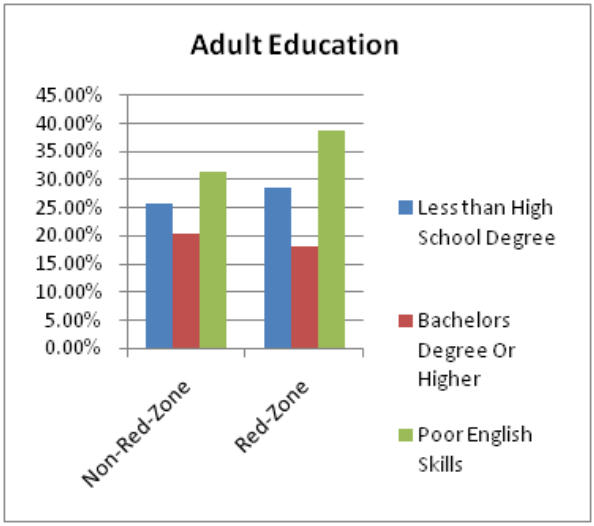


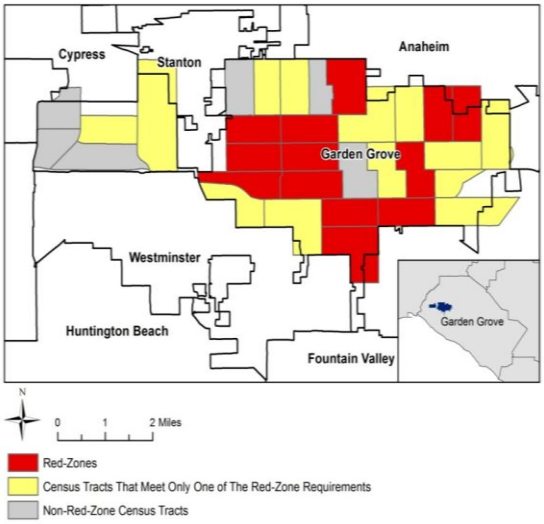


Fullerton Red-Zone Census Tracts					
Census Tract	**Unemployment**	**Per Capita ($)**	**Census Tract**	**Unemployment**	**Per Capita ($)**
18.01	**11.2%**	**17,916**	**19.03**	**13.7%**	**21,372**
18.02	**10.9%**	**14,620**	**111.02**	**13.8%**	**21,641**
19.02	**10.7%**	**19,199**	**116.02**	**10.8%**	**19,816**

Garden Grove

The city of Garden Grove is located in northwest Orange County has a population of 170,148. Currently, Garden Grove contributes 84,866 workers to Orange County's workforce. Garden Grove's Red-Zone community suffers from an unemployment rate that is 3.9 percentage points higher than the non-Red-Zone tracts and a per capita income that is 14 percent lower. The small difference in the per-capita income between Red-Zones and non-Red-Zones and the significant number of distressed census tracts seen in the map above reveals a city wide level of economic distress. While overall Red-Zone communities continue to be worse off than non-Red-Zone communities, socio-economically they are not far apart. In both Red-Zones and non-Red-Zones, more than a quarter of the adult population lacks a high school degree and only around 20 percent have a bachelor's degree or higher. Language skills were worse in the Red-Zones with 38.8 percent unable to speak English fluently, though the non-Red-Zone tracts were still relatively high at 31.3 percent.

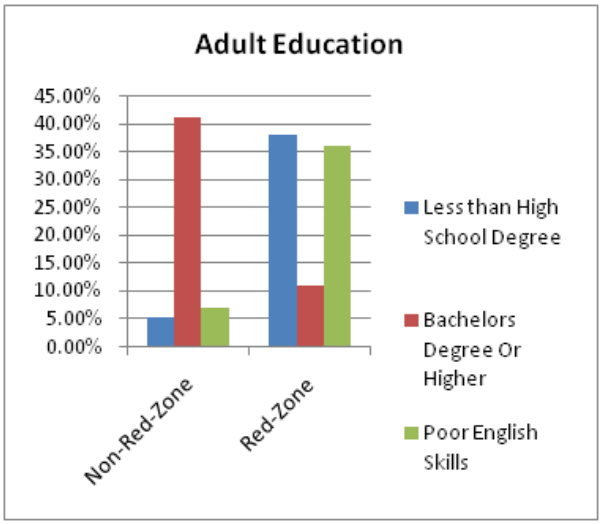


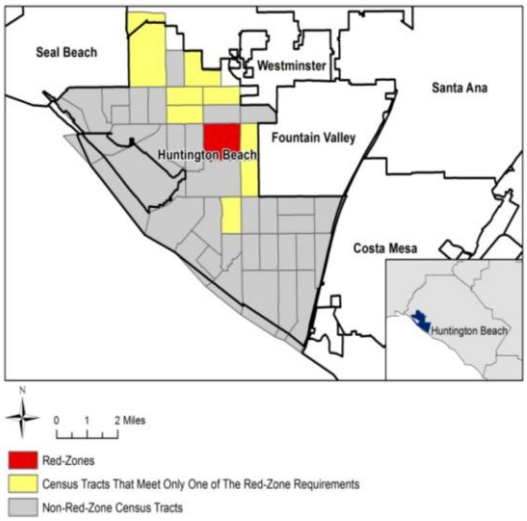


Garden Grove Red-Zone Census Tracts					
Census Tract	**Unemployment**	**Per Capita ($)**	**Census Tract**	**Unemployment**	**Per Capita ($)**
881.05	**10.8%**	**20,729**	**885.01**	**12.0%**	**18,867**
881.07	**12.7%**	**20,610**	**887.01**	**15.3%**	**18,746**
882.03	**17.1%**	**21,050**	**887.02**	**10.8%**	**17,983**
883.01	**12.8%**	**19,897**	**888.01**	**12.6%**	**19,027**
884.03	**15.2%**	**21,165**	**889.02**	**13.3%**	**17,995**

Huntington Beach

The city of Huntington Beach is located in northern coast of Orange County has a population of 189,744. Currently, Huntington Beach contributes 106,981 workers to Orange County's workforce. Huntington Beach's Red-Zone community suffers from an unemployment rate that is 5.3 percentage points higher than the non-Red-Zone tracts and a per capita income that is 63.8 percent lower. In terms of education Red-Zone residents are significantly worse off. Red-Zone adult residents are 7 times as likely not to have a high school degree and 4 times less to have a bachelor's degree or higher. Also, there is a significant gap in language skills between the two zones with over 36 percent of Red-Zone residents unable to speak English fluently, compare to only 7.2 percent in non-Red-Zones. Additionally, home ownership is significantly lower in the Red-Zone community, with over 55.7 percent housing units being rented, compared to 38 percent in the non-Red-Zone. The percentage of vacant housing units is also significantly higherin Red-Zone than non Red-Zones at 8.7 percent compared to 4.9 percent, respectively.

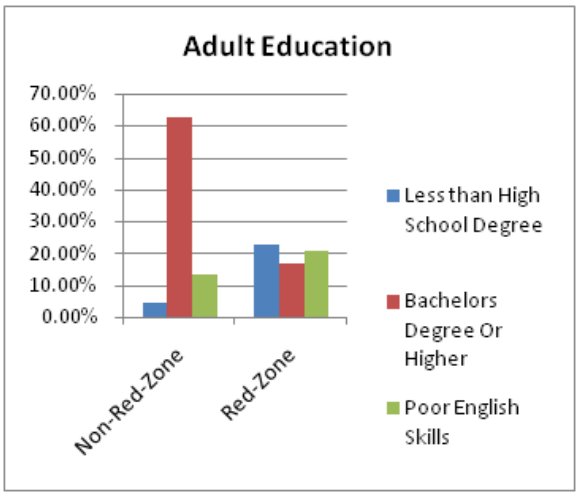


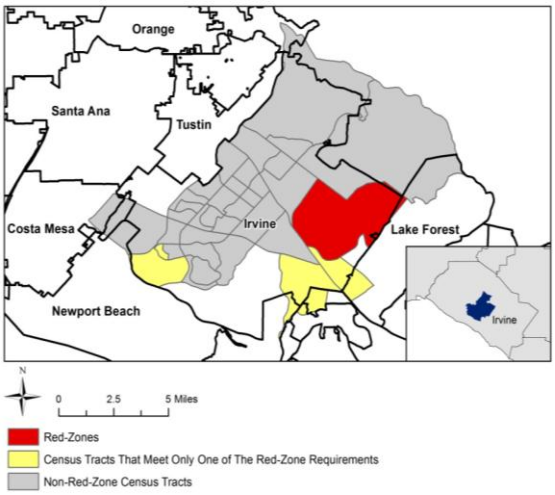


Huntington Beach Red-Zone Census Tracts		
Census Tract	**Unemployment**	**Per Capita ($)**
994.02	**12.9%**	**18,239**

Irvine

The city of Irvine, centrally located in the seat of Orange County has a population of 205,057. Currently, Irvine contributes 109,087 workers to Orange County's workforce. Irvine's Red-Zone community suffers from an unemployment rate that is 32.6 percentage points higher than the non-Red-Zone tracts, and a per capita income that is 59.7 percent lower. In terms of education, Red-Zone residents are significantly worse off. Red-Zone adult residents are more than 5 times as likely not to have a high school degree and almost 4 times less likely to have a bachelor's degree or higher. Also, there is a significant gap in language skills between the two zones with over 20.9 percent of Red-Zone residents unable to speak English fluently, compared to only 13.5 percent in non-Red-Zones. Additionally, the percentage of vacant housing units is also significantly higher in Red-Zone than non Red-Zones at 14.4 percent compared to 6.7 percent.

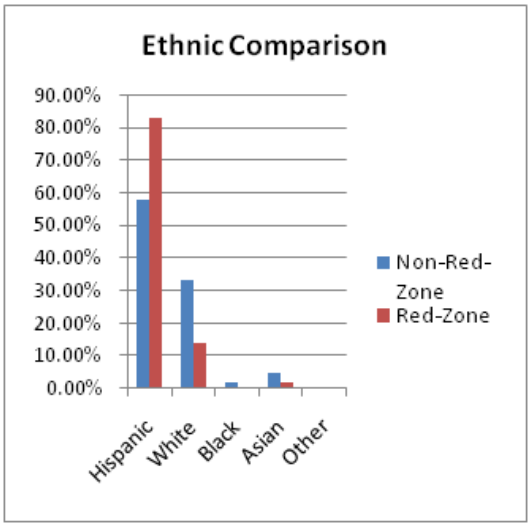


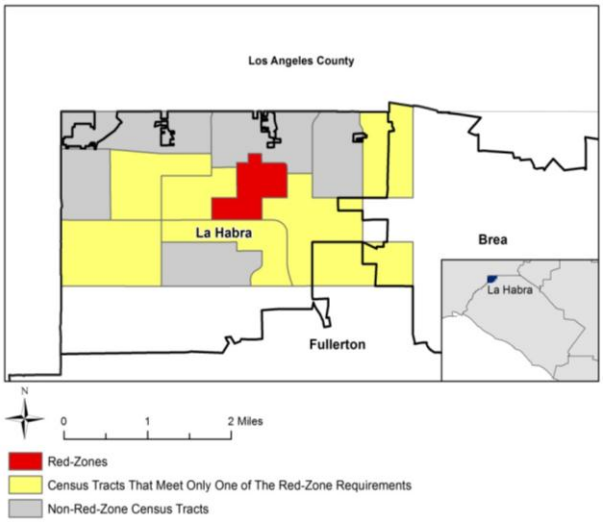


Irvine Red-Zone Census Tracts		
Census Tract	**Unemployment**	**Per Capita ($)**
524.04	**38.9%**	**17,285**

La Habra

The city of La Habra, located in north Orange County has a population of 60,117. Currently, La Habra contributes 31,081 workers to Orange County's workforce. La Habra's Red-Zone community suffers from an unemployment rate that is 4.5 percentage points higher than the non-Red-Zone tracts and a per capita income that is 24.5 percent lower. Over 43 percent of residents in the Red-Zone are foreign born, almost double the percentage seen in non-Red-Zone communities. This large immigrant population is likely due to the large Hispanic population, which make up over 83 percent of Red-Zone residents. In terms of higher education the adults in the Red-Zone are 10 percent less likely to have a bachelor's degree or higher and almost 20 percent more likely not have a high school degree. Additionally within the Red-Zone there are a significantly higher percentage of female residents, with female making up 76.6 percent of the population compare to on 51.7 percent in non-Red-Zones.

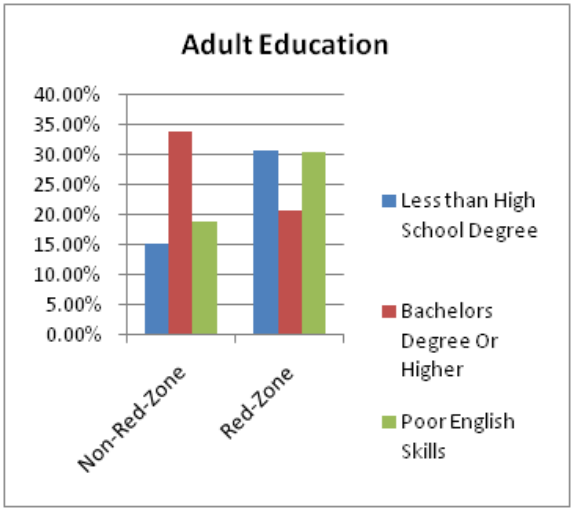


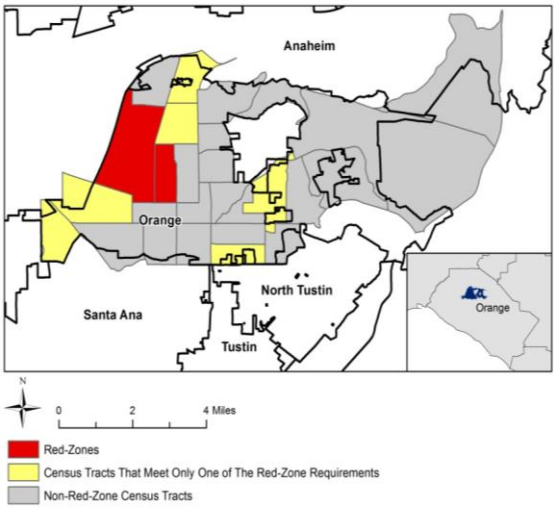


La Habra Red-Zone Census Tracts		
Census Tract	**Unemployment**	**Per Capita ($)**
12.02	**12.9%**	**17,498**

Orange

The city of Orange, centrally located in Orange County has a population of 135,582. Currently, Orange contributes 73,059 workers to Orange County's workforce. Orange's Red-Zone community suffers from an unemployment rate that is 4.4 percentage points higher than the non-Red-Zone tracts and a per capita income that is 13.3 percent lower. In terms of higher education the adults in the Red-Zone are 15 percent less likely to have a bachelor's degree or higher and almost 12 percent more likely not have a high school degree. Also, there is a significant gap in language skills between the two zones with over 30.5 percent of Red-Zone residents unable to speak English fluently, compare to only 18.9 percent in non-Red-Zones. Homeownership is lower among the Red-Zones with only 49 percent of units being owner occupied compared to 59 percent in non-Red-Zones. Additionally, the percentage of overcrowded housing units is also significantly higher in Red-Zone than non Red-Zones at 14.4 percent compared to 8.9 percent, respectively.

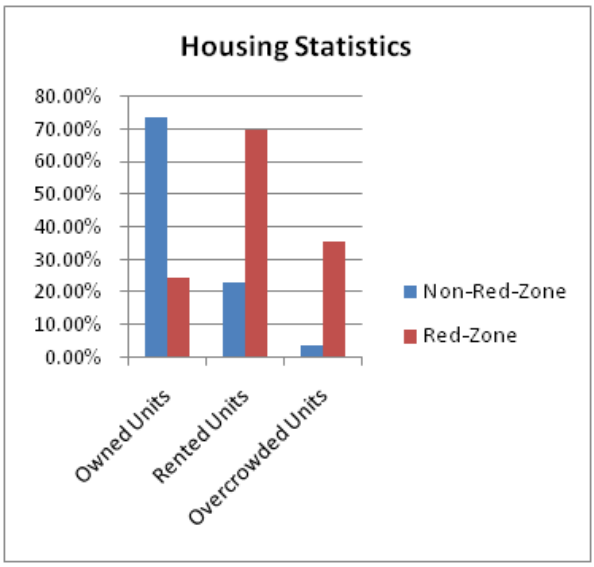


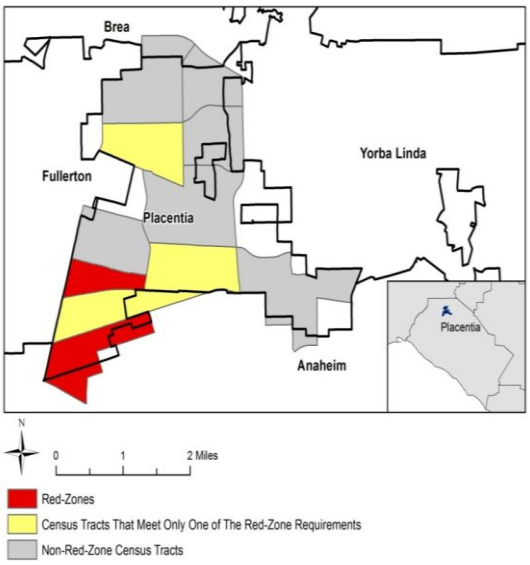


Orange Red-Zone Census Tracts		
Census Tract	**Unemployment**	**Per Capita ($)**
762.04	**12.3%**	**19,350**
762.05	**11.5%**	**19,973**

Placentia

The city of Placentia, centrally located in north Orange County has a population of 50,089. Currently, Placentia contributes 26,233 workers to Orange County's workforce. Placentia's Red-Zone community suffers from an unemployment rate that is 5 percentage points higher than the non-Red-Zone tracts and a per capita income that is 60 percent lower. In terms of education Red-Zone adult residents are more than 5 times as likely not to have a high school degree and almost 4 times less to have a bachelor's degree or higher. Also, there is a significant gap in language skills between the two zones with over 41 percent of Red-Zone residents unable to speak English fluently, compare to only 11.3 percent in non-Red-Zones. Also, as a result of the large foreign born population in the Red-Zone, accounting for 47.6 percent of the population there is a significant difference in the ethnic make-up of the two zones. Hispanics which only account for 25.3 percent of the non-zone population make up 82 percent of Red-Zone residents, while white only make up 11 percent compared to 55 percent in non-Red-Zones. Additionally, the rental rate and occurrence of overcrowding is significantly high in the Red-Zones.

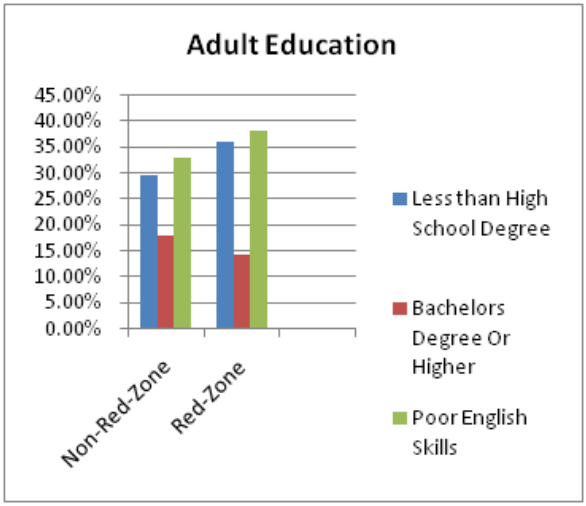


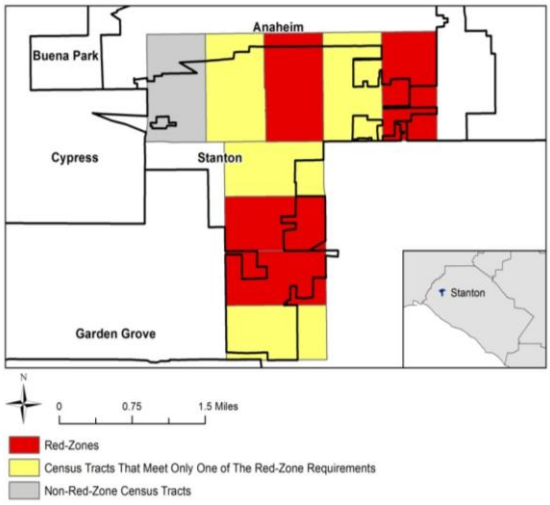


Placentia Red-Zone Census Tracts		
Census Tract	**Unemployment**	**Per Capita ($)**
117.20	**15.1%**	**10,680**
117.21	**11.4%**	**16,531**

Stanton

The city of Stanton, located in north west Orange County has a population of 38,141. Currently, Stanton contributes 19,639 workers to Orange County's workforce. Stanton's Red-Zone community suffers from an unemployment rate that is 2.5 percentage points higher than the non-Red-Zone tracts and a per capita income that is 23 percent lower. As seen in the map about only one of Stanton's census tracts considered economic distressed even though only about half are technically considered Red-Zones. While the map shows that the city is experience wide spread economic distress, the Red-Zone communities are still worse off. In terms of higher education the adults in the Red-Zone are about 4 percent less likely to have a bachelor's degree or higher and 6 percent more likely not have a high school degree. Also, there is a significant gap in language skills between the two zones with over 38.2 percent of Red-Zone residents unable to speak English fluently, compare to 33.2 percent in non-Red-Zones. While Red-Zones are worse off in many aspects, in terms of poverty, the non-Red-Zones are worse off with 17.7 percent of residents experiencing poverty compared to only 10.7 percent in Red-Zones.

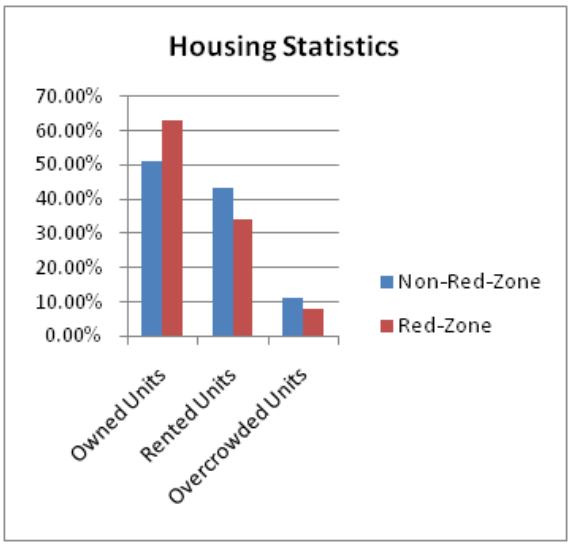


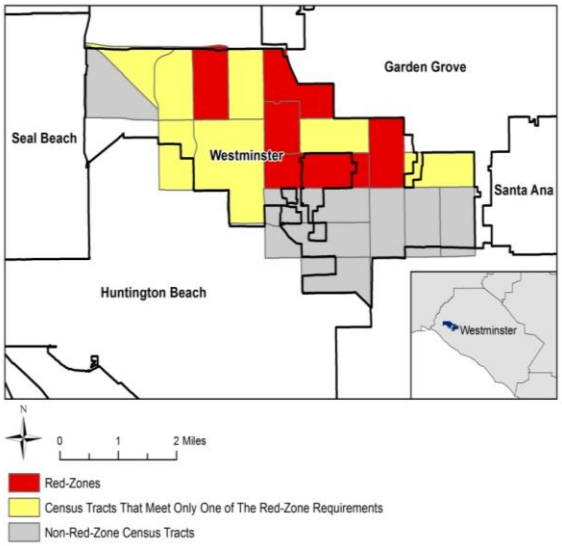


Stanton Red-Zone Census Tracts					
Census Tract	**Unemployment**	**Per Capita ($)**	**Census Tract**	**Unemployment**	**Per Capita ($)**
878.03	**14.0%**	**13,880**	**879.02**	**12.3%**	**17,460**
878.06	**10.9%**	**16,510**	**881.04**	**14.0%**	**20,226**

Westminster

The city of Westminster, located in north west Orange County has a population of 89,440. Currently, Westminster contributes 44,166 workers to Orange County's workforce. Westminster's Red-Zone community suffers from an unemployment rate that is almost 4 percentage points higher than the non-Red-Zone tracts and a per capita income that is 27 percent lower. In terms of higher education the adults in the Red-Zone are about 7 percent less likely to have a bachelor's degree or higher and 9.5 percent more likely not have a high school degree. Also, there is a significant gap in language skills between the two zones with over 44.2 percent of Red-Zone residents unable to speak English fluently, compare to 32.9 percent in non-Red-Zones. In the Red-Zone, though, homeownership is higher with 63 percent of units being owner occupied compared to 51 percent in non-Red-Zones. Additionally the occurrence of overcrowding is higher with 11 percent of non-Red-Zone





units being considered overcrowded compared to only 8 percent in the Red-Zones.

Westminster Red-Zone Census Tracts					
Census Tract	**Unemployment**	**Per Capita ($)**	**Census Tract**	**Unemployment**	**Per Capita ($)**
889.05	**15.9%**	**$18,329**	**998.02**	**15.3%**	**$16,853**
997.01	**11.7%**	**$18,711**	**999.03**	**11.5%**	**$17,629**
998.01	**14.0%**	**$20,982**			

Appendix K: A Study of the Economic Impact of Investment Strategies in Santa Ana and Anaheim Red-Zone Communities

2012

A Study of the Economic Impact of Workforce Investment Strategies in Santa Ana and Anaheim Red-Zone Communities

5/7/2012

Written by Joe Pearson II, in partial satisfaction of the requirements for the Masters of Urban and Regional Planning Degree.

University of California, Irvine

Report Prepared for Dr. Wallace Walrod, Chief Economic Advisor of the Orange County Business Council

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Executive Summary

The need for workforce investment strategies in Orange County is often understated. Those unfamiliar with Orange County frequently get swept up in the "OC" ideal exemplified by the affluent populations in Orange County. As a result, the other side of the population is often over looked. While the status and skills of the more affluent populations in Orange County have traditionally helped to make Orange County one of the most powerful and influential economic forces in the United States, things are beginning to change. Particularly in the presence of the latest recession, the importance of this overlooked population has grown substantially as the County and its Cities look to halt their economic downturn and begin the recovery process.

This process is very important particularly for Santa Ana and Anaheim, where they both have a large population of their residents living in the city's Red-Zone Communities. These Red-Zone Communities are defined as communities that face severe economic hardships related to low per capita income and high unemployment. Currently, both cities must not only bear the additional cost for the increased social services that these communities often require**,** but they must also bear the cost of a wasted or unproductive workforce. The poor skill levels and unproductive workers in the Red-Zone Communities have served to weigh down the respective city economies and thus the greater Orange County economy.

This report first seeks to assess the current and future economic problems or opportunities that residents of these communities have or will face. This section will

look at the unique conditions of the residents in red-zone areas as well as, the economic statistics of the communities themselves. Also, here it begins to become clear the importance that the empowerment of this low-income red-zone population, though workforce investment, is key to the future growth of Orange County's economy.

In the next section the report looks at three programs that represent the most prominent approaches to workforce investment in the Santa Ana and Anaheim communities. The first program is English Works, which aims to improve the English skills of the adult population and current workforce in the local communities. The next program is the Latino Educational Attainment Initiative, which focuses on improving the skills of the future workforce by improving the education levels of the k-12 school population. The last program is the Career Technical Education/Regional Occupation Program, a program that aims to increase the technical skill levels of both the present and future workforce, by targeting both adults and students.

For each workforce strategy the report will evaluate its impact on the workforce and the problems that negatively affect the red-zone communities. It begins with a description of the program and its goals, then going on to look at the specific needs for the program in the area. Following this will be an accountability measure looking at each program's ability to serve its target participants accurately and efficiently. Next begins the process of comparing the goals of the programs to the perceived or measured outcomes. The report then looks at each programs progress towards its goals by measuring and assessing short-term achievements.

Lastly, the report looks at the strategies ability to produce its intended results and generally looking at each programs overall impact on the local red-zone cities of Santa Ana and Anaheim.

This report includes a comparison of each strategy using its respective program as the basis for the analysis. Each program is compared using three measures. The first is the length of time before returns on the initial investment can be expected as well as the number of steps before the return is made. Second, the level of return that is to be expected at some point in the future. Lastly, the third is the ability to expand the program to meet demand in times of need. Each program is relatively different in respect to each of these measures; thus it is important to understand their strengths and weaknesses.

The understanding of these programs is then used to formulate recommendations for the focus of future workforce investment strategies. The recommendations take into account both the strengths and weaknesses of the program and the current conditions of the community and local economy. As a result of the dynamic mix of these factors the recommendations push for a focused combination of strategies, which include:

Short Term:

1. *Further pursue strategies to improve language skills among residents*
2. *Form public-private partnerships with business to improve the skill of the currently operating workforce*

3. *Focus on the expansion of Career Technical Education programs for adults*

Long Term:

1. *Increase the reach of programs similar to the Latino Educational Attainment Initiative*
2. *Maintain local control over schools and implement programs to motivate students to strive for higher education*
3. *High school Career Technical Education programs in the short run should focus on special populations and expand as economic conditions improve*

With a focus on the improvement of language skills and technical skills in the short term, and moving toward a focus on an improvement of the skills of the future workforce in the long term, the greatest benefit will be realized for the red-zone communities. Thus, the goal of this report is to help understand the problems in these communities and encourage future efforts to be more of a collaborative effort on the part of all stakeholders.

Chapter 1: Introduction

Problem Statement

The central communities of Orange County, particularly in Santa Ana and Anaheim, face substantial economic hardship as compared to the rest of the county. A major component of this hardship is the significant concentration of unskilled workers in the already economically depressed communities. As a result Orange County has been forced to bear substantial economic and social cost on behalf of these communities. This trend has also, added significantly to Orange County's inability to provide a large part of current industry with the workforce needed to continue to operate. Furthermore, the lack of skilled workers has added an additional barrier in the County's efforts to attract new industries into the County, particularly the communities in and around Santa Ana and Anaheim (OCBC CEDS Report 2008-2013). In an early Comprehensive Development Strategy report released by the Orange County Business Council in 2008, they recognize a lack of workforce education and skills as a key component of these serious problems in Orange County. Without action to directly improve the language skills, education and job skills of residents in Santa Ana, Anaheim and the immediate surrounding areas, the current low skilled workforce will continue to be a major obstacle to the economic growth of Orange County.

This report will present the barriers to economic and workforce development in Santa Ana and Anaheim, as points of study for the greater community. I will then analyze the economic impacts of three types of key strategies to workforce

investment that are currently being implemented in the cities. This analysis can then be used to plan future implementation of workforce development strategies in the northern Orange County community.

Audience

This report is intended for the use of the Orange County Business Council, to aid in the assessment of the implementation or the decision to support potential workforce investment strategies. The report will be similarly valuable to any public or private agencies and community groups looking to improve equally depressed local economies as a final goal or as a way to improve their greater economy. Due to the growth of similar problems, particularly in Southern California, this report could be a useful tool for many jurisdictions in the region.

Significance

The Exploration of workforce investment strategies is significant because no other economic development initiatives offer the same promise for economic growth (R. Jacobs and J. D. Hawley). Several independent groups have stake in the success of workforce development in both their local and greater communities. Business owners primarily depend on a well equipped workforce to ensure the success of their business. Local and state governments seeking to retain current businesses and attract new businesses must invest in workforce investment strategies, since businesses' location decisions are largely based upon the availability of skilled workforce (OCBC CEDS Report 2008-2013). Lastly, community groups seek to improve the local economy as a way of improving the resident's economic well being.

Understanding this relationship, it is only logical that the government, businesses and community organizations, such as the OC Business Council and the Oakland County Business Roundtable, actively participate in workforce investment discussions. On a larger scale investment in workforce investment can provide additional protection from the looming threat of globalization. While there is no clear consensus as to the specific impacts of globalization on local economies, some studies have shown that it could result in area job loss and increased inequality (OECD 2007, Milken Institute 2003).

Workforce investment is not only important for the continued success of an area or business, but it is important for the people in these communities. With the implementation of workforce investment strategies, education and training are improved leading more workers to be qualified for better, high-wage stable jobs. The success of workforce investment strategies is particularly significant in at risk communities because they are in the most need. A majority of the people in these communities lives below the poverty line and lack the ability to improve their socio-economic status as a result of their lack in education, technical skills and language skills. In improving these skills, businesses will be drawn to these areas because they have a resource important to the efficiency of their business. With higher wage offering businesses, the local area economy will benefit from increased tax revenue and greater spending. Most important is workforce investment strategies ability to link education and training. Producing an educated workforce with good communication skills, which is important for a strong economy (CEDS UPDATE).

Thus, through their implementation agencies can support economic development while helping the poor, improving both the labor market and equity (Holzer 2008).

Objectives

The reason for this report is to aid in the decision making process for the selection of workforce investment strategies by the Orange County Business Council. Thus the objectives of this report are:

1. Demonstrate a need for workforce investment in Santa Ana and Anaheim.
2. Analyze current workforce investment strategies being implemented in Santa Ana and Anaheim.
3. Provide recommendations to enable the OC Business Council to make efficient decisions in its promotion of workforce investment strategies.

Chapter 2: Background

Santa Ana and Anaheim vs. Orange County

Orange County demographics portray the popular media image of the county as an affluent beach community. With one of the largest workforces in the nation at just under 1.6 million, the county has one of the top producing economy's generating a Gross County Product of $190.7 billion in 2008 (EDD and CEDS 2008). The county currently has the 6th highest median income (ACS 2007-2011) and the 4th lowest unemployment rate (Cal EDD) compared to the other counties in California. Even through the current financial crisis Orange County has sustained its high cost of living. This is most evident when looking at median home values in Orange County, which have remained among the highest in the State. Due to its perceived exclusiveness and high quality standard of living, Orange County is nationally regarded as one of the best places to live in the nation.

The red-zone cities of Santa Ana and Anaheim present a different image of Orange County that is not often seen. These communities suffer from significantly higher unemployment levels and lower income levels.

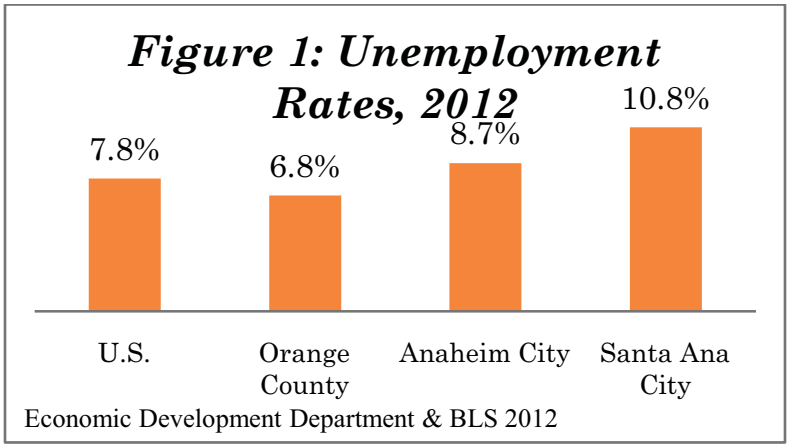


Figure 1: Unemployment Rates

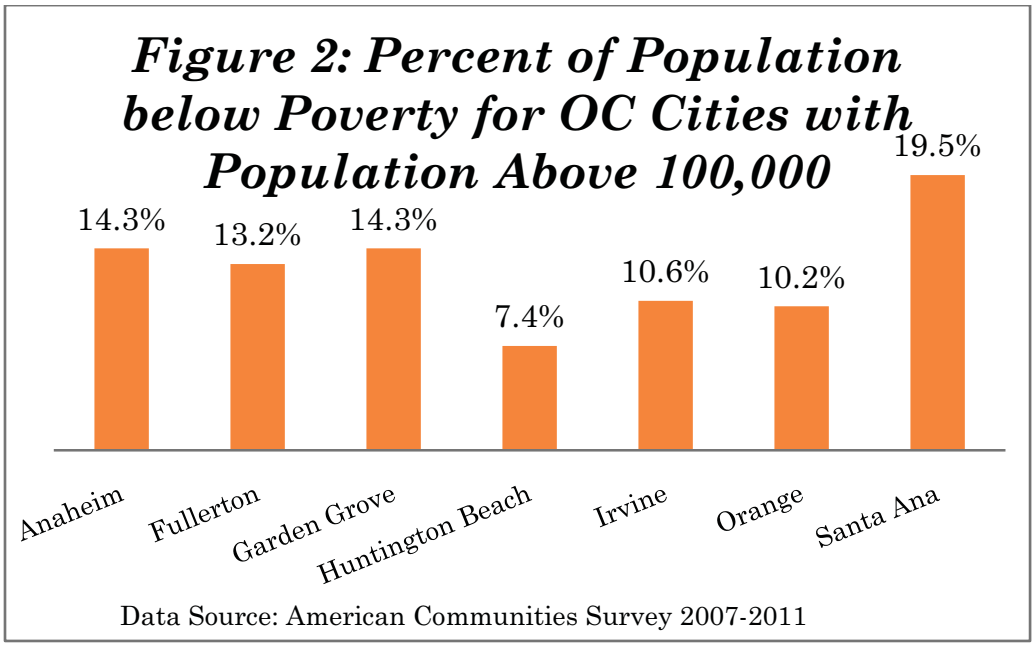
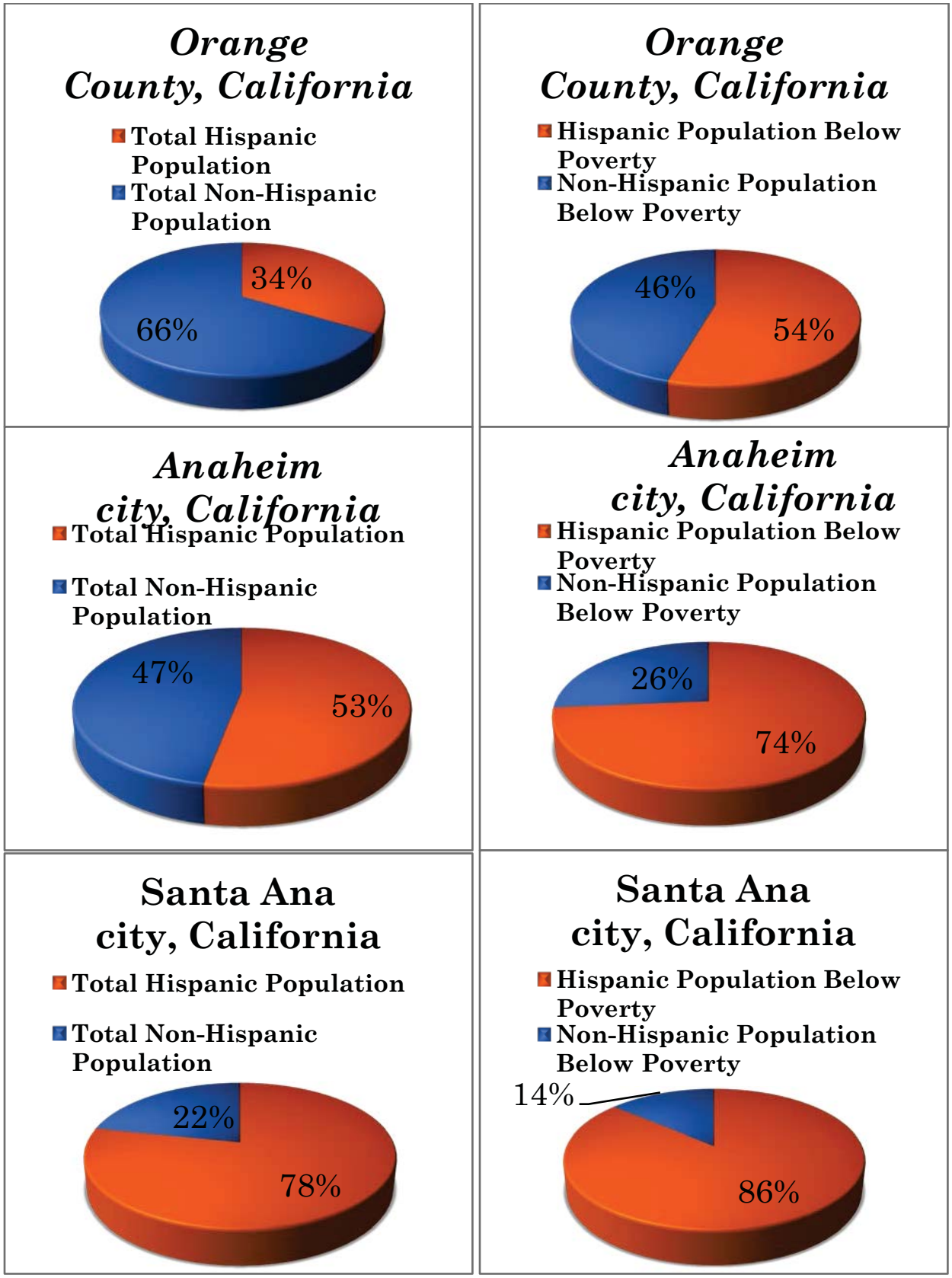


Figure 2: Percent of Population below Poverty for OC Cities with Population Above 100,000

The image and characteristics of Orange County have served to keep the cost of living in the county high. This has had an adverse affect on the low income populations of Anaheim and Santa Ana, making them heavily dependent upon social services and low income housing programs. As a result of the high concentration of poverty in these communities, high crime rates have been a problem in areas of these cities. This has resulted in increased expenditures on law

enforcement and related activities in both cities. Socially this has created a stigma about these communities within Orange County, particularly in South County.

One of the major contributors to these communities's low skilled workforce are low income and undocumented immigrant workers, with one in five low income workers in the U.S. being a immigrant (NILC 2007). Santa Ana and significant portions of Anaheim have become points of concentration for these recent immigrant workers, who are primarily of Hispanic origin. Looking below we can compare the percent of Hispanics that make up the total population vs. the percent that make up the total population of residents that are below poverty across the jurisdictions of Orange County, Santa Ana and Anaheim. It can be seen that Hispanic's not only make up a significant proportion of the population in these communities but, most importantly, make up around three-quarters or more of those below poverty.



Data Source: U.S. Census: 2007-2011 American Communities Survey

Figure 3: Hispanic Population and Poverty Comparisons

This population's recent immigrant status has created a language barrier between the worker and prospective employers. Almost two-thirds of low-income immigrant workers suffer from low English language skills (Capps 2003). With industries looking to cut costs and these residents desperate for work, an environment that is conducive to predatory hiring has been created. More specifically immigrants in need of jobs are taking low wage and labor intensive jobs. Due to the large supply of these immigrant workers they must abide to employer demands or risk being fired and replaced by the other immigrants looking for employment (Bernhardt, Boushey, and Tilly 2008). This is compounded by the fact that an increasing number of employers, as a result of the economic downturn, are purposely hiring immigrant workers because they will often work for lower wages. This creates a condition in which there is both a supply of and demand for immigrant workers particularly those willing to work for low wages. This statement is supported by the recent boom nationwide in immigrant employment; in the 2009-2010 fiscal year the immigrant unemployment level fell by 0.6% while the native-born unemployment level increased by 0.5%. During this same time immigrant weekly wages fell by 4.5% compared to 1% for native residents (Current Populations Survey 2010, WSJ Oct. 2010). In businesses effort to cut costs illegal immigrants are also often hired and paid below minimum wage, often under poor conditions (Bernhardt, Boushey, Tilly 2008, and NILC 2007). This informal hiring is only marginally beneficial to the economy and prevents the upward socio-economic movement of the workers.

For the residents in these red-zone communities and the growing industries in Orange County structural unemployment is a major problem. With many of the residents lacking the education and/or skills necessary for employment by Orange Counties growing technical industries, the entire Orange County economy suffers.

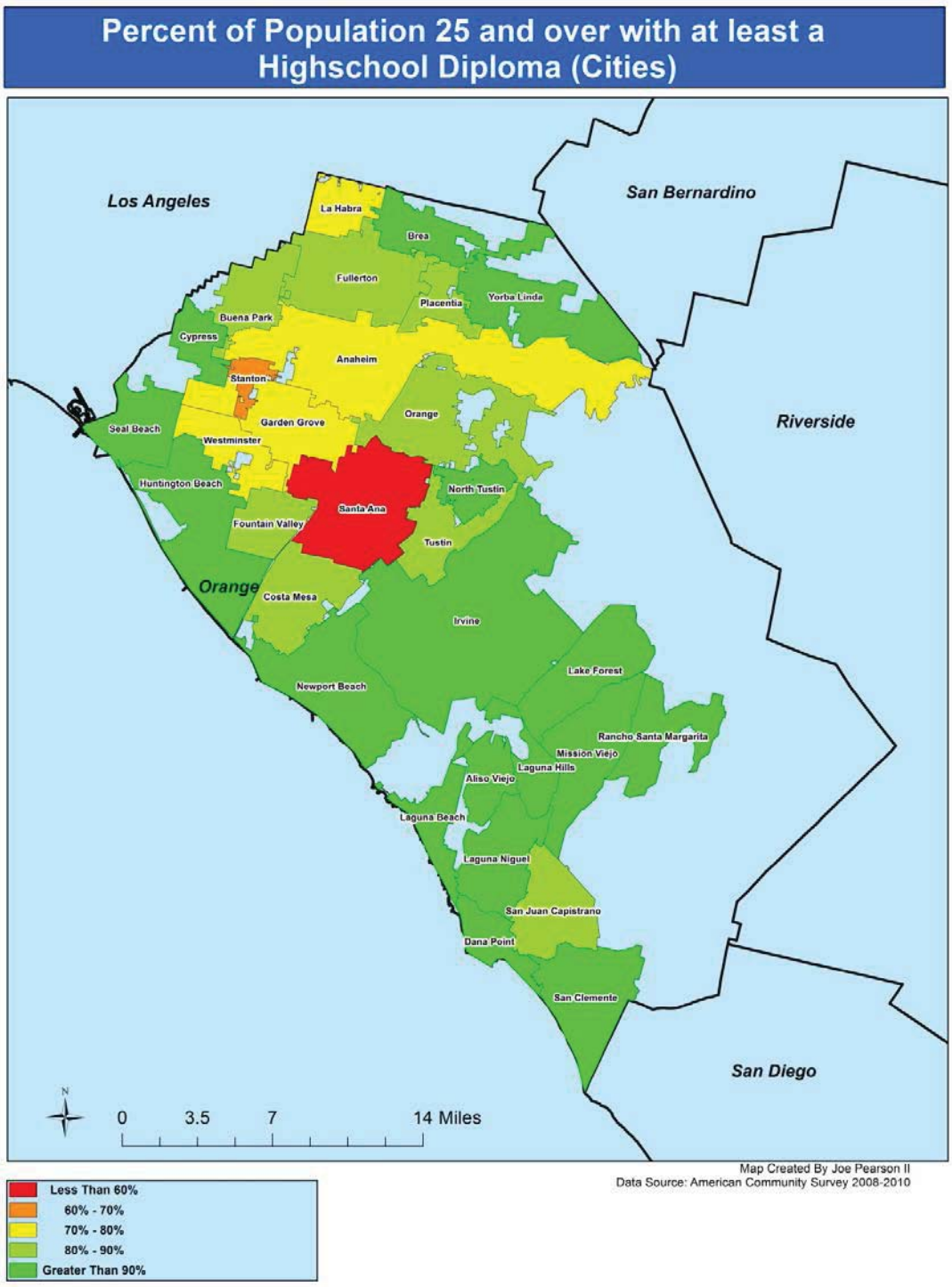


Figure 4: Population 25 and Over With at least a High school Diploma (Cities)

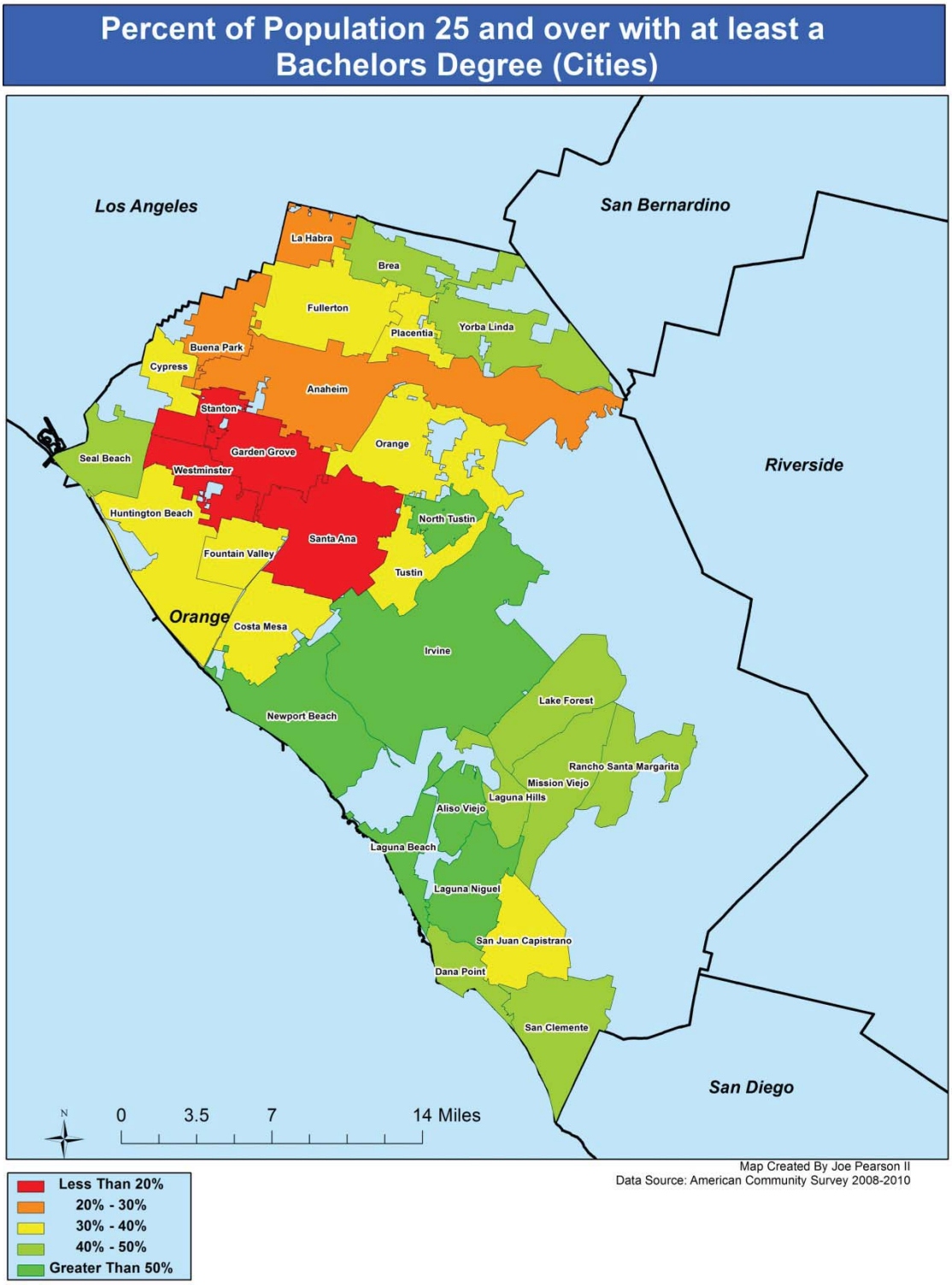


Figure 5: Population 25 and older with at least a Bachelors Degree (Cities)

As shown in the figures a large proportion of the workforce in Santa Ana and Anaheim suffer from a lack of basic education. This educational gap is most prevalent among the immigrant population, with three-fourths of U.S workers with less than a 9th grade education being an immigrant (Capps 2003). Looking at these facts it is clear that immigrants make up disproportionate percentage of the poorly educated and skilled population on a nationwide scale and with the large percent of immigrant in these communities this disproportionateness is likely even greater. This achievement gap has only served as a barrier to the socioeconomic improvement of this population, thus leading to the persistence of this achievement gap between immigrants and their children and non-immigrants. As a result of the lack in basic education many red-zone residents also lack professional training in the technical skills required to compete in the Orange County Economy. On a national scale employment opportunities requiring at least a two year vocational degree are project to grow by an average of 17%, more than twice as much as low skill opportunities, which is of great concern to these communities (BLS Division of Occupational Outlook 2010). With current market trends showing the greatest growth potential in jobs that require at least a bachelor's degree, much of the red-zone workforce will be unable to pursue the largest proportion of job opportunities (CEDS 2008).

Educational attainment levels for students in these red-zone communities are significantly lower. For Santa Ana this phenomenon is shown by the school districts statistics and performance measures. When looking at Anaheim this phenomenon is not as apparent, due to Anaheim's more prominent and successful schools on its

eastern half. This is indication of the greater socio-economic disparities in Anaheim. When looking specifically at the red-zone communities we see that both communities face educational deficiencies among their students. In both cities these areas suffer from a low high school exit exam pass rates, lower API scores and significantly higher dropout rates than other Orange County school districts.

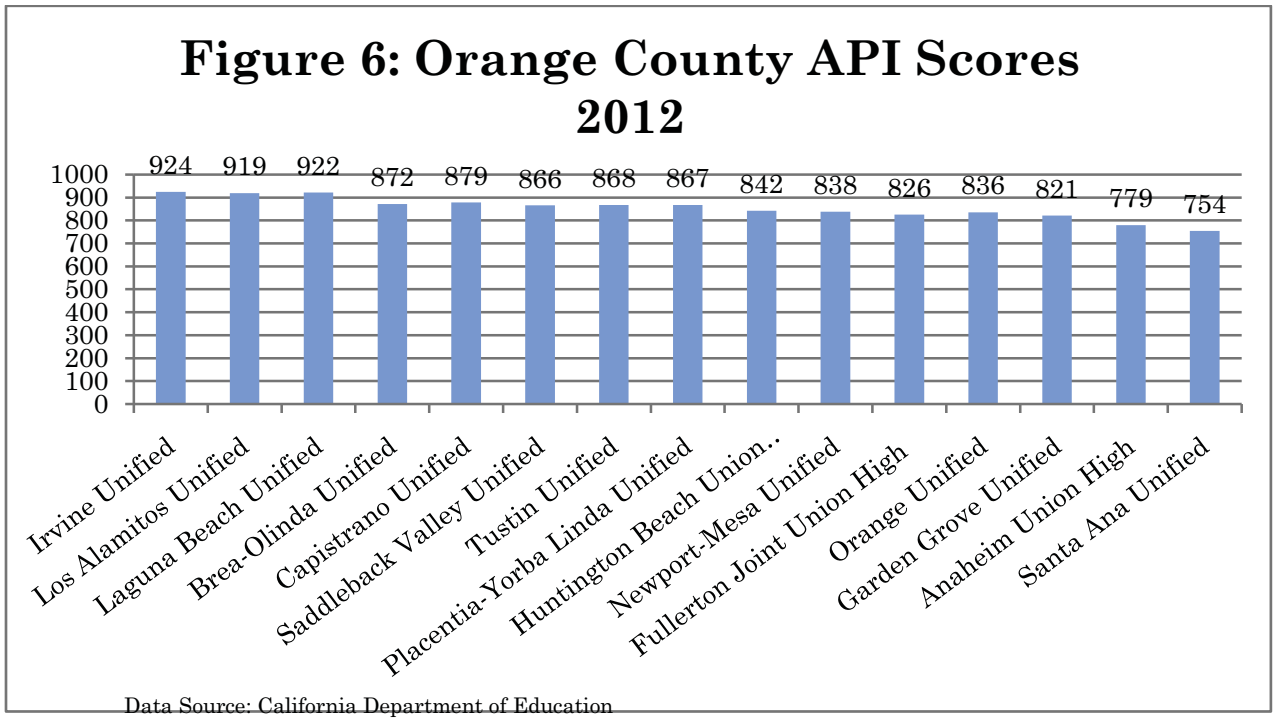


Figure 6: Orange County School's API Scores 2012

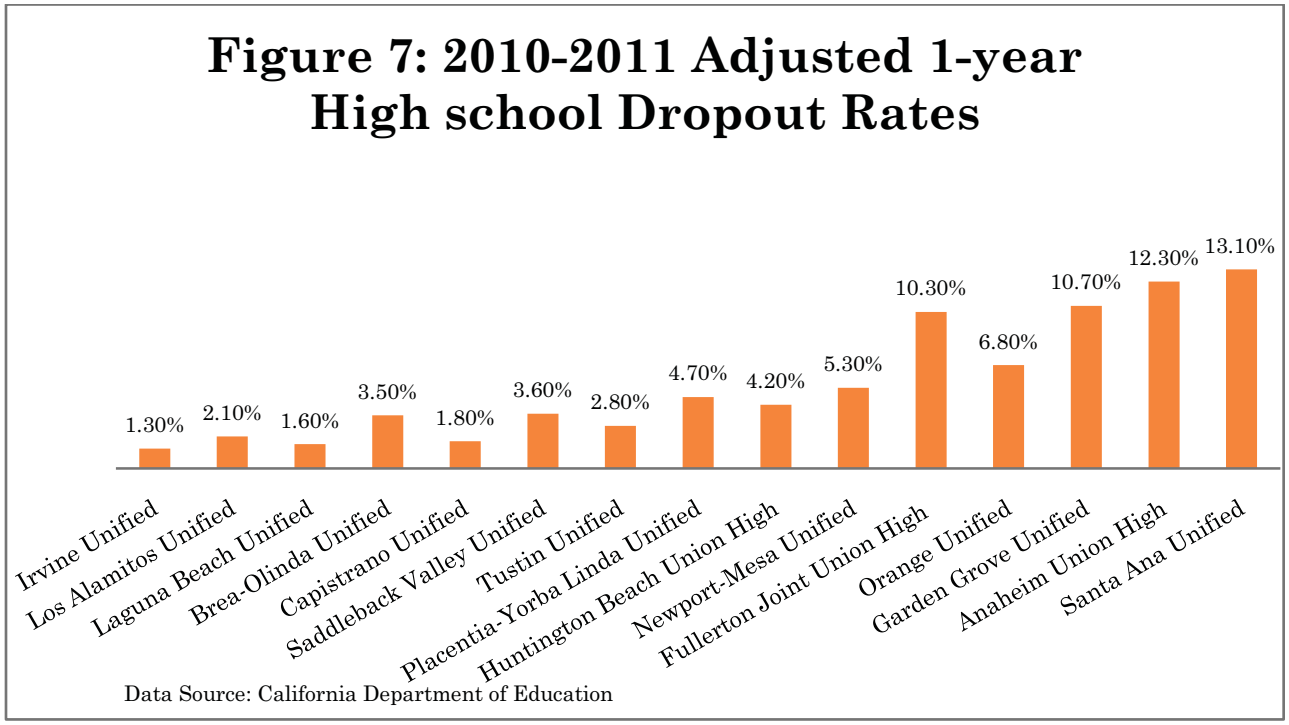


Figure 7: Adjusted 1- year High school Dropout Rates

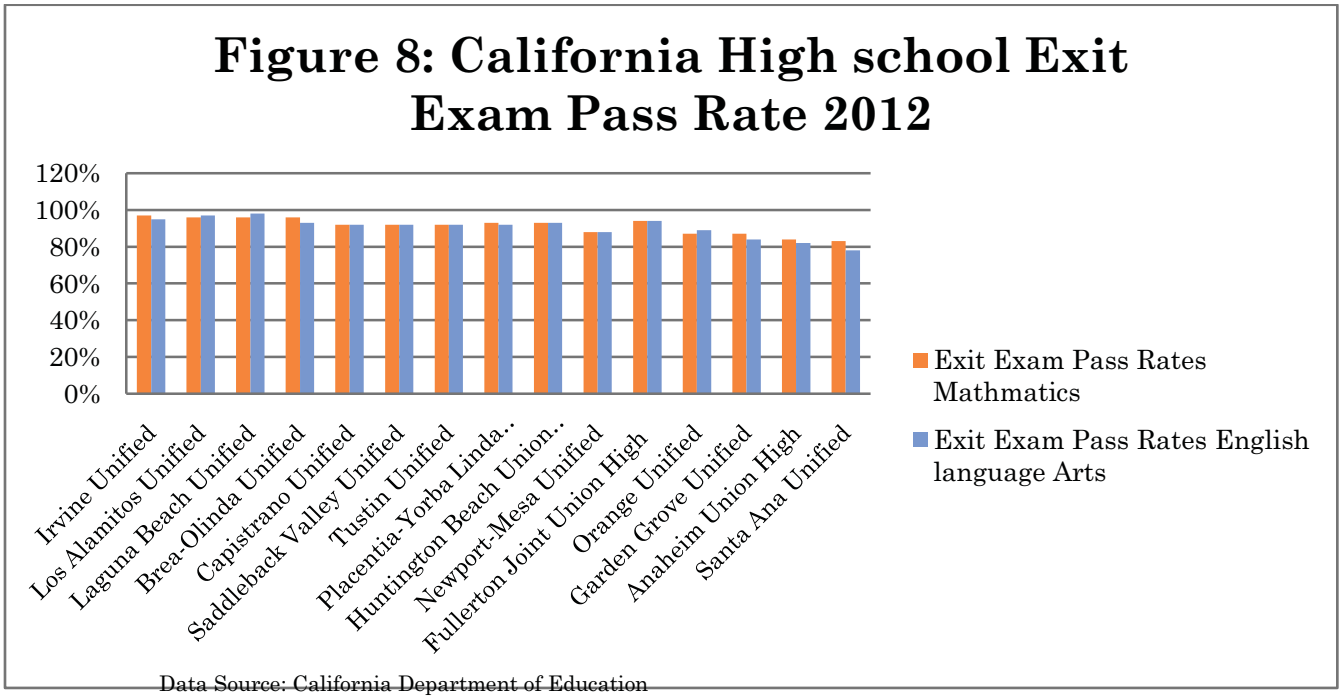
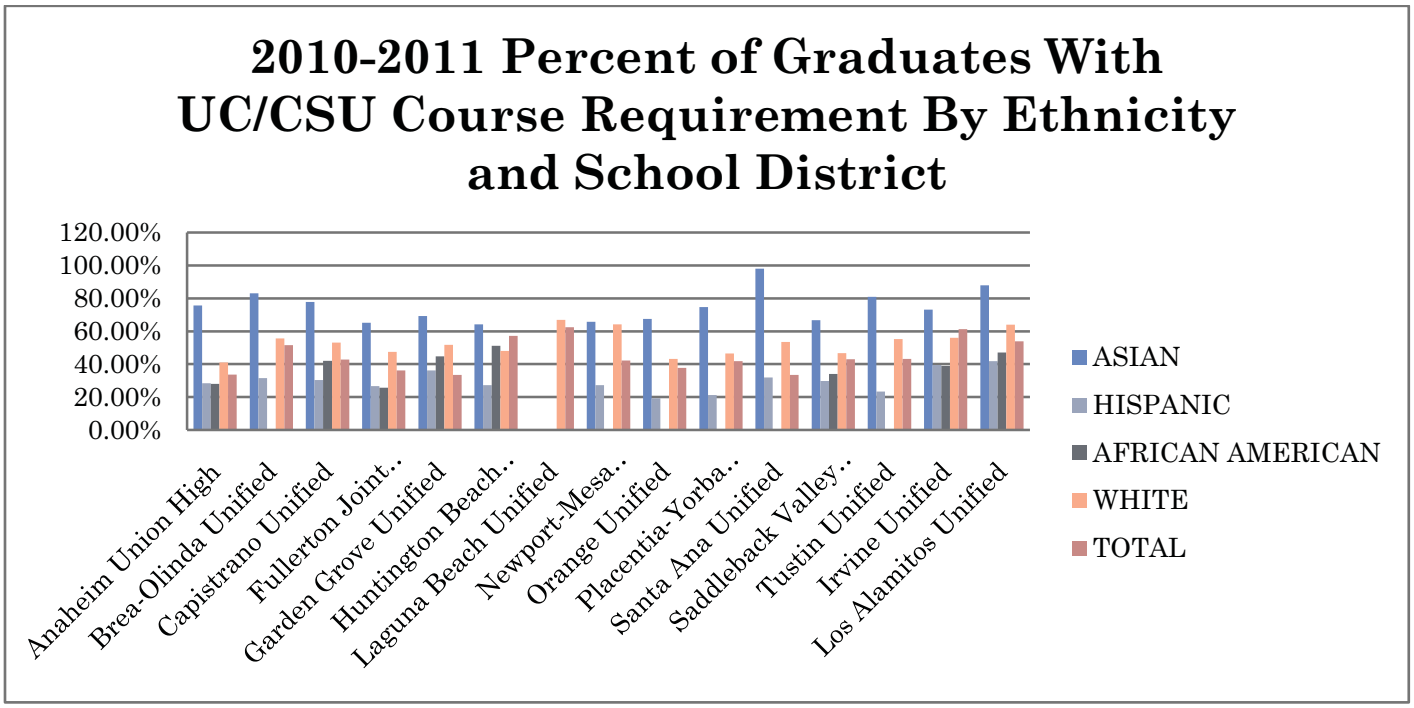


Figure 8: California High School Exit Exam Pass Rate 2012

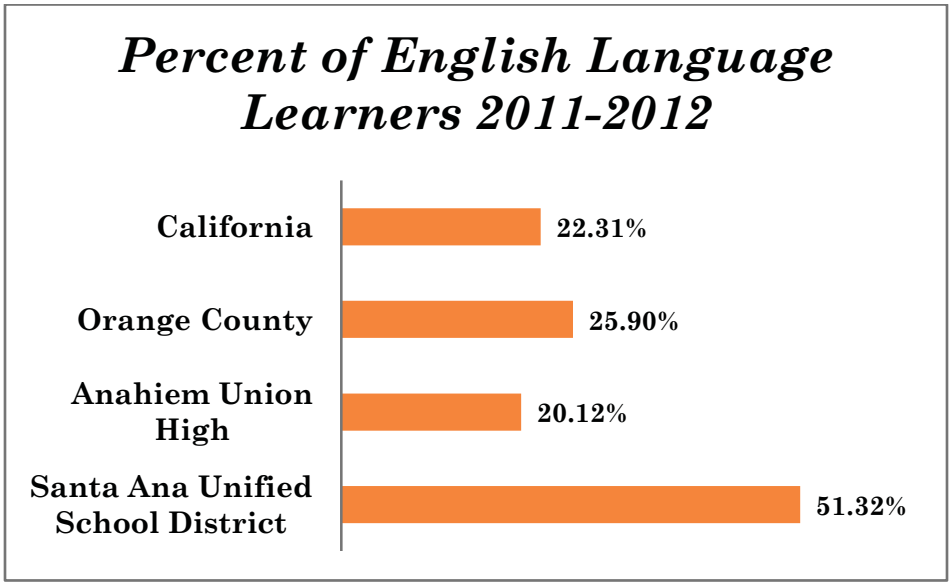
Even among those student that are passing the exams and graduating many are not graduating with the required courses to be eligible for admission to the University of California or California State University systems. Thus, this is adding to the growing population of residents that will not be eligible for the growing market of jobs that require at least a bachelor's degree.



Data Source: 2010-2011 California Department of Education

Figure 9: Graduates with UC/CSU Course Requirements by Ethnicity and School District

A proportion of these school districts poor performances in these statistics can be attributed to the large percentage of English Language Learns present in Santa Ana's school district and parts of Anaheim's schools district.



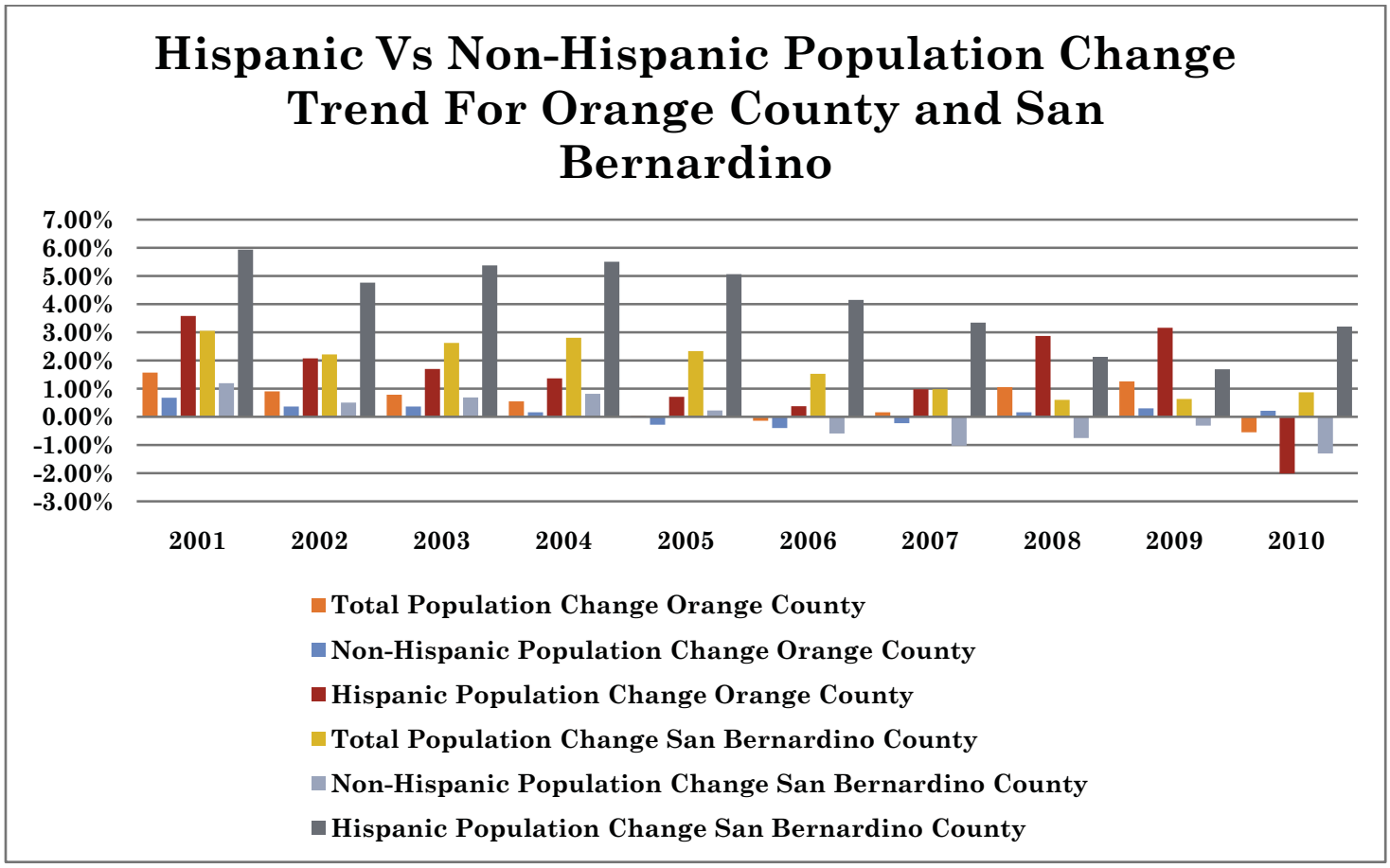
Data Source: California Department of Education 2011-2012

Figure 10: Percent of English Language Learners 2011-2012

The poor performances of both the Santa Ana and portions of the Anaheim schools if uncorrected will continue to have an adverse effect on both the local cities' and Orange County's economies. Due to the fact it will continue to contribute to the growth of a population that is unprepared for the current and future job opportunities in the County.

Particularly the North Orange County cities there have been significant population discrepancies, which have adversely affected the economy and available community funding. In the 2010 census the population calculations for Orange County were significantly less than those projected by the County. Santa Ana is particularly important because its population was not only less than expected the census actually showed a 3.98% decrease in its population, since the last full census in 2000 (2000 & 2010 Census). First, due to the speculated large undocumented immigrant population there is a significant group of people that are considered to be

"Hard to Count" due to their unwillingness or fearfulness to participate in the census. As a nationalist and anti-immigration sentiment has grown in the face of the current recession, undocumented immigrants faced increasing fears of deportation (Schrag 2010). As a result many more were likely to not participate in the past 2010 census. Secondly, as the cost of living became too high for many immigrants, particularly those unable to obtain stable income due to their undocumented status, many began to move to surrounding counties. San Bernardino, in particular was a major receiver of the migration trend receiving an almost 49% increase in its Hispanic population between 2000 and 2010.



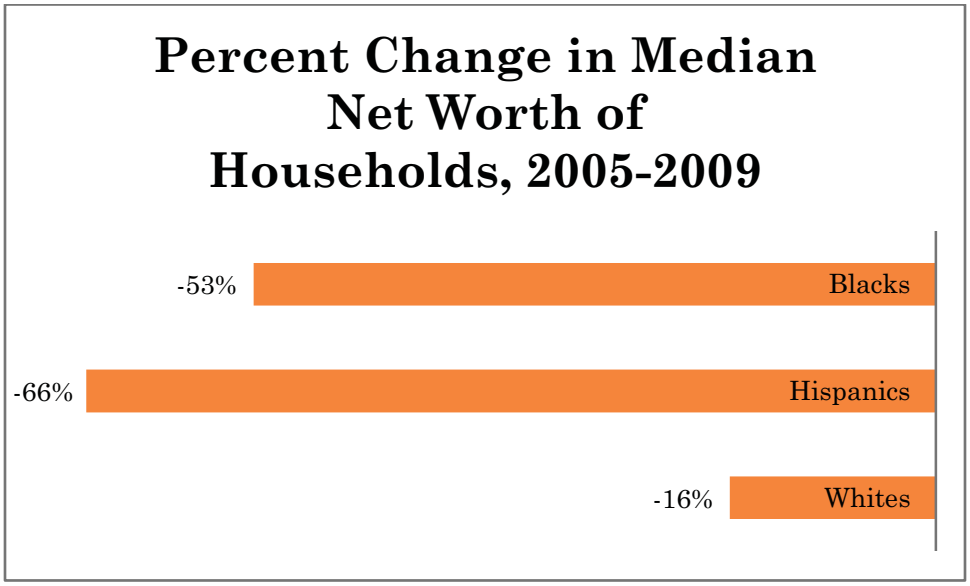
Data Source: Census 2010 and American Communities Survey 2008-2010

Figure 11: Hispanic vs. Non-Hispanic Population Change Trend for Orange County and San Bernardino County

Lastly, following the onset of the current recession there was a trend of immigrants returning to their countries of origin. This has been largely attributed to the lack of job opportunities and growing anti-immigration sentiment in the U.S. (Schrag 2010). This trend has been debated though with some arguing that there was no reverse migration, more of a slowdown in the migration rate to the U.S. (Passel & Cohn 2009). Regardless of whether it was a migration slow down or reversal this could still explain some of the variation between the expected number and the measured population. These lower population numbers, particularly in Santa Ana will largely have an adverse affect on the funding that local municipalities will receive, such as Community Development Block Grants (CDBG) for their social services. This reduction is social services will thus negatively affect the implementation of workforce investment strategies.

Economic and Market Conditions

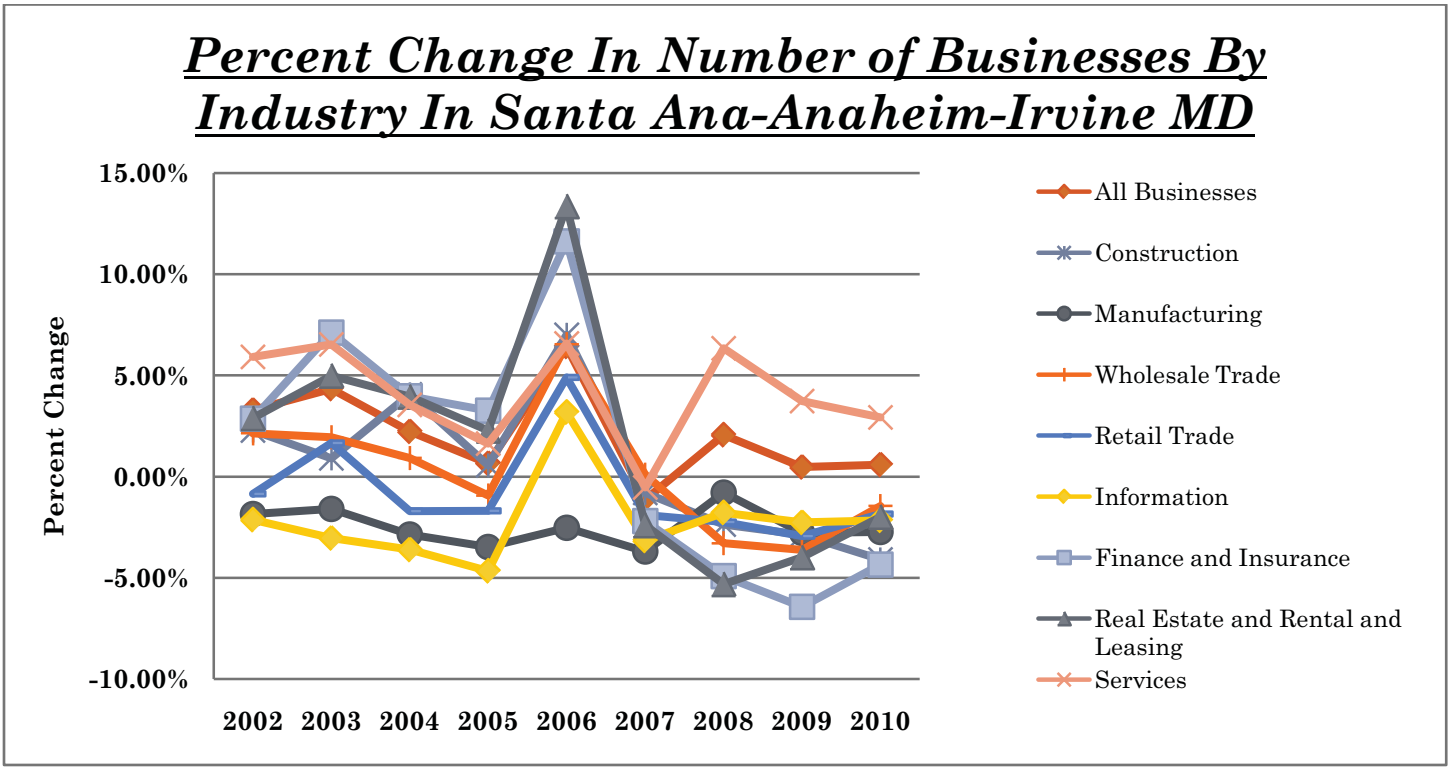
The current financial crisis set off by the housing downturn that began in 2006, had a major impact in California where the housing bubble was one of the largest in the U.S; with housing prices falling by 37% from 2005-2009 (PEW 2011). With California being among the hardest hit by the crisis, all the local municipalities within the state have also suffered substantially with 42 counties still experiencing double digit unemployment rates in 2011 (BLS LAUS 2011). While, Orange County is no exception, the county as a whole has been resilient; this unfortunately cannot be said for all cities in the county. Santa Ana's and Anaheim's red-zone communities have been among the hardest hit by the downturn due to its already large low income minority population.



Source: PEW Research Center Tabulations of Survey of Income and Program Participation data

Figure 12: Percent Change in Median Net worth of Households, by ethnicity

In addition to the impacts of the recession on the residents of the county, the County's business market has also taken a major hit. From about 2006 - 2011 Orange County has shown a significant slowdown in the growth and attraction of new business.



Data Source: Employment Development Department, www.labormarketinfo.edd.ca.gov

Figure 13: Percent Change in Number of Businesses by Industry in Santa Ana-Anaheim-Irvine MD

As shown above, this phenomenon is largely a result of loss of technical industries. The business growth that has been occurring in Orange County can be attributed to the growth in the service sector. We can speculate that the decline in technical related industries has been partially a result of our ill-equipped workforce. The current skill level of much of the workforce particularly in Santa Ana and Anaheim is not sufficient to provide the technical or specialized expertise that many of these industries require. Without the presence of significant workforce investment this trend of industry loss due to an uneducated workforce, will persist into the future. While the correlation between workforce education and industry loss is clear, the workforce is not the only factor, the high cost of land in the county has also acted as a significant disincentive to maintain or relocate a business here

in Orange County. Some examples of this exodus of business in Orange County are long-term O.C businesses AccentCare, Allegro Industries and Kairak. While all three had high costs as a major catalyst for the move, both AccentCare and Allegro cited lower cost expansion as another reason. Allegro even stated in its press release that, *"It will also allow us to ramp up our workforce with new talent from South Carolina"* (Allegro Industries 2011). This exodus should serve as a catalyst to reinvest in our workforce, as to retain these important businesses.

Employment opportunities are substantially worse in the Santa Ana and Anaheim communities, particularly in the red-zones. This is apparent given the high rates of unemployment in both of the communities. Many businesses in these communities only offer minimum wage. They have been repeatedly involved in labor disputes due to disagreements over wages and poor health benefits. Unfortunately, many of these workers must endure these conditions because they lack the opportunity or skills necessary to find better employment. Adding to this is the fact that, as many of the higher paying technical employment opportunities have been leaving the county, they have been replaced by significantly lower paying service sector jobs.

With the poorly educated and low skilled populations located in these communities, it is difficult to attract high- wage employers, thus businesses that locate there are often only offering low or minimum wage service jobs. When jobs offering higher paying positions do locate in these areas they are often given to higher skilled and better educated applicants from more prominent surrounding communities, such as South Orange County or even the border communities of Los

Angeles and the Inland Empire. This is especially prevalent now during this financial crisis as workers look further and further in search of high paying jobs (BBC 2011). Thus the skills of those residents in the red-zone communities must be improved to not only draw businesses but to enable the resident's to compete with residents from surrounding communities.

As the economy has continued to worsen, and job competition has risen, some may argue that this has pushed in increasing number of low-income immigrants toward the informal labor market. The informal market as defined by the World Bank states, "The informal economy refers to activities and income that are partially or fully outside government regulation, taxation, and observation". Prior to the current financial crisis Santa Ana and Anaheim already had a large informal labor market due to the number of undocumented residents that lack the legal paperwork to work legally in the U.S. Exacerbating this problem is the likely flow of highly skilled/educated workers in to lower skilled positions, such as the retail and food services industries. In the economic downturn those that were laid off from higher skill jobs are accepting lower wage positions out of necessity (Sexton pg 695). With these lower skilled jobs being taken by those with better education and more skills, the low skilled workers are unable to find their way in to the formal market. This has created growth in the informal market as low skilled workers seek some form of income. The work offered within the formal economy ranges from work as day labors, landscaping workers, and house cleaners along with other informal jobs. This is not only bad for the immigrant workers as many make less than minimum wage, they are also subject to lack of protection in the event of non-payment of

wages, compulsory overtime or extra shifts, lay-offs without notice or compensation, unsafe working conditions and the absence of social benefits such as pensions, sick pay and health insurance (International Labor Organization). Fiscally this is important to Orange County economy because these workers are still using social services while not contributing back to the economy, placing a drain on the economy.

Workforce investment strategies

The use of workforce investment strategies has been used at multiple levels from the top of the federal government to local governments and other local organizations. These strategies have generally focused on basic, vocational and on the job training. Basic training largely focuses on the improvement of core skills, such as basic math, English and reading skills. Vocational training centers around the preparation of individuals for emerging work fields. Lastly, on-the-job training provides those currently working with specified skills that will enable them to increase their efficiency at their current position or advance further in their career. Leading the implementation of these strategies from the national stage is the U.S. Department of Labor. Due to the complexity of workforce investment, we find that in the past multiple types of agencies are often involved in their design and implementation, as well as funding being provided by multiple sources. As shown in past reports, workforce investment strategies can become important as early as high school (OCBC Community Indicators report 2011, Workforce Indicators Report, 2010, California State Plan for CTE 2008). They can be important in ensuring that high school students are prepared for their next step whether it is

going to college or going straight into the workforce. For this reason we often find that the local schools and even state and federal organizations are heavily involved in the implementation of workforce investment strategies.

English Second Language programs (ELS) are currently offered through multiple sources in the Santa Ana, Anaheim and the surrounding communities. English learner programs promote the improvement of vocational skills. This helps to alleviate one of the many barriers to participation in the market that immigrants face. For Santa Ana and Anaheim these programs are important because Hispanic adults comprised a large proportion of the low literate population in 2003 having an illiteracy rate of about 44% (National Assessment of Adult literacy). Due to the large Hispanic population in the red-zone communities the high rates of illiteracy in Orange County can largely be attributed to these red-zone communities. In 2003 the National Center for Education Statistics indicated that in Orange County 26 percent of the 16 and older population lacked basic prose literacy skills, placing it 8th in California and 3 percent above the state average (National Assessment of Adult Literacy 2003). These programs are not only offered to adults, often they are available to children of immigrants through school programs. Children of recent immigrants struggle with the English language, due to their inability to learn and practice English at home. It is important that the lack of English skills be addressed in minors, so not to perpetuate the problems associated with adult illiteracy. With the large proportion of the Orange County workforce limited by a lack of proficient English skills, addressing this problem is important to the economic growth of the red-zone communities

Career Technical Education programs are another workforce investment strategy being offered in Santa Ana, Anaheim and the surrounding communities. These programs are aimed at improving the technical skills related to specific fields of work. With a nationally projected 17% growth in employment opportunities requiring a CTE through 2020, this may present an opportunity for the large unskilled population in the red-zone communities to obtain, relatively, immediate work (BLS Division of Occupational Outlook 2012). These CTE programs are typically shorter than traditional post secondary schools, taking usually less than a year to complete. With the large unskilled adult population in these areas that are in need of immediate work and cannot afford to attend traditional school, these programs offer a viable alternative. The greatest advantage of CTE programs is that immediately upon the completion of many of these programs, participants are ready for placement in the specified job field. Secondly, these programs can also be paired with schools so that students, upon graduation from high school, can be immediately ready for the workforce, should they not pursue a higher education.

The third significant strategy being implemented in the Santa Ana and Anaheim red-zone communities are programs to improve minority college preparation which is important for many of these communities. As previously discussed the poor performance rates of minority students in the Anaheim and Santa Ana school districts has only served to perpetuate the poor socio-economic conditions in the red-zone communities. The main goal of these programs are to encourage students to enroll in college prep courses and take the SAT's to allow them the opportunity to apply for college. These programs also help students and

their families understand the college application and education path. Given the low literacy rates and immigrant status of many red-zone residents the college application process can be very confusing for the student and parents. Thus, through the encouragement of students and clarification of the college process, these programs invest in the future economic revitalization of these communities.

The OC Workforce Investment Board (OC WIB)

In Orange County, most of the major workforce investment strategies are headed by the OC Workforce Investment Board. The OC WIB is the local division of the California Workforce Investment Board, which was created under Title 1 of the 1998 Workforce Investment Act. The seven key principles behind the WIA are:

1. The streamlining of services
2. The empowerment of individuals
3. The provision of universal access to services
4. Increased accountability for performance and customer satisfaction
5. Creation of a Stronger role for local workforce investment boards and the private sector
6. Greater state and local flexibility in creating and implementing workforce investment systems
7. Improvement of youth programs for education and occupational learning programs

(Department of Labor-Employment and Training Administration Final Rule)

Thus aside from the principles that give the OC WIB power, these principles provide the guidance for all of the OC WIB's strategies and actions. The OC WIB works with local schools, organizations such as the OC Business Council, and local

businesses in the creation and implementation of new and innovative workforce investment programs.

The most important relationship that the OC WIB has is its relationship with the OC Business Council. Together one of the problems they have worked to address is the lack of skills among Orange County's lower income populations, primarily located in the north county region. With both agencies sharing the goal of the improvement of the local Orange County Economy, they have individually and together published reports outlining the problems associated with impoverished Orange County communities, such as Santa Ana and Anaheim. For example, the Comprehensive Development Strategy developed by the OC Business Council, looks at areas suffering from severe economic problems. The report recognizes the lack of workforce investment as a key component of these problems not only in red-zone communities, but throughout Orange County. This is because particularly in these red-zone communities there is a large population of adults and students in need of better workforce training, in regards to better educations and technical skills. Thus without the development and implementation of these strategies the workforce will continue to meet the needs of current businesses. In recognizing this, they have in coordination with other agencies, such as housing entities, economic development agencies and other community based organizations initiated programs to address these factors contributing to this problem (OC Strategic Five-Year Local Plan 2000). These programs include the provision of their services to businesses, jobseekers and the youth for job recruitment and placement help and skill training (egov.ocgov.com/ocgov/CommunityInvestmentDivision/WorkforceInvestmenBoard).

In working with local agencies and businesses, they have set goals, designed, implemented or supported workforce investment strategies in these communities. It is important to note though, that outside of the Workforce Investment Board there is a network of other groups and agencies that are working to improve the skills of Orange County residents, particularly in the north

Through these efforts the economic conditions in these areas have improved, when accounting for the recent downturn, and the drain on Orange County's economy has been reduced. Nevertheless there has continued to be a persistent high number of un-skilled and poorly educated workers, significantly located in the red-zone communities of Santa Ana and Anaheim. This is largely attributed to the lower cost of living in these communities, most importantly lower housing cost with the median monthly housing cost for Santa Ana and Anaheim being $1,390 and $1,468 respectively, this is significantly lower than the Orange County average of $1,739 (U.S. Census Bureau, 2007-2011 American Community Survey). These lower costs have made the communities a magnet for low income populations and immigrants, further contributing to the poor workforce. With this persistent and growing problem Orange County is still unable to provide its current industry with the workforce needed to continue to operate. And as the County's looks to attract new industries into the area this is a major problem that it must solve.

Chapter 3: Procedures

This report analyzes workforce investment strategies that support the improvement of workforce skills in red-zone communities. The strategies presented in this report are used to exemplify the most widely used and accepted workforce investment strategies in Santa Ana and Anaheim red-zone communities. The analysis of the strategies was prepared for the purpose of providing an additional resource for the evaluation of future workforce investment strategies. The report began by focusing the contributions and impacts of a poorly educated workforce to the local red-zone communities. The second section focused on analyzing three different currently implemented strategies in Santa Ana and Anaheim. Lastly, the final section of the report, the recommendations, will identify the most economically effective strategies based on the given conditions in the community.

Information Acquisition

First, program evaluations will be done on basic training and vocational training programs in Orange County. For this report The English Works Program, The Latino Educational Attainment initiative and The Central Orange County CTE Partnership have been selected for evaluation. These programs represent the most widely used forms of workforce investment in Orange County. These programs were chose because they are most directly tied with the problems of these low income communities, and directly address many of the resident's barriers to employment. The evaluation will consist of informal meetings with representatives of each of these programs. Through these meeting an understanding the goals of each

program as well as the desired and actual results of each respective program will be attained. Using this knowledge this report will analyze the socio-economic impact of these programs on the communities. It will then look at the potential socio-economic impacts as well as its ease of implementation as compared to other programs in my evaluation.

Plan of Analysis

First an evaluation of each program's impact on the conditions that affect the red-zone communities will help to provide an understanding of each programs impact on the local economy. To begin the evaluation a needs assessment will be done for the red-zone communities of Santa Ana and Anaheim followed by a description of each of the respective programs policies and goals. Following this will be an accountability measure looking at each program's ability to serve its target participants and who is actually benefiting or losing from the respective program. Next, begins the process of comparing the goals of the programs to the perceived or measured outcomes. This section will begin to help understand the true effectiveness and strengths of each program, as well as any possible weaknesses. Then looking at each programs progress towards its goals by measuring and assessing is short-term achievements. Last will be an overview of the programs ability to produce its intended results. Generally looking at each programs overall impact on the local red-zone cities of Santa Ana and Anaheim.

For the measurement of each program's effectiveness, the report will analyze the actual or potential changes to socio-economic conditions of the program

participants. The changes of the socio-economic conditions of the participants are important because they are directly tied to the socio-economic conditions of the communities, the cities and thus Orange County itself. Analyzing the economic impacts of these strategies is key to understanding the effectiveness of these strategies in these communities. Using the economic indicators of program participants as the basis for our analysis is important for ensuring the measured results are most closely related to the impacts of the program itself. This will help to minimize the impacts of outside variables on the analysis of the programs efficiency. The report will compare the time frame in which the positive socio-economic impacts of the programs can be expected to manifest themselves in the communities.

Chapter 4: Program Case Studies

English Works

Program Definition

Description

English Works is a city wide campaign and program in Santa Ana to promote the importance of English Language skills to residents and businesses. It was part of a comprehensive economic growth strategy for the city of Santa Ana aimed at making Santa Ana's workforce proficient in the English language (Santa Ana Chamber of Commerce 2006). In doing so the work force would be able to enter and advance in sustainable jobs not currently available to them.

Background

English Works initially began in 2006. At first it was primarily a campaign promoting the learning of English Skills among the uneducated and unskilled Latino Population. The Campaign started with a large financial investment, setting its initial budget at over $600,000. The purpose of the campaign was largely to link residents with the free English Second Language (ESL) classes being offered throughout Santa Ana by Santa Ana College. In kicking off the campaign they formed a committee with the investors and other community stake holders that held monthly meetings. Initially the meetings had a large attendance with about 50 people representing various stakeholders from around the community. As the campaign began to take hold they began a program in which the aimed to partner

with businesses and schools to teach English using specially design easy to use leap frog pads with personal support packets. The kits were purchased by investors, though the RSCCD eventually retracted its investment offer due to the economic recession. Due to local businesses doubts over their ability to teach English, investors were unable to sell most of them. Those that did purchase kits choose not to renew the costly yearly support packets for each kit. Given the problems with the kits, investors and businesses the program was initially largely abandoned, though it is now being revived on a smaller scale.

Vision, Goals, Objectives, Mission, Characteristics Etc.

The primary challenge to be addressed by the program was that language skills of Santa Ana Residents failed to match up the growing job sector in Santa Ana. The Chamber and other stake holders wanted to break the English language barrier to economic prosperity and sustainable employment in the key growth industries for Santa Ana workers, students and residents (Santa Ana Chamber of Commerce 2006). The mission for English Works was to make 50,000 English language learners proficient in English over the initial five year time frame that ended in 2010. The mission was broken down into three separate goals. Twenty percent of the 50,000 was to come from increased enrollment in the RSCCD, sixty percent was to come from increasing language skills of incumbent workers and the last twenty percent was to come from increases in the future workforce or high school student proficiency (Santa Ana Chamber of Commerce 2006).

Needs Assessment

As previously mentioned almost two thirds of low income immigrant works suffer from low English language skills (Capps 2003). This is significant for both Santa Ana and Anaheim given their large low income Hispanic populations. According to the National Assessment of Adult Literacy from 2003 conducted by the National Center for education 26% of Orange County's 16 and older population lacked basic literacy skills. It can reasonably be assumed that this statistic is heavily impacted by the large populations in the red-zone communities of both of these cities.

Accountability

Who Was/Is Involved In the Project?

The primary initial investor and partners were intended to be the Rancho Santiago Community College District (RSCCD), the City of Santa Ana and the Santa Ana Chamber of Commerce. Together these three were supposed to be responsible for the initial budget of $620,000. Based on this budget the program had a huge launch, but soon after the economy fell and RSCCD had to pull out for financial reasons and could not give the $200,000 English Works expected. Retention education was initially a major partner as it helped to develop the leap frog pad and was responsible for the support packages for each pad, but as a result of the economic down turn they went out of business. The Santa Ana Library, the Work Center in Santa Ana and the Santa Ana School District were among the few who did purchase the leap frog kits initially. Lastly, among the core partners Think

Together, an after school learning program, was major partner in the promotion of the English Works campaign.

Why Were They Involved

Each of the partners were involved for their own reasons but all recognized the need for and benefits to be had from the improvement of community language skills. The Chamber of Commerce created the program because it is their goal to promote the growth of the Santa Ana Economy which they do by improving the skill of local Santa Ana residents. The Library, School District, RSCCD, Think Together and the Work Center are all community builders and as such have a responsibility to assist in the improvement of the local community. In working together on English works they were able to meet this responsibility through the empowerment of residents. Local businesses were involved as well because they stood to benefit from the improvement of the local economy. Altogether each of the program/campaign participants had a stake in the condition of Santa Ana workforce through the fact that they all are concerned with the conditions of Santa Ana local economy.

What Was/Is Their Role

The role of each participant varied but each role was integral to the success of English Works. The Chamber of Commerce was the primary initiator of the program they worked to bring together the partners to identify and address the English language skill problems in Santa Ana. The chamber and other holders of the kits work to use then kits to provide a path for people to go for no English skills to taking the college level classes. This was important for empowering residents to

feel confident enough to take the college classes. Santa Ana College was instrumental because it was the college that offered the free ESL classes around Santa Ana, making the English works campaign possible. Other community partners were important for the promotion of the campaign, helping to get residents and businesses to understand the importance learning English.

Intended Target population

The target population of English Works is the working class Santa Ana residents that are unskilled and non English speaking. This is the targeted population because they cannot get entry level positions in growing industries. For many residents that are already employed they lack the English skills to move up from their current position. Also, business efficiency is hurt by the language barriers of this population. They are targeting sectors of the workforce that tend to have a large percentage of non English speaking workers, such as agricultural, domestic and landscape workers. Students at the intermediate and high school levels are also being target so that to ensure the future strength of the workforce.

How is the program delivered to the intended population?

To reach the intended population there were several rollouts of the program with advertisements around Santa Ana promoting learning English and improving worker skills, particularly in customer service. The kits were also intended to be a major tool; using the support packet a tutor would call participants weekly to ensure steady progress in skill development. Unfortunately the packet had to be renewed for each new person. They also reached out to community leaders and

influencer such as churches, community centers, employers and schools to get them to spread the word about campaign or to assist in the implementation of the program.

Primary use of funding

The primary use of funding was for the campaign promotion and for the purchase of the leap frog kits.

Understanding and Refining

Programs Initial Intentions

English Works was started as a way to achieve community wide awareness of the connection between English proficiency, economic prosperity, sustainable employment and achieving the great American dream (Santa Ana Chamber of Commerce 2006). They also wanted to improve community wide access to hope and opportunity through language enhancement opportunities in the workplace, classroom and home (Santa Ana Chamber of Commerce 2006). Understanding that Santa Ana has one of the large work age populations, but that majority of this workforce does not have the language skills to be significant assets to the local community they aim to improve their language skills.

Were all activities implemented?

The implementation of the campaign was largely successful with its goal of spreading the word about the significance of learning English. This was a result of the success of the core activities of the campaign. The most important of the

campaign's activities was the media rollout; it was also one of the most success aspects of English works. They placed advertising in key areas that they felt would reach the large percentage of the target population. These places included bus shelters signs, bus interior cards, premiere panels, church bulletins, door hangers, penny savers prints, excelsior insert and street events. Through the advertisements and working with Santa Ana College they were able to build a connection between the community and the RSCCD.

The implementation of the program was not as smooth. The program's goal of implementing a stepping stone to taking courses at the college through the use of the kits as well as reaching out to local businesses to encourage their use of the kits to teach employees English was largely not achieved. First, they wished to sell the kits to people so that they could learn English primarily on their own or in community groups with the support packets. The kits were relatively easy to use but were too expensive and residents did not buy into them. Similarly they with local businesses, the downturn in the economy made the investment in the kits too large and some business did not feel it taught the employee enough English to be worth the investment. As a result the leap frog kits did not sell lead to a failure of the program.

Were they reaching the intended population?

Overall English Works, through the highly targeted and wide spread campaign was able to reach much of the target population. Key to the success was the campaign images and language that was aimed those most likely lacking English language skills, which made them feel more comfortable seeking assistance.

Also through the promises for higher wages they were able to target the low income population that was looking to improve their socio-economic status.

Who is excluded, if any?

Some populations that also could benefit from the campaigns goal have been excluded. Being that the campaign was highly targeted at the Hispanic population, which rightfully so makes up the largest percentage of the non English speaking population, the campaign may not have appealed to other non English populations such as the large Asian population. Also, among the portion of residents who lack citizenship there was a fear that the program was not safe for them because they could be reported. So even though they were targeted by the program they may have avoided it out of fear. This was most only speculated by program representatives. Discouragement due to poor job prospects was also a problem. Some resident may have felt like they would not get a job so why spend time taking the classes, or those who had a job may not feel a drive need to take the courses.

Do Goals Line Up With Target Population, Funding Allocation, and Targeted Participants?

In understanding the goals of the program, the target population lines up perfectly with them. The Hispanic population is one of the largest untapped economic resources in Santa Ana. There is a lot of economic growth that could come out of the development of the current workforce as well as investments in the future workforce. The campaign was aimed at addressing people's doubts about their ability to improve their socio-economic status. It also targeted people dreams for a

better life by showing images of Hispanics in prominent positions thus enticing more people to take the English classes. With the campaign being the most important part of the English Works about 50 percent of the programs initial funding was dedicated to the campaigns media roll out. While the business partnerships were not as successful the concept really lined up well with the goal of improving the Santa Ana work force and economy. Potentially it could have had an immediate impact on local economy by improving the efficiency of local businesses.

Progress toward Objectives

Long-Term vs. Short-Term Objectives/Outcomes

The short-term objective of English Works was to increase English proficiency in the performance of daily functions and customer interactions. The goals were largely basic on the individual level in-terms of short term achievements. In the short-term through the use of the kits they aimed to improve the English skills of non-English speakers to the point they felt comfortable taking the college ESL course. Those that were able to use the kits and the packets were able to improve their skills to the point that they felt more comfortable taking the college courses. Unfortunately due to the relative failure of the implementation and use of the kits their impact was not wide spread. English works core short term goal for the campaign was to bring awareness to the need for English skills in Santa Ana as well as improve ESL enrollment levels. Which, through the wide spread campaign they succeeded in. This is supported by the fact that following the implementation of the campaign ESL enrollment in the Santa Ana College English programs

increased drastically to about 29,000 a year (Santa Ana Chamber of Commerce 2012). This was key to the English works core long term goal of increasing the number of ESL learners by 50,000 in five years. As a result of the dramatic increase they reached their goal very quickly. It is important to note though that this achievement doesn't represent the number of residents that actually gained proficiency in the English language. Thus, the numbers did not actually represent the goal of the program because as long as they enrolled in the class and went for 4 weeks they got credit, even if they did not finish the class or all seven levels which was required for English proficiency. This means that the actual number of people who gain proficiency as a result of the campaign is questionable.

The Strategy's Potential and Actual Impacts

Over all English works had a significant impact, first it brought awareness to the need for language skills among Santa Ana Residents. Though the improvement of resident language skills English Works was able to Strengthen and empower the Santa Ana Workforce. Businesses that believed in the campaign saw increases in workforce and business efficiency as a result of less language barriers. One example is L&N Costume and Services located in Santa Ana, who does the dry cleaning for Disneyland. A Large percent of their workforce consisted of none English speaking workers which created a communication barrier between management and the workers. In seeing the benefits of teaching the workers English, they implemented an English program offered to employees at the end of the workday so they could learn English. As a result of the English program they saw immediate improvements in communication, which translated into greater efficiency in the

workplace. Efforts such as this resulting from the English Works Campaign have helped to improve worker skills as well as improve the local economy through the strengthening of businesses.

How Will the Program Help Intended Populations?

English works helped connect residents with English classes offered by Santa Ana College. By learning English they will be able to improve their socio-economic status. In improving language skills the local economy will improve creating a cyclical effect of benefits that will be returned back to the community, through business growth and attraction creating greater job opportunities.

What Are the Primary Indicators of Success?

Ultimately the primary indicator of success is the number of people who enrolled in and completed the college ESL courses. While the programs main goal was increased enrollment, those numbers did not reflect completion rates or participant performance levels. The number of people who actually completed the program is a better indicator of success because it represents the additional number of people who no longer face language barriers in their efforts to obtain jobs. Also while performance was not observed or measured it is reasonable to assume that those that complete the series of courses improved their language skill significantly. Thus, it represents the number of people who have been added to the Santa Ana's efficient workforce.

Long Term Program Outcome

How Will The Benefits to Program Participants Benefit The Local Orange County Economy?

The improvement of language skills has been a great benefit to the local Orange County economy. Even in looking at those that only completed the kits or base level class their communication skills in the workplace would still have improved. Those that did complete all of the college courses would have much greater economic opportunities. They could go back to the workforce as a much more productive member or they go back to further their education either through additional college courses or a CTE/ROP program. As a result of the stronger workforce business efficiency will be greatly increased as less time is lost due to miscommunication. The growth of the skilled workforce and local economy could serve to draw smaller businesses into the community. The campaign may also serve to draw some large businesses but less probable due to their need for a more diversified workforce, in regards to skill level as well as other major considerations for big businesses such as land availability and cost. Thus, what is currently more of a drain on the economy will become one of its greatest contributors.

Is the Strategy's Capacity Large Enough to Have a Major Impact on the Local Economy?

In the campaign's early years it was enrolling an average of 29,000 people a year into the college ESL course. Since the campaigns implementation it has impacted a significant portion of the Santa Ana workforce. Being that it is a

campaign there are no real physical limits except for the capacity of the Santa Ana College courses. The program on the other hand was limited to the number of kits that were available. When compared to the large percentage of the Santa Ana workforce that is in need the number of kits was far from sufficient. Had the kits been used as intended and sold to businesses the resulting impact from increase business efficiency could have had a significant impact on the local economy. Thus both the campaign and the program had promise but due to unforeseen circumstances, primarily the economic downturn the campaign was much more successful on a large scale.

Latino Educational Attainment Initiative

Program Definition

Description

The Latino Educational Attainment initiative is a grassroots, community based program to help parents learn how to guide their children through California's educational systems. LEA seeks to build a skilled workforce through the education of Latino parents on the best ways to help and support their children's educational success. The basis for the initiative's actions is that through greater parental involvement they expected that dropout rates would decrease and college preparedness would increase.

Background

The Latino Educational Attainment Initiative was begun in 2005 by the Orange County Business Council (OCBC), OC United Way, OC Register and the OC Department of Education. LEA is a neighborhood based initiative that is working to concentrate its efforts on the neighborhoods surrounding the 100 lowest performing schools in Orange County. Leaders of LEA see promoting parental involvement in child's education as the first step to changing their communities. Since its creation about 25 neighborhood coalitions have been created across the county (OCBC website). The neighborhood coalitions that have formed can explore a variety of communication, educational and mentoring methods depending on what best fits the local neighborhoods. Since, it has been in action the program has educated over

23,000 parents and printed over 30,000 guides in four languages: English, Spanish, Vietnamese and Korean for parents (www.ocbc.org).

Vision, Goals, Objectives, Mission, Characteristics Etc.

The LEA initiative seeks to identify and improve general gaps by partnering with representatives from all sectors private, public, and non profit (LEA 2008). LEA was designed to lower the achievement gap and the drop-out rate while keeping children in school and preparing them to become eligible for entrance into the university system. The key goals for the various partners and participants are as follows:

Goals for parents

1. Increase parents awareness of the importance of school for their child's future
2. Teach parents to navigate the education system and help children to increase their academic achievement.
3. Empower parents to be better or more efficient advocates for their children's education.

Goal for schools

1. Help schools to be receptive to parents and their needs.
2. Educate school administrators on existing community resources.
3. Help to create a positive relationship between schools and parents.
4. Goals for existing programs and community groups
5. Extend existing programs reach and impact.
6.

Goals for business

1. Raise the awareness among businesses about the long term need for improved education of students.
2. Get businesses to provide mentors to support parents, schools and community groups

Goals for students

1. For student to reach the highest level of achievement with the encouragement and support of those around them.

Needs Assessment

The LEA initiative is responding to a growing need for educational assistance in immigrant communities. Currently, Latino's make up a significant portion of Orange County School age population. Out of the Latino population in Orange County that does graduate from high school only about 1 in 7 was ready to attend a four year college (Walrod 2011a). As previously shown there are multiple measures that put the Latino population in these red-zone communities/cities among the lowest performing population in Orange County. Largely attributed to this low performance, there are 100 low performing schools in Orange County (Walrod 2011a).

Accountability

Who Was/Is Involved In The Project?

The LEA initiative was founded by the OCBC with the partners United Way, the Register, the OC department of education and a number of other community groups. As the initiative has grown LEA has gained substantial groups including CSU Fullerton and Santa Ana College, the federal empowerment zone and local schools and school districts. Also, several non-profits including: CREER, El Viento, Fullerton Collaborative and KidWorks, Serve the People and PTA have also joined

the initiative. As the initiative has continued to take root they have gain additional major and minor partners.

Why Were They Involved?

Those that are involved in the initiative have chosen to be because they recognize the value and need to educate the up and coming workforce. As a result they held community focus groups in which they found that there was a lack of engagements by parents. Since all of the partners have a stake in the improvement of the academic achievements of local neighborhood students they all came together to address the problem.

What Was/Is Their Role?

The original partners of the program worked to develop the original 10 Educational Commandments and later the Development Assets educational guide for parents. It is the OC Business Council and its partners that are responsible for the creation and distribution of the guides to the various coalitions around Orange County. The other non-profits, community groups, and school districts are responsible for the implementation of the initiatives goals through the neighborhood coalitions. The Coalitions are created to reach out to local neighborhood parents and tailor the initiatives objectives to the needs of the local community/group of parents based on what their need is. For example parent with children in middle school are going have different program needs than a parent with a child that is a high school senior or junior and looking to learn more about college.

Intended Target Population

The target population of this program is K-12th grade student's parents but due to the structure earlier is better. While the primary target group is the Orange County Latino populations, the initiative caters to those of Asian descent as well. Essentially the program is aimed at minorities that are from an immigrant background. The primary locations targeted by the initiative are the neighborhoods surrounding the 100 lowest performing schools in Orange County, because these areas were deemed to be in the greatest need of the initiatives support.

How is the Program Delivered to the Intended Population?

The initiative is delivered directly to the neighborhoods through the local neighborhood coalitions. These neighborhood coalitions hold meeting with local neighborhood parents at which parents are taught about the ten education commandments and other assets to assist in the academic achievements of their children. At the meeting parents can ask facilitators questions about the California school system and other things they need clarification on. The groups that run these coalitions often try to hold meetings at convenient times for parents to attain the highest participation rate.

Primary Use of Funding

The primary use of funding on behalf of the core administrators of the initiative is the printing and the distribution of the books for the coalitions. The coalition's primary use of funding is for the administrators that they provide to hold and oversee the meetings with neighborhood parents.

Understanding and Refining

Programs Initial Intentions

The original intentions of the program were to teach those from an immigrant background how to navigate the U.S school system. In learning to navigate the system they can learn about opportunities for their children as well and the college application process. The initiative also aimed to teach parents how to assist students in increasing their academic achievements. This was accomplished by helping parents to understand the importance of creating a suitable environment for their children to study and what the characteristics of such an environment are. The primary objective was to empower and motivate parents to play a more critical role in their children's academic life, because they wanted parents to be advocates for their child's success.

Were All Activities Implemented?

The LEA initiative partners were relatively successful in implementing all of their activities/plans. Upon recognizing the lack of parental awareness and engagement in the children's academic lives they created two books to assist in changing the current standard. Thus, they created a system in which they could

assist parents in helping their children achieve academic success. They created the 10 Education Commandments to teach parents how to be supportive in regards to their child's school life. With the latter book teaching parents how to be supported of the child's academic life at home. Though the LEA initiative is still in the process of achieving the wide spread implementation of their initiative though the use of the coalitions and thus is still in the process of working to impact all 100 neighborhoods.

Were They Reaching the Intended Population?

The LEA initiative has been largely been successful in reaching its targeted demographics. This has been because of the success in reaching the neighborhoods around some of the 100 lowest performing school where a large percentage of the intended population resides. Through the use of the neighborhood coalitions LEA is able to reach a greater number of the intended population as well. With the meetings being local and at times most convenient for parents more parents can attend meetings. Unfortunately, while the correct groups are being reached the scale is still at the level necessary to reach the entire target population due to difficulty in getting a start or funding in some communities.

Who is excluded, if any?

The LEA initiative avoids the blatant exclusion of any specific populations. This is because even though the program is targeted at Latinos it is open to Asians of immigrant backgrounds as well, which is the other significant population that suffers from similar problems. On the other hand some other groups and even some

Asian's of immigrant background who would benefit from this program may feel discouraged from participating simply due to the name, feeling that the program is not for them.

Do Goals Line Up With Target Population, Funding Allocation, and Targeted Participants?

The target population falls perfectly in line with the goals of this initiative. With a large percentage of the Latino population being immigrants they represent the largest portion of families that are likely to not understand the system here due to language barriers. Also, the low income status of several Latinos in Orange County means that they likely do not have the means to provide a stable household environment in which students can achieve academic success. The primary use of funding is directly used for to provide the resources necessary for the successful attainment of initiative goals. In targeting the parents for participation in this program they reach the group that has the most influence over the academic success of Latino students and as a result have seen substantial improvements.

Progress toward Objectives

Long-Term vs. Short-Term Objectives/Outcomes

In the short-term the objectives of this initiative was to reach out to parents so they would come out and participate in the neighborhood classes. Through these classes they would be encouraged to play an instrumental role in helping their kids to achieve academic success. The coalitions have been successful in this pursuit with studies showing a high completion rate among parents who start the program

with some even repeating the program as a refresher. Upon completion parents in the classes felt more empowered to take control of their children's academic life. The success of the educational commandments was also evident; in an evaluation done in 2006 they found that in a sample of 116 parents there was a significant improvement in parent's knowledge regarding the educational system in the U.S. as well as their behavior toward their children's education (Dr. Araque 2006). More specifically the study found that parents had a increased role in child's education, better understanding of the grading system, better understanding of the college application process and financial opportunities and increased encouragement of their kids to take more challenging courses and pass state test.

As a result of the success of the short term goals that were able to begin to reach LEA's longer term goals of improving Latino academic performance, graduation rate and college preparedness. Students of parents who have taken the class have shown improvements in their academic achievements. Since the implementation of the program the ratio of Latino students eligible for acceptance into a four year improved from 1 in 7 to 3 in 7 (Walrod 2011a).

The Strategy's Potential and Actual Impacts

Since the initiatives implementation it has improved academic achievements among the impacted populations. As a result of the improved home environment kids will be able to study and do homework more efficiently. With more support and greater success students are less likely to drop out of high school. Greater success and more students graduating with four year college eligibility will also lead to

increased college enrollment. This will lead to an infusion of young educated workers in to the local workforce.

How Will the Program Help Intended Populations?

The program will help the intended population by empowering them and providing them the chance to ensure the academic success of their children. The actions of the LEA Initiative will put the Latino population on a path toward a future of greater economic success and mobility.

What Are The Primary Indicators of Success?

The primary indicator of success is ultimately the educational achievements of the Latino and other immigrant populations.

Long Term Program Outcome

How Will The Benefits to Program Participants Benefit The Local Orange County Economy?

This initiative will ultimately increase the education levels of Orange County's future workforce. This is important because it will provide better economic security in the future for Orange County local economy. With an increase in both high school and college educated workers Orange County and most importantly the red-zone community will be able to draw and retain more business, which is important for economic growth.

Is the Strategy's Capacity Large Enough to Have a Major Impact on the Local Economy?

With this being an initiative being carried out by different coalition it is easy for any stakeholder to implement its goals, objectives and ideals of the initiative. Thus, as more coalitions are formed throughout Orange County the number of people impacted will be increased, also increasing the benefit to the local economy.

Career Technical Education Programs (Santa Ana CTE/ROP)

Program Definition

Description

The Career Technical educational program/Regional Occupation Program works by offering technical training courses to both adults and the students in the Santa Ana Unified school district. For the adult program courses are offered at three off-campus centers where adult students can receive training in many of Orange County's high-demand careers. In the adult program most of the classes are not required to be taken in sequence, though some classes such as the Medical Office Course may have pre-requisites. Unfortunately due to recent budget cuts a fee per class is now required. The class cost varies but is on ranges from $250 - $400 per class. For SAUSD students the program is free and participants can chose to take course as part of their daily in school class schedule or take it after school as a separate program. Also, a number of the CTE/ROP program courses satisfy the A-G college requirements. High school students who enroll in CTE courses can explore their interest areas, learn about future careers, and begin preparing for the world beyond high school. Previous and current participants are given priority registration over new participants. This allows them to get all the courses they need, and is important for the few courses that must be taken in sequence. The first half of the courses are usually class room instruction with the latter half typically consisting of an internship at a local business in a field relating the course, which

sometime turn into real positions. For the SAUSD students in the CTE program only A or B student are allowed to participate in capstone internship. There is no formal type of degree given at the completion of a course or series of courses. Upon completion of each class students are presented with a certificate that states what the participant has learned in the course. As a result, through the proven combination of integrated academics, project-based learning, business internships, and career guidance, students of the CTE Partnership have successfully entered all walks of life.

Background

The Santa Ana ROP/CTE is part of the larger Central County ROP, which is part of the larger Orange County ROP/CTE network. In the 2010-11 school years the Santa Ana ROP/CTE had nearly 8,000 SAUSD students and approximately 800 adults participate in the ROP/CTE program (Santa Ana ROP/CTE 2012). In the most recent fall semester 2011-12 the program had an enrollment of 4375, of which about 150 were adults. The recent economic downturn has heavily impacted the program in Santa Ana. Over the last 4 years The CTE/ROP program has lost almost 1/3 of their funding, which is why the program began charging for adult classes with offering financial assistance. Also, following the implementation of AB 2448, only 10 percent of those in the CTE program could be reserved for the adult population. Before this the adult population on average made of 60 percent of the program in Santa Ana. This has lead to the waitlist for adults growing even larger than it had traditionally been. Aside from the courses the CTE/ROP program offers CTE Counseling Through the “Life Prep Academy” which provides College, Career and

Life Planning Guides for high school freshman through high school counselors. These guides are designed to empower parents and families to prepare their high school aged children for college, careers and life after high school. In addition they also provided students help with life skills, such as resume, time management and interview workshops.

Vision, Goals, Objectives, Mission, Characteristics Etc.

The Mission of the CTE/ROP program is "to provide exemplary career technical education and workforce preparation that contribute to student academic and career success and to the economic development of our community" (Santa Ana CTE/ROP 2012). Outside of the provision of technical skills the objective of the program is to provide student with opportunity for socio-economic improvement in the future.

Needs Assessment

The need for programs like CTE/ROP is apparent due to the local large unskilled populations. Santa Ana and Anaheim, like Orange County as a whole, have relatively one of the largest working age populations in the state. Unfortunately, most of this population in Santa Ana and Anaheim lacks the skills to be valuable members of the local economy. This unskilled workforce and growing demand for technical skills in the workforce, has only contributed to the decline of the vitality of the local community.

Accountability

Who Was/Is Involved In The Project?

The Santa Ana CTE/ROP program is run by the Santa Ana CTE-ROP Ritchey Center. The Santa Ana Unified School District and the local colleges, primarily Santa Ana College, are also major partners of the program. Also local businesses and industry experts are important partners in the CTE/ROP program.

Why Were They Involved?

Through the Santa Ana school district multiple CTE/ROP courses are offered to high school students throughout Santa Ana. The courses are offered through the school because as local community educators they have a stake in the continued education of the local community._Local businesses have partnered with the program because they stand to benefit from the stronger workforce produced through the CTE-ROP, thus it is in their interest to ensure they are properly equipped to best meet their needs. Also, industry experts are valuable resources for the CTE-ROP program because of their valuable insight into industry that the program hopes to prepare its students for.

What Was/Is Their Role?

The Santa Ana CTE-ROP provides the courses to the schools and adults. The local college partners of the CTE program that offer similar CTE courses provide secondary courses to students. This provides high school students who have completed the high school level course the chances to move up and take the college level courses. Through the Partnership with local business representatives, the

program can learn the skills businesses are looking for particularly and thus can focus their teaching curriculum around those desired skills to ensure that their students are proficient in skills that are in demand when they complete the courses. Local business also provide real experience through the capstone internships, which sometime can turn into jobs for the student if the need exist for the business. The industry experts play an important role, similar to the business; they help the program ensure that what students are learning are the skills currently in demand in the field.

Intended Target Population

The target population of the adult program is primarily the low income or unemployed unskilled population. In both Santa Ana and Anaheim, which has its own program, the population largely consists of immigrant and minority populations. Most of the adults targeted in the program are either unemployed or working at or below minimum wage and are seeking to improve their socio-economic status. The program also targets the high school population that will soon become part of the local workforce.

How is the Program Delivered to the Intended Population?

Adult take the program in a class room setting where they are able to learn from teachers, business leaders and industry experts. For high school kids they can take the course as part of their school curriculum during school hours or they can take it as an after school program in which they go to the CTE-ROP center to

complete the classes. The courses for adults and student, outside of school, are held daily for a few hours each day.

Primary Use of Funding

The primary use of funding is for staff and teachers for the courses. Though funding is also required for classroom materials.

Understanding and Refining

Programs Initial Intentions

The original intention of the program was to provide high school kids with the skills necessary to be productive member of the workforce immediately upon graduation. For adults the program aimed to provide them with the skills necessary to increase their socio-economic status and make them more productive members of the workforce. In doing this the program hoped to increase the economic growth of the local communities.

Were All Activities Implemented?

Being a state run program, CTE/ROP has been able to continuously offer its services to both adults and high school students, though the scale of the implementation has been reduced as a result of the economic downturn. CTE/ROP has been able to ensure its impact and credibility through its successful formation of partnerships with businesses and industry leaders.

Were They Reaching the Intended Population?

Among the high school kids the program has been very successful. The kids graduate with the skills necessary to obtain a job in a technical career. They also graduate with the opportunity to go on to college to continue their technical career path or to pursue a more traditional degree. For adults the program, correctly serves the ideal population but not to the extent originally envisioned. The passage of AB 2448, major reform legislation for the Regional Occupation Centers and Programs, called for a shift in the programs target student population from adults to high school students. This reduced the adult population to only 10% of the program capacity. With only 10% of the programs max enrollment be reserved for adults, very few adults are able to participate in the program. This has created a huge waitlist for adults. Thus it has impeded the short term economic recovery of the county. This is because the adult who can immediately contribute to the economy are largely turned away due to programs limits that were set by AB 2448.

Who is excluded, if any?

Due to the restrictions of AB 2448, a large portion of adults are excluded due to a lack of program space. As program restrictions have only grown as a result of AB 2448 and the budget cuts which have reduced the number of classes offered, those who cannot participate in the program has only grown. The budget cuts have also required that adult courses now be fee based and the program no longer offers financial assistance which means extremely low income populations are now unable to participate in the program.

Do Goals Line Up With Target Population, Funding Allocation, and Targeted Participants?

With high school students being the future of the work force it is important to ensure they have the skills necessary to be productive members of the economy. This helps to secure the economic vitality of the workforce in the future. The development of the unskilled population is an obstacle in the economic growth of the community. The programs targeting of this population is helping to remove this obstacle to growth through the development the community's greatest resource.

Progress toward Objectives

Long-Term vs. Short-Term Objectives/Outcomes

The program in the short term is achieving its goal, with a large percent of participants completing the program and obtaining the skills necessary to compete in the local economy. Some businesses because of their partnership with the CTE program actually prefer to hire CTE/ROP participants because they know they have the specialized skills to succeed at the job they are offering. The implementation of AB 2448 though has majorly impeded the long term goals of the program. The impact that the CTE/ROP program can have on the current workforce has been reduced and its focus has shifted toward the future workforce. Since most of the program resources is geared to high school students. The program is still beneficial to the economy but the recent changes and current economic environment has impeded short term economy recovery through ignoring the significant adult

population in need of program. As a result the program is missing what could be a valuable resource for economic growth.

The Strategy's Potential and Actual Impacts

The programs impacts are key to the economic growth of the local community. Most importantly it provides mobility to lower income populations. Upon the completion of these courses participants have a means to support themselves which frees them financially so they can reach for higher educational/professional attainment. The partnership with local junior colleges as well as their college prep CTE course which count toward the UC/CSU A-G requirements will encourage and allow more students to further their education beyond high school. Through there is a possibility that the immediate availability of employment may discourage some students from seeking a higher education.

How Will the Program Help Intended Populations?

The CTE/ROP program will help the target population by opening up opportunities that the population currently does not have.

What Are The Primary Indicators of Success?

With the adult population the program's success can be determined by the number of participants who obtained jobs in the field related to their course as a result of the class they took. For high school it would be similar in that the number of participants who receive jobs as a result of the courses they took would be a sign of success. Students who pursued higher education in the course field or used the

jobs they attained as part of the program to pay for college would also be a success of the program.

Long Term Program Outcome

How Will The Benefits to Program Participants Benefit The Local Orange County Economy?

Programs such as this will ultimately benefit not only the local but the greater Orange County community. It provides participant with social mobility, because they can use these skills and technical jobs as platforms for improving social and economic status. By improving the workforce, it will improve Orange County's competiveness helping to draw and retain business in Orange County. While the cost of the program may by high in the long run any cost will be outweighed by its benefits to the local economy.

Is the Strategy's Capacity Large Enough to Have a Major Impact on the Local Economy?

The major weakness of the program is its inability to reach large populations. Due to the need for costly resources, such as teachers and specialized classrooms the program size is limited. With the state of the economy heavily impacting its ability to expand its resources, in times or real need it will not be able to have the impact necessary to impact communities as large as Santa Ana or Anaheim.

Chapter 5: Comparison

In comparing these three workforce investment strategies there are three things that must be taken into account. The first is the length of time before returns on the initial investment can be expect as well as the number of steps before the return is made. Second the level of return that is to be expected at some point in the future. The third is the ability to expand the program to meet demand or in times of need, in particularly economic downturns. Each of these can have a significant impact on the potential effectiveness of a strategy given various circumstances.

Length of Return

After the initial investment it is important to know when the local economy can hope to see significant returns. This is because the time horizon can have a significant effect on the true value of an investment. First looking at English Works the return time varies based on if we look at the program or the campaign. For the program the return time is relatively short for businesses that chose to invest in the program. In only 16 weeks businesses can expect to see the full return of its investment in terms of increased efficiency per participant. Though as the program progresses through the 16 weeks businesses will begin to see small returns on the investments due incremental increases in efficiency. At the completion of the program business will see the full return of its investment through the increased business efficiency. The campaign on the other hand has a much longer return period. With the goal of the campaign being to connect non-English speaking

residents with the English classes offered at the Santa Ana College, the return period would potentially be the time required to complete the 7 levels of English offered. Even though there are potentially 7 English classes that students must take, depending on their starting level they may not need all of them to gain sufficient English skills. Each of the classes is a semester long. As a result the full return will not be realized for a 1-2 year should participants take all 7 courses and completed proficiency is gained.

The Latino Educational Attainment Initiative will vary by individual, based on the grade the child is in when the parent starts the program and the point that they enter the local economy's workforce. If the child is young in Middle school or early high school there may be years before they graduate and join the local full time workforce. Yet on the other hand if the student is a junior or senior and chooses to graduate and then go directly to the workforce returns will be seen much sooner. With the program pushing toward increasing college attendance rates the return period will be extended by the time the student spends in college, further delaying the impact to the local economy.

The Career Technical Education program also varies based upon whether we look at high school or adult program. The high school programs returns will not be experienced until the students graduate from high school and join the local workforce. Also, should they choose to further CTE skills through programs offered at the local community colleges the return period will again be extended. For adults in the CTE program the return period is much shorter. Adults can earn certificates at the end of the 2 month course. Upon the completion of the 1-2 courses that

student need they are immediately able to function efficiently in a specialized position contributing to the local workforce and economy.

Also when considering long term vs. short term investments it is important to consider that the longer the return period the greater the possible attrition rate of participants, either through failing to complete all the steps or moving out of the local economy and not returning. When looking at the English works program we see that there is likely a low rate of attrition because these participants already have jobs and the program is short and their job may be directly tied to their success, so completion levels will be high. The Campaign saw much higher rates of attrition due to people opting not to complete all 7 ESL courses offered by the college. With the LEA Initiative as its success increase more kids will go to 4 year universities across the country. This means that there is a risk that students may choose to stay in their college city and not return to Santa Ana or Anaheim due to poor job opportunities. On the other hand those that only graduate from high school or only go to a local community college are much more likely to remain in the target area. The CTE program is also, likely to have a low attrition rate in the adult program. Initially the dropout rate was relatively high; since the course became fee based that rate has fallen significantly. Participants now feel more obligated to complete the course because they have invested in it. The high school courses may have a slightly higher attrition rate post following high school due to students choosing go on to college from which possibly may not return reducing its impact on the community.

Level of Return

When making an investment it is important to under the level of return that can be expected for the initial investment. For these workforce investment strategies the return level is based upon each programs overall improvements to the skills of the individual. When looking at the English works program, we see that participants only learns minimal English through the use of the kits. As a result participants will be able to do their current job more efficiently but will still ultimately lack the skills necessary to advance further in their career or move up to a significantly better career. The campaigns impacts of getting residents to enroll in the English courses at the local college will give participant substantially better English skills As a result they will be able to work at a greater variety of jobs efficiently. Thus, this level of skills will give participants slightly more mobility and thus making them more beneficial to the local economy.

The Latino Educational Attainment Initiative will have a significant impact on the education levels of students, through it work with parents. More specifically LEA will improve the academic achievements of students, improving their likelihood of graduating from high school. This will improve their education levels and improve economic opportunities substantially over a non-high school graduate. LEA, will also through improving college eligibility levels, increase college attendance rates. A college educated population will have the greatest benefit for the local economy in terms of what it will give back to the local economy and the individual. These college educated individuals will have much greater economic and social mobility.

The Career Technical Education program will improve the technical/specialized skills of high school population as well as the current adult population. For high school students in the CTE program they will graduate will a skill set that they can go directly into the workforce with, though only into specialized fields. Should they choose to college for a traditional degree they will be able to use this skill set pay their way through college or should economic circumstances limit the opportunities of their more traditional degree they can fall back on their more specialized skill set which is likely to have a more stable demand. The adults that complete the courses not only will have a specialized skill set but also possibly with internship experience from the capstone internship. With both the skills and the internship experience man y participants are able to get jobs immediately in a growing technical industry in Orange County. In being able to attain well paying technical jobs participants will have greater economic mobility and empowerment. With the economic stability given by CTE participants can potentially further their education giving them even greater social and economic mobility.

Expansion Ability

With the large number of people in Santa Ana and Anaheim that are in need of programs the ability to expand the program is something that must be taken into consideration as well. In the past the failure of English Work's large scale program shows that the program cannot be expanded easily. Going from the current two local businesses which is only handling less than 100 people to significantly more businesses and thus more people would be a challenge. The new similar program

would have to be expanded slowly with coordination with and substantial support from local businesses. The campaign which is already wide spread operating throughout Santa Ana would be much easier to expand as long as there is a sufficient amount of ESL courses in the surrounding community. As long as there are ESL classes available to residents, expansion primarily only requires wide spread advertising. The advertising is costly as shown by English Works initial $300,000 initial investment for advertising. Thus funding must be attained through key business and community partnerships.

The Latino Educational Attainment Initiative is a program that expansion ability is dictated by the adoption of the initiative by local groups or coalitions and funding for materials. The ability for wide spread adoption of the initiative is possible because there are a number of community groups and schools that could carry out the objectives/goals of the initiative in the local community. Funding for the coalitions to implement the initiative must be attained either though grants for community group or Title 1 funding for schools both of which are highly competed for. The materials supplied by OCBC can also be reproduced depending on available funding. Funding for the materials is dependent upon primarily grants which in current times are again highly competitive and dwindling in number. Though in comparison with other strategies with relatively little funding the program can be greatly expanded due to no major cost such a infrastructure. As a result this program can have a wide scale impact on the local workforce.

The Career Technical Education program is a program that is very costly due to faculty and infrastructure requirements, thus making is expansion ability

relatively difficult. Funding for the program comes from the state which has been heavily impacted by the current recession; this is evident by the 1/3rd cut in funding over the last few years. While CTE programs already exist in both Santa Ana and Anaheim the expansion of the capacity of the programs would require a significant increase in funding which is dependent upon the improvement of the local of the economy.

Chapter 6: Conclusion

Recommendations

Short-term Workforce Improvement

1. ***Further pursue strategies to improve language skills among residents***

Given the current economic crisis, investing in our workforce will give both communities the edge in the race toward economic recovery. It is important to start with the development of our current workforce for quick economic growth. If the current workforce is ignored, recovery will be slow and cumbersome at best due to their financial drag on the economy. Looking at both Santa Ana and Anaheim we see that there is a large proportion of the population that lacks sufficient language skills; this is even more prevalent in the red-zone communities of these cities. Thus, even though there is major job growth in the technical field, many red-zone residents lack the language skills needed to learn technical skills. This could be resolved by taking a CTE course, which requires participants to know English prior to enrollment in any of the courses offered. Also, the adult population in CTE has primarily been younger, between the ages of 18 and 30, because language skills are not as strong in the older populations that are still of working age. Sufficient English skills will provide residents with a necessary platform for future skill development. Also, when looking at the large community need, programs like the English Campaign are a better choice because they have the ability to reach a large population. Residents in these communities also tend to have very low incomes,

thus they will not be able to afford other fee based programs. If the courses remain free we will be able to reach even the very low income population, which are the residents in the greatest need of this strategy.

It is important though to consider that in order for the campaign to be successful there must be a sufficient number of free to very low cost English courses offered in the local community. Without these free classes the campaign would not be able to reach its goals. Cost may also be an issue due to the considerable cost of advertising. However, when looking at the cost per person impact, its cost is lower than some alternatives. Also, with the greater attrition rate of students taking the courses the overall impact will still be greater than that of other programs.

2. ***Form public-private partnerships with business to improve the skill of the currently operating workforce***

The English works current program of partnering with local businesses to improve the workforce skills could be a viable solution in the short term as well. While this type of program was unsuccessful for English Works, it could have potential if implemented more diligently and by offering programs to work directly with businesses to improve worker language skills. In this partnership public entities would work with individual business to structure programs that work best with the particular needs or constraints of the business. Specifically the English Works or other public group could develop a curriculum for the ESL classes and also provide an instructor for the businesses. In return the businesses would allow participating employees to spend around the last 30 minutes of their shift in the classes but requiring them to spend a additional 30 minutes after work in the class

as well. This is similar to the approach that L&N Costumes Services successfully used to increase the language skills of its employees. Programs modeled after this over time can be expanded business by business, as they recognize the benefits that can be had and the capacity of programs such as English Works increases. Also, in working and developing the program with businesses, programs can be tailored to the needs, cost and time constraints of the business. The cost of program would be shared with businesses, thus not placing a large cost on the program itself. Once again we can expect to see a more immediate benefit to the local economy as businesses see increased levels of efficiency.

For the implementation of this program we must consider two things. First, the expansion and success of the program is dependent upon getting local businesses to see the cost benefit of educating their workforce. Without business interest there will be no business to partner with in the implementation of this program. Second, many businesses believe that if they invest in their workforce they will lose their workforce. By investing in their workforce's skills they are providing them with more economic mobility in their choice of employment. Thus some employees may leave to pursue higher wage jobs elsewhere. To counter this effect businesses should pass a portion of the benefits of the increased efficiency on to the workers in the form of higher wages. Increasing wages would reduce the temptation for workers to leave as their skill level and wage level would be more inline.

3. ***Focus on the expansion of Career Technical Education programs for adults***

The growth of the technical industries in Orange County provides an important opportunity for those living in the red-zone communities. It provides a simple way to enter into a growing industry with a good salary. Due to limits in size as a result of poor expansion ability, CTE may likely never be a primary workforce investment strategy. This is especially true in the red-zone communities because we must improve language skills of the workforce first to make them eligible for CTE programs. Ultimately though, this program will have the largest immediate impact on the skill level and the strength of the workforce.

In the pursuit of the strategy, we must consider the impact that AB 2448 has had on its ability to make a large impact. AB 2448 has heavily reduced CTE's ability to assist short term economic recovery; due to it restrictions on funding that can be used for adults. In the short term it would be beneficial to increase funding that can be spent on adults/current workforce to aid short term economy recovery. As an alternative, since cost is high for the CTE program, possible close partnerships with businesses should be considered. For businesses in need of workers with certain skills, they could provide funding to CTE to ensure that they have those skills. These skills may include automotive, manufacturing, medical or any field where specialized equipment is used. Businesses would essentially be subsidizing the cost to teach students those skills. This would ensure them a consistent supply of skilled workers while reducing cost for the CTE programs and building the local workforce.

Long-term Workforce Improvement

While for short term economic recovery there is need to focus on improving the skills of the current workforce, we cannot afford to not invest in the future workforce as well because that will be the source of sustained economic growth for the economy.

1. *Increase the reach of programs similar to the Latino Educational Attainment Initiative*

Due to the poor performance of minorities in Santa Ana and Anaheim schools, programs like this are very much needed to improve minority performance. In the long run, programs like LEA will have the greatest benefit to the red-zone communities and the local economies. LEA will substantially increase the education levels of the future workforce in these communities. Not only will the LEA initiative lower already high dropout rates and increase high school graduation rates, but most importantly it will increase college attendance rates among the Latino and other minority populations. A college educated workforce is the most important thing for the sustained vitality of the local economy. Also, through focusing on educating students still in school, there will be a reduced need for costly workforce investment strategies later in the future. If more students are going to college then fewer adults will need to place additional pressure on programs like CTE, which are already at capacity. This would free up CTE programs to focus more on the current workforce. In all, the initiatives increase in the number of college educated residents and will strengthen and create a more competitive workforce. This will

help the local economy retain businesses as well as attract new businesses that are in need of an educated workforce.

In the implementation of this program it is important to consider that the benefits of LEA and other programs may not be seen for years depending on the starting age of the impacted student and if they go to college. Also, some college bound students may not return to the County due to better opportunities elsewhere. College students, especially in the current economy are more likely to migrate toward an area where jobs are located. As a result in order to increase and retain the college educated population in the local communities there must be job opportunities available for them in the local economy.

2. ***Maintain local control over schools and implement programs to motivate students to strive for higher education***

While state takeover of schools is an option, given the community and the numerous groups, such as the ones mentioned in this report, this would be the wrong course of action. These groups are in the community constantly working to improve its weaknesses, which include poor school performance. We should understand that no one knows what a community needs better that the community itself, which is why it is important to maintain local control. A community also has a stake in its schools meaning that they are more driven to improve the schools in a sustainable way that will provide lasting benefits to the community. State takeover of schools, while having certain criteria, is better reserved for communities and schools in which they have given up on themselves. It is clear by the number of local

organizations working in these communities and schools that this is not the case. Though, it is possible to benefit from working with the state to obtain additional funding or other state resources to improving school performance while maintaining local control.

Currently the Latino Education Initiative is doing a good job of increasing parental involvement, but ultimately it is most important to motivate students to want a higher education for themselves. As we work to improve these schools it is important to increase student involvement in programs such as LEA through parallel programs for the students. While it is important for parent to become activist for their children, it is still important for students to learn the importance of education and understand that it is accessible to them. These new or alter programs or strategies should not only teach them about the process but show them they are capable of succeeding in higher education. An effective way to improve students understanding and desire to go on to higher education would be for the idea of college to be introduced to them at an earlier age, possibly as early as elementary school. By giving young students a goal to work towards they will be motivated to perform better in school from an early age which they will carry with them throughout their academic career.

Improving the understanding and motivation of high school students should still be the focus of these efforts. One to do this would be for community groups to work with schools that are experiencing poor graduation and college attendance rates to offer high school freshmen and sophomores a college education course. This course could possibly offer 1-2 units of credit, and would focus on educating students on the benefits and accessibility of college. The class would also inform them on

what they need to do throughout their years in high school in order to be eligible for college attendance. If funding does not currently allow for a separate course it could possibly be integrated into another high school introductory course. This course would ensure that students were placed on the right track from the beginning of their high school career.

3. ***High school Career Technical Education programs in the short run should focus on special populations and expand as economic conditions improve***

High School CTE programs will also be important for strengthening the workforce in the red-zone communities. In understanding that not all high school students will choose or be eligible to go to college, CTE programs in high schools should be provided for them. This will give students not pursuing college an opportunity to obtain a skill set that will allow them to become productive members of the local economy. Focusing on the Special Populations, which include students from economically disadvantaged families and individuals with barriers to educational attainment, the program will more effectively be able to target the red-zone communities where these populations likely live. In the long run, the expansion of this program will most importantly ensure the continued growth of the technical skilled workforce, in the red-zone communities, to coincide with the growth of the technical industry.

In the implementation of this program we must consider that there will always be a tradeoff between high school CTE and adult CTE. The correct balance

between the two options is dependent upon the current economic circumstance. If there is an immediate need for growth, the program should be more focused on the adults vs. during times of more economic prosperity, focused toward students to support the continued economic prosperity. On the negative side CTE programs may discourage "4 year" college attendance due to ability of students to immediately find employment.

Final thoughts

Due to the specific impacts that each of these strategies has on the workforce, workforce investment strategies should be more of a collaborative effort. With each strategy working to move the workforce from one point to the next in their skill development, will it be the current or future workforce. The workers in these red-zone communities often lack even the basic skills such as language and communication skills. Before we can hope to move these workers into the growing technical industry we must take the first step and improve their communication and English skills. After taking that first step they will be able to attain more advance skills that will allow them to enter into the growing job fields in the local economy. Though we must understand that investment in the future workforce is necessary for the sustained workforce. In the current economy it is important to have both quick but sustainable growth in terms of the workforce throughout Orange County, but most importantly in these red-zone communities. It will help these communities become self sufficient. Thus, in focusing on these red-zone communities the county will not only alleviate a major economic and social burden but develop a major resource as well.

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Appendix L: Cluster Details by City and Industry Sector

For the following section, data on Orange County's cities and industry sectors were extracted from EconoVue to provide a detailed look at current Orange County hiring, and industry concentration levels relative to the County as a whole. EconoVue is a database and geographic information tool of business information at the neighborhood, city, and regional levels which was developed by the Santa Clara County Workforce Investment Board for Santa Clara County, California.

Starting the analysis below is a countywide table detailing total employment by each industry category, followed by a similar data array for employment by city. The Top 5 Concentration ratio measures what percentage of total County employment is made up of the five leading industries: Professional Services, Administrative and Support Services, Retail Stores, General Services, and Health Care. The greatest to least in each category is listed in descending order, from left to right:

Orange County	Professional Services	Administrative and Support Services	Retail Stores	Services	Health Care	Construction	Manufacturing
Employment	227,140	223,163	169,249	143,185	137,858	122,566	94,363
Percentage of Total	13.7%	13.5%	10.2%	8.7%	8.3%	7.4%	5.7%
	Wholesale	Real Estate	Finance	Eating and Drinking	Legal Services	Information Based Industries	Public Admin and Education
Employment	83,365	72,459	64,325	59,247	45,029	38,972	38,962
Percentage of Total	5.0%	4.4%	3.9%	3.6%	2.7%	2.4%	2.4%
	Insurance Carriers and Related Activities	Arts, Entertainment, Recreation, Fitness	Transportation	Rental and Leasing Services	Bioscience	Clean and Green	Hotels and Accommodations
Employment	27,342	26,236	22,579	12,769	11,690	7,996	7,324
Percentage of Total	1.7%	1.6%	1.4%	0.8%	0.7%	0.5%	0.4%
	Agriculture, Forestry, Fishing, Hunting	Management of Companies	Warehouse and Delivery	Mining	Waste Management and Remediation	Utilities	**Total Employment / Top 5 Concentration**
Employment	4,189	3,882	3,555	3,322	2,344	1,807	**1,654,918**
Percentage of Total	0.3%	0.2%	0.2%	0.2%	0.1%	0.1%	54.4%

Cities

Orange County	Irvine	Santa Ana	Anaheim	Orange	Costa Mesa	Huntington Beach	Newport Beach
Employment	227,972	203,559	172,229	107,596	96,412	89,698	84,745
Percentage of Total	13.8%	12.3%	10.4%	6.5%	5.8%	5.4%	5.1%
	Fullerton	Garden Grove	Brea	Tustin	Lake Forest	Mission Viejo	Buena Park
Employment	61,384	56,202	45,083	43,739	42,576	39,161	34,959
Percentage of Total	3.7%	3.4%	2.7%	2.6%	2.6%	2.4%	2.1%
	Fountain Valley	San Clemente	Westminster	Cypress	Laguna Hills	Aliso Viejo	San Juan Cap
Employment	30,343	27,717	25,840	25,465	23,527	22,787	19,264
Percentage of Total	1.8%	1.7%	1.6%	1.5%	1.4%	1.4%	1.2%
	Laguna Niguel	La Habra	Yorba Linda	Los Alamitos	Placentia	Rancho S.M.	Dana Point
Employment	18,722	18,271	17,905	17,621	16,498	15,950	15,777
Percentage of Total	1.1%	1.1%	1.1%	1.1%	1.0%	1.0%	1.0%
	Laguna Beach	Seal Beach	Stanton	La Palma	Laguna Woods	Villa Park	
Employment	14,903	13,349	8,876	8,610	6,097	2,081	
Percentage of Total	0.9%	0.8%	0.5%	0.5%	0.4%	0.1%	
	Total Employment / Top 5 Concentration						
	1,654,918						
	48.8%						

In this dataset, the top five cities for total employment – Irvine, Santa Ana, Anaheim, Orange, and Costa Mesa – make up less than 50 percent of the County's employment. While both industry-level and city-level employment rates are relatively diverse overall, employment by industry is slightly more top-heavy and focused than by city. However, the top three cities alone constitute 36.5 percent of total employment – and the city of Orange is almost half of Anaheim's total employment. Irvine houses the majority of high-tech and business employers, Santa Ana provides an extensive mix of general services and manufacturing, and Anaheim as Orange County's entertainment capital provides ample opportunity for tourism-related services and expansion by construction.

The following discussion will center on the top ten industries and top ten cities in terms of absolute employment, and highlight contrasts with the County's job makeup. For each city, the top ten industry clusters by total employment within the city are listed from left to right – the first row contains the top five, while the second row contains ranks six through ten. Each cluster has data on total employment and

the percentage of the given city's total employment that is within the cluster in question. Additionally, each cluster's percentage of employment is compared to the percentage of employment in that cluster at the county level, with the difference between the city and the county concentration listed. For example, Professional Services make up 18.3 percent of the city of Irvine's total employment, while Professional Services make up only 13.7 percent of Orange County's total employment force. Therefore, the percentage difference versus the County equates to Irvine having 4.6 percent higher concentration for employment in the Professional Services cluster.

Finally, each city dashboard contains total comparisons at the bottom. The total number of individuals employed in the city is shown alongside a percentage representing how much of the given city's employment makes up Orange County's total employment. Also present is an analysis of the "top five concentration" – or what ratio of the city's top five clusters in terms of total employment makes up the city's total employment. This concentration ratio is compared to Orange County's top five concentration ratio – where 54.4 percent of Orange County's total employment is concentrated in Professional Services, Administrative Services, Retail Stores, General Services, and Healthcare. The difference between the city's top five employment concentration and the County's is shown. For example, Irvine's employment in its top five industry clusters – Professional Services, Administrative Services, Healthcare, Retail Stores, and Wholesale – constitutes 52 percent of Irvine's total employment. Rounding down, this is a 2 percent smaller concentration than at the County level; meaning that Irvine's employment is spread more evenly across a greater variety of industries, rather than being relatively concentrated into a few specific industries.

Irvine	Professional Services	Administrative and Support Services	Health Care	Retail Stores	Wholesale
Employment	41,677	31,238	17,288	15,892	13,460
Percentage of City Total	18.3%	13.7%	7.6%	7.0%	5.9%
% Difference vs. County	4.6%	0.2%	-0.7%	-3.3%	0.9%
	Services	Finance	Manufacturing	Construction	Real Estate
Employment	13,361	13,023	12,554	11,005	10,525
Percentage of City Total	5.9%	5.7%	5.5%	4.8%	4.6%
% Difference vs. County	-2.8%	1.8%	-0.2%	-2.6%	0.2%
	Total City Employment	Percentage of Orange County		Industry Top 5 Concentration	Concentration Difference vs. County
	227,972	13.8%		52%	-2%

Santa Ana	Retail Stores	Administrative and Support Services	Professional Services	Services	Health Care
Employment	23,158	21,886	21,824	21,787	17,353
Percentage of City Total	11.4%	10.8%	10.7%	10.7%	8.5%
% Difference vs. County	1.1%	-2.7%	-3.0%	2.1%	0.2%
	Manufacturing	Construction	Wholesale	Legal Services	Eating and Drinking
Employment	16,094	11,981	9,930	9,696	8,102
Percentage of City Total	7.9%	5.9%	4.9%	4.8%	4.0%
% Difference vs. County	2.2%	-1.5%	-0.2%	2.0%	0.4%
	Total City Employment	Percentage of Orange County		Industry Top 5 Concentration	Concentration Difference vs. County
	203,559	12.3%		52%	-2%

Anaheim	Administrative and Support Services	Retail Stores	Professional Services	Construction	Services
Employment	23,408	19,407	18,969	16,006	15,920
Percentage of City Total	13.6%	11.3%	11.0%	9.3%	9.2%
% Difference vs. County	0.1%	1.0%	-2.7%	1.9%	0.6%
	Health Care	Manufacturing	Wholesale	Real Estate	Eating and Drinking
Employment	12,795	12,357	10,107	7,239	6,603
Percentage of City Total	7.4%	7.2%	5.9%	4.2%	3.8%
% Difference vs. County	-0.9%	1.5%	0.8%	-0.2%	0.3%
	Total City Employment	Percentage of Orange County		Industry Top 5 Concentration	Concentration Difference vs. County
	172,229	10.4%		54%	0%

Orange	Administrative and Support Services	Professional Services	Retail Stores	Health Care	Services
Employment	13,950	13,498	11,379	10,085	9,520
Percentage of City Total	13.0%	12.5%	10.6%	9.4%	8.8%
% Difference vs. County	-0.5%	-1.2%	0.3%	1.0%	0.2%
	Construction	Manufacturing	Wholesale	Real Estate	Eating and Drinking
Employment	9,494	6,237	5,012	4,317	3,778
Percentage of City Total	8.8%	5.8%	4.7%	4.0%	3.5%
% Difference vs. County	1.4%	0.1%	-0.4%	-0.4%	-0.1%
	Total City Employment	Percentage of Orange County		Industry Top 5 Concentration	Concentration Difference vs. County
	107,596	6.5%		54%	0%

Costa Mesa	Professional Services	Retail Stores	Administrative and Support Services	Services	Construction
Employment	13,031	12,137	11,018	9,737	7,878
Percentage of City Total	13.5%	12.6%	11.4%	10.1%	8.2%
% Difference vs. County	-0.2%	2.4%	-2.1%	1.4%	0.8%
	Health Care	Manufacturing	Wholesale	Real Estate	Eating and Drinking
Employment	6,425	5,523	4,692	4,178	3,989
Percentage of City Total	6.7%	5.7%	4.9%	4.3%	4.1%
% Difference vs. County	-1.7%	0.0%	-0.2%	0.0%	0.6%
	Total City Employment	Percentage of Orange County		Industry Top 5 Concentration	Concentration Difference vs. County
	96,412	5.8%		56%	1%

Huntington Beach	Professional Services	Administrative and Support Services	Retail Stores	Construction	Services
Employment	13,347	13,335	9,080	8,195	7,734
Percentage of City Total	14.9%	14.9%	10.1%	9.1%	8.6%
% Difference vs. County	1.2%	1.4%	-0.1%	1.7%	0.0%
	Health Care	Manufacturing	Real Estate	Wholesale	Eating and Drinking
Employment	6,658	5,017	4,494	4,193	3,148
Percentage of City Total	7.4%	5.6%	5.0%	4.7%	3.5%
% Difference vs. County	-0.9%	-0.1%	0.6%	-0.4%	-0.1%
	Total City Employment	Percentage of Orange County		Industry Top 5 Concentration	Concentration Difference vs. County
	89,698	5.4%		58%	3%

Newport Beach	Professional Services	Administrative and Support Services	Health Care	Retail Stores	Finance
Employment	14,029	11,018	9,494	6,308	6,203
Percentage of City Total	16.6%	13.0%	11.2%	7.4%	7.3%
% Difference vs. County	2.8%	-0.5%	2.9%	-2.8%	3.4%
	Real Estate	Services	Construction	Legal Services	Wholesale
Employment	6,153	5,692	4,286	4,112	2,874
Percentage of City Total	7.3%	6.7%	5.1%	4.9%	3.4%
% Difference vs. County	2.9%	-1.9%	-2.3%	2.1%	-1.6%
	Total City Employment	Percentage of Orange County		Industry Top 5 Concentration	Concentration Difference vs. County
	84,745	5.1%		56%	1%

Fullerton	Administrative and Support Services	Professional Services	Retail Stores	Services	Construction
Employment	8,950	7,436	6,822	6,299	5,134
Percentage of City Total	14.6%	12.1%	11.1%	10.3%	8.4%
% Difference vs. County	1.1%	-1.6%	0.9%	1.6%	1.0%
	Health Care	Wholesale	Manufacturing	Real Estate	Eating and Drinking
Employment	4,722	3,271	3,251	2,818	2,372
Percentage of City Total	7.7%	5.3%	5.3%	4.6%	3.9%
% Difference vs. County	-0.6%	0.3%	-0.4%	0.2%	0.3%
	Total City Employment	Percentage of Orange County		Industry Top 5 Concentration	Concentration Difference vs. County
	61,384	3.7%		56%	2%

Garden Grove	Administrative and Support Services	Retail Stores	Services	Professional Services	Health Care
Employment	7,641	6,810	6,225	5,424	5,263
Percentage of City Total	13.6%	12.1%	11.1%	9.7%	9.4%
% Difference vs. County	0.1%	1.9%	2.4%	-4.1%	1.0%
	Construction	Manufacturing	Eating and Drinking	Wholesale	Real Estate
Employment	5,197	3,094	2,784	2,736	1,882
Percentage of City Total	9.2%	5.5%	5.0%	4.9%	3.3%
% Difference vs. County	1.8%	-0.2%	1.4%	-0.2%	-1.0%
	Total City Employment	Percentage of Orange County		Industry Top 5 Concentration	Concentration Difference vs. County
	56,202	3.4%		56%	1%

Brea	Professional Services	Retail Stores	Administrative and Support Services	Services	Manufacturing
Employment	5,846	5,732	5,659	3,693	3,641
Percentage of City Total	13.0%	12.7%	12.6%	8.2%	8.1%
% Difference vs. County	-0.8%	2.5%	-0.9%	-0.5%	2.4%
	Health Care	Construction	Wholesale	Real Estate	Eating and Drinking
Employment	3,162	3,100	3,006	1,883	1,716
Percentage of City Total	7.0%	6.9%	6.7%	4.2%	3.8%
% Difference vs. County	-1.3%	-0.5%	1.6%	-0.2%	0.2%
	Total City Employment	Percentage of Orange County		Industry Top 5 Concentration	Concentration Difference vs. County
	45,083	2.7%		54%	0%

Industries

Professional Services	Irvine	Santa Ana	Anaheim	Newport Beach	Orange
Employment	41,677	21,824	18,969	14,029	13,498
Percentage of Industry Total	18.3%	9.6%	8.4%	6.2%	5.9%
	Huntington Beach	Costa Mesa	Fullerton	Lake Forest	Tustin
Employment	13,347	13,031	7,436	7,113	7,096
Percentage of Industry Total	5.9%	5.7%	3.3%	3.1%	3.1%
Industry Saturation	Aliso Viejo	Irvine	Laguna Niguel	Dana Point	Ranch S.M.
Percentage of City Total	19.2%	18.3%	17.9%	17.4%	17.1%
	Laguna Beach	Lake Forest	Newport Beach	Tustin	Yorba Linda
Percentage of City Total	17.1%	16.7%	16.6%	16.2%	16.1%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	227,140	13.7%		48%	0%

Administrative and Support Services	Irvine	Anaheim	Santa Ana	Orange	Huntington Beach
Employment	31,238	23,408	21,886	13,950	13,335
Percentage of Industry Total	14.0%	10.5%	9.8%	6.3%	6.0%
	Costa Mesa	Newport Beach	Fullerton	Garden Grove	Mission Viejo
Employment	11,018	11,018	8,950	7,641	6,694
Percentage of Industry Total	4.9%	4.9%	4.0%	3.4%	3.0%
Industry Saturation	Villa Park	Yorba Linda	Laguna Niguel	Ranch S.M.	Mission Viejo
Percentage of City Total	24.1%	19.9%	18.9%	18.0%	17.1%
	Aliso Viejo	La Palma	Laguna Woods	Buena Park	Dana Point
Percentage of City Total	16.6%	16.2%	15.8%	15.1%	15.0%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	223,163	13.5%		47%	-2%

Retail Stores	Santa Ana	Anaheim	Irvine	Costa Mesa	Orange
Employment	23,158	19,407	15,892	12,137	11,379
Percentage of Industry Total	13.7%	11.5%	9.4%	7.2%	6.7%
	Huntington Beach	Fullerton	Garden Grove	Newport Beach	Brea
Employment	9,080	6,822	6,810	6,308	5,732
Percentage of Industry Total	5.4%	4.0%	4.0%	3.7%	3.4%
Industry Saturation	Westminster	Stanton	La Habra	Brea	Buena Park
Percentage of City Total	15.7%	15.0%	12.7%	12.7%	12.6%
	Costa Mesa	Garden Grove	Santa Ana	Anaheim	Fullerton
Percentage of City Total	12.6%	12.1%	11.4%	11.3%	11.1%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	169,249	10.2%		48%	0%

Services	Santa Ana	Anaheim	Irvine	Costa Mesa	Orange
Employment	21,787	15,920	13,361	9,737	9,520
Percentage of Industry Total	15.2%	11.1%	9.3%	6.8%	6.6%
	Huntington Beach	Fullerton	Garden Grove	Newport Beach	Lake Forest
Employment	7,734	6,299	6,225	5,692	3,846
Percentage of Industry Total	5.4%	4.4%	4.3%	4.0%	2.7%
Industry Saturation	Stanton	La Habra	Westminster	Cypress	Garden Grove
Percentage of City Total	13.4%	13.0%	11.3%	11.1%	11.1%
	Santa Ana	Fullerton	Costa Mesa	Buena Park	Anaheim
Percentage of City Total	10.7%	10.3%	10.1%	9.7%	9.2%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	143,185	8.7%		49%	0%

Health Care	Santa Ana	Irvine	Anaheim	Orange	Newport Beach
Employment	17,353	17,288	12,795	10,085	9,494
Percentage of Industry Total	12.6%	12.5%	9.3%	7.3%	6.9%
	Huntington Beach	Costa Mesa	Garden Grove	Fullerton	Tustin
Employment	6,658	6,425	5,263	4,722	4,312
Percentage of Industry Total	4.8%	4.7%	3.8%	3.4%	3.1%
Industry Saturation	Laguna Woods	Los Alamitos	Laguna Hills	Fountain Valley	Newport Beach
Percentage of City Total	19.4%	18.1%	12.5%	12.4%	11.2%
	La Palma	Mission Viejo	Tustin	Orange	Garden Grove
Percentage of City Total	10.8%	9.9%	9.9%	9.4%	9.4%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	137,858	8.3%		49%	0%

Construction	Anaheim	Santa Ana	Irvine	Orange	Huntington Beach
Employment	16,006	11,981	11,005	9,494	8,195
Percentage of Industry Total	13.1%	9.8%	9.0%	7.7%	6.7%
	Costa Mesa	Garden Grove	Fullerton	Newport Beach	Lake Forest
Employment	7,878	5,197	5,134	4,286	3,311
Percentage of Industry Total	6.4%	4.2%	4.2%	3.5%	2.7%
Industry Saturation	San Clemente	Dana Point	Yorba Linda	Placentia	San Juan Cap
Percentage of City Total	10.9%	10.9%	10.1%	9.6%	9.6%
	Anaheim	Garden Grove	Huntington Beach	Stanton	Villa Park
Percentage of City Total	9.3%	9.2%	9.1%	9.1%	9.1%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	122,566	7.4%		46%	-3%

Manufacturing	Santa Ana	Irvine	Anaheim	Orange	Costa Mesa
Employment	16,094	12,554	12,357	6,237	5,523
Percentage of Industry Total	17.1%	13.3%	13.1%	6.6%	5.9%
	Huntington Beach	Brea	Fullerton	Garden Grove	Newport Beach
Employment	5,017	3,641	3,251	3,094	2,408
Percentage of Industry Total	5.3%	3.9%	3.4%	3.3%	2.6%
Industry Saturation	Stanton	Brea	Santa Ana	Placentia	Anaheim
Percentage of City Total	8.4%	8.1%	7.9%	7.2%	7.2%
	Orange	Costa Mesa	Huntington Beach	Buena Park	Irvine
Percentage of City Total	5.8%	5.7%	5.6%	5.6%	5.5%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	94,363	5.7%		56%	7%

Wholesale	Irvine	Anaheim	Santa Ana	Orange	Costa Mesa
Employment	13,460	10,107	9,930	5,012	4,692
Percentage of Industry Total	16.1%	12.1%	11.9%	6.0%	5.6%
	Huntington Beach	Fullerton	Brea	Newport Beach	Garden Grove
Employment	4,193	3,271	3,006	2,874	2,736
Percentage of Industry Total	5.0%	3.9%	3.6%	3.4%	3.3%
Industry Saturation	Brea	Buena Park	Irvine	Anaheim	Lake Forest
Percentage of City Total	6.7%	6.5%	5.9%	5.9%	5.4%
	Los Alamitos	Stanton	Fullerton	San Clemente	Cypress
Percentage of City Total	5.4%	5.4%	5.3%	5.2%	4.9%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	83,365	5.0%		52%	3%

Real Estate	Irvine	Santa Ana	Anaheim	Newport Beach	Huntington Beach
Employment	10,525	7,337	7,239	6,153	4,494
Percentage of Industry Total	14.5%	10.1%	10.0%	8.5%	6.2%
	Orange	Costa Mesa	Fullerton	Tustin	Brea
Employment	4,317	4,178	2,818	2,308	1,883
Percentage of Industry Total	6.0%	5.8%	3.9%	3.2%	2.6%
Industry Saturation	Newport Beach	Villa Park	Dana Point	Laguna Beach	Seal Beach
Percentage of City Total	7.3%	5.9%	5.6%	5.4%	5.4%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	72,459	4.4%		49%	1%

Finance	Irvine	Santa Ana	Newport Beach	Anaheim	Orange
Employment	13,023	7,077	6,203	4,448	3,666
Percentage of Industry Total	20.2%	11.0%	9.6%	6.9%	5.7%
	Costa Mesa	Huntington Beach	Tustin	Fullerton	Lake Forest
Employment	3,375	3,025	2,018	1,862	1,568
Percentage of Industry Total	5.2%	4.7%	3.1%	2.9%	2.4%
Industry Saturation	Newport Beach	Irvine	Laguna Woods	Seal Beach	Villa Park
Percentage of City Total	7.3%	5.7%	5.3%	4.9%	4.8%
	Laguna Hills	Aliso Viejo	Tustin	Laguna Niguel	San Juan Cap
Percentage of City Total	4.7%	4.6%	4.6%	4.6%	4.0%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	64,325	3.9%		54%	5%

Information	Irvine	Santa Ana	Anaheim	Costa Mesa	Orange
Employment	7,253	4,249	3,143	2,427	2,284
Percentage of Industry Total	18.6%	10.9%	8.1%	6.2%	5.9%
	Newport Beach	Huntington Beach	Garden Grove	Fullerton	Lake Forest
Employment	2,109	2,109	1,332	1,144	1,106
Percentage of Industry Total	5.4%	5.4%	3.4%	2.9%	2.8%
Industry Saturation	Aliso Viejo	Irvine	Dana Point	Ranch S.M.	Laguna Beach
Percentage of City Total	4.0%	3.2%	3.1%	2.9%	2.7%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	38,972	2.4%		50%	1%

Bioscience	Irvine	Anaheim	Santa Ana	Orange	Costa Mesa
Employment	2,901	1,305	1,210	730	469
Percentage of Industry Total	24.8%	11.2%	10.4%	6.2%	4.0%
	Brea	Lake Forest	Newport Beach	Tustin	Fullerton
Employment	395	388	386	332	328
Percentage of Industry Total	3.4%	3.3%	3.3%	2.8%	2.8%
Industry Saturation	Laguna Woods	Irvine	Cypress	Lake Forest	Laguna Hills
Percentage of City Total	1.8%	1.3%	0.9%	0.9%	0.9%
	Total Industry Employment	Percentage of Orange County		City Top 5 Concentration	Concentration Difference vs. County
	11,690	0.7%		57%	8%

Appendix M: High-Performing Industry Clusters – Descriptions and Examples

This section delves into the eight industry clusters with the highest LQ rating for Orange County: Analytical Instruments, Sporting Goods, Biomedical, Information Technology, Hospitality and Tourism, Aerospace, Fashion, and Power Generation/Transmission. Statistics and background on company examples are based on information available from company websites, the Orange County Business Journal 2013 Book of Lists, and company profiles compiled from Hoovers.com. Financial commentary is included when available.

Manufacturing

Analytical Instruments	
LQ	**3.1 (1)**
Employment	**16,810 (8)**
Payroll ($ Millions)	**$1,577 (5)**
Subclusters	**Laboratory Instruments; Optical Instruments; Process Instruments; Search and Navigation Equipment; Electronic Components**
NAICS Category	**31-33. Manufacturing (3333. Commercial and Service Industry Machinery Manufacturing; 3345. Navigational, Measuring, Electromedical, and Control Instrument Manufacturing)**
Company Examples	**Express Manufacturing Inc., Beckman Coulter**

"This industry comprises establishments primarily engaged in manufacturing navigational, measuring, medical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls (except switches), laboratory analytical instruments such as

microscopes, navigation and guidance systems, and physical properties testing equipment." – NAICS 2012

California maintains nearly 25 percent of the United States' medical device manufacturers, spread from the Bay Area to San Diego County. Going hand-in-hand with the Biomedical cluster, the Analytical Instruments cluster in the region primarily pertains to medical technology, providing a one-two punch of regional specialization that establishes the cluster as the greatest growth opportunity for Orange County.

Company Profiles:

Company: Beckman Coulter Inc.	
OC Office Location	**Brea, CA**
Headquarters Location	**Brea, CA**
Parent Company	**Danaher Corp.**
Local Employees, 2012, (YoY Change)	**1,350 (-4%)**
Companywide Employees, 2012, (YoY Change)	**11,000 (-8%)**
Company Website	**http://www.beckmancoulter.com**

"Beckman Coulter specializes in manufacturing diagnostic testing systems and supplies, with an established system installation map of over 275,000 worldwide. Analytical testing devices range from medical to chemical to industrial in application, with clinical researchers as the company's primary customer base. Beckman Coulter has maintained a constant Orange County presence for over 75 years." – Hoovers

Company: Express Manufacturing Inc.	
OC Office Location	**Santa Ana, CA**
Headquarters Location	**Santa Ana, CA**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**780 (3%)**
Companywide Employees, 2012, (YoY Change)	**1,350 (5%)**
Company Website	**http://www.eminc.com**

"Express Manufacturing (EMI) provides contract electronics manufacturing services, including printed circuit board (PCB) design, production, and prototyping. The company also offers value-added services, such as materials procurement, inventory management, test engineering, and quality inspection. Customers have included Kingston Technology, Lantronix, Silicon Film Technologies, and Xerox. EMI serves industrial markets, including medical, telecom, aerospace, semiconductor, irrigation, and commercial gaming, to name a few. EMI also operates a factory in China through its EMI Asia Limited. Express Manufacturing was established in 1983 and is owned by members of the Chin family, its founders." – Hoovers

Sporting, Recreational and Children's Goods	
LQ	**2.9 (2)**
Employment	**1,942 (N/A)**
Payroll ($ Millions)	**$94 (N/A)**
Subclusters	**Sporting and Athletic Goods; Games, Toys, and Children's Vehicles; Motorcycles and Bicycles**
NAICS Category	**31-33. Manufacturing; 42. Wholesale Trade (3399. Other Misc. Manufacturing; 4239. Toys Merchant Wholesalers)**
Company Examples	**TBD**

"This industry comprises establishments primarily engaged in manufacturing sporting and athletic goods (except apparel and footwear)." – NAICS 2012

Although small in absolute terms of employment and payroll, sporting and recreational goods could potentially be seen as a strength for Orange County. With its nationally-renown climate and booming water sport community, Orange County brings its expertise in surf and sun to valuable trade for the rest of the nation.

Company Profiles:

Company: Sole Technology Inc.	
OC Office Location	**Lake Forest, CA**
Headquarters Location	**Lake Forest, CA**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**190 (-14%)**
Companywide Employees, 2012, (YoY Change)	**383 (-2%)**
Company Website	**www.soletechnology.com**

"Sole Technology makes and markets action sport footwear and gear, including apparel, backpacks, hats, wallets, and other accessories, for men and women. Its brands include Etnies, Etnies Plus, éS, Altamont, Emerica, and ThirtyTwo. Etnies is not only eco-friendly; the brand is working to become completely carbon neutral by 2020. Targeting skateboarders and BMXers, Sole Technology distributes its products through specialty retailers in the US and internationally in 70-plus countries. The company operates a large distribution facility in California and a New York City showroom. Formed in 1996, Sole Technology is owned by founder and CEO Pierre Senizergues." – Hoovers

Company: Mission Hockey Company	
OC Office Location	**Irvine, CA**
Headquarters Location	**Irvine, CA**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**40 (N/A)**
Companywide Employees, 2012, (YoY Change)	**40 (N/A)**
Company Website	**missionhockey.com**

"Founded in 1995, Mission Roller Hockey designs, manufactures and markets innovative skates, gloves, pants, and other gear focused specifically for the roller hockey player. Mission's focus on innovation, combined with an unparalleled commitment to sponsoring players, teams, and tournaments, drives the Mission brand." – Mission Hockey company website

Analytical Instruments: Biomedical	
LQ	**2.6 (3)**
Employment	**19,002 (7)**
Payroll ($ Millions)	**$1,350 (8)**
Subclusters	**Biopharmaceutical Products; Health and Beauty Products; Containers; Surgical Instruments and Supplies; Dental Instruments and Supplies; Ophthalmic Goods; Medical Equipment; Diagnostic Substances; other Biological Products.**
NAICS Category	**31-33. Manufacturing (3254. Pharmaceutical and Medicine Manufacturing; 3391. Medical Equipment and Supplies Manufacturing)**
Company Examples	**Edwards Lifesciences Corp., MicroVention Inc., Allergan Inc., Teva Pharmaceuticals Industries Ltd.**

"This industry comprises establishments primarily engaged in manufacturing medical equipment and supplies. Examples of products made by these establishments are surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, ophthalmic goods, dentures, and orthodontic appliances." – NAICS 2012

"This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing biological and medicinal products; (2) processing (i.e., grading, grinding, and milling) botanical drugs and herbs; (3) isolating active medicinal principals from botanical drugs and herbs; and (4) manufacturing pharmaceutical products intended for internal and external consumption in such forms as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions." – NAICS 2012

This cluster consolidates pharmaceutical production companies with medical device manufacturers, together representing the full picture of Southern California's

medical industry. With a well-integrated medical community and high demand for sophisticated pharmaceuticals, Orange County is a hub for growth in health and wellness. Many prosperous pharmaceutical companies rely on the region's concentrated specialization in producing medical experts and specialists. In addition, centralization in Southern California's beauty product production is also responsible for the cluster's attractiveness, with demand from Hollywood a county away to spurn innovation.

Company Profiles:

Company: Edwards Lifescience Corp.	
OC Office Location	**Irvine, CA**
Headquarters Location	**Irvine, CA**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**2,567 (10%)**
Companywide Employees, 2012, (YoY Change)	**8,096 (10%)**
Company Website	**http://www.edwards.com/**

"Named for the co-inventor of the first artificial heart valve, Miles "Lowell" Edwards, Edwards Lifesciences' main products are still heart valve devices, including valves made from animal tissue and annuloplasty rings that repair damaged valves. The company also makes monitoring systems that measure heart function during surgery; various types of cannulae (surgical tubes used for drainage, delivery, or filtration); and embolectomy catheters that remove blood clots from peripheral arteries. Edwards Lifesciences markets its products worldwide." – Hoovers

Company: Allergan Inc.	
OC Office Location	**Irvine, CA**
Headquarters Location	**Irvine, CA**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**2,600 (4%)**
Companywide Employees, 2012, (YoY Change)	**10,500 (5%)**
Company Website	**http://www.allergan.com**

"Allergan is a leading maker of eye care, skin care, and aesthetic products, including best-selling pharmaceutical Botox. Originally used to treat muscle spasms (as well as eye spasms and misalignment), Botox found another, more popular application in diminishing facial wrinkles. Allergan's eye care products include medications for glaucoma, allergic conjunctivitis, and chronic dry eye. Skin care products include treatments for acne, wrinkles, and psoriasis. Allergan also sells breast augmentation implants and the Lap-Band system used in weight-loss surgery. Its products are sold in more than 100 countries via direct sales and distributors." – Hoovers

Information Technology	
LQ	**2.5 (4)**
Employment	**23,304 (5)**
Payroll ($ Millions)	**$2,336.9 (4)**
Subclusters	**Computers; Electronic Components and Assemblies; Peripherals; Software; Communications Services; Fiber Optic Cable**
NAICS Category	**31-33. Manufacturing (334. Computer and Electronic Product Manufacturing)**
Company Examples	**IBM Corp., Blizzard Entertainment Inc., Western Digital Corp., Qlogic Corp.**

"This industry comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers; and computer peripheral equipment, such as storage devices, printers, monitors, input/output devices and terminals. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following: (1) store the processing program or programs and the data immediately necessary for the execution of the program; (2) can be freely programmed in accordance with the requirements of the user; (3) perform arithmetical computations specified by the user; and (4) execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run. Analog computers are capable of simulating mathematical models and comprise at least analog, control, and programming elements." – NAICS 2012

Orange County's potential to become a Silicon Valley-like entity is due to a blend of hardware and software manufacturing that develops a strong business rapport. A centralized information industry is a massive benefit for any region, with secondary effects on productivity for neighboring industries. This dynamic cluster is unique in that it retains a relatively higher employment rate for its LQ – a combination with great potential to attract outside talent.

Company Profiles:

Company: Broadcom Corp.	
OC Office Location	**Irvine, CA**
Headquarters Location	**Irvine, CA**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**2,400 (4.3%)**
Companywide Employees, 2012, (YoY Change)	**11,200 (15.6%)**
Company Website	**http://www.broadcom.com**

"As a semiconductor supplier for the global wired and wireless communications industry, Broadcom's reach is far and wide. With sales and marketing offices and R&D centers around the globe, Broadcom manufactures about two billion chips annually and is one of the top 10 semiconductor companies by revenue. Its System-on-a-Chip (SoC) technologies and software products deliver voice, video, data, and multimedia in several major market segments: home and office (cable modems, DSL, and set-top boxes), mobile (Bluetooth and GPS), and infrastructure (controllers, embedded processors, and security). Broadcom's customer roster includes such elite technology names as Apple, Cisco, Dell, Samsung, and ZTE." – Hoovers

Company: Blizzard Entertainment Inc.	
OC Office Location	**Irvine, CA**
Headquarters Location	**Irvine, CA**
Parent Company	**Vivendi SA**
Local Employees, 2012, (YoY Change)	**1,700 (N/A)**
Companywide Employees, 2012, (YoY Change)	**4,100 (N/A)**
Company Website	**http://us.blizzard.com/en-us/**

"A unit of Activision Blizzard, the company is the leading video game maker in the massively multiplayer online role-playing games (MMORPG) niche. It develops and publishes software titles such as the genre-dominating World of

Warcraft (about 10 million subscribers), Starcraft, and Diablo series available for play on PCs. Blizzard offers its Battle.net online gaming service that enables the worldwide social gaming experience for its titles. The games are sold through retailers and online download. The company has also leveraged its popular games into related products such as action figures, board games, graphic novels, and comic books." – Hoovers

Company: Western Digital Corp.	
OC Office Location	**Irvine, CA**
Headquarters Location	**Irvine, CA**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**1,600 (14%)**
Companywide Employees, 2012, (YoY Change)	**68,000 (N/A)**
Company Website	**http://www.wdc.com/en/**

"Western Digital is one of the largest independent makers of hard-disk drives, which record, store, and recall volumes of data. Drives for PCs account for most of Western Digital's sales, although the company also makes devices used in servers, cloud computing data centers, and home entertainment products such as set-top boxes and video game consoles. The company sells to manufacturers and through retailers and distributors. More than 60 percent of its sales are to OEMs such as Hewlett-Packard, which is Western Digital's largest customer. The company gets more than half of its sales from the Asia/Pacific region." – Hoovers

Company: Ologic Corp.	
OC Office Location	**Aliso Viejo, CA**
Headquarters Location	**Aliso Viejo, CA**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**499 (9%)**
Companywide Employees, 2012, (YoY Change)	**1,110 (N/A)**
Company Website	**http://qlogic.com**

"QLogic designs server and storage system networking products, including switches, adapters, and storage routers. It outsources manufacturing. QLogic's products are primarily Fibre Channel and Ethernet-based, but can also operate as iSCSI products or as a combination of these technologies. The company also provides controllers for embedded applications. QLogic sells its products directly to server and workstation manufacturers and through distributors. Customers include Hewlett-Packard (more than a quarter of sales), IBM (nearly 20 percent), and Dell (more than 10 percent). The company gets more than half of its sales from internationally-based customers." – Hoovers

Aerospace & Defense	
LQ	**1.9 (6)**
Employment	**10169 (11)**
Payroll ($ Millions)	**$900.4 (9)**
Subclusters	**Aircraft Engines; Small Arms; Aircraft; Missiles and Space Vehicles; Defense Equipment**
NAICS Category	**31-33. Manufacturing (3364. Aerospace Product and Parts Manufacturing; 3329. Other Fabricated Metal Product Manufacturing)**
Company Examples	**Boeing Co., Ceradyne Inc.**

"This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing complete aircraft, missiles, or space vehicles; (2) manufacturing aerospace engines, propulsion units, auxiliary equipment or parts; (3) developing and making prototypes of aerospace products; (4) aircraft conversion (i.e., major modifications to systems); and (5) complete aircraft or propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications)." – NAICS 2012

Aerospace engineering demands steep technical requirements of its workforce, and grows as conditions for related high-tech industries become increasingly favorable. For Orange County, potential comes through the proficient instrument and device manufacturing clusters, with cascading potential for high-level engineering to be featured locally. Specifically, this specialization begins with aerospace components and smaller, supporting parts.

Company Profiles:

Company: Boeing Co.	
OC Office Location	**Seal Beach, CA**
Headquarters Location	**Chicago, Illinois**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**6,873 (-11%)**
Companywide Employees, 2012, (YoY Change)	**175,742 (2%)**
Company Website	**boeing.com**

"Boeing has built a big name for itself as one of the world's largest aerospace companies. It is the #2 maker of large commercial jets behind Airbus and the #2 defense contractor behind Lockheed Martin. In addition to commercial jet aircraft like the much anticipated 787 Dreamliner, the company manufactures military aircraft, including the Apache, the Chinook, and the Osprey. It also produces satellites, missile defense systems, and launch systems. These products are rounded out by a portfolio of services. Major customers include the US Department of Defense and NASA. Additionally, Boeing provides airplane financing and leasing services to both commercial and military customers." – Hoovers

Company: Ceradyne Inc.	
OC Office Location	**Costa Mesa, CA**
Headquarters Location	**Costa Mesa, CA**
Parent Company	**3M Company**
Local Employees, 2012, (YoY Change)	**401 (-11%)**
Companywide Employees, 2012, (YoY Change)	**2,400 (4%)**
Company Website	**ceradyne.com**

"The company's advanced technical ceramics products combine hardness with light weight and the ability to withstand high temperatures, resist corrosion, and insulate against electricity. Some uses of Ceradyne's materials include armor for military helicopters, missile nose cones, body armor and helmets for soldiers, diesel engine components, ceramic industrial products, solar glass products, and orthodontic brackets. The company sells to contractors and OEMs, and the US government and government agencies represent more than 37 percent of sales." – Hoovers

Fashion	
LQ	**1.6 (7)**
Employment	**9,174 (13)**
Payroll ($ Millions)	**$415.3 (14)**
Subclusters	**Men's Clothing; Women's Clothing; Hosiery and Other Garments; Accessories; Knitting Mills; Footwear; Specialty Footwear; Jewelry and Precious Metals Products; Costume jewelry; Cutlery; Collectibles; Leather products; Coated Fabrics; Related Products; Accessories; Fabric Mills; Specialty Fabric Mills; Specialty Fabric Processing; Textile Machinery; Yarn and Thread Mills; Carpets and Rugs; Wool Mills; Fibers; Finishing Mills; Specialty Apparel Components; Tire Cord and Fabrics**
NAICS Category	**31-33. Manufacturing (313. Textile Mills; 316. Leather and Allied Product Manufacturing; 3322. Cutlery and Handtool Manufacturing; 3399. Other Misc. Manufacturing)**
Company Examples	**Oakley Inc., St. John Knits International Inc., Vans Inc.**

Summary: "Industries in the Textile Mills subsector group establishments that transform a basic fiber (natural or synthetic) into a product, such as yarn or fabric that is further manufactured into usable items, such as apparel, sheets, towels, and textile bags for individual or industrial consumption. The further manufacturing may be performed in the same establishment and classified in this subsector, or it may be performed at a separate establishment and be classified elsewhere in manufacturing." – NAICS 2012

Orange County's proximity to centralized entertainment hubs and development of quintessential beach style has led to the County hosting several prosperous fashion

companies, specializing in clothes, accessories, and footwear. Desirable, standout exports are the key driver of economic prosperity in fashion.

Company Profiles:

Company: Oakley Inc.	
OC Office Location	**Foothill Ranch, CA**
Headquarters Location	**Foothill Ranch, CA**
Parent Company	**Luxottica**
Local Employees, 2012, (YoY Change)	**1,984 (4%)**
Companywide Employees, 2012, (YoY Change)	**4,619 (7%)**
Company Website	**www.oakley.com**

"The company makes and sells performance sunglasses and ski goggles for sports and fashion enthusiasts. Oakley is known for its lens technologies, including 3D, and especially for its High-Definition Optics. The brand boasts a retail network of more than 160 Oakley "O" and Vaults stores in malls throughout the US, and in Europe, Mexico, and Asia-Pacific region. It also sells its wares online and at Dillard's, Sunglass Hut, sporting goods stores and other specialty retail outlets. Oakley also markets a line of apparel and footwear, as well as backpacks and accessories for sports enthusiasts. Founded in 1975, Oakley is owned by Italian eyewear giant Luxottica." – Hoovers

Company: St. John Knits International Inc.	
OC Office Location	**Irvine, CA**
Headquarters Location	**Irvine, CA**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**800 (N/A)**
Companywide Employees, 2012, (YoY Change)	**1,300 (N/A)**
Company Website	**www.stjohnknits.com**

"St. John Knits International has clothed some of the nation's most couture-worthy women, including Hillary Rodham Clinton and Diane Sawyer. The company designs colorful, classically styled sportswear, career separates, and evening wear under the St. John name, as well as jewelry, shoes, handbags, and belts. St. John Knits sells its apparel and accessories through more than 25 company-operated boutiques in the US and Canada and via its e-commerce site. The St. John brand is also sold in high-end department stores in more than 25 countries. Vestar/Gray Investors, a partnership between the founding Gray family and Vestar Capital Partners, owns a majority of the company." – Hoovers

Company: Vans Inc.	
OC Office Location	**Cypress, CA**
Headquarters Location	**Cypress, CA**
Parent Company	**V.F. Corporation**
Local Employees, 2012, (YoY Change)	**778 (4%)**

Companywide Employees, 2012, (YoY Change)	**4,435 (48%)**
Company Website	**vans.com**

"Vans designs and sells footwear and apparel for casual wear and for use in activities such as skateboarding, snowboarding, surfing, bicycle motocross (BMX), and motocross. Vans merchandise is sold in the US by national chain stores and in skate, surf, and specialty shops in North America, Europe, and Asia. Vans operates about 270 stores in the western US and in Europe. As part of its marketing strategy, Vans backs bands through music festivals. The company is owned by V.F. Corporation." – Hoovers

Power Generation and Transmission	
LQ	**1.6 (8)**
Employment	**4,307 (N/A)**
Payroll ($ Millions)	**399.9 (N/A)**
Subclusters	**Electric Services; Turbines and Turbine Generators; Transformers; Porcelain, Carbon and Graphite Components; Electronic Capacitors**
NAICS Category	**31-33. Manufacturing; 54. Professional, Scientific and Technical Services (5413. Architectural, Engineering, and Related Services; 3336. Engine, Turbine, and Power Transmission Equipment Manufacturing; 3344. Semiconductor and Other Electronic Component Manufacturing.)**
Company Examples	**Edison International (Southern California Edison)**

Summary: "This industry comprises establishments primarily engaged in manufacturing turbines, power transmission equipment, and internal combustion engines (except automotive gasoline and aircraft)." – NAICS 2012

In a similar vein to aerospace and analytical instruments, the manufacture of power generating equipment is a ripple effect from heavy high-tech investment in the area.

Company Profiles:

Company: CED Inc. Southern California Division	
OC Office Location	**Orange, CA**
Headquarters Location	**San Diego, CA**
Parent Company	**Consolidated Electrical Distributors Inc. (Irving, TX)**
Local Employees, 2012, (YoY Change)	**N/A**
Companywide Employees, 2012, (YoY Change)	**6,200 (0%)**
Company Website	**http://cedsocal.com/**

"Consolidated Electrical Distributors (CED) is an industry-leading consolidator of electrical distributors. With more than 500 locations in 45 states, the wholesaler sells products such as ballasts, power supplies, transformers, switches, wiring, lighting, motors, and temperature controls. Vendors include 3M, Coleman Cable, GE, Hubbell, and Leviton, among others. CED sells to residential, commercial, and industrial construction firms, as well as manufacturing plants and warehouse facilities. Founded in 1957 as The Electric Corporation of San Francisco, CED has grown through multiple acquisitions of distributors. It is owned by the Colburn family and operates in the US under about 80 names." – Hoovers

Company: Southern California Edison	
OC Office Location	**Rosemead, CA**
Headquarters Location	**Rosemead, CA**
Parent Company	**Edison International**
Local Employees, 2012, (YoY Change)	**4,065 (N/A)**
Companywide Employees, 2012, (YoY Change)	**19,930 (-1%)**
Company Website	**www.sce.com**

"Edison International has been around the world, but its largest subsidiary is Southern California Edison (SCE), which distributes electricity to a population of almost 14 million people in central, coastal, and southern California; it is also the top purchaser of renewable energy in the US. The utility's system consists of about 12,000 circuit miles of transmission lines and more than 103,500 circuit miles of distribution lines. SCE also has 5,574 MW of generating capacity from interests in nuclear, hydroelectric, and fossil-fueled power plants. Through Edison Mission Group's Edison Mission Energy unit Edison owns, leases, operates and sells energy and capacity (10,780 MW) from power generation facilities." – Hoovers

Arts, Entertainment and Recreation

Hospitality and Tourism	
LQ	**2 (5)**
Employment	**47,481 (2)**
Payroll ($ Millions)	**$1,426.5 (7)**
Subclusters	**Tourism Attractions; Tourism Related Services; Water Passenger Transportation; Scenic and Sightseeing Transportation; Accommodations and Related Services; Boat Related Services; Ground Transportation**
NAICS Category	**71. Arts, Entertainment and Recreation; 48-49. Transportation and Warehousing (721. Hotels; 713. Amusement, Gambling, and Recreation Industries; 7121. Museums, Historical Sites and Similar Institutions; 487. Scenic and Sightseeing transportation)**
Company Examples	**Walt Disney Co., Cedar Fair Inc.**

"Industries in the Amusement, Gambling, and Recreation Industries subsector (1) operate facilities where patrons can primarily engage in sports, recreation, amusement, or gambling activities and/or (2) provide other amusement and recreation services, such as supplying and servicing amusement devices in places of business operated by others; operating sports teams, clubs, or leagues engaged in

playing games for recreational purposes; and guiding tours without using transportation equipment." – NAICS 2012

Orange County is home to world-famous theme parks Disneyland Resort and Knott's Berry Farm, which are the primary drivers for the tourism cluster. The successes of these tourist attractions are symbiotically tied to the hospitality industry, supporting tourism via hotels and transportation services. By assessing the performance of Orange County's greatest attractions, we can draw conclusions for the health of the hospitality industry and opportunities for growth.

Company Profiles:

Company: Walt Disney Co.	
OC Office Location	**Anaheim, CA**
Headquarters Location	**Burbank, CA**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**25,000 (14%)**
Companywide Employees, 2012, (YoY Change)	**156,000 (5%)**
Company Website	**http://www.disney.com**

"The Walt Disney Company is the world's largest media conglomerate, with assets encompassing movies, television, publishing, and theme parks. Its Disney/ABC Television Group includes the ABC television network and 10 broadcast stations, as well as a portfolio of cable networks including ABC Family, Disney Channel, and ESPN (80 percent-owned). Walt Disney Studios produces films through imprints Walt Disney Pictures, Disney Animation, and Pixar, and its Marvel Entertainment is a top comic book publisher and film producer. In addition, Walt Disney Parks and Resorts operate the company's popular theme parks including Walt Disney World and Disneyland." – Hoovers

Company: Cedar Fair, L.P.	
OC Office Location	**Buena Park, CA**
Headquarters Location	**Sandusky, OH**
Parent Company	**N/A**
Local Employees, 2012, (YoY Change)	**3,800 (est.) (N/A)**
Companywide Employees, 2012, (YoY Change)	**38,700 (N/A)**
Company Website	**http://cedarfair.com**

"Cedar Fair owns and manages 11 amusement parks, six outdoor water parks, one indoor water park, and five hotels. Properties include Knott's Berry Farm in Buena Park, California (outside of Los Angeles); Michigan's Adventure near Muskegon, Michigan; and Cedar Point, located on Lake Erie in Sandusky, Ohio. The company also has a contract to manage Gilroy Gardens in California. Knott's Berry Farm and Castaway Bay Indoor Waterpark Resort (also in Sandusky) operate year-round, while other parks are open daily from Memorial Day through Labor Day, plus additional seasonal weekends. Cedar Fair parks together draw some 23 million visitors each year." – Hoovers

Overview of Orange County's High-Tech Sector

Location Quotient and Multiplier Leaders

1. **3343 - Audio and video equipment manufacturing**
2. **3391 - Medical equipment and supplies manufacturing**
3. **3344 - Semiconductor and electronic component manufacturing**
4. **3341 - Computer and peripheral equipment manufacturing**
5. **3345 - Electronic instrument manufacturing**
6. **5179 - Other telecommunications**
7. **6215 - Medical and diagnostic laboratories**
8. **3333 - Commercial and service industry machinery**
9. **3364 - Aerospace product and parts manufacturing**
10. **5172 - Wireless telecommunications carriers**
11. **5112 - Software publishers**
12. **5413 - Architectural and engineering services**

Each high-tech industry sector is highlighted with recent employment statistics, a brief description of the industry climate, and relevant news regarding the industry in Orange County, if applicable. Industries are classified by their 4-digit NAICS codes and listed in order of Location Quotient from highest to lowest cluster growth potential.

About Statistics:

Employment totals and Location Quotient calculations are based on average total employment for the full-year 2011 edition of the Quarterly Census of Employment Data and Wages, the most recent edition delivered by the Bureau of Labor Statistics. Accompanying each data point is a percentage denoting the year-over-year change compared to the 2010 edition.

About Location Quotients:

The Location Quotient (LQ) demonstrates the concentration of employment in a given industry, in comparison with a reference region. In this report, Orange County's LQ is compared to employment in the United States as a whole to determine clusters with a competitive advantage for the County. If an industry's LQ is greater than 1, then the employment concentration in the County is higher than in the nation, signifying that the County contains regional specialization and potential advantages in that industry. 16 of the 22 industries discussed below feature LQs above 1.

About Multipliers:

The multiplier effect is a quantifiable way to visualize regional growth by analyzing the employment- and income-generating effects on the region's economy through input injection into a given industry. This report will focus on the Employment Multiplier, which estimates by how much employment in industries related to the given industry's processes (e.g. suppliers) will fluctuate if employment is changed in the given industry.

The multipliers analyzed below are Type I multipliers, meaning that they combine Direct Effects (increases for the given firm/industry that expands its exports) and Indirect Effects (increases for firms/industries that supply the firm/industry that expands its exports) while excluding results from the Induced Effects (e.g. household spending). Multipliers are calculated at the four-digit NAICS level when possible, with the exception of communication-related industries.

3343 - Audio and Video Equipment Manufacturing

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	1,143	5,933	19,793
	10.4%	-3.3%	-1.2%
Percent of Total Employment:	0.09%	0.05%	0.02%
	0.0%	0.0%	0.0%
Location Quotients:	5.1	2.6	
	12.2%	-2.2%	
Employment Multiplier:	**1.96**		

Description:
"This industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicles, and public address and musical instrument amplification." – NAICS Description

For the A/V manufacturing sector, innovations are coming through chipsets and unique ways of implementing A/V hardware within the media-streaming culture. With increasing demand for set-top boxes, HDTVs, and DVD/Blu-Ray players featuring "smart" media streaming capabilities, comes an increase in demand for graphical prowess and sound fidelity that add value to the over-the-air experience. Looking at the product mix of Orange County's leading A/V companies, and it's plain to see that growth is stemming from innovation. Companies like Newport Beach-based Conexant are growing through white-label services for businesses, cable providers and computer manufacturers, while still maintaining a product portfolio useful to general music, media and computing consumers. Westinghouse Digital LLC in Orange, pioneer high-quality HDTVs and Bluetooth audio players. Irvine-based Vizio similarly is branching into home audio, computer accessories, and dedicated streaming boxes.

Recent OC News: Audio and Video Equipment Manufacturing
"Huang Shines Amid Patent Wars, Product Rollouts" - Vizio's VP in Irvine discusses struggles with competitors and the growth of the company during his work to date

"Anaheim A/V Manufacturer Will Move to Fullerton" – Premier Mounts relocates its logistics and manufacturing to better serve A/V equipment industry with mounting equipment.

"Conexant Launches New Chips for High Definition Mobile & Smart TV Audio" – Highlights from the CES demonstrating innovations in sound tech.

3391 - Medical Equipment and Supplies Manufacturing

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	14,971	50,435	305,364
	5.8%	0.6%	0.7%
Percent of Total Employment:	1.21%	0.41%	0.28%
	3.4%	-2.4%	-3.4%
Location Quotients:	4.3	1.5	
	5.1%	0.0%	
Employment Multiplier:	**1.37**		

Description:
"This industry comprises establishments primarily engaged in manufacturing medical equipment and supplies. Examples of products made by these establishments are surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, ophthalmic goods, dentures, and orthodontic appliances." – NAICS Description

Orange County is well-known as a hotbed for innovation in medical technology, and the industry's high marks in the County are owed to its device-engineering companies that supply hospitals and small practices alike. Vital monitors, sensors, and other tech at the consumer level has seen growth as device designs have become less intrusive to routine life for patients. Some see integration with everyday furniture, while others have their footprint and size reduced to unobtrusive levels.

Research and development is shifting somewhat to the manufacturer side instead of the clinician side, meaning that many medical professionals are enabling more responsibilities to be handled by the product creators in terms of proactively identifying clinic needs. Medical technology companies are prolific in Irvine and the surrounding area, ranging from giants like Masimo Corporation to flexible designers like Omnica and Pro-Dex. The beauty of the industry is in its diverse specialists; Masimo is unique with its pulse oximetry products, while Pro-Dex primarily supplies powered surgical tools.

In sheer volume, 30% of the Medical Supply Manufacturing in the State and 5% of the nation's is located in Orange County. The high LQ is a clear strong point with the diversity of manufacturers in this sector and the cross-pollination possibilities.

Recent OC News: Medical Equipment and Supplies Manufacturing

"Three Growth Opportunities for Medical Equipment Manufacturers" – Accenture consulting cites device-embedded furniture, outsourcing R&D via internet, and sharing manufacturing facilities with other tech production locations are key to growth.

"Dune Medical Devices Receives FDA Approval for Breakthrough Cancer Detector" – MarginProbe System identifies tissue types in patients, originally approved in Europe in 2008.

"German company buys remaining part of O.C. medical instrument firm" – BIT Analytical fully acquired Source Scientific LLC of Irvine, a dedicated manufacturer.

"Firm hopes medical laser use to grow" – Biolase Inc. and its soft-tissue dental laser will be used in 19 branches of medicine outside of dentistry.

3344 - Semiconductor and Electronic Component Manufacturing

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	13,310	90,156	383,513
	4.3%	4.0%	3.7%
Percent of Total Employment:	1.08%	0.74%	0.35%
	2.9%	2.8%	0.0%
Location Quotients:	3.1	2.1	
	1.0%	0.0%	
Employment Multiplier:	**1.55**		

Description:
"This industry comprises establishments primarily engaged in manufacturing semiconductors and other components for electronic applications. Examples of products made by these establishments are capacitors, resistors, microprocessors, bare and loaded printed circuit boards, electron tubes, electronic connectors, and computer modems." – NAICS Description

As the basis for all facets of hardware and technology innovation, component manufacturing is an integral part of keeping Orange County's numerous technical manufacturing operations afloat. Orange County is an ideal growth environment for semiconductors for two key reasons – ready, willing customers in the biotech space, and the west-coast factor facilitating interaction with parent tech manufacturing companies in Asia. Home-grown giants like Broadcom are complimented by US branches of international players such as Toshiba.

Market analysts at IC Insights anticipate the highest growth to come from manufacturers of tablet MPUs, cell phone MPUs, NAND Flash storage, and DRAM (Dynamic RAM). Mobile technology and the convergence of interconnected devices are pushing manufacturing capabilities from many backgrounds to an even playing field.

While this sector of manufacturing has grown across the board year-over-year, Orange County is slightly outpacing the growth rate of the State. The employment multiplier's smaller relative size compared to other industries listed could be attributed to semiconductor manufacturing's niche as the great supplier, with less of its own suppliers "below" it on the production chain.

Recent OC News: Semiconductor and Electronic Component Manufacturing

"Kingston's New Drive Grabs CES Mindshare" – Kingston unveils a 1-terabyte flash drive, designed for small businesses and media-intensive companies for bulk storage and swift data transfer.Kingston paid $4.1 million for a 21% stake in Panram International Corp., which makes DRAM chips.

"Broadcom's Henry Samueli: a Well-Connected Man" – Article on Broadcom's co-founder and CTO. Misgivings about missing the initial iPhone as a business opportunity for Broadcom – now chips are in every Apple product.

"O.C. ranks as state's No. 2 for chip jobs" – While far behind Santa Clara County, OC benefits from aerospace and defense workers and maintains a high ranking. California holds the highest number of semiconductor jobs in the country.

"Toshiba offers startup's structured array ICs" – Toshiba partners with Californian startup BaySand to ship customized chips.

3341 - Computer and Peripheral Equipment Manufacturing

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	4,995	58,082	157,637
	7.3%	2.5%	-0.8%
Percent of Total Employment:	0.41%	0.47%	0.15%
	7.9%	0.0%	0.0%
Location Quotients:	2.8	3.3	
	8.6%	3.2%	
Employment Multiplier:	**2.41**		

Description:
"This industry comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers; and computer peripheral equipment, such as storage devices, printers, monitors, input/output devices and terminals." – NAICS Description

Despite the hype surrounding handheld electronic devices, traditional PCs continue to be an enterprise mainstay. Far from receding, employment in computer manufacturing has jumped nearly 8% year-over-year for the County and supports one of the highest employment multipliers in the manufacturing sector – meaning external industries rely heavily on the success of computer manufacturing to foster job growth.

While some of this employment is associated with large-scale manufacturers, a significant portion of the pie goes to licensed resellers and repair technicians. Largest of all is business providing network hardware – a necessity for nearly every corporation. Irvine-based Express Computer Systems is a prime example of the power network systems have in driving sales for this manufacturing sector.

Recent OC News: Computer and Peripheral Equipment Manufacturing

"Will more computer manufacturing head to the U.S.?" – Apple announces their movement of some manufacturing from China to the US, which may inspire other manufacturers to follow suit.

"Probe Manufacturing Recognized by the Orange County Business Journal as 9th Fastest Growing Public Company in Orange County, CA" – Probe Manufacturing in Irvine indicated to have substantial year-over-year growth, manufactures wide breadth of equipment.

3345 - Electronic Instrument Manufacturing

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	12,318	84,692	404,991
	-7.7%	-5.1%	-0.6%
Percent of Total Employment:	1.00%	0.69%	0.37%
	-9.1%	-6.8%	-2.6%
Location Quotients:	2.7	1.8	
	-7.0%	-4.7%	
Employment Multiplier:	**1.67**		

Description:
"This industry comprises establishments primarily engaged in manufacturing navigational, measuring, electromedical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls (except switches), laboratory analytical instruments, navigation and guidance systems, and physical properties testing equipment." – NAICS Description

Although suffering from receding growth in California, Orange County remains an important place for navigational and scientific measurement systems, because of its proximity with actively growing sectors in aerospace and medical technology, respectively. This dependency will keep the industry relevant, but also demonstrates how the workforce can shift and "graduate" into the larger umbrella sectors that instrument manufacturing supports.

A somewhat miscellaneous category, EIM ranges from testing instrument experts such as Newport, to L-3's GPS technology for defense systems, to AB Controls' robotics for laboratory processes.

Recent OC News: Electronic Instrument Manufacturing

"L-3 SAASM Innovation" – L-3 demonstrates a new SAASM receiver designed for UAVs; The US Air Force provided a contract to L-3 for continued GPS innovation.

"O.C. medical equipment giant sold for $6.8 billion" – Beckman Coulter purchased by D.C.-based Danaher Corp.

5179 - Other Telecommunications

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	3,138	34,636	113,093
	-13.9%	-5.2%	-6.2%
Percent of Total Employment:	0.25%	0.28%	0.10%
	-16.7%	-6.7%	-9.1%
Location Quotients:	2.4	2.7	
	-8.3%	1.1%	
Employment Multiplier:	**2.20**		

Description:
"This industry comprises non-carrier establishments primarily engaged in (1) reselling wired and wireless telecommunications services (except satellite) to businesses and households; (2) providing specialized telecommunications services, such as satellite tracking; (3) providing satellite terminal stations and communicating with satellite systems; or (4) providing Internet access services or Voice over Internet protocol (VoIP) via client-supplied telecommunications connections." - NAICS Description

Though "Other" implies a condensed amalgam of unrelated parts, this industry segment gets its strength as an infrastructure provider, not unlike the computer manufacturing branch in terms of business necessity. The strength here is based on business phone providers that create service packages combining phone service with internet-enabled VoIP specializations. Oftentimes these "catch-all" providers include data management and internet hosting solutions as part of their portfolio.

Costa Mesa-based MegaPath provides the entire package, combining VoIP services with enterprise Ethernet/T1 connection solutions. Elements of cloud computing and data-bridging drive companies like MegaPath and Simple Signal to provide a niche for businesses requiring flexible communication solutions.

Recent OC News: Other Telecommunications

"Readers' Vote Determine Top 50 Channel Programs of 2012" – Top telecom providers are named by Channel Partners Magazine.

"MegaPath wraps up its EoC roll network expansion effort" – Innovations in transmission speed help MegaPath stand out from its competitors.

"Small firms benefit by outsourcing mundane tasks" – Telecom section highlights the benefits of VoIP use for legal offices, adoption of time-saving tech.

6215 - Medical and Diagnostic Laboratories

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	5,939	30,450	231,749
	-2.2%	-0.3%	1.7%
Percent of Total Employment:	0.48%	0.25%	0.21%
	-4.0%	0.0%	0.0%
Location Quotients:	2.3	1.2	
	-3.4%	-1.7%	
Employment Multiplier:	**1.48**		

Description:
"This industry comprises establishments known as medical and diagnostic laboratories primarily engaged in providing analytic or diagnostic services, including body fluid analysis and diagnostic imaging, generally to the medical profession or to the patient on referral from a health practitioner. Includes Dental or medical X-ray laboratories, Diagnostic imaging centers, and Medical forensic laboratories." – NAICS Description

Diagnostic labs support the needs of doctors by offering a location for patients to be tested in a specialized manner, in some ways an outsourcing service for practitioners. From MRIs to X-rays, these facilities serve an essential need for the County's residents and serve as the proving grounds for Orange County's innovations in medtech. Employment in the region has remained relatively stable, but concentration has shifted to other growth areas such as manufacturing.

Laboratories have also made efforts to streamline the consumer experience – CMB Labs allows for drop-in patients and supports weekends at many of their draw stations. Perhaps the greatest growth opportunity in the sector is in dedicated cancer research and treatment laboratories. The Chao Family Comprehensive Cancer Center operates out of UC Irvine's Medical Center, and rated one of the nation's greatest cancer treatment centers.

Recent OC News: Medical and Diagnostics Laboratories

"Former Hoag Chief of Staff to Agendia BV" – Irvine-headquartered cancer diagnostic lab inherits Dr. Neil Barth as its chief medical officer.

"CombiMatrix Rises on New England Journal of Medicine Reports" – Irvine-based DNA testing company increases its share value by 218% for a study on genetic prenatal diagnosis and genetic analysis of stillbirths.

3333 - Commercial and Service Industry Machinery

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	2,123	10,992	91,623
	0.9%	2.8%	-0.6%
Percent of Total Employment:	0.17%	0.09%	0.08%
	0.0%	0.0%	-11.1%
Location Quotients:	2.0	1.1	
	1.5%	3.9%	
Employment Multiplier:	**1.61**		

Description:
"This industry comprises establishments primarily engaged in manufacturing commercial and service machinery, such as optical instruments, photographic and photocopying equipment, automatic vending machinery, commercial laundry and dry-cleaning machinery, office machinery, automotive maintenance equipment (except mechanics' handtools), and commercial-type cooking equipment." – NAICS Description

Appliances and machinery for office productivity are stable, flexible, and desirable in California and Orange County. Supplying businesses with non-computing hardware helps make the difference in productivity. And when it comes to getting standardized hardware, local resources are the preferred option for delivery and repairs. Corporations and larger-scale offices refer to resources like Copier Specialists of Irvine to supply the tools for printing and scanning. Restaurants require maintenance on industrial cooking machinery, such as Ace Fixture Co. And for businesses and public places of all kinds, vending machine suppliers like Southland Vending Service can fit in food convenience wherever it's needed. The advent of 3D printing could create a potential spike in prosperity for this sector in the near future, as the technology becomes more refined.

Recent OC News: Commercial and Service Industry Machinery

"Printing solid objects: At UCI, the future is 3D" – Campus-housed project RapidTech and engineering professor Marc Madou are collaborating to advance 3D printing.

"Healthier Vending Machines Coming to OC" – Fresh Health Vending branches into OC to place vending machines with healthier snacks and constantly rotating product.

3364 - Aerospace Product and Parts Manufacturing

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	10,044	71,307	485,310
	0.7%	3.8%	2.2%
Percent of Total Employment:	0.81%	0.58%	0.45%
	-1.2%	1.8%	0.0%
Location Quotients:	1.8	1.3	
	-1.1%	1.6%	
Employment Multiplier:	**1.66**		

Description:

"This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing complete aircraft, missiles, or space vehicles; (2) manufacturing aerospace engines, propulsion units, auxiliary equipment or parts; (3) developing and making prototypes of aerospace products; (4) aircraft conversion (i.e., major modifications to systems); and (5) complete aircraft or propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications)." – NAICS Description

Though Aerospace engineering may not have the dominance in Orange County it held in the early 1980s, aero-tech nonetheless is a legacy mainstay in Orange County's mix of industries. Major component manufacturers such as Boeing, Rogerson and Parker Aerospace have flourishing, active west coast branches that drive aircraft manufacturing. One of the key drivers for aerospace growth is in specialized producers of in-flight amenities – Panasonic's aerospace division specializes in creating interconnected passenger experiences with Wi-Fi internet and TV broadcasts. Huntington Beach-based C&D Zodiac produces everything imaginable for aircraft interiors, from seats to overhead bins.

Recent OC News: Aerospace Product and Parts Manufacturing

"Aerospace Adapts to Survive in O.C." – Increases in the O.C. workforce at Boeing and at small manufacturers producing commercial aircraft elements, in light of slowed spending on military aircraft.

"Anaheim firm gets help with job training program" – Boeing supplier Pacific Contours received a state Employment Training Panel grant to instruct workers in aerospace manufacturing.

"Airships of the future take shape in Tustin" – Hybrid airships designed for cargo transportation by Worldwide Aeros Corp designed in Tustin and funded by NASA and the Pentagon.

5172 - Wireless Telecommunications Carriers

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	3,375	20,946	168,557
	2.2%	0.1%	-2.0%
Percent of Total Employment:	0.27%	0.17%	0.16%
	0.0%	0.0%	0.0%
Location Quotients:	1.8	1.1	
	4.8%	2.8%	
Employment Multiplier:	**2.20**		

Description:

"This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services." – NAICS Description

Mobile devices bring the world together, and Orange County has a relatively significant stake in the mobile carrier field, sporting an exceptionally high employment multiplier and well-established companies. America's largest wireless provider, Verizon Wireless, features its premium retailer 4G Wireless within Irvine. Smartphones and data plans are the largest drivers for profitability for carriers, vying for compelling media content and day-to-day assistance applications. Though much attention is lauded on high-end data plans and network speeds, a sizable portion of the mobile market is made up of prepaid, contract-free customers. Irvine-based Boost Mobile is a subsidiary of Sprint and highlights the benefits of courting cost-conscious customers while providing them with contemporary, unlimited data plans with transparent pricing.

Recent OC News: Wireless Telecommunications Carriers

"Why Boost Mobile doesn't want the iPhone" – Boost branding as a low-cost Android carrier for the working class is the primary reason for the Sprint subsidiary to place iPhone on Virgin Mobile instead.

"IEEE Globecom 2012 Highlights" – Anaheim's conference on global communications discusses the importance of network infrastructure to support higher capacity mobile traffic.

"Tustin approves T-Mobile antennas for Cedar Grove Park" – 10-year rental contract allows cell phone towers by park's parking lot, hidden within flagpoles.

"Verizon Wireless wins 2012 Best of Orange County for Best Wireless Service" – Customer service cited as major factor.

5112 - Software Publishers

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	4,855	47,284	270,239
	9.0%	5.8%	4.4%
Percent of Total Employment:	0.39%	0.39%	0.25%
	5.4%	5.4%	4.2%
Location Quotients:	1.6	1.5	
	4.6%	1.3%	
Employment Multiplier:	**3.00**		

Description:

"This industry comprises establishments primarily engaged in computer software publishing or publishing and reproduction. Establishments in this industry carry out operations necessary for producing and distributing computer software, such as designing, providing documentation, assisting in installation, and providing support services to software purchasers. These establishments may design, develop, and publish, or publish only." – NAICS Description

In terms of employee growth, software is one of the fastest-progressing fields nationwide. Covering a broad base from entertainment to business to health, application-writing skills have never been more valuable for businesses. Business solutions developers such as Irvine-based Kofax concentrate efforts into software that optimizes information-gathering, offers recommendations on process optimizing, and improves record-keeping. Entertainment software can be found on PC, mobile, or dedicated consoles from large publishers such as Blizzard. Healthcare software companies like Quality Systems Inc specialize in linking financial information with clinical statistics, minimizing paperwork and maximizing timely service providing.

Recent OC News: Software Publishers

"Bandwidth key to the app economy" – Mobile carriers thinking ahead for 3G demand has led to the network we have today: for applications to grow further, it's time to embrace a greater usable radio spectrum.

"O.C. software firm buys mobile app developer" – Data management software company TigerLogic purchases Portland-based Storycode Inc, use expertise to build a "social visualization platform."

"Forbes names Irvine Startup to List" – Kareo Inc, an Irvine-based healthcare software developer raised over $20 Million in equity investment, ranks 58 out of 100 of Forbes' "Most Promising Companies" list for 2012.

5413 - Architectural and Engineering Services

	Orange County, California	California Statewide	U.S. Totals
Industry Employment:	20,886	157,881	1,290,836
	3.3%	0.0%	0.9%
Percent of Total Employment:	1.69%	1.29%	1.19%
	1.2%	-1.5%	-0.8%
Location Quotients:	1.4	1.1	
	2.9%	-0.9%	
Employment Multiplier:	**1.37**		

Description:

"This industry comprises establishments primarily engaged in planning and designing residential, institutional, leisure, commercial, and industrial buildings and structures by applying knowledge of design, construction procedures, zoning regulations, building codes, and building materials. Engineering Services consist of applying physical laws and principles of engineering in the design, development, and utilization of machines, materials, instruments, structures, processes, and systems." – NAICS Description

Orange County is outperforming the state averages for growth in both critical components of construction design. Rebounding well in the wake of the economic downturn, firms are being called upon to help resume housing plans and public projects alike. While much of the attention is given to growing residential regions with new apartment complexes, firms such as LPA Inc. specialize in producing sustainable design for schools and commerce that are equally important to improving the County's civic offerings.

Recent OC News: Architectural and Engineering Services

"Irvine Company Buys Platinum Triangle Land for Apartments" – The Irvine Company plans to develop a 395-unit complex near Angel Stadium in Anaheim.

"Balboa Fun Zone gearing up for nautical upgrade" – ExplorOcean to raise $105 million for the creation of a new three-story ocean education center. The project is to be developed by LPA Inc.

"For 2013, 13 less-obvious keys to real estate market" – Patterns to watch include the demand jump in renters looking to buy a home, smaller use of office space due to telecommuters, and jobless rates.