



Orange County's Industrial Composition Under The North American Industry Classification System

INTRODUCTION

This issue of Profiles examines Orange County's employment structure. The goal is to provide information on the County's employment distribution based on the North American Industry Classification System. As the 33rd largest economy in the world with an annual GCP (Gross County Product) of \$133 billion, Orange County has jobs in all of the major industries covered by the North American Industry Classification System (NAICS). With the exception of the mining industry, omitted from this analysis with less than 1% of all employment, all major industries supply a significant number of jobs to County residents and will be explored in this issue.

The Standard Industrial Classification (SIC) system has long served as the basis for the collection of labor statistics and analysis of the U.S. economy by the U.S. Bureau of Labor Statistics (BLS). However, due to changes in the economy's industrial composition, such as the rise of high-tech and information sectors, the NAICS was created to better represent the new economy. The NAICS' industrial groupings better reflect the workings of the U.S. economy, adding new industries and reconstructing old ones. For example, entities that turn information into a commodity are now listed under the new Information industry, which includes publishing, broadcasting, telecommunications, sound recording, and motion pictures. Manufacturing was restructured to recognize new high-tech sectors and added a new sub-sector that includes computers, electronics, and software reproduction. In the Services industry, eating

and drinking places are part of the new Accommodation and Food Services sector. As a result of these changes, NAICS allows for the identification of 1,170 industries compared to the 1,004 found in the SIC system. Moreover, the new system was developed in cooperation with Mexico and Canada, providing comparable statistics between the NAFTA trading countries. This issue of Profiles uses NAICS to provide an overview of the Orange County economy and, in doing so, will serve as a benchmark for future reference on the County's job composition.

ORANGE COUNTY EMPLOYMENT

The largest source of employment for County residents is the services industry, which supplies 41% of the County's employment (Table 1). The second largest source is the trade industry, with 17% of the labor force, followed by the manufacturing industry, which employs 13% of the County's labor force. These three industries are vital to the County's economy as they provide roughly 70% of all jobs and shape the employment structure of the County.

This distribution illustrates the diversity of Orange County's economic base. This diversity is a vital line of defense against economic downturns. By allowing other industries to sustain

Table 1
Orange County Employment by Major Industry, 2002

Industry	Number	Percent
Services	576,500	41%
Trade	231,100	17%
Manufacturing	181,900	13%
Government	157,500	11%
Finance, Insurance and Real Estate	113,600	8%
Construction	77,500	6%
Information	33,800	2%
Transportation and Public Utilities	27,300	2%
Natural Resources and Mining	500	0.04%
Total Non-Farm Employment	1,399,700	100%

Source: U.S. Bureau of Labor Statistics, 2002.

economic activities in place of the hard-hit ones, this diversity gives Orange County the potential to be a strong harbor in a sea of economic weakness. This is illustrated in Figure 1, which shows the County's reaction to the recent downturn relative to its neighbors. Orange County has been able to sustain the lowest unemployment rates compared to its neighbors to the north and south, as well as the State as a whole.

Besides the sheer magnitude of economic activity, another contributing factor to the County's economic diversity is its demographic diversity. As the 5th most populous county in the U.S., Orange County is home to the 5th largest Asian population and 5th largest Hispanic population and continues to attract a diverse pool of talent from all over the world with its thriving industries.

Research and development, enhanced by alliances between academia and private sector companies, has been a major contributor to the County's success. Orange County is home to one of the three Centers of Science and Innovation in California (UCI's Center for Pervasive Communications and Computing), sponsored by major private companies such as Broadcom and Conexant. Biomedical product development also thrives with research efforts at the Irvine Biomedical Research Center, where UCI and companies work together in clinical studies and product development to find new ways to diagnose and treat diseases.

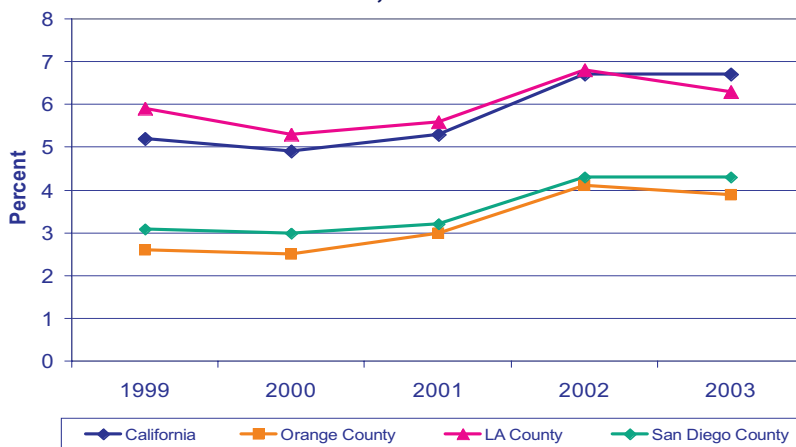
However, even with all its good fortunes, Orange County also has challenges ahead. Rising home prices continue to pose a challenge to businesses recruiting outside talent. Transportation problems impacting commuters are priority issues for county government. These and other major issues must be effectively addressed in order to sustain a stable path of employment growth.

SERVICES

The service industry is the largest employer in Orange County employing 576,500 workers in 2002, approximately 41% of the County's total labor force. As defined by the NAICS, this division includes establishments primarily engaged in providing a variety of services for individuals, businesses, government establishments, and other organizations. Service is also the largest industry in the country, both in the number of establishments and employees, representing 39% of all establishments and 30% of all employment. In Orange County, the largest clusters of this industry are in Professional and Business Services (Figure 2). Healthcare and Social Assistance follows with the second largest share at 24%. The remaining major groups account for smaller shares of employment.

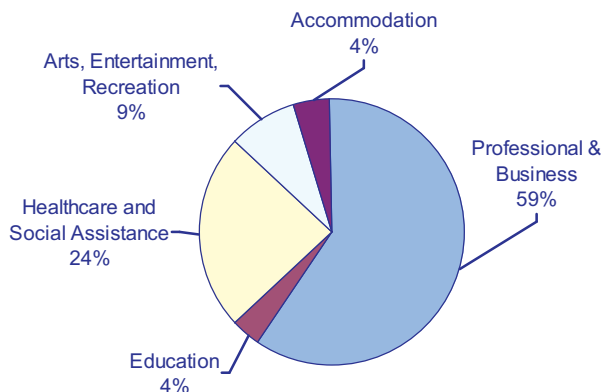
The Professional and Business services group is widely distributed among many types of establishments. The largest share of this major group's labor force (36%) are those that provide administrative and

Figure 1
Unemployment Rates, Orange County Area and California, 1999 - 2003



Source: U.S. Bureau of Labor Statistics, 2002.

Figure 2
Service Industry by Major Group, Orange County, 2003



Source: U.S. Bureau of Labor Statistics, 2002.

support services. The NAICS defines these services as the support of day-to-day operations of other organizations. The processes employed in this sector (e.g., general management, personnel administration, clerical activities, and cleaning activities) are often integral parts of establishments found in all sectors of the economy, and, for that reason, they employ the largest share of jobs in the services industry.

The second major group of the services industry is Healthcare and Social Assistance, employing nearly one-quarter of the entire service industry in the County. This major group includes any establishment engaged in furnishing medical, surgical, and other health services to persons. Within this group, the two greatest sources of employment are in ambulatory health services and hospitals. Some of the most notable employers in this group are St. Joseph Health System (which includes St. Joseph Hospital and St. Jude Medical Center) and Tenet Healthcare Corp. (which includes Chapman Medical Center and Coastal Communities Hospital). When combined, these account for 13,300 jobs (Table 2).

TRADE: WHOLESALE AND RETAIL

The trade industry is the second largest source of employment for Orange County residents and employs 17% of the total labor force (231,100). These local figures are close to the aggregate national shares where the wholesale and retail trades combined equal 29% of businesses and 24% of total employment. As defined by the NAICS, the trade industry encompasses any

establishment involved in the sale or purchase of durable and non-durable goods. Durable goods are those with an intended lifespan of three years or more and non-durables are those with an intended span of less than three years. The trade industry is divided into the retail and wholesale sectors. Transactions in the retail sector entail those directly to the end user. Wholesale transactions, on the other hand, occur in the second stage of the manufacturing process and do not include the end user.

In December 2002, the BLS reported retail trade employment in Orange County at 164,500, more than double the employment of wholesale trade at 80,100 employees. This figure illustrates the labor intensity of the retail sector relative to the wholesale sector, which does not require the mass employment of retail activities in the form of sales and support staff. Retail trade is evenly distributed across a wide array of businesses. Food and beverage establishments hold the largest share at 18% of the retail labor force. Slightly behind are the general merchandise, grocery, and clothing establishments at 16%, 15%, and 13% of the retail labor force, respectively. Some notable retail employers in the County are Target Corporation and Home Depot, which combine to approximately 10,000 jobs (Table 2).

MANUFACTURING

Manufacturing is the third largest industry in the County and employs roughly 13% of the total labor force. Manufacturing establishments are those engaged in the transformation of materials or substances into new

**Table 2
Top Five Employers of the Three Largest Industries, Orange County, 2002**

	Employer	Sector	# Employed
INDUSTRY Service	Disneyland Resort & Hotel	Amusement/Recreation Services	10,200 ²
	UC Irvine	Educational Services	10,000 ²
	St. Joseph Health System	Health Care Services	7,300 ¹
	Tenet Healthcare Corp.	Health Care Services	6,000 ¹
	Memorial Health Services	Health Care Services	3,700 ³
INDUSTRY Trade	Albertsons Inc.	Retail	9,500 ³
	Target Corp.	Retail	4,900 ³
	Home Depot, Inc.	Retail	4,500 ³
	Ingram Micro Inc.	Wholesale	4,000 ¹
	Safeway, Inc. (Vons, Pavillions)	Retail	3,100 ³
INDUSTRY Manufacturing	Boeing Co.	Navigational & Control Instruments	7,800 ¹
	Beckman Coulter Inc.	Measuring & Control Instruments	2,400 ¹
	Toshiba Corp.	Computers & Electronics	1,300 ¹
	Kingston Tech Corp.	Semiconductor & Electronic Components	1,000 ¹
	Parker Hannifin Corp.	Machinery Manufacturing	1,900 ¹

Sources: ¹2003 Orange County Business Directory.

²Orange County Progress Report 2002.

³Orange County Business Council, Top 50 Orange County Employers 2002.

products. These establishments are usually described as plants, factories, or mills, and characteristically use power driven machines and materials handling equipment.

Manufacturing also has a large share of employment in California and the United States. Manufacturing outnumbers its goods-producing counterparts in construction and mining by a 3:1 ratio and also represents about 14% of all employment covered by unemployment insurance nationally.

Employment in the manufacturing industry is distributed between durable and non-durable goods. In Orange County, the employment distribution is concentrated among a few groups, each holding a sizeable share of employment. The largest employers are computer and electronics manufacturers, which account for roughly 45% of all durable goods manufacturing, followed by textile and apparel, and printing activities, which hold 37% and 29% of the non-durable goods sector respectively (Table 2, see page 3; Figure 3).

The vital role of the high-technology sector in Orange County's economy is evident by its sheer magnitude and share of total manufacturing. Computer and electronics manufacturing is the largest of all durable goods produced in the County, and it is dominated in particular by the manufacturing of semiconductors and control instruments (Figure 4). According to the BLS figures, in December 2002, semiconductors and instrumentation manufacturing employed roughly 15,100 and 14,700 employees, respectively. However, this large number of high-tech employment is not indicative of the struggles experienced in this industry.

Overall, the high-tech sector has experienced a steady decline in

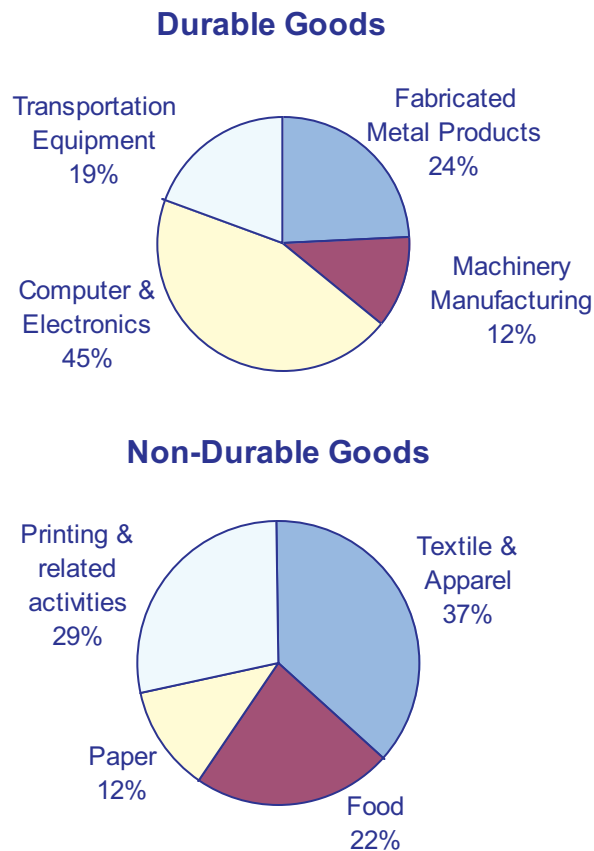
jobs over the course of the last two years (Figure 5). The most drastic decline has occurred in the semiconductors sector, which has stagnated due to declines in business spending and overall consumer confidence. Other portions of the high-tech sector have also suffered declines, albeit not as drastic.

GOVERNMENT

The next industry of interest is government and its role in Orange County. The government sector is a significant source of employment and currently employs 11% of the County's labor force. Nationally, the government sector is very large and occupies 16% of total employment, roughly similar in magnitude to the manufacturing industry. However, the differential between these two divisions in Orange County is greater.

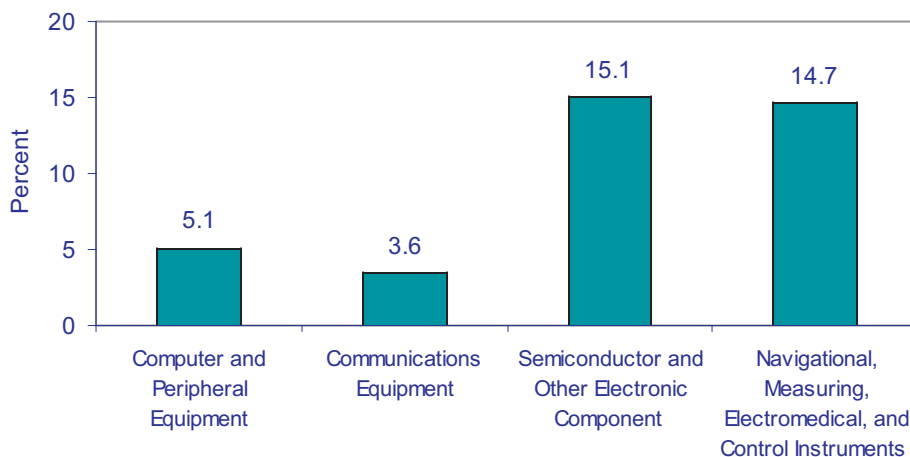
The government division includes the executive, legislative, administrative, and regulatory

**Figure 3
Durable and Non-Durable
Manufacturing Goods
Orange County, 2002**



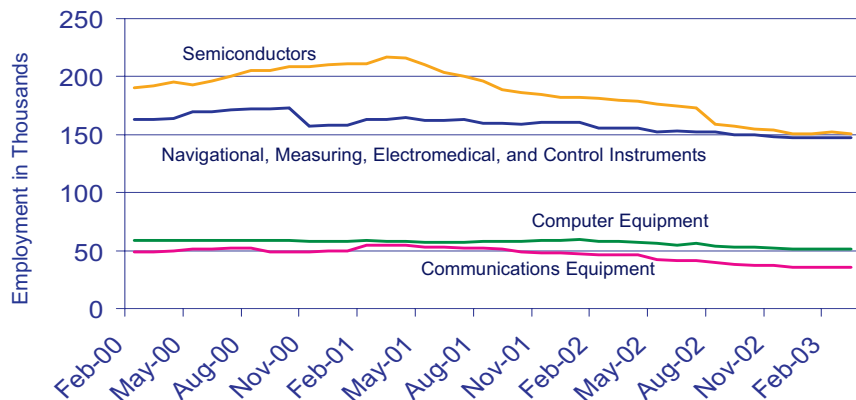
Source: U.S. Bureau of Labor Statistics, 2002.

**Figure 4
High-Tech Manufacturing Employment by Product Type
Orange County, 2002**



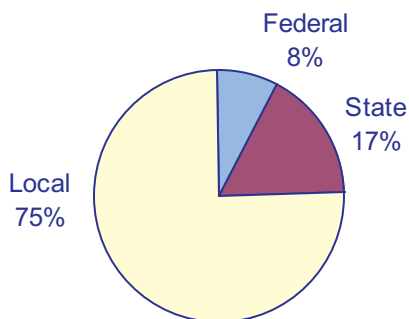
Source: U.S. Bureau of Labor Statistics, 2002.

Figure 5
High-Tech Employment Trend by
Orange County, 2000-2003



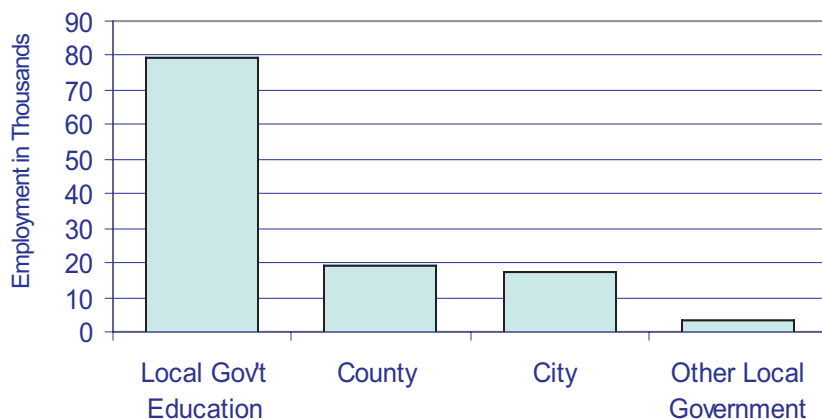
Source: U.S. Bureau of Labor Statistics, 2002.

Figure 6
Government Employment
Orange County, 2002



Source: U.S. Bureau of Labor Statistics, 2002.

Figure 7
Local Government Employment
Orange County, 2002



Source: U.S. Bureau of Labor Statistics, 2002.

activities of Federal, State, and local governments. Government owned and operated establishments such as postal services and secondary educational institutions are classified according to the activity in which they are engaged.

In Orange County, three-quarters of government jobs are in local government (Figure 6). Almost 80% of local government activities are local education jobs that include local school districts that manage K-12 education (Figure 7). This is a reflection of the national picture, where education employment makes up about 45% of total government work. [For more information on Orange County's education system, see Vol. 8, No. 1, March 2003 of the *Orange County Profiles*.]

FINANCE, INSURANCE, AND REAL ESTATE

Finance, insurance, and real estate, also known as the FIRE industry, combined are the fifth largest industry in Orange County with 113,600 workers reported by the BLS in 2002 (8% of total employment). This share is close to the industry's position in the State of California and in the U.S. In California, the FIRE industry accounts for 6% of total state employment, while nationally, it is the fifth of nine industries with about 6% of all employment.

The finance group includes depository and non-depository credit institutions, holding companies, and other investment companies. The insurance group includes carriers of all types of insurance, insurance agents, and brokers. The real estate group includes owners, lessees, buyers, sellers, agents, and developers of real estate. The operational builders of real estate do not appear in this division and are listed under the construction industry.

As Figure 8 shows, FIRE is evenly distributed among its three major groups. The largest number of employees is in the finance group with 39% of all FIRE jobs. Financial institutions have a significant presence in Orange County and are divided into three categories: depository and non-depository credit intermediation and

financial investment activities. Depository credit intermediation establishments are those that issue credit and hold monetary deposits, such as commercial banks and credit unions. Non-depository credit intermediation includes credit card issuers that do not hold monetary deposits, such as sales financing, or credit card issuing institutions. Lastly, financial investment entities include those associated with securities, commodities, or any other investment related activity and include brokerage houses, exchanges, and custodial services.

CONSTRUCTION

Construction is the sixth largest industry in the County and employs roughly 6% of the labor force (77,500). Nationally, this industry makes up only 5% of employment, but it represents twice the share of establishments at 10%, indicating a relatively low establishment-to-employee ratio. This is merely a consequence of many sub-contractors with few employees.

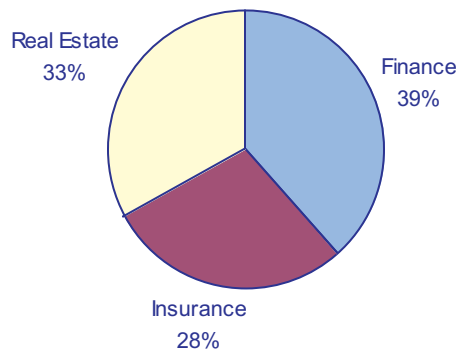
This industry is divided into three major groups: buildings, heavy and civil engineering, and specialty trades (Figure 9). The buildings sector includes general contractors and builders engaged in the construction of residential, farm, industrial, commercial, or other buildings. The heavy and civil engineering sector, on the other hand, includes the construction of infrastructure items such as highways, streets, bridges, tunnels, and power lines. The specialty trades sector includes the individual parts of the construction process such as painting, electrical, and plumbing.

Specialty trades lead the construction industry with more than twice the total jobs in buildings and civil engineering. This relatively high labor intensity of the specialty trades sector can be attributed to the fact that these jobs are not only used in the initial construction, but also in the maintenance of the properties thereafter.

TRANSPORTATION & PUBLIC UTILITIES

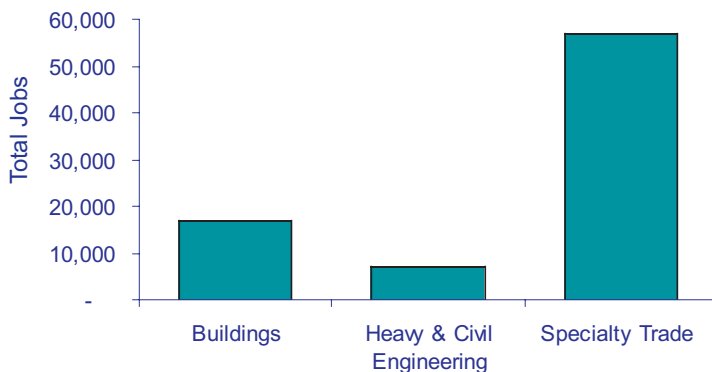
Transportation and public utilities is the smallest of the industries discussed in this issue and represents roughly 2% of the Orange County labor force (27,300

Figure 8
Employment Distribution in Finance, Insurance, and Real Estate Industry, Orange County, 2002



Source: U.S. Bureau of Labor Statistics, 2002.

Figure 9
Construction Industry Employment Distribution Orange County, 2002



Source: U.S. Bureau of Labor Statistics, 2002.

jobs). It has 5% of total national employment and 3% of total California employment. This industry covers establishments that provide passenger and freight transportation, communications services, electricity, gas, steam, water, and sanitary services to the general public and to businesses. All postal service establishments are included in this industry.

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