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San Joaquin County Employment Landscape



In 2007, the average weekly wage of a job in San Joaquin County was \$729, 25% less than the California average of \$972 per week.

In this issue of the Regional Analyst, we describe the San Joaquin employment landscape and its distinctive characteristics. First, we look at the distribution of local employment across sectors and how it has changed over time. Second, we look at wages across sectors, how they have changed over time, and how wages compare to the rest of the state. Next, we focus on a few key sectors that distinguish San Joaquin employment by their large presence or absence. Finally, we consider the future, identifying sectors that are likely to grow as well as those that have potential for further development.

INDUSTRY MIX

Following the same trend as the U.S. and state economies, San Joaquin County employment has been shifting to services over time. Moving from producing goods to services is a normal progression as an economy develops. Demand for services increases as incomes rise. Goods producing sectors such as agriculture

and manufacturing become less labor intensive as technology advances. Finally, globalization has led to increased imports of manufactured goods, although imports have fallen substantially during the current recession.

Since 1990, the service sector has increased from 70.5% to 77.5% of San Joaquin County's jobs. San Joaquin County is more service oriented than areas further south in the San Joaquin Valley, where agriculture has a more dominant role in the local economy, but is less service oriented than most of California. Services account for more than 82% of jobs across the state of California.

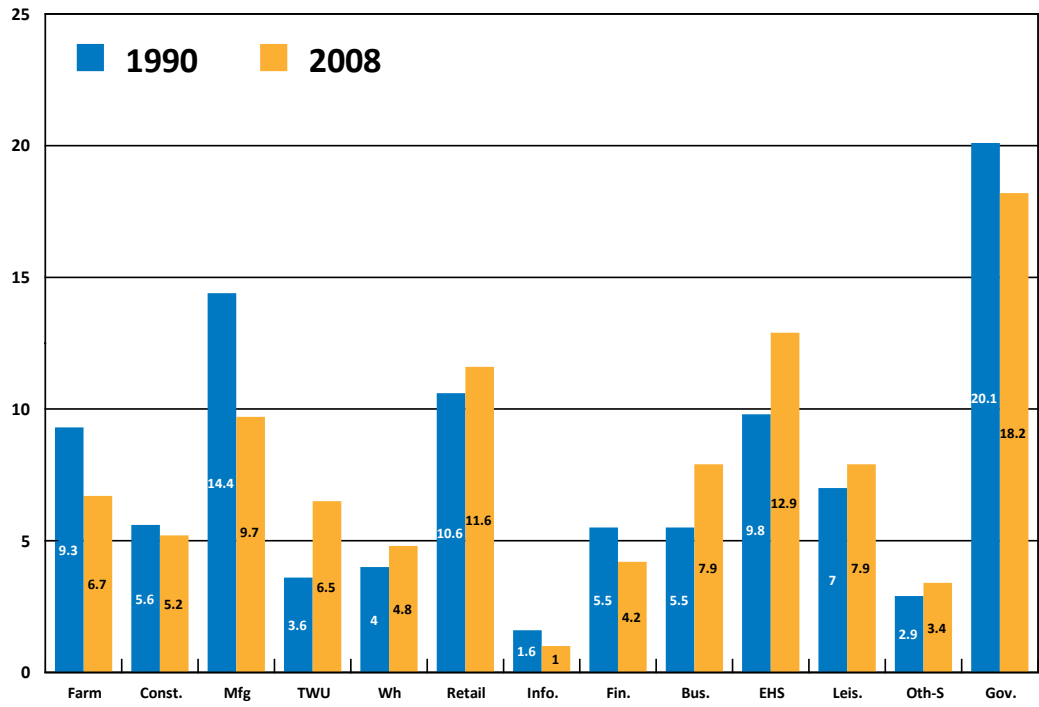


Figure 1 breaks down the shift from goods to services by sector. Within the goods sector, there has been a substantial decline in the share of jobs in farming and manufacturing. The share of jobs in construction changed little from 1990 to 2008, although it has fluctuated dramatically over time. Within the services sector, education and healthcare, business services, wholesale and retail trade, and transportation, have grown substantially; while the government share (including public education) declined from 20.1% to 18.2% of the County's jobs.

Figure 2 illustrates the fastest and slowest growing sectors in San Joaquin County over the past 18 years. Education and Health Services added the most private sector jobs, nearly 10,000 in healthcare and a little more than 2,000 in private educational services. The growth in Healthcare mirrors national trends and follows from population growth. Transportation and Warehousing is the most distinctive change in the San Joaquin County employment picture. Once a relatively small sector, over 8,000 jobs have been added, growing nearly 5% per year. This far outpaces the growth of this sector in California and reflects a shift of many transportation and warehousing activities to San Joaquin County from the Bay Area. The growth in professional and business services has been concentrated in administrative services, most notably the addition of thousands of jobs in temporary staffing agencies during the 1990s. Manufacturing has lost the most jobs in San Joaquin County over the past 18 years, but at a significantly slower rate than the state of California and U.S. Farm employment has been flat for two decades. Growth in government employment has been slow relative to population growth, and can be largely attributed to the small presence of state government jobs in the County.

Figure 3 breaks down the industry shift into three periods with distinct job

Figure 1. Employment Share by Industry 1990 vs. 2008 (%)



Source: California Employment Development Department (EDD)

Figure 2. Annual Job Growth by Industry, San Joaquin County and California

Industry	1990-2008 Annual Job Growth			
	San Joaquin County		California	
	%	Jobs	%	Jobs
FAST GROWING INDUSTRIES				
Transportation, Warehousing & Utilities	4.8%	8,200	1.0%	80,300
Professional & Business Services	3.6%	8,200	2.3%	740,800
Educational & Health Services	3.1%	12,000	2.4%	606,800
Other Services	2.6%	2,800	1.2%	98,200
Wholesale Trade	2.4%	3,700	1.4%	156,000
Leisure & Hospitality	2.3%	5,800	2.0%	465,500
Retail Trade	2.0%	7,700	0.7%	197,100
SLOW GROWING INDUSTRIES				
Information	-0.9%	-400	1.1%	82,700
Manufacturing	-0.7%	-2,900	-1.8%	-539,000
Farm	-0.3%	-700	0.4%	27,300
Financial Activities	0.0%	0	0.2%	28,000
Government	1.0%	6,500	1.1%	444,500
Construction	1.0%	1,900	1.1%	140,900

Source: California Employment Development Department (EDD)

growth patterns: 1) the 1990s, 2) current decade before the housing peak (2000-05), 3) recent years since the housing peak (2005-08). Overall, there was no total job growth in San Joaquin County between the housing peak in 2005 and 2008, and the recession has pushed the current level of jobs down to 2004 levels. Transportation and Business Services were the fastest growing sector in the 1990s with annual growth exceeding 6%, and Construction took over as the growth sector from 2000-05 as annual job growth exceeded 7% before collapsing in recent years. Education and Healthcare have had a more steady growth pattern over time.

Looking at the declining sectors, it is worth noting that Manufacturing has stabilized in recent years. The decline in farm jobs occurred after 2000, and is attributed to shifting crops, technology, and rapid housing development which redirected both land and labor from the farm sector. Interestingly, farm employment has stayed flat in San Joaquin County since the housing peak, whereas farm employment has grown in most of the state since 2006.

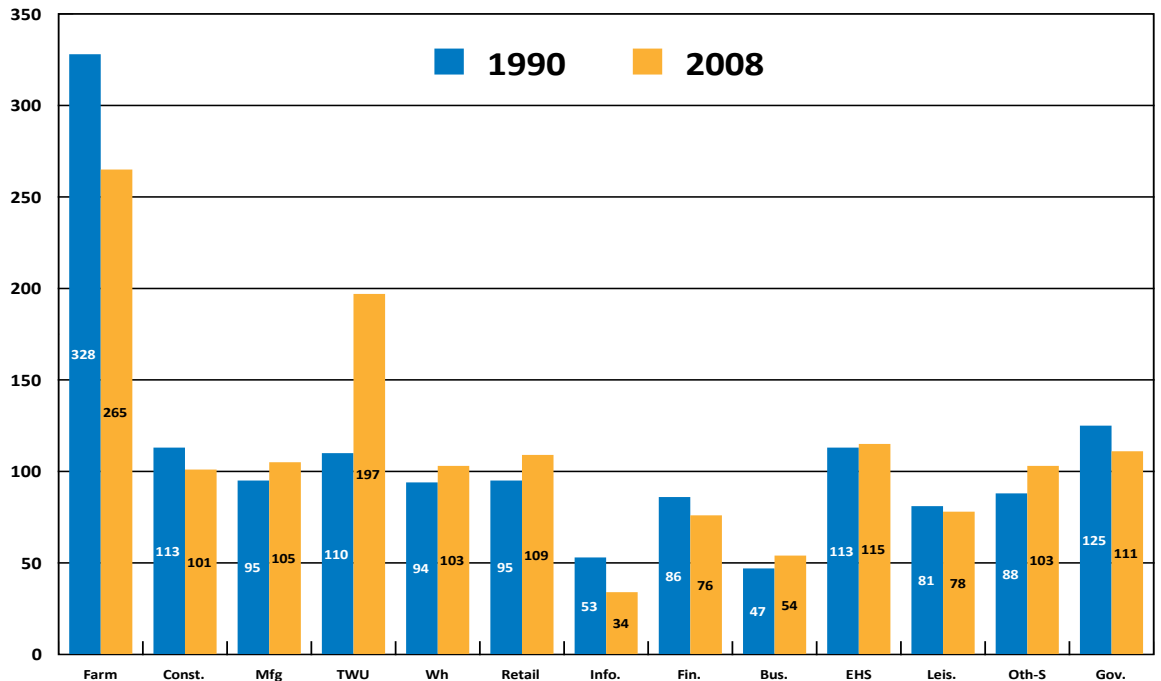
Figure 4 illustrates employment location quotients for San Joaquin County compared to California. Location quotients compare the employment share in a given region to the average share across a larger region such as a nation or state, and are the most

Figure 3. San Joaquin County Job Growth by Industry (% Growth Annual Rate)

INDUSTRY	1990-2000		2000-2005		2005-2008	
	%	Jobs	%	Jobs	%	Jobs
All Jobs	1.9%	34,300	1.8%	18,400	0.0%	0
Farm	0.7%	1,100	-1.9%	-1,500	-0.7%	-300
Construction	2.0%	2,100	7.6%	5,100	-11.9%	-5,300
Manufacturing	0.2%	400	-3.3%	-3,800	0.8%	500
Transportation, Warehousing & Utilities	6.7%	5,600	2.1%	1,300	3.2%	1,300
Wholesale Trade	-0.6%	-400	7.3%	2,700	4.9%	1,400
Retail Trade	2.8%	5,700	2.7%	3,300	-1.6%	-1,300
Information	1.1%	300	-2.8%	-400	-4.0%	-300
Financial Activities	-0.9%	-800	2.9%	1,300	-1.7%	-500
Professional & Business Services	6.2%	7,600	1.5%	1,300	-1.3%	-700
Educational & Health Services	2.9%	5,500	3.1%	3,600	3.6%	2,900
Leisure & Hospitality	2.1%	2,700	3.5%	2,700	0.8%	400
Other Services	2.1%	1,100	1.6%	500	5.9%	1,200
Government	0.9%	3,200	1.4%	2,600	0.6%	700

Source: California Employment Development Department (EDD)

Figure 4. San Joaquin County Location Quotient 1990 vs. 2008



Source: California Employment Development Department (EDD)

Healthcare, Transportation, Warehousing and Wholesale Trade are the County's fastest growing employment sectors.

common measure of an industry's relative importance to a region. A location quotient of 100 means that the local employment share of an industry is the same as the state, and a location quotient of 50 indicates that the local employment share is 50% lower than the state share. The location quotient shows that farming is the distinctive characteristic of the County economy. Although farming is only 6.7% of all jobs in the County (see Figure 1), this share is 2.65 times the California average. Although this is a relatively high agriculture concentration, farming location quotients exceed 600 in the southern San Joaquin Valley between Merced and Kern counties where farming plays a much larger role in the economy. Although significant, the relative importance of farming has decreased over time, especially in the last decade.

The other distinctive sector of the San Joaquin County economy is transportation and warehousing. This sector has been growing for two decades, and the 2008 location quotient of 197 indicates nearly double the concentration of the rest of California. Northern California's transportation and distribution system has shifted east towards San Joaquin County which is positioned to serve the Bay Area to the west, and is centered between the fast growing Sacramento area and San Joaquin Valley. Manufacturing, wholesale and retail trade, and other services (e.g. auto repair, personal services, churches and charities) have all increased in relative importance, although in the case of manufacturing this is primarily because San Joaquin County has declined much less than other areas. Information has declined

even further in relative importance as newspapers decline, and growing information fields (movies and television, software publishing) are located in other parts of the state. Construction and finance are in a cyclical low due to the disproportionately large impact of the housing downturn here. The decline in the relative importance of the government sector is due to declining federal and state government employment in the County and will be discussed in more detail later.

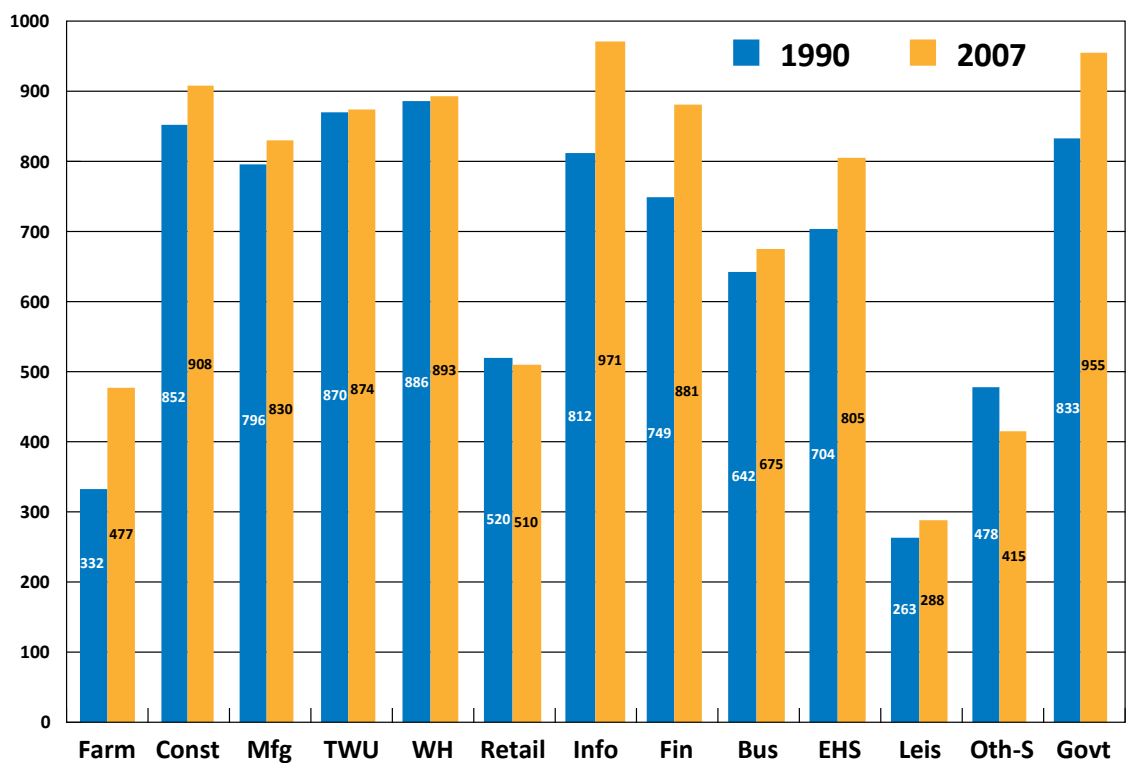
WAGES

In 2007, the average weekly wage of a job in San Joaquin County was \$729, 25% less than the California average of \$972 per week. The wage gap has grown since 1990, when the average San Joaquin County job paid 17.5% less than the state average. To some extent, this increasing gap reflects the growing share of San Joaquin County residents who commute to the Bay Area for higher wages. Providing the commuter population

with services has increased local jobs in lower paying areas such as retail, restaurants, and personal services more than it has increased jobs in higher paying fields such as education and health care. As a result, San Joaquin County household incomes have kept pace with the state even as local wages fell behind. Median household income in San Joaquin County was 14% less than California in 1990, and the gap declined slightly to 12% in 2007.

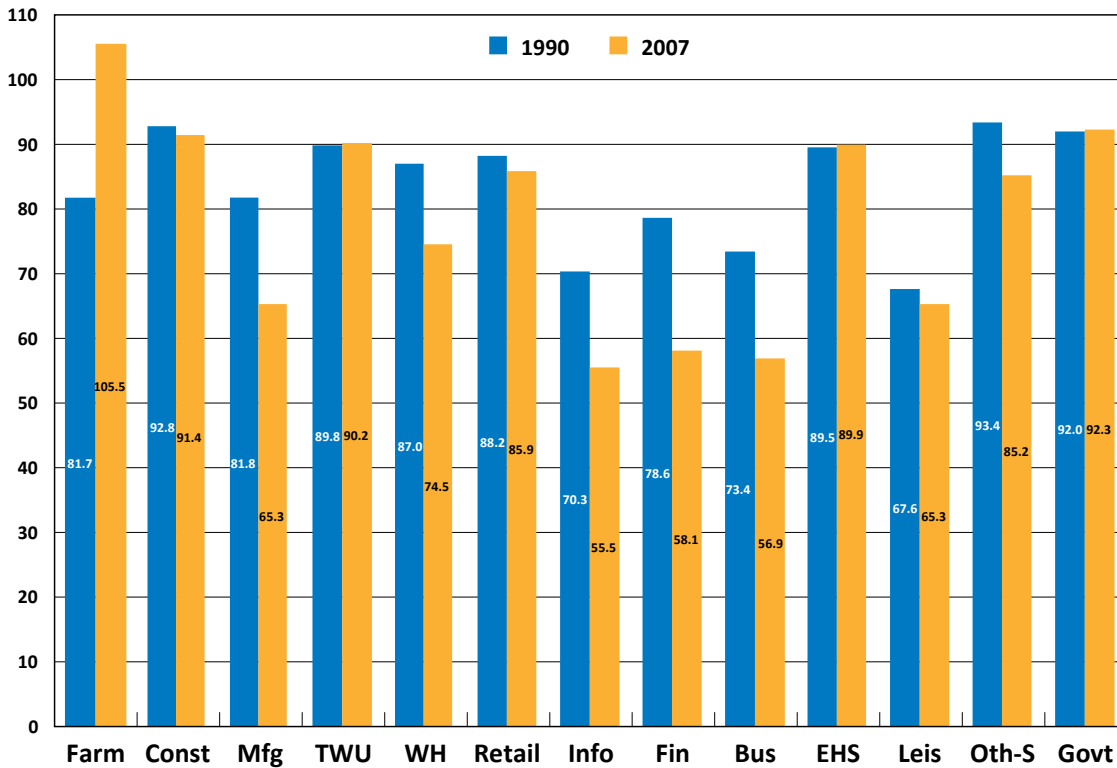
While the employment data in the previous section is for 2008, earnings data is released later and complete data is only available for 2007. Nevertheless, the 2007 data gives a good picture of wage differences between sectors, how they have changed over time, and how they compare to the rest of California. When comparing weekly wages between industries, it is also important to consider differences in part-time and seasonal employment

Figure 5. Average Weekly Wage, San Joaquin County (2007 dollars)



Source: Quarterly Censuses of Employment and Wages (QCEW)

Figure 6. San Joaquin Wages as Percent of California Average



Source: Quarterly Censuses of Employment and Wages (QCEW)

patterns. For example, most farm jobs are seasonal, so an average weekly wage of \$477 does not translate into an annual income of \$24,804 (\$477 x 52 weeks) for the average farm worker. Leisure and hospitality includes many part-time jobs and not all tip income is reported, and this pulls down average weekly wages for this sector.

Figure 5 shows average weekly wages across economic sectors. Information is the highest-paying local sector, but only accounts for 1% of the County’s jobs. Government is the highest paying large sector with an average of \$955 per week, and a majority of these jobs are in public schools. Construction is the only large, private sector with wages above \$900 per week, and this sectors’ recent decline has had a substantial impact on local incomes. Like all areas in the state, the lowest paid employees are in farming, retail, personal services, and leisure

and hospitality, although proprietor income plays an important role and is significantly higher in some of these sectors.

Figure 6 compares San Joaquin County wages to California wages by sector in the same way that location quotients illustrate the employment mix in Figure 4. The most striking data here are the very low wages in finance, professional and business services, and information. These sectors’ wages have declined from roughly 75% of the state average to about 57% today. The state has seen dramatic changes and large salary increases in sub-sectors related to technology, entertainment, high-end professional services and finance that have largely bypassed San Joaquin County. There are a number of sectors

with average wages 8-15% below the state average, roughly comparable to the region’s lower level of household income and cost of living. These sectors include construction, transportation, retail, healthcare, other services, and government. Farming is the only sector that pays wages above the state average, and this has increased substantially from 82% of the state average in 1990 to 106% in 2007.

A CLOSER LOOK AT THREE KEY SECTORS

Manufacturing

As discussed in previous sections, manufacturing employment has

declined less than other areas in California, but average manufacturing wages have fallen further behind the state. These trends are explained by examining manufacturing sectors. One reason San Joaquin manufacturing employment has held up stronger than California in the past twenty years is the lack of aerospace and apparel sectors. The primary reason wages have fallen further behind is the lack of a significant presence in the highest paying fields: computers, electronics, and pharmaceuticals. These high paying fields are closely coupled with research and development within the professional services area (see next section).

Professional and Business Services sector is an underdeveloped sector with significant room for growth in San Joaquin County.

Figure 7 shows location quotients for some important manufacturing sectors. The County's traditional areas of manufacturing strength are in food and beverages, and a variety of sectors closely connected to the Construction sector. About 40% of San Joaquin County manufacturing is in food and wineries; although the food share has declined somewhat over time and the slow growth in winery employment has lagged behind other regions in the state. About 30% of local manufacturing is connected to building materials with location quotients for cement, wood millwork, furniture, plastic pipes, and structural metals all substantially higher than the state average. Transportation equipment emerged as a growth sector in the 1990s, much of it producing auto parts for the NUMMI (Toyota and GM joint venture) plant in Fremont.

Professional and Business Services

The distinctive feature of the Professional and Business Services sector in San Joaquin County is the near absence of several high wage, high growth professions. Similar to Manufacturing, the missing sectors are those with the closest links to science and technology. Employment levels within the lower-wage administrative and business support sectors are only slightly less than the rest of the state. As shown in Figure 7, the 5,000 jobs within professional and technical services is about 1/3 the state level. The majority of these jobs are in legal, accounting, architecture/engineering, corporate management, and veterinary sectors. With the exception of veterinarians, all of these occupations have roughly half the concentration of California. Employment in computer system design, research and development, specialized design, and advertising are almost non-existent within San Joaquin County - only 10-20% of the California level. Employment levels within the lower-wage administrative and business support sectors are only slightly lower than the rest of the state. About 5,000 of

Figure 7. Manufacturing Location Quotient, 1990 and 2007

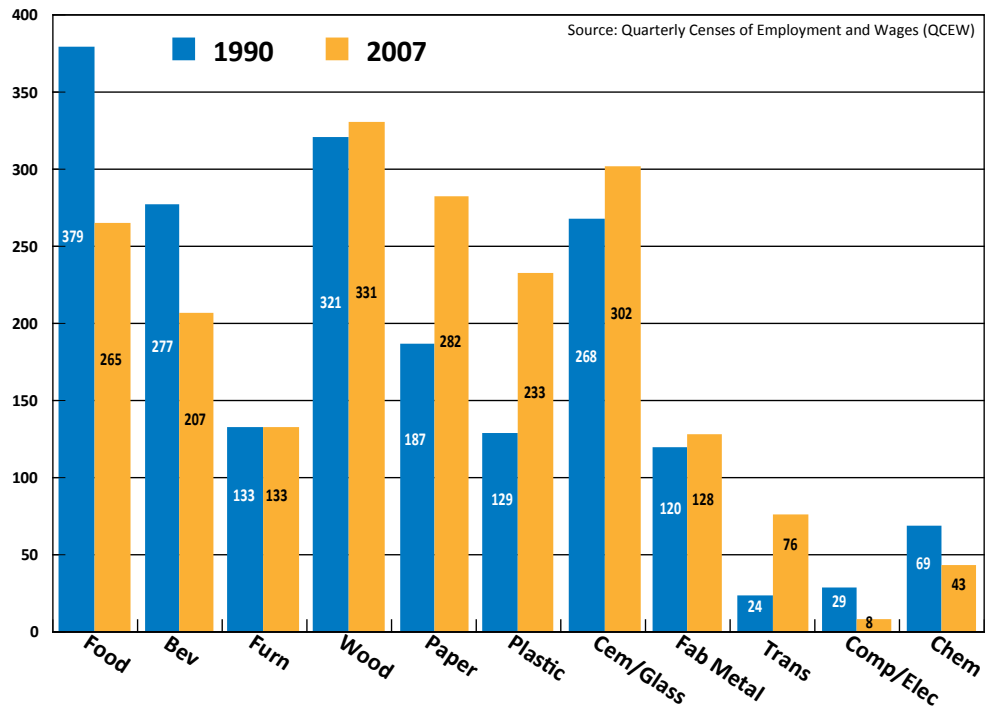
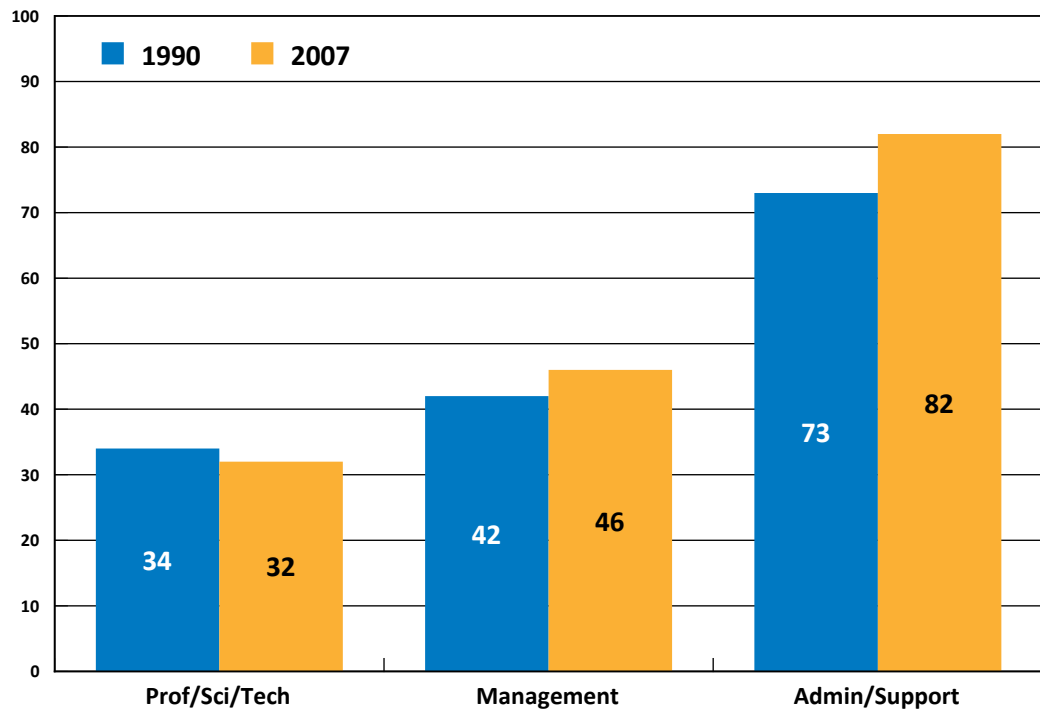


Figure 8. Professional and Business Services Location Quotient, 1990 and 2007



the nearly 12,000 jobs in this sector are with temporary agencies. Most of the other jobs in this sector are in call centers, security services, and landscaping.

Government

In San Joaquin County, government jobs are dominated by K-12 schools,

reflecting the local demographics of a young population and many large families. In the past two decades, the vast majority of new government jobs in San Joaquin County have been in the public school system. As shown on Figure 8, the 6,400 jobs added to public schools over the past 18 years are nearly

Figure 9. Government Employment Level (Thousands), 1990 vs. 2008

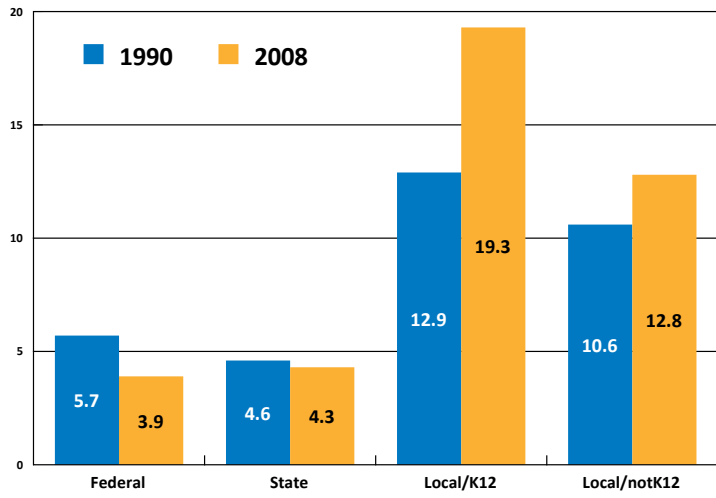
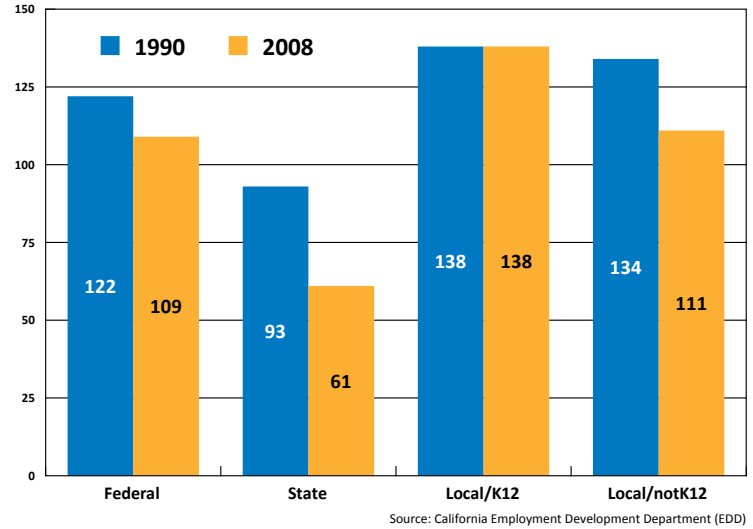


Figure 10. Government Location Quotient, 1990 and 2008



three times the 2,200 jobs added to other areas of local government. Since 1990, school employment increased nearly 50% compared to school enrollment growth of about 35%, so growing education employment can be attributed to both population growth and efforts to improve school staffing such as class size reduction. Figure 9 shows that the K-12 employment share in San Joaquin County has stayed steady at 38% higher than the state average. The large public education employment share reflects local demographics and the large commuter population that works outside the county where their children attend school. Over time, local school system salaries have closed most of the gap with the statewide average, so school employment is a significant share of local incomes. Other local government jobs have increased more slowly. Since 1990, non-education local government jobs have increased 20% compared to population growth of 40%. Similar to schools, the share of non-education local government employment will normally be higher in areas with many out-commuters that have high population relative to the number of jobs. Interestingly, the non-education local government location quotient declined from 134 to 111 since 1990, while the share of out-commuters in the

San Joaquin County workforce increased. Average wages for non-education local government employees are below the state average, although the gap narrowed slightly from 89% of the state average in 1990 to 93% in 2007.

State and Federal jobs have declined over time in San Joaquin County. In state government employment, there is significant employment in Corrections, but an enormous hole from the lack of a state university campus. Since 2000, most state employment growth has occurred within the CSU and UC system and has bypassed San Joaquin County, as indicated by the significant decrease in the state government location quotient over time. With the 2002 opening of CSU-Channel Islands in Ventura County, San Joaquin County is now the largest metropolitan area in California without a public, four year university based within its borders. Similar to other parts of California, federal government employment declined sharply in the 1990s due to military base closings. Nearly half of current federal government jobs within the County are connected to the Postal Service.

CONCLUSION: FORECAST AND OPPORTUNITIES

Over the next two decades, we expect every employment sector in the County to grow except farm jobs. Figure 11 shows the Business Forecasting Center's current long-run employment forecast. Although the prevailing trend for decades has been declining employment in the Goods sector, there is a good chance for some significant growth in this area over the next 5-10 years. The highly-cyclical construction sector will eventually rebound from this downturn, and manufacturing is well-positioned to create a modest number of "green" jobs such as recycled building materials and biofuels. Two other areas hard hit in the current downturn are Retail and Finance (which includes real estate), but both areas should rebound somewhat as the economy recovers. As discussed earlier, the Professional and Business Services sector is an underdeveloped sector in the County

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Figure 11. San Joaquin County Employment Forecast (thousands of payroll jobs)

with significant room for growth. Many other services such as education and healthcare are connected to population growth and will expand accordingly.

Forecasts are useful for understanding trends and opportunities, but are certainly not inevitable outcomes. There are many external forces influencing a regional economy, but in the long-run the vision and creativity of San Joaquin County's citizens will shape these trends into their own future. Dozens of factors go into job creation, but certain key issues are emerging as most critical to the future of San Joaquin County. First, continued investment in transportation infrastructure is important to fully take advantage of the region's location advantage and sustain some of the current, positive trends. Second, construction employment will recover, and will play a critical role in job creation across other sectors. Job creation will be enhanced if new development allows the County to maintain recent gains in

Industry	2010	2015	2020	2025	2030
Farm	15.0	14.7	14.5	14.3	14.1
Construction	9.5	13.6	15.4	17.1	19.4
Manufacturing	19.5	21.2	21.5	21.5	21.4
Wholesale Trade	9.8	10.5	11.1	11.7	12.1
Retail Trade	24.9	27.5	29.4	31.2	33.1
Transportation and Warehousing	14.0	17.1	19.8	22.0	24.1
Information	2.1	2.1	2.3	2.5	2.7
Financial Activities	9.1	10.4	10.2	10.2	10.2
Professional & Business Svcs	16.2	21.4	25.4	29.4	34.0
Educational & Health Svcs	29.3	32.6	35.7	38.4	41.0
Leisure & Hospitality	17.1	18.9	20.5	21.9	23.7
Other Services	7.5	7.3	7.5	7.9	8.3
Government	40.0	42.4	44.9	47.0	49.3
Total Payroll Employment	214.0	239.8	258.0	275.1	293.4

Source: Business Forecasting Center

affordability, but must be planned to minimize impacts on the transportation system and agricultural base. Finally, the data in this report clearly shows the

importance of improving educational attainment in creating and attracting higher-skilled and higher-paying jobs to San Joaquin County.



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