

Roots of Performance:

An Examination of Merced County's Economic Base

**A Report Prepared for the
Merced County Board
of Supervisors**

by the

**Center for Public Policy Studies
at
California State University, Stanislaus**

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Preface

In June 1999, the Merced County Board of Supervisors commissioned the Center for Public Policy Studies at California State University, Stanislaus to prepare a comprehensive study of critical demographic, labor market, economic base, and socioeconomic trends in the County. The purpose of the study was to analyze the trends that would assist the Supervisors in appraising local conditions and crafting public policies to improve economic conditions. The principal report containing the comprehensive data and analysis is entitled *Strategic Choices: Creating Opportunity in Merced County*.

Roots of Performance: An Examination of Merced County's Economic Base is a companion report that contains the results of an analysis of a computer generated input-output model of Merced's economy and of location quotients. This is a technical report that provides a detailed description of the industrial structure of the county.

I wish to thank the many individuals in Merced County who took time to answer questions and provide information. I would also like to thank the members of the Board of Supervisors, the County Administrator, and the members of Worknet for facilitating this study. Finally, I would like to thank those at the Center for Public Policy Studies at California State University, Stanislaus for their help: Ken Entin and Steve Hughes for their help editing and revising the report and Julie Smulson for the many things she did to make this project easier.

This report is available at the Center's website, www.csustan.edu/cpps

Summary

Roots of Performance: An Examination of Merced County's Economic Base presents the results of an analysis of Merced County's economic base and is a companion report to *Strategic Choices: Creating Opportunity in Merced County*.

The analysis is based on data from two sources: an input-output modeling program called IMPLAN Pro™ and ES202 Employment and Earnings reports from the U.S. Bureau of Labor Statistics. Inconsistencies between the data sets are the result of different data definitions and data collection techniques. The significant differences will be explained as the data are presented.

The focus is on Merced County's economic structure. To give contextual meaning to the analysis, the County also is compared to the nation, state, San Joaquin Valley and Fresno, Madera, Stanislaus, San Joaquin, and Santa Clara Counties.

The input-output model employed in this study traces the flow of goods through the economy. By connecting industries in terms of supply and demand linkages, it is possible to assess key features of the region's economic structure. Among the indicators examined are gross region product, industry output, employment levels, earnings and compensation levels, net exports, and a variety of multipliers

The ES202 data are used to calculate location quotients for industries and industry groups in Merced County. These quotients can be used to identify both employment concentrations and base sectors. Like the data on employment growth and earnings, location quotients provide policy-makers with an important information tool.

An important theme in *Strategic Choices* is divergence, and the economic data presented in this report validate the theme. While the San Joaquin Valley, as a whole, differs from other parts of the state and nation, counties within the San Joaquin Valley, while similar, are not identical.

The following are some of the key results of the analysis contained in the report.

- The gross county product of Merced County in 1996 was \$3.176 billion and the gross county product per capita was \$16,515. The per capita figure was the lowest of all the areas examined.
- Agriculture and manufacturing/food & kindred produced the largest share of total industry output in Merced and were the only industry groups with over \$1 billion in total output.
- Agriculture (19.7%) and manufacturing/food & kindred (22.3%) accounted for larger shares of total output in Merced than they did in the San Joaquin Valley (13.1% & 11%), California (2% & 2.8%), and the United States (2% & 3.4%).
- Services (10%) and finance, insurance, and real estate (F.I.R.E.) (9.7%) accounted for much smaller shares of industry output in Merced than they did in the San Joaquin Valley (15.3% & 12.7%), California (22.3% & 18.3%), and the United States (18.7% & 15.1%).
- Merced was similar to Madera in terms of the share of output from agriculture (19.7% to 23%) and was similar to Stanislaus (22.3% to 21.8%) in terms of the share of output from manufacturing/food & kindred.
- Services accounted for a smaller share of total industry output in Merced County than it did in any of the reference counties.
- Agriculture was the largest industry group in terms of employment in Merced County. It was followed by services, retail trade, and government.
- The percentage of total employment in agriculture in Merced (20.4%) was similar to that for the San Joaquin Valley (19.8%). The percentages were much larger than for either California (3.8%) or the United States (2.9%).
- Manufacturing/food & kindred accounted for a larger share of employment in Merced (8.5%) than it did in the San Joaquin Valley (3.4%), California (1%), and the United States (1.1%).
- Agriculture made up a larger share of employment in Madera County (29.1%) than in all of the other reference counties. Merced (20.2%) and Fresno (20.4%) were next in terms of the share of employment in agriculture.
- Manufacturing/food & kindred accounted for a larger share of total employment in Merced (8.5%) and Stanislaus (7.8%) than in any of the other counties.
- Job growth did occur in Merced when government employment was not included in the analysis. When government employment was included there was little or no job growth from 1992 to 1996.

- Manufacturing/food & kindred and retail trade were strong growth industry groups for Merced.
- Government's share of total employment dropped dramatically during the period from 1992 to 1996. As a result employment shares in the other industry groups rose during this same period.
- Shares of industry employment were much more stable in all of the reference areas from 1992-1996.
- Only Madera (\$19,466) had a lower average payroll level than Merced (\$21,167).
- Transportation & public utilities had the highest payroll levels and was followed by government, manufacturing/food & kindred, and manufacturing/other.
- Agriculture had the lowest payroll levels; this was followed by retail trade, services, and mining & construction.
- Agriculture and manufacturing/food & kindred combined for over \$1 billion in net exports.
- In terms of detailed industry sectors, 14 of the top 20 net exporting sectors were part of the agriculture or manufacturing/food processing industry groups.
- The services group was a net importer as a whole and within the group health services was notable as a net importer.
- Retail trade, government, and services employed the largest number of people per level of output. These sectors will add jobs as the population of the county increases.
- The manufacturing sectors and transportation & public utilities had the largest employment multipliers. Whenever new jobs are created in these industries in Merced, their impact will be greater than in any other industry sector.
- Industries within manufacturing/food & kindred and manufacturing/other had strong growth relative to the county and the United States between 1992 and 1997 and paid above average wages in the county.
- Industries within agriculture had strong growth relative to the county and the United States between 1992 and 1997 but paid below average wages in the county.

Introduction

Roots of Performance is a technical report on the economic structure of Merced County, and serves as a companion document to *Strategic Choices: Creating Opportunity in Merced County*. What distinguishes this report is that it provides more detailed and comprehensive information on the County's economic structure. It is intended for those who work most directly on economic development matters.

This report relies on computer generated input-output models of the Merced County economy and those of the nation, state, San Joaquin Valley and five reference counties: Fresno, Madera, San Joaquin, Stanislaus, and Santa Clara. These models highlight important measures of economic structure, including gross county product, total industry output, employment, earnings, net exports, and multipliers.

Additionally, ES202 data from administrative surveys of business establishments are used to calculate location quotients for Merced County. By comparing local and national employment concentrations at a relatively fine level of industry detail, it is possible to identify both sources of County strength and the character of the underlying economic structure.

The analysis of the economic base of the county using the computer model and the location quotients complement each other quite well.

Input-Output Models

Input-output models trace the flow of goods, services, and resources within an economy¹. Businesses in any economy hire labor and combine it with other resources and raw materials to create and sell goods and services. Other firms use some of the production of these firms in order to produce other goods and services. Final users of the goods and services, such as households and governments, may also purchase items directly from businesses within the local economy.

¹ For the purposes of I-O modeling the term economy can refer to an area that includes a nation or group of nations. It can also refer to a city or county economy. For this study the term economy usually refers to a county economy. Anything done in the economy takes place in the county while anything outside the economy is outside the county. There is one model of a three county economy, which is referred to as 'Region'.

Some of the goods and services may also be sold to consumers outside of the region. These exports are important because they provide an injection of income into the local economy.

Not all of the goods, services and raw materials used in a region come from that region. Both business firms and final consumers will make purchases from local vendors, but they also acquire goods, services, and raw materials outside the region. The latter may be the result of inadequate local production of the products purchased locally. This importing behavior is important because it serves as a leakage of income from the local economy.

The logic of an input-output model can be understood by describing the concept using the manufacturing/food & kindred industry group. Firms within this industry group use labor from households and buy raw materials and other resources from firms outside and inside the region. In addition to buying from firms in other industry groups, firms within manufacturing/food & kindred sell some of their output to firms in other industry groups that will be used to produce some other good or service. A portion of the output of the manufacturing/food & kindred sector will go to final consumers within the region. In addition, the manufacturing/food & kindred sector sells and exports some of its output to producers and consumers in other regions.

In this example, firms that are part of manufacturing/food & kindred purchase raw materials such as fruit and vegetables from farmers, transportation services from trucking companies, and containers from can and jar makers. These are just three of the industries from which firms in the manufacturing/food & kindred sector buy inputs. Firms in this industry group may also buy supplies from firms outside the region, which are classified as imports.

Firms in manufacturing/food & kindred sell the goods they produce to other firms within the region. Restaurants and hospitals are two sectors that use the products from firms within manufacturing/food & kindred. In addition to selling to other firms in the region, this sector also sells to other firms outside the region. This is represented as exports out of the region.

In addition to sales to other businesses there is a certain level of production for final consumption. Final consumption is the purchase of goods and services by households,

businesses, and governments. These items are purchased and not used in the production of anything else. Households buy goods and services from local firms, but will also buy goods and services that were produced outside the region. Items purchased from outside the region by households are also shown as imports.

The IMPLAN ProTM software

The I-O models used for this study were created by the IMPLAN ProTM input-output modeling software. The IMPLAN software was originally created by the U.S. Forest Service. The version used for this study is IMPLAN ProTM and is created and maintained by the Minnesota IMPLAN Group, as is the data set used in this study.

The data used with the IMPLAN ProTM software divides the economy into 528 industry sectors. These sectors can be aggregated in any number of ways and a variety of different aggregation schemes were used for the purposes of this study.

The data set used for this study is created for the IMPLAN ProTM software and comes from a number of different data sources. They include the ES202 report from the Bureau of Labor Statistics, County Business Patterns from the Bureau of the Census, and the Regional Economic Information System Data (REIS) from the Bureau of Economic Analysis in the Commerce Department. The sectoring plan is an adaptation of a number of government methods including the Standard Industrial Classification scheme (SIC), the REIS scheme, and the Bureau of Labor Statistics sectoring system.

Input-output data can be used to create county and regional economic models. In this report, models were created for Merced, Fresno, Madera, Stanislaus, San Joaquin, and Santa Clara Counties, the San Joaquin Valley, the state of California, and the United States.

The data sets are available for any county in the United States. The Center for Public Policy Studies at California State University, Stanislaus currently has 1992, 1994, and 1996 (the most recent) data for all counties in California. Models of Merced and all of the reference areas were created for each of these periods.

Gross County or Region Product

Gross county product (GCP) and gross region product (GRP) are similar to the idea of gross domestic product in that they are estimates of the dollar value of goods and services produced for final consumption. This means that the estimate does not include the dollar value of goods that have been produced but will undergo further processing. The value of these intermediate goods will be included in the value of the final product. One way to calculate GCP and GRP is to add up all consumption, investment, government spending, and net exports while a second method is to add up income from all sources generated in production.

Table 1 reports the dollar value estimates of GCP for Merced County and the reference counties for the study. It also reports the estimated GRP for the entire San Joaquin Valley. Gross county products as a percentage of the GRP of the San Joaquin Valley are presented in Table 2. Not all of the counties that make up the San Joaquin Valley are listed so the percentages will not sum to 100%.

Table 1: Gross County and Gross Region Product, 1996*

Region	GCP or GRP
Merced County	\$3,176,043,000
Stanislaus County	\$8,474,153,000
Fresno County	\$16,316,756,000
San Joaquin County	\$10,967,271,000
Madera County	\$1,888,361,000
Santa Clara County	\$84,544,683,000
San Joaquin Valley	\$64,813,178,000

*Source: MIG, IMPLAN Pro™

Table 2: GCP as a Percentage of San Joaquin Valley's GRP, 1996

Region	1996 Percent of Total Valley GRP
Merced County	4.9
Stanislaus County	13.0
Fresno County	25.1
San Joaquin County	16.9
Madera County	2.9

*Source: MIG, IMPLAN Pro™

These tables show that Merced County, while not the smallest county in the group, does have one of the smaller economies. This is something one should keep in mind when reading the report. Because Merced County has a smaller economy, it will have a less diverse industry and employment structure. One result of this will be lower multiplier levels. In effect, the County will have fewer companies and industries that make up the supply and demand linkages that help determine the size of the multipliers.

Merced has the lowest per capita and per household GCP of all the reference areas. These values are calculated by dividing the gross county product by the total county population and total number of households respectively. The low levels for Merced County are at least partially explained by the age characteristics of the County relative to the other areas. As illustrated in *Strategic Choices*, Merced County has a very young population. This means that GCP is spread out over a large number of people who are not old enough to be engaged in the production of goods and services.

Table 3: GCP and GRP per Capita and per Household, 1996*

Region	GCP or GRP per Capita	GCP or GRP per Household
Merced County	\$16,515	\$47,428
Stanislaus County	\$20,381	\$58,530
Fresno County	\$21,719	\$62,372
San Joaquin County	\$20,561	\$59,048
Madera County	\$17,092	\$49,085
Santa Clara County	\$52,853	\$151,784
San Joaquin Valley	\$20,980	\$60,251

*Source: MIG, IMPLAN Pro™

Industry Structure

This section examines the industrial structure of the Merced County economy. The first set of tables and figures present industry output of Merced County in both dollars and percentages of total output. This is followed by a series of comparisons to a number of reference areas. Much of the data presented in this section of the report come from a number of input-output models developed using the IMPLAN Pro™ software. This software uses a database that breaks industries into 528 separate industry groups. Few, if any, counties have the full complement of

528 sectors. The table below lists the various reference areas along with the number of industry sectors that exist in each county and for the San Joaquin Valley region.

Table 4: Industries in Region, 1996*

Region	Number of Industries
Merced County	196
Stanislaus County	285
Fresno County	320
San Joaquin County	291
Madera County	171
Santa Clara County	386
San Joaquin Valley	422

*Source: MIG, IMPLAN Pro™

The starting point for describing the economic structure of Merced County is to look at the output levels of each industry group. Figure 1 shows just how important agriculture and manufacturing/food & kindred are to the Merced County economy, accounting for 42% of the County's total industry output in 1996. These estimates are based on information generated using the IMPLAN Pro™ input-output modeling program. Industry output includes all production by an industry including goods and services produced for final and intermediate consumption. These two sectors were followed by manufacturing/other and services in terms of total industry output (TIO). Both agriculture and manufacturing/food & kindred each produced more than \$1 billion of output (Figure 2). These are just the first of many tables and graphs that will show the important contributions of these two sectors to the economy of Merced County.

Figure 1: Industry Output as a Percentage of Total Industry Output for Merced, 1996
 Source: MIG, IMPLAN Pro™

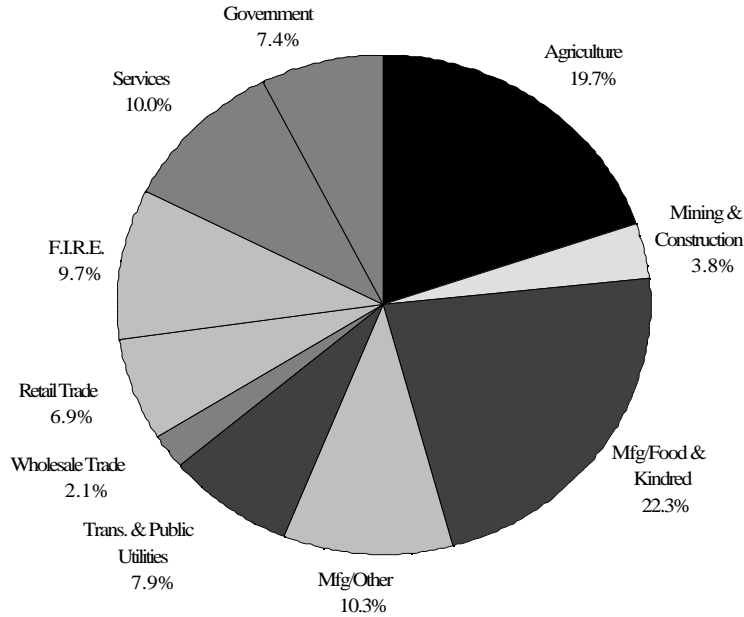
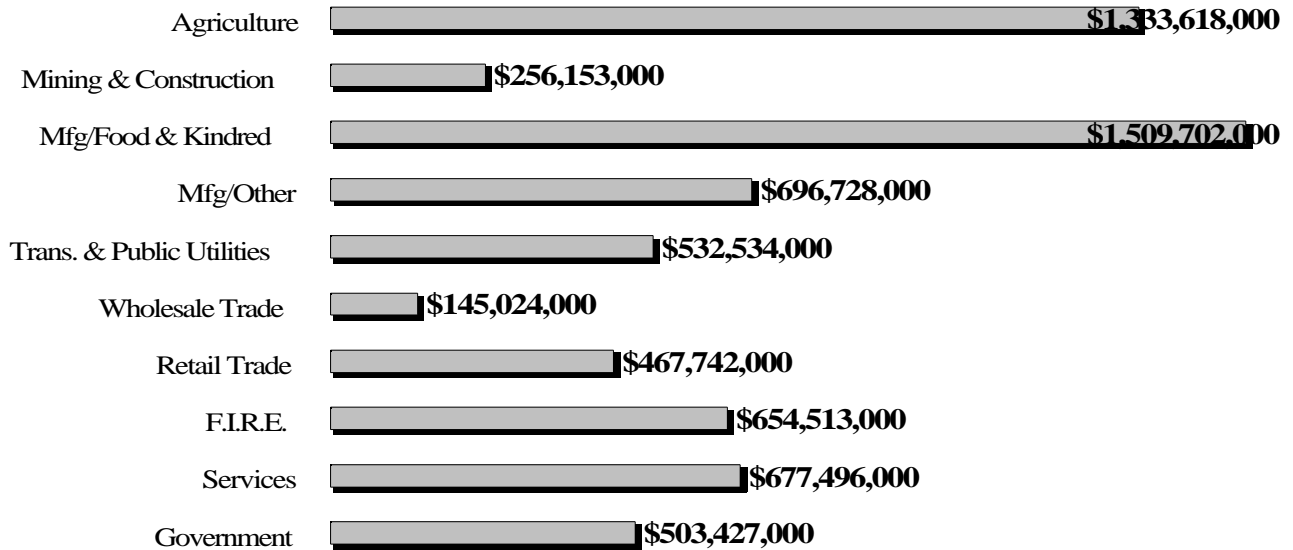


Figure 2: Industry Output for Merced County, 1996 Source: MIG, IMPLAN Pro™

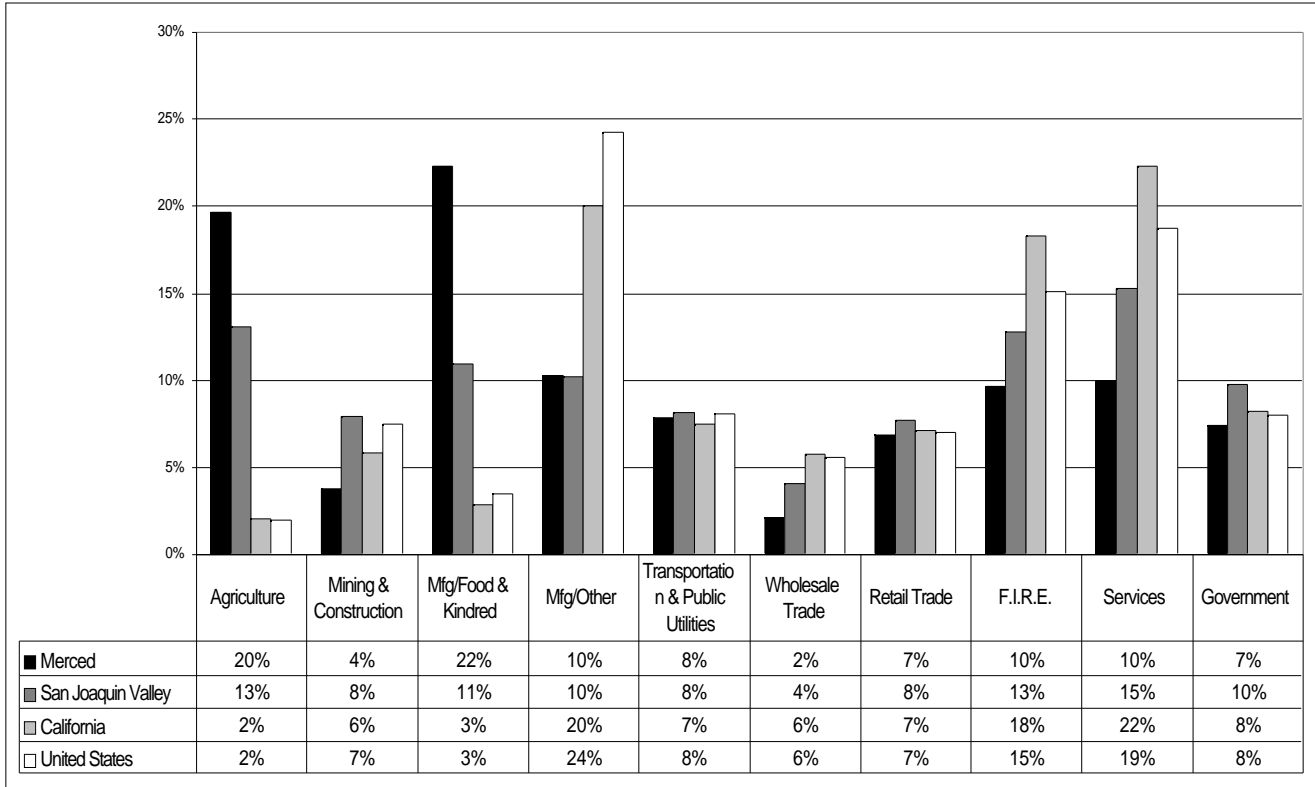


It is apparent from Figure 3 that California and the nation are quite similar to one another and both are quite different from the San Joaquin Valley. It also shows that Merced County is similar to the rest of the San Joaquin Valley but not identical to it. In general, the San Joaquin Valley produces much more agriculture and agriculturally related products. Services and F.I.R.E. are not as significant in the Valley as they are in California and the nation.

While the San Joaquin Valley is different from the state and nation, there also are some striking contrasts between Merced County and the San Joaquin Valley taken as a whole, California, and the United States. Agriculture and manufacturing/food & kindred are much more important to Merced than the other regions. Industry output in these two sectors accounted for over 40% of TIO in Merced and about 25% for the San Joaquin Valley in 1996. These two sectors accounted for less than 10% of TIO for California and the United States.

Other manufacturing comprised a smaller share of total industry output (TIO) in Merced and the San Joaquin Valley than for California and for the United States. When manufacturing is taken as a whole (food & kindred plus other) it amounted to almost 45% of TIO in Merced, a little over 20% in the San Joaquin Valley, 23% in California, and about 27% in the United States. Wholesale trade, F.I.R.E., and services accounted for smaller shares of TIO in Merced County than in any of the other regions.

Figure 3: Industry Output as a Percentage of Region’s Total Output in 1996 Source: MIG, IMPLAN Pro™



As was indicated by the information above, the counties within the San Joaquin Valley are similar but not identical. In terms of the intra-valley comparisons agricultural production is more important for Merced and Madera than for the other counties. In 1996, agriculture accounted for close to 20% of total industry output (TIO) for Merced and about 23% for Madera. Fresno County is the only other county where agriculture represented over 10% of TIO. Merced and Stanislaus counties were similar in that manufacturing/food & kindred accounted for over 20% of TIO. San Joaquin County is the only other county where this sector contributed over 10% of TIO.

The combination of agriculture and manufacturing/food & kindred accounted for more than 40% of TIO for Merced. None of the other Valley counties had this concentration of TIO in these two industry groups. Services made up 10% of TIO in Merced County. This was the smallest share of TIO of all comparison counties.

It is also clear from the figure that the counties of the Valley are quite different from Santa Clara County. Santa Clara relied very little on agriculture and manufacturing/food & kindred in 1996. Other manufacturing and services accounted for larger shares of TIO in Santa Clara than in the Valley counties.

Figure 4: Industry Output as a Percentage of Total County Output for Selected Industry Groups, 1996 Source: MIG, IMPLAN Pro™

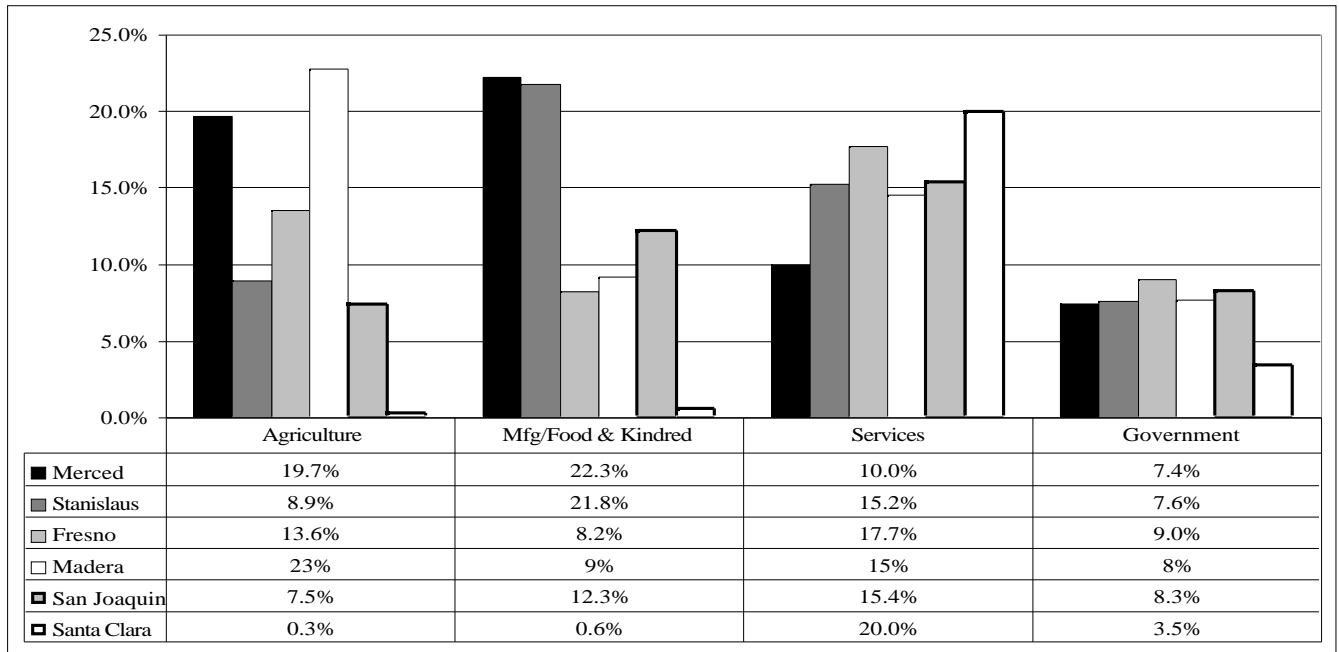


Table 5: Industry Output as a Percentage of Total County Output for All Industry Groups 1996*

Industry	Merced	Stanislaus	Fresno	Madera	San Joaquin	Santa Clara
Agriculture	19.7%	8.9%	13.6%	23%	7.5%	0.3%
Mining & Construction	3.8%	6.3%	6.4%	7%	5.8%	3.8%
Mfg./Food & Kindred	22.3%	21.8%	8.2%	9%	12.3%	0.6%
Mfg./Other	10.3%	12.0%	8.1%	12%	13.2%	43.4%
Trans. & Public Utilities	7.9%	5.0%	9.6%	7%	9.1%	3.3%
Wholesale Trade	2.1%	3.5%	5.0%	4%	4.8%	6.6%
Retail Trade	6.9%	8.0%	7.9%	7%	7.9%	4.8%
F.I.R.E.	9.7%	11.7%	14.4%	10%	15.7%	13.5%
Services	10.0%	15.2%	17.7%	15%	15.4%	20.0%
Government	7.4%	7.6%	9.0%	8%	8.3%	3.5%

*Source: MIG, IMPLAN Pro™

Since industry groups require labor and materials to meet the demand for their products, it is useful to explore the impact of industry output on employment in Merced County and in comparison areas. This discussion sets the stage for the examination of net exports, employment multipliers, location quotients, and employment concentration ratios.

The data on employment, once again, show the significance of agriculture to Merced's economy. Agriculture, which contributes the largest share of the total industry output in the County, also employs the largest share of people in the County. In terms of employment, services, retail trade, and government follow agriculture. Services has the fourth highest level of industry output in Merced. Retail trade and government are eighth and seventh in terms of total industry output. Manufacturing/food & kindred produces the largest share of total industry output in the county, but only accounts for 8.5% of total employment. The figures below give the shares and the actual employment levels for each industry group. Figure 6 does show that the combined employment of the two manufacturing sectors was close to 11,000 in 1996, which would bring that sector closer to the level of the other large employment sectors.

Figure 5: Industry Employment as a Percentage of Total County Employment in Merced, 1996 Source: MIG, IMPLAN Pro™

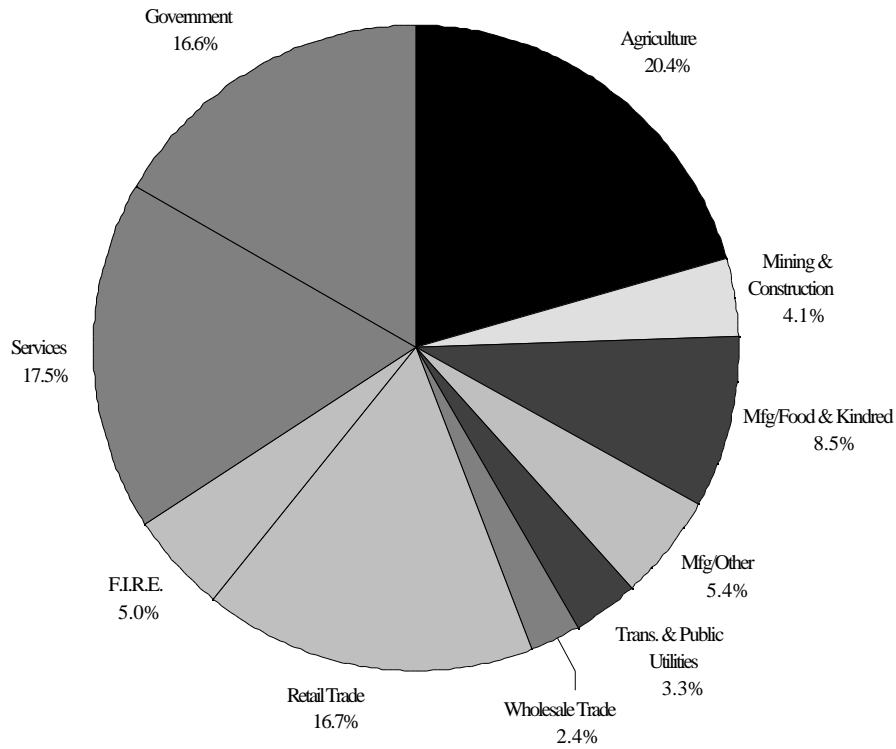
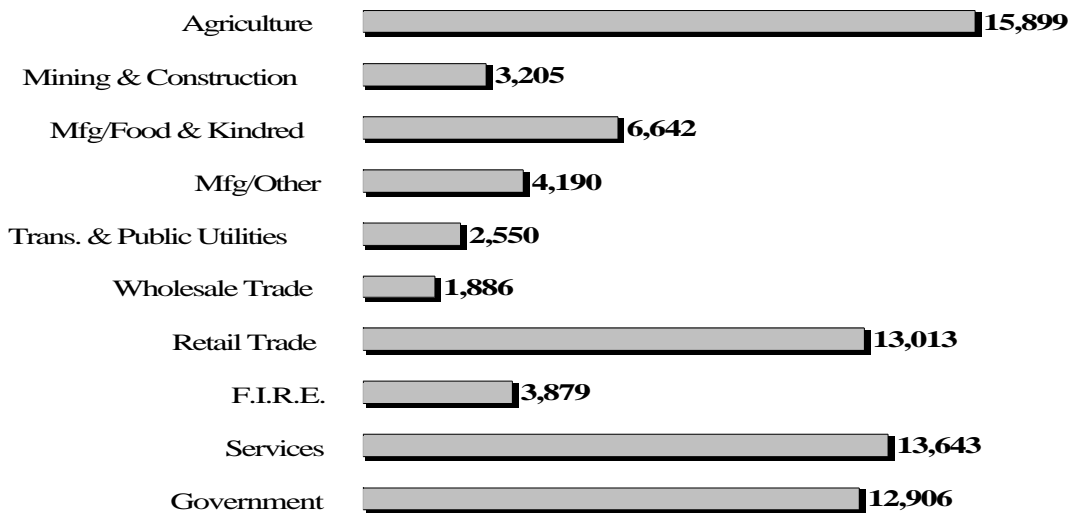


Figure 6: Industry Employment for Merced County, 1996 Source: MIG, IMPLAN Pro™



Like industry output, California and the United States have similar employment structures. They also are different from the San Joaquin Valley as a whole and Merced County. Agriculture and manufacturing/food & kindred are more important to Merced than the other regions and manufacturing/other, F.I.R.E., and services are less important.

It does appear that the differences in employment between Merced and the Valley were not as pronounced as the differences in industry output in 1996. The percentage of employment in agriculture was quite similar at about 20%. Merced County was slightly above the average and the Valley was slightly below. Two sectors that were different were manufacturing/food & kindred and services. The former was more important to Merced while the latter was less important.

Figure 7: Industry Employment as a Percentage of Total Region Employment for Selected Industry Groups, 1996 Source: MIG, IMPLAN Pro™

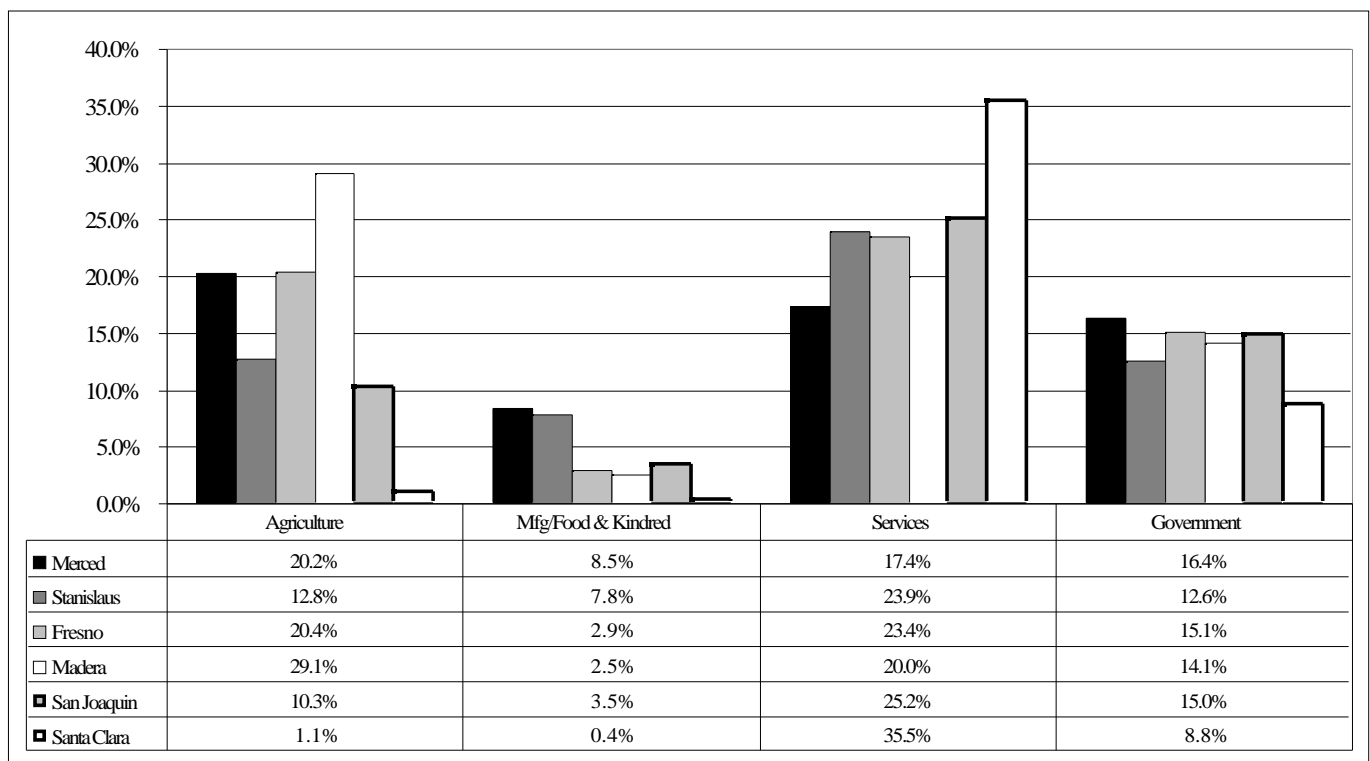


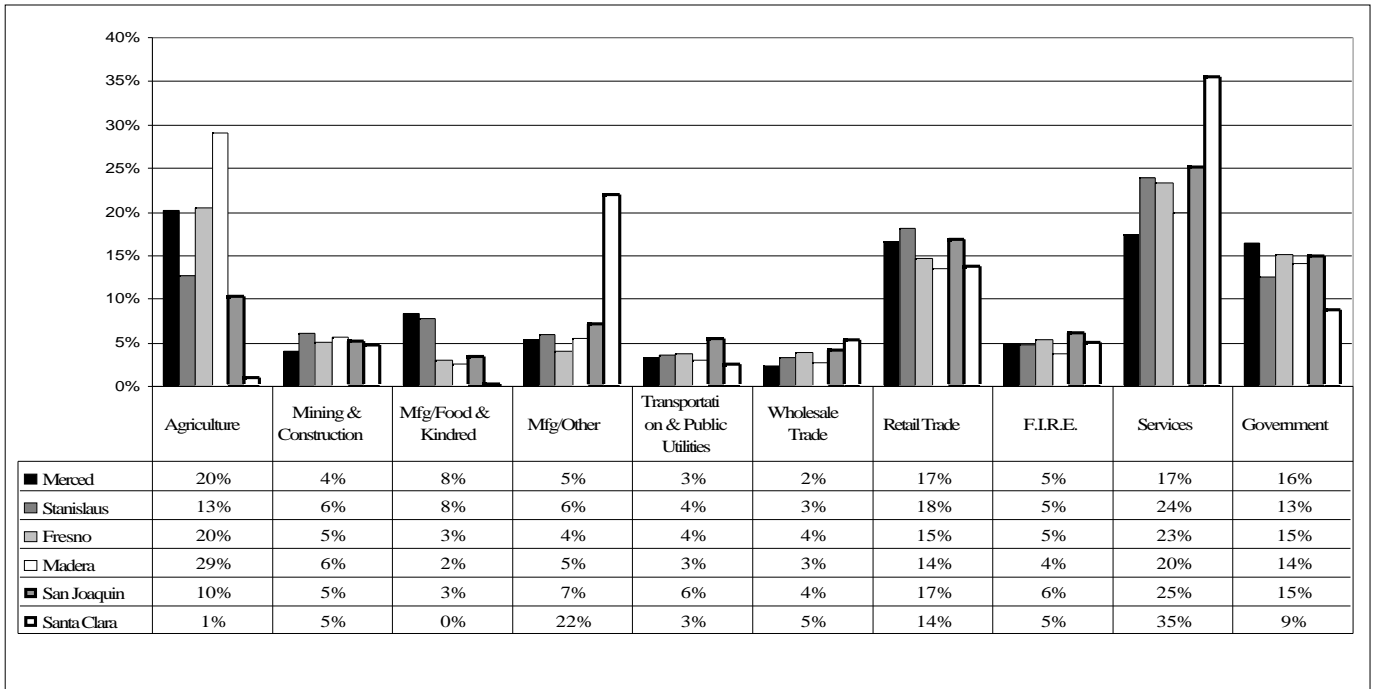
Table 6: Industry Employment as a Percentage of Total Region Employment for All Industry Groups, 1996*

Industry	Merced	Stanislaus	Fresno	Madera	San Joaquin	Santa Clara
Agriculture	20.2%	12.8%	20.4%	29.1%	10.3%	1.1%
Mining & Construction	4.1%	6.1%	5.2%	5.8%	5.3%	4.8%
Mfg./Food & Kindred	8.5%	7.8%	2.9%	2.5%	3.5%	0.4%
Mfg./Other	5.3%	6.0%	4.1%	5.5%	7.2%	22.1%
Trans. & Public Utilities	3.2%	3.6%	3.7%	3.1%	5.5%	2.6%
Wholesale Trade	2.4%	3.3%	3.9%	2.6%	4.2%	5.4%
Retail Trade	16.6%	18.2%	14.6%	13.5%	17.0%	13.8%
F.I.R.E.	4.9%	4.8%	5.4%	3.8%	6.1%	5.1%
Services	17.4%	23.9%	23.4%	20.0%	25.2%	35.5%
Government	16.4%	12.6%	15.1%	14.1%	15.0%	8.8%

Source: MIG, IMPLAN Pro™

When intra-valley comparisons are made, differences once again become apparent. Agriculture accounted for the largest share of employment in Merced County. This was followed by services, retail trade, and government. Madera was the only other county where agriculture represented the largest share of employment. The service group had the largest share of employment in Stanislaus, Fresno, San Joaquin, and Santa Clara. Manufacturing/food & kindred accounted for a larger share of employment in Merced and Stanislaus County than in any of the other counties. Government accounted for a larger share of employment in Merced than in any of the other counties. It also was more important for the Valley counties than for Santa Clara.

Figure 8: Industry Employment as a Percentage of Total County Employment, 1996 Source: MIG, IMPLAN Pro™



Employment Change

This subsection covers employment change using two different data sets. Tables 7 and 8 were created from data in the IMPLAN Pro™ program. The advantage of this is that it covers the government sector. The first table shows that when government is included Merced had no employment growth from 1992-1996. This was due to the drop in government employment that resulted from the closure of Castle Air Base. Table 8 shows that when government is excluded from the analysis employment increased in Merced County. While the increase is not as significant as the other regions, it is respectable. While the base closure is not directly included in the figures for Table 8, the closure would affect non-government sectors via the multiplier effects.

Table 7: Total Employment Change, 1992-1996*

Region	Percent Change
Merced	0
Fresno	13
Madera	18
San Joaquin	7
Santa Clara	15
Stanislaus	6
San Joaquin Valley	10
California	8
United States	9

*Source: MIG, IMPLAN Pro™

Table 8: Total Non-government Employment Change, 1992-1996*

Region	Percent Change
Merced	9
Fresno	13
Madera	18
San Joaquin	8
Santa Clara	18
Stanislaus	6
San Joaquin Valley	11
California	10
United States	11

*Source: MIG, IMPLAN Pro™

Table 9 presents information from the 1997 ES202 data sets, which do not contain government employment statistics. Again, when government employment is excluded, employment growth did occur in Merced County. These data suggest that the growth was reasonable when compared to the reference areas. According to ES202 data, non-government job growth in Merced (12%) outpaced Fresno, San Joaquin, Stanislaus, and California. Only Madera, Santa Clara, and the United States had greater percentage job growth.

Table 9: Total non-government employment change, 1992-1997*

Region	Percent Change
Merced	12
Fresno	11
Madera	28
San Joaquin	11
Santa Clara	19
Stanislaus	9
California	9
United States	14

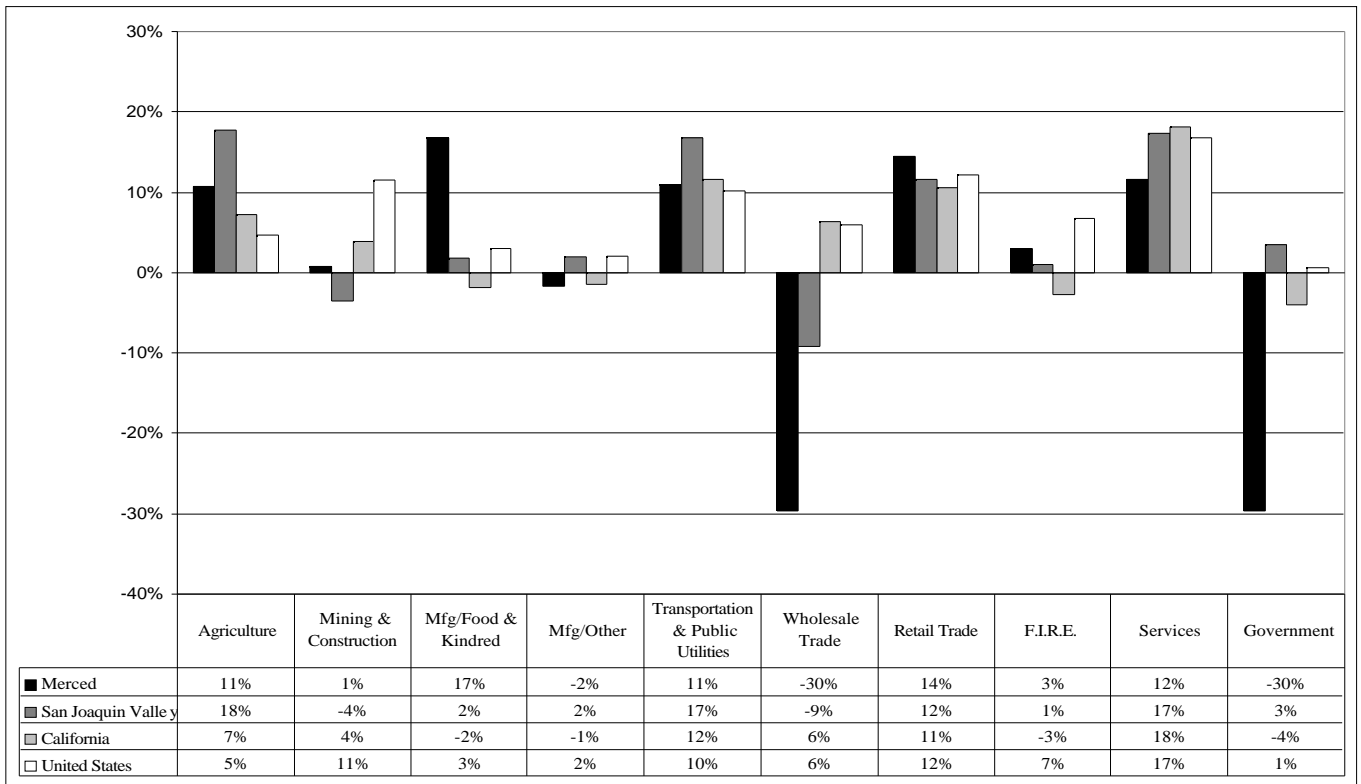
*Source: MIG, ES202

The previous tables show overall employment changes for Merced County and the reference areas. The following figures show employment change by general industry group. Once again these data are from the IMPLAN Pro™ data set because it includes government employment.

The fastest growing industry group in California and the United States was services. In the United States, this was followed by retail trade and mining & construction. In California, other leading industry sectors were transportation & public utilities and retail trade. The fastest growing industry group in Merced was manufacturing/food & kindred followed by retail trade, services, and transportation & public utilities. The fastest growing industry groups in the San Joaquin Valley were agriculture, transportation & public utilities, and services.

Declining industry groups in Merced were wholesale trade and government. Government accounted for a much larger absolute decline than did wholesale trade. The San Joaquin Valley also experienced a fall in employment in the wholesale trade industry group.

Figure 9: Employment Change by Industry Group, 1992-1996 Source: MIG, IMPLAN Pro™



A comparison to the reference counties reveals that Merced led employment growth in manufacturing/food & kindred and was followed by Fresno and Stanislaus counties. The three other counties had negative growth in this sector.

The reduction in government sector employment stands out for Merced County when compared to the other counties. Santa Clara was the only other county to have lost employment in the government industry group. This decline was significant for Merced, particularly when viewed in light of government’s relatively high level of employee compensation.

Merced’s service industry group growth was lower than service industry group growth in any of the other counties. As will be shown, the service group in Merced County does not appear to be as well developed as it is in other counties. This is especially true of health and business services.

Figure 10: Employment Change by Industry for Selected Industry Groups, 1992-1996

Source: MIG, IMPLAN Pro™

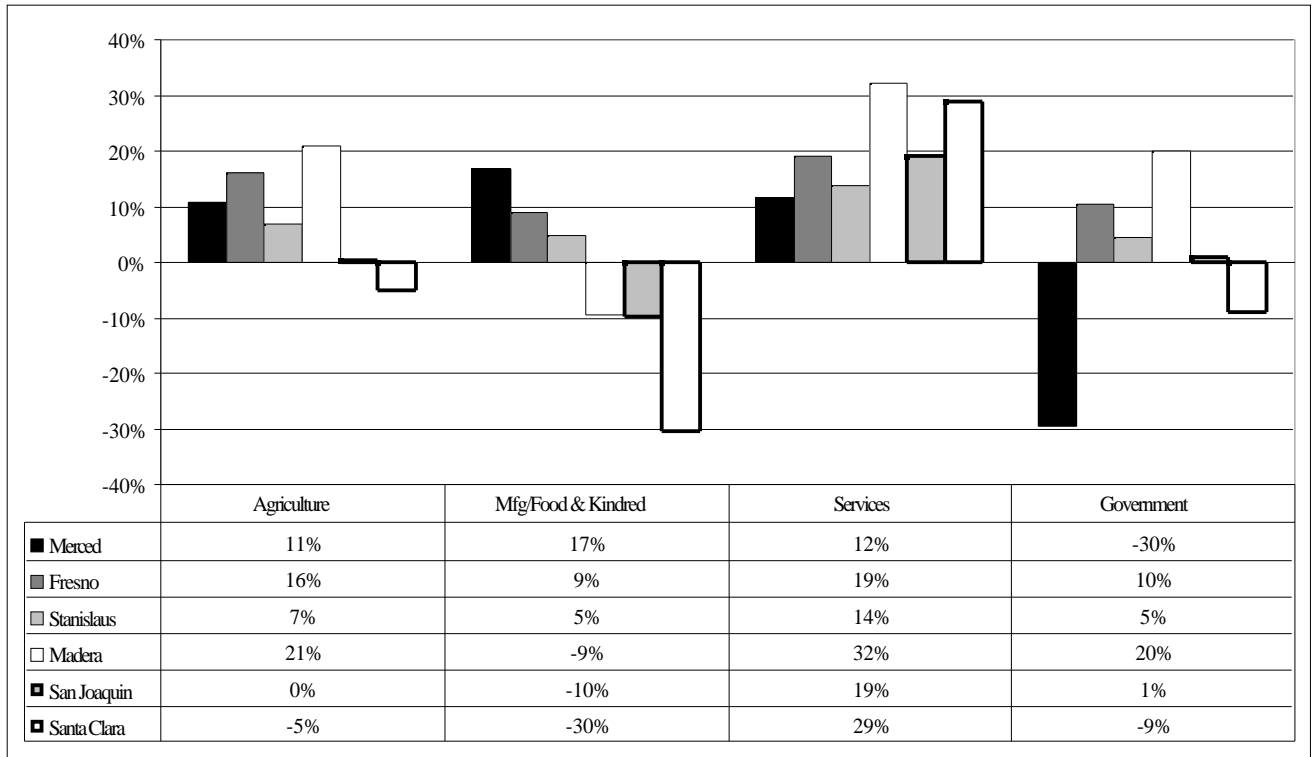


Table 10: Employment Change by Industry for Industry Groups, 1992-1996*

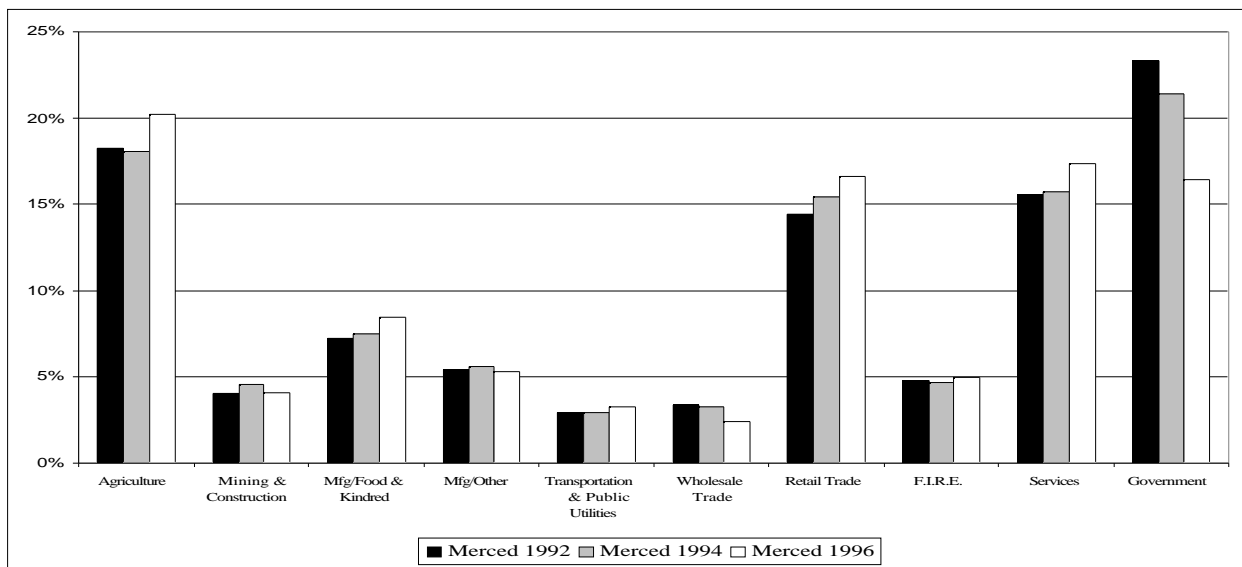
Industry	Merced	Fresno	Stanislaus	Madera	San Joaquin	Santa Clara
Agriculture	11%	16%	7%	21%	0%	-5%
Mining & Construction	1%	-3%	-5%	12%	-2%	14%
Mfg./Food & Kindred	17%	9%	5%	-9%	-10%	-30%
Mfg./Other	-2%	4%	6%	-5%	7%	3%
Transportation & Public Utilities	11%	13%	3%	43%	26%	24%
Wholesale Trade	-30%	-1%	-15%	21%	-15%	103%
Retail Trade	14%	13%	12%	13%	10%	15%
F.I.R.E.	3%	7%	-10%	29%	-5%	0%
Services	12%	19%	14%	32%	19%	29%
Government	-30%	10%	5%	20%	1%	-9%
Total	0%	13%	6%	18%	7%	15%

*Source: MIG, IMPLAN Pro™

The following pages contain breakdowns of industry employment for three periods in Merced and each of the reference regions and counties. This analysis is important because it indicates that the structure of the economy does not change quickly. It would take a rather significant event to cause drastic shifts.

With the closure of Castle Air Force Base, Merced County experienced the most dramatic change of all of the regions during this period. As Figure 11 shows, government’s share of total employment fell from around 24% to about 16% between 1992 and 1996.

Figure 11: Percent of Employment, Merced 92-96 Source: MIG, IMPLAN Pro™



The rest of California was also hit significantly by cutbacks in military spending at the federal level. As Figure 12 shows, the government share of employment fell in California, but it was not as dramatic as it was in Merced.

Figure 12: Percent of employment, California 92-96 Source: MIG, IMPLAN Pro™

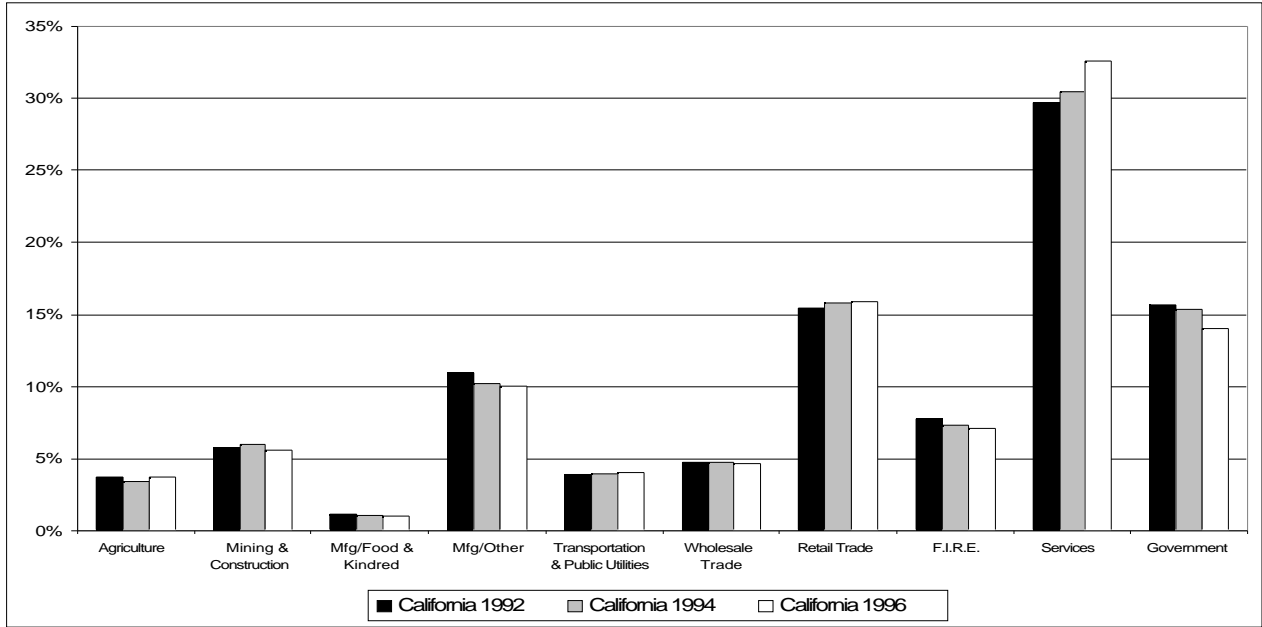


Figure 13: Percent of employment, United States 92-96 Source: MIG, IMPLAN Pro™

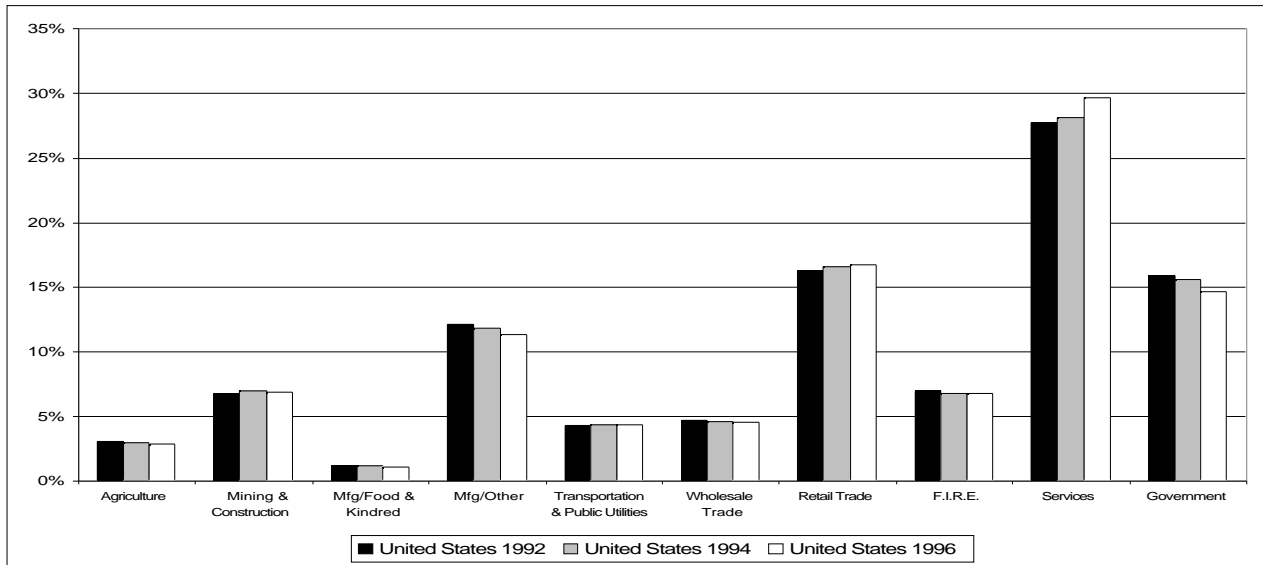


Figure 14: Percent of employment, Stanislaus 92-96 Source: MIG, IMPLAN Pro™

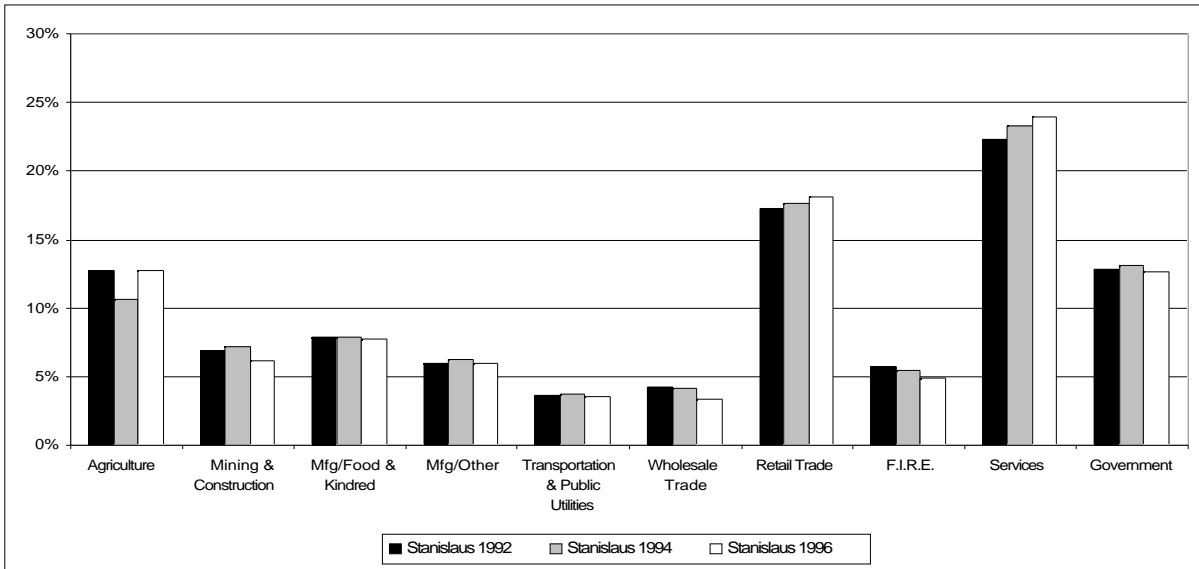


Figure 15: Percent of employment, Fresno 92-96 Source: MIG, IMPLAN Pro™

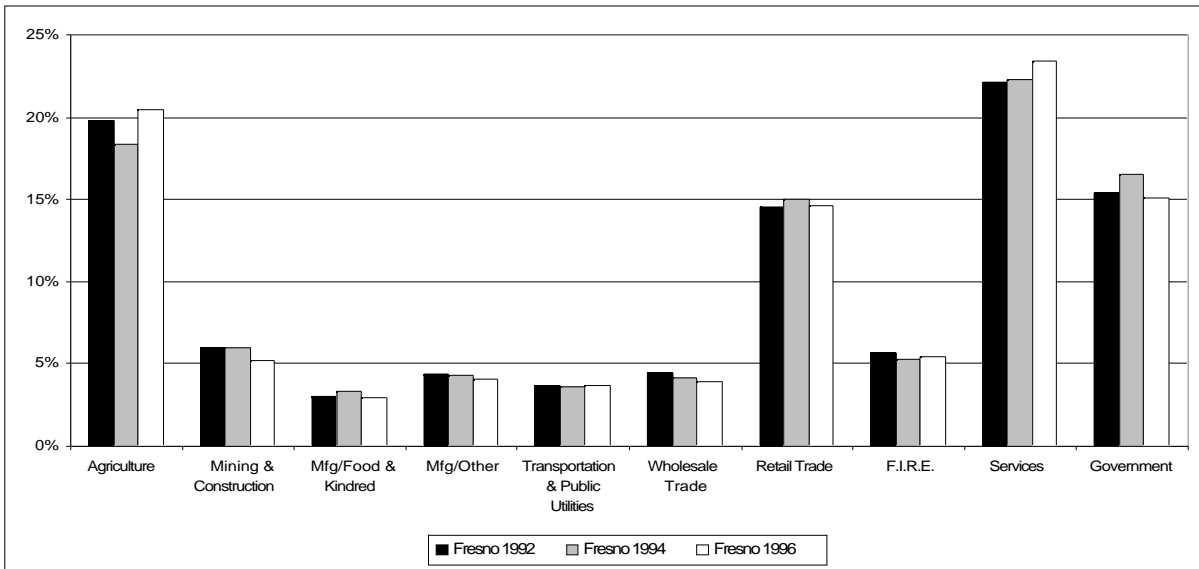


Figure 16: Percent of employment, Madera 92-96 Source: MIG, IMPLAN

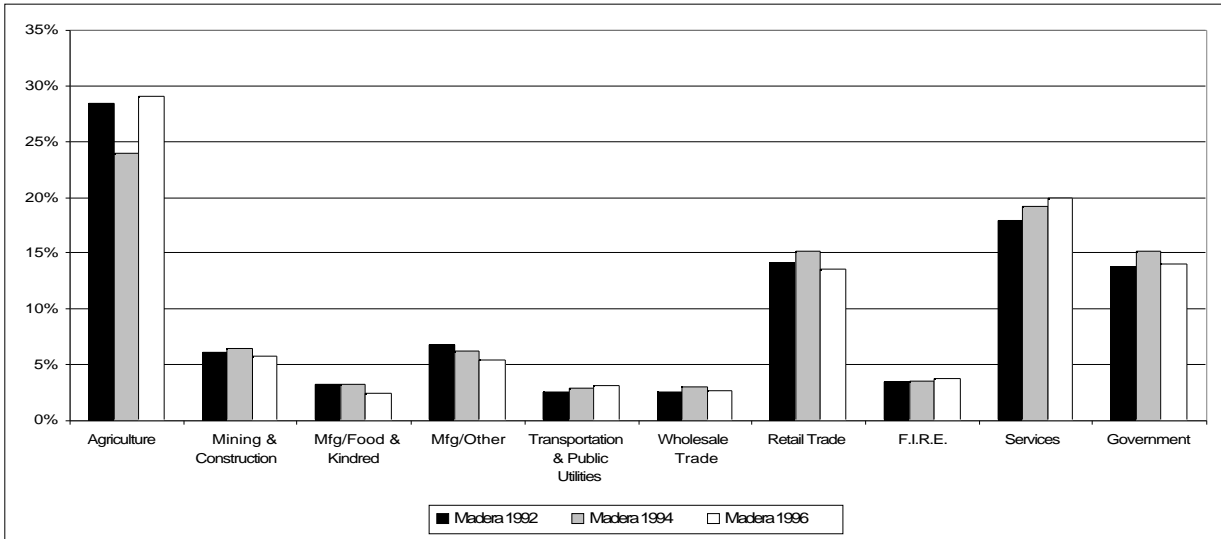


Figure 17: Percent of employment, San Joaquin 92-96 Source: MIG, IMPLAN Pro™

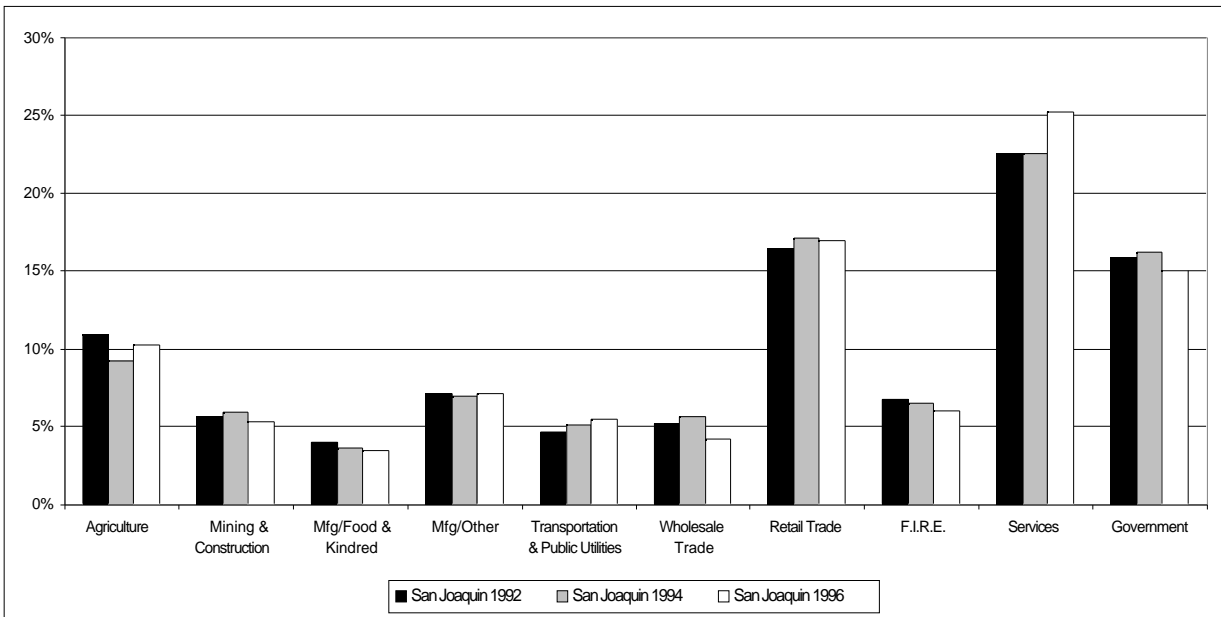
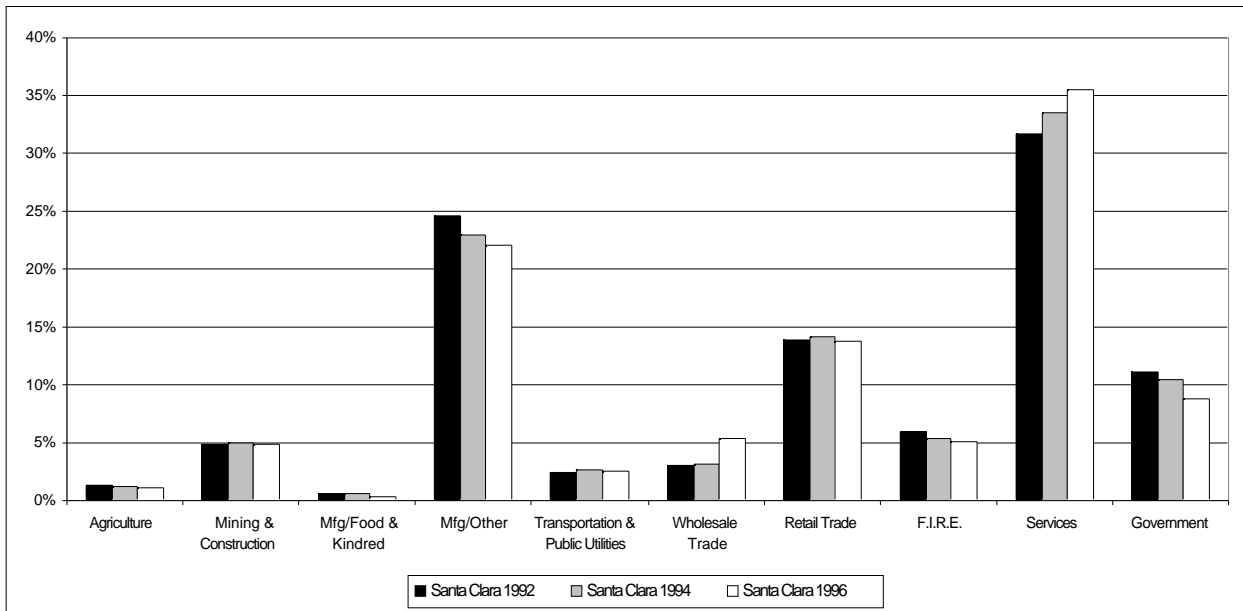


Figure 18: Percent of employment, Santa Clara 1992-96 Source: MIG, IMPLAN Pro™



Earnings

The previous section covered the basic structure of Merced County’s economy and recent changes in the structure as measured by employment. This section will begin to present information regarding the quality of jobs within the County. The first measure of quality is compensation levels.

Tables 11 and 12 present average earnings, which include wages, salary, and benefits, for workers in Merced County and the other reference areas. These data are from the IMPLAN Pro™ data set, which includes government employment. Only Madera County had an average level of employee earnings lower than Merced County while Fresno County was only slightly higher.

Table 11: Overall Average Earning, 1996*

Region	Average Payroll
Merced	21,167
Fresno	21,495
Madera	19,466
San Joaquin	24,361
Santa Clara	43,915
Stanislaus	23,390

* Source: MIG, IMPLAN Pro™

Table 12: Overall Average Earnings, 1996*

Region	Average Payroll
Merced	21,167
San Joaquin Valley	22,337
California	30,398
United States	28,929

* Source: MIG, IMPLAN Pro™

The data in Table 13 show that six sectors in Merced County had higher earnings per employee than the overall average employee earnings for the County. Those sectors were transportation & public utilities, government, manufacturing/food & kindred, manufacturing/other, wholesale trade, and F.I.R.E.

Table 13: Earnings by Industry Group, Merced 1996*

Industry Description	Payroll per Employee	Rank
Agriculture	12,361	10
Mining & Construction	17,760	7
Mfg./Food & Kindred	31,478	3
Mfg./Other	30,786	4
Transportation & Public Utilities	33,734	1
Wholesale Trade	28,448	5
Retail Trade	14,327	9
F.I.R.E.	22,731	6
Services	17,694	8
Government	31,896	2

* Source: MIG, IMPLAN Pro™

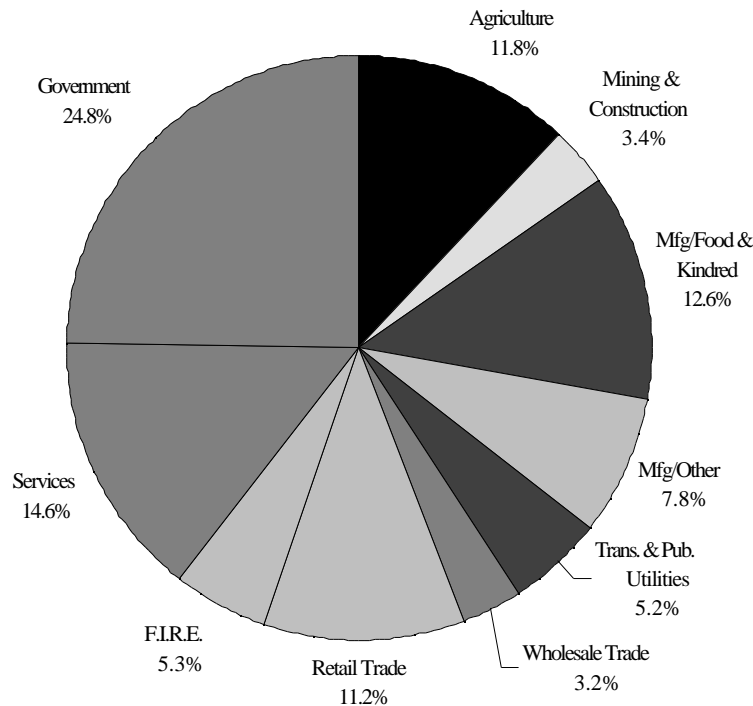
The lowest paying sectors in the County were among the top employers. Four sectors had payroll levels that are below the average for the County. Those sectors were mining & construction, services, retail trade, and agriculture. Agriculture was the top employer in the County, services was second, and retail trade was third in terms of total employment.

The chart below illustrates the share of total County payroll by industry group. It in part shows the impact of individual payroll levels together with the number of employees in each sector.

Although agriculture was the top employer (20.4% of total employment) in the County, it ranked fourth in terms of the contribution to total compensation (11.8%) in 1996. This was the result of low levels of compensation per employee. Services accounted for 17.5% of County employment and 14.6% of total County compensation. Retail trade represented 16.7% of the County's employment and 11.2% of its total compensation.

Government comprised 16.8% of County employment and 24.8% of total compensation. Manufacturing/food & kindred accounted for 8.5% of county employment and 12.6% of total compensation.

Figure 19: Total Industry Earnings as a Percentage of County Earnings, 1996 Source: MIG, IMPLAN Pro™



The following figure presents data on wages and salaries in 1997. Since it is based on ES202 data, it does not cover either benefits or government. The graph below compares Merced County to California and the United States.

Wages and salaries per worker in every sector was lower in Merced County than California and the United States. Retail trade and agriculture had the lowest wages and salaries per worker in all counties and regions. Since Merced County had a large share of its employment in agriculture, it is not surprising that income levels in Merced County lagged other regions.

Figure 20: Wages and Salary Per Worker, 1997 Source: MIG, ES202

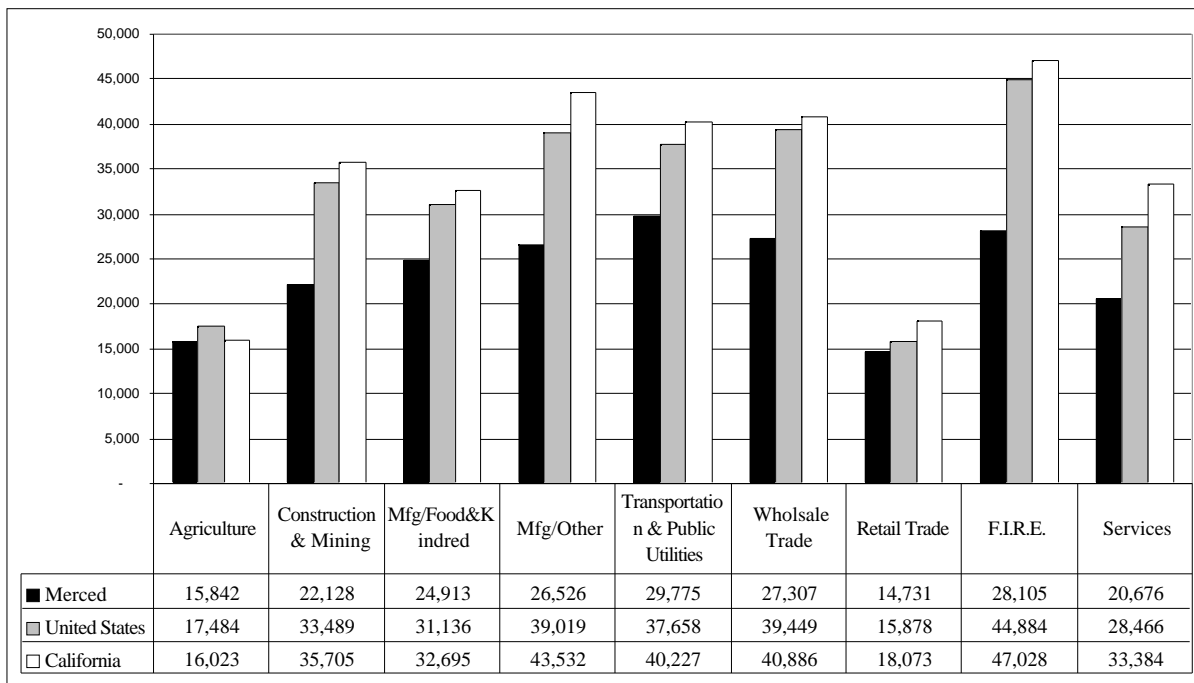
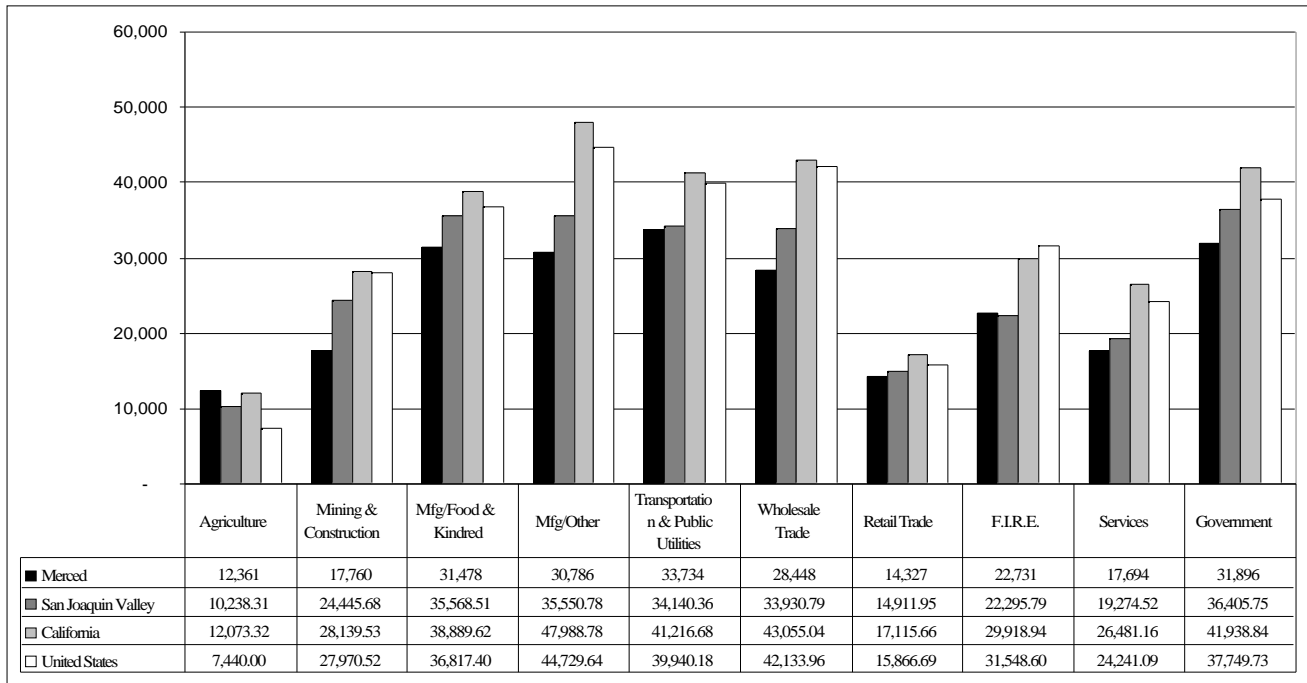


Figure 21 continues to report the earnings levels and compares Merced County to the San Joaquin Valley, California, and the United States for each sector in 1996. Earnings levels for California and the nation were quite similar. Wage and salary levels for Merced County and the Valley were below those of California and the United States in every sector. Furthermore, earnings levels in Merced were generally lower than that for the Valley as a whole. While agricultural earnings were higher than the three other regions, they still trailed earnings in other industry groups.

Figure 21: Earnings per Employee, 1996 Source: IMPLAN Pro™



As previous figures indicate, there were some differences among the counties within the San Joaquin Valley. These differences are explored in Figure 22. Overall, Merced, Madera, and Fresno had the lowest earnings of the five comparison counties. However, earnings in Merced were not the lowest in all sectors when compared to other counties. The levels in manufacturing/food & kindred were lower in Merced and Fresno than in other counties.

Figure 22: Compensation per Employee for Selected Industry groups, 1996 Source: IMPLAN Pro™

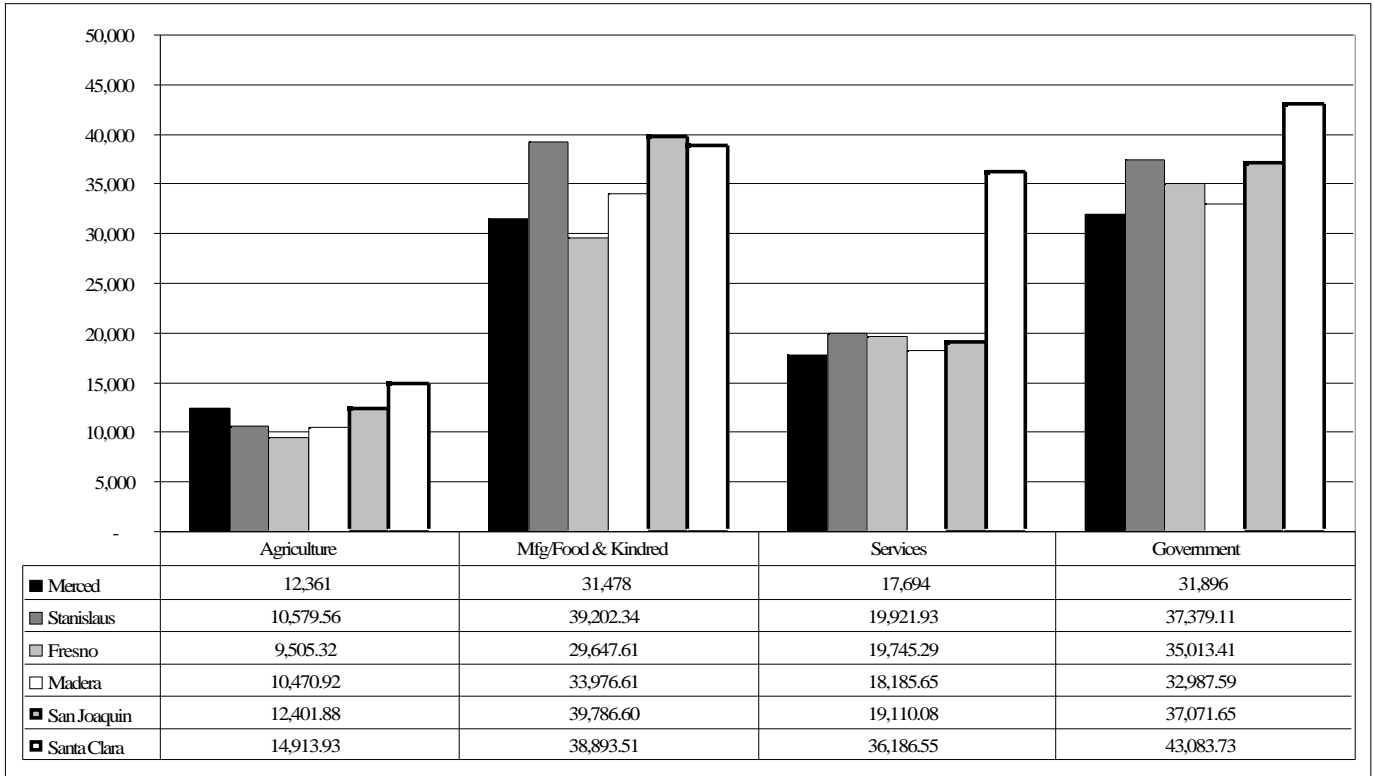


Table 14: Compensation per Employee for All Industry Groups, 1996*

Industry	Merced	Stanislaus	Fresno	Madera	San Joaquin	Santa Clara
Agriculture	12,361	10,579.56	9,505.32	10,470.92	12,401.88	14,913.93
Mining & Construction	17,760	21,852.20	21,975.88	18,461.43	26,236.68	34,293.88
Mfg./Food & Kindred	31,478	39,202.34	29,647.61	33,976.61	39,786.60	38,893.51
Mfg./Other	30,786	37,007.72	33,553.61	36,876.47	35,916.33	77,260.00
Trans. & Public Utilities	33,734	27,907.26	37,493.73	27,644.31	34,067.56	40,249.20
Wholesale Trade	28,448	33,527.79	33,357.18	35,715.52	35,337.86	61,822.86
Retail Trade	14,327	15,089.73	15,083.18	13,739.95	15,526.13	18,988.29
F.I.R.E.	22,731	21,474.62	23,336.17	15,152.76	21,874.75	23,846.81
Services	17,694	19,921.93	19,745.29	18,185.65	19,110.08	36,186.55
Government	31,896	37,379.11	35,013.41	32,987.59	37,071.65	43,083.73

*Source: IMPLAN Pro™

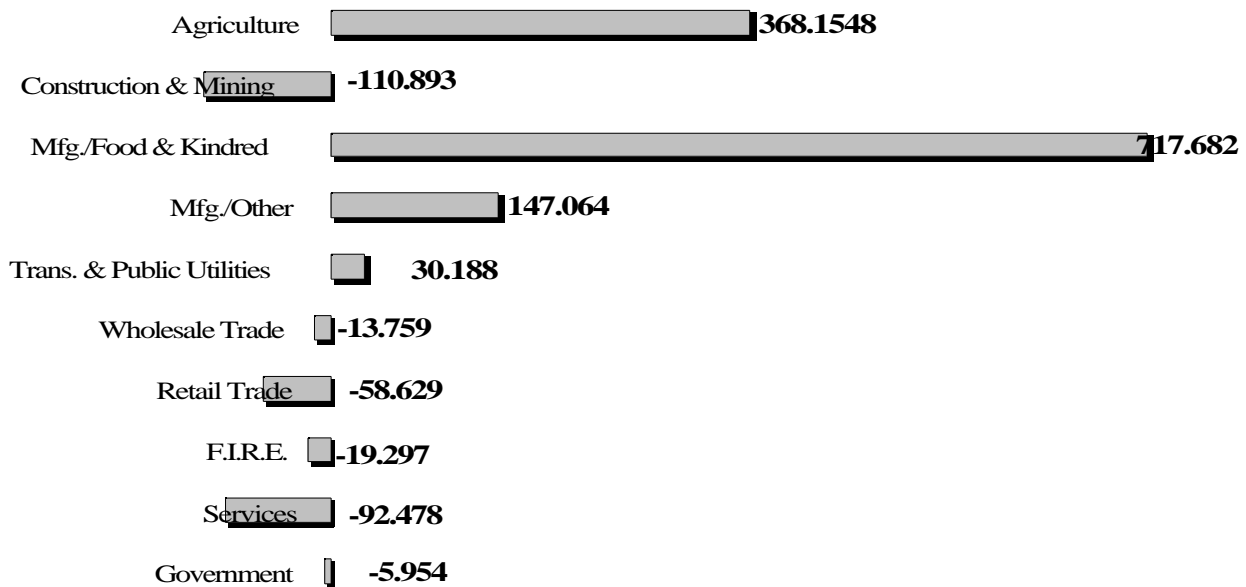
Exporting and Importing Sectors

Payroll and wages and salary can be thought of as indicators of the quality of jobs to individuals. Net exports are one dimension of the value of particular industries to a county or region, and further describe the economic structure of the area being examined. This section reports data regarding the exporting and importing industry groups of Merced County and compares them to the reference areas.

Net exports are equal to the dollar value of what an industry exports minus the dollar value of what that industry imports. With this model, exports are goods or services that are sent from a county or region to both domestic and foreign destinations. Imports are goods or services that originate either in the United States or from abroad.

As Figure 23 shows, the net exporting groups within Merced County in 1996 were manufacturing/food & kindred, agriculture, manufacturing/other, and transportation & public utilities. The latter two combined for over \$1 billion in net exports. This means that these two sectors brought over \$1 billion more into the local economy than they sent out. Exporting industries are important because they bring dollars into the local economy that can circulate throughout the economy. Many of these dollars will be spent locally by employees and owners of firms.

Figure 23: Net Exports for Merced, 1996 Source: IMPLAN Pro™



All other industry groups within Merced County were net importers, meaning they imported more goods and services than they exported. The negative exports for services are an indication that local residents and business relied on services from business establishments outside the County.

The table below shows net exports of the broad industry groups for the reference counties used in this study. Like Merced County, manufacturing/food & kindred and agriculture were important net exporting groups for all of the counties in the San Joaquin Valley in 1996. Agriculture accounted for the largest level of net exports in Fresno and Madera Counties. These were the only counties in which agriculture accounted for such relatively large levels of net exports. Santa Clara was clearly different than the San Joaquin Valley counties. Manufacturing/other, F.I.R.E., and services were by far the largest net exporters for that county.

The services group, which is a net importer in both Merced and San Joaquin counties, is a net exporting sector for all of the other counties examined. F.I.R.E. is a net importing group in Merced County and Madera County and a net exporting sector in all of the other counties.

Table 15: Net Exports for Selected Counties*

Industry	Merced	Stanislaus	Fresno	Madera	San Joaquin	Santa Clara
Agriculture	368.154	450.226	2121.989	454.664	782.578	222.172
Construction & Mining	-110.893	-349.069	-577.19	-77.012	-369.816	-1603.352
Mfg./Food & Kindred	717.682	2001.885	1024.255	179.599	1229.431	272.155
Mfg./Other	147.064	421.032	541.825	106.364	750.726	21604.546
Trans. & Public Utilities	30.188	-27.55	454.518	-0.819	299.984	-201.224
Wholesale Trade	-13.759	-41.2	-63.293	-7.825	-50.514	357.758
Retail Trade	-58.629	0.153	-41.684	-34.297	-58.629	-626.747
F.I.R.E.	-19.297	177.317	639.124	-1.637	616.373	7793.39
Services	-92.478	81.807	240.262	31.359	-26.638	8980.265
Government	-5.954	-54.739	-8.871	-1.696	-6.253	-162.729

* Source: MIG, IMPLAN Pro™

Data at the more detailed industry level also shows the importance of agriculture and manufacturing/food & kindred. Of the 196 sectors in Merced County, 82 of them were net exporters in 1996. Of these, 33 were either in the agriculture or manufacturing/food & kindred sectors. In fact, the top seven net exporting sectors were in the agriculture or manufacturing/food & kindred sectors. Table 16 lists the top 20 net exporting sectors in Merced County along with the dollar value of exports minus imports measured in millions of dollars. Fertilizer and commercial printing were other sectors included in this list. Net export levels of all 196 industry sectors in Merced County are listed in Appendix A.

Table 16: Top 20 Net Exporting Sectors in Merced County, 1996*

Industry	Net Exports
Poultry Processing	259.370
Frozen Fruits Juices and Vegetables	136.687
Dairy Farm Products	135.812
Tree Nuts	131.664
Cheese Natural and Processed	92.857
Vegetables	82.945
Canned Fruits and Vegetables	77.809
Gas Production and Distribution	77.752
Cotton	55.418
Nitrogenous and Phosphatic Fertilizers	44.516
Fruits	42.920
Condensed and Evaporated Milk	40.127
Bottled and Canned Soft Drinks & Water	29.118
Fertilizers Mixing Only	28.591
Wines Brandy and Brandy Spirits	25.300
Fluid Milk	24.428
Commercial Printing	22.131
Hay and Pasture	16.585
Boat Building and Repairing	13.571
Lighting Fixtures and Equipment	11.223

* Source: MIG, IMPLAN Pro™

While the net importing industry sectors are within the broader net importing groups described above, health services stands out. All detailed sectors related to health services were net importers in Merced. This indicates that many residents go outside of the County for medical services. This supports comments made in a number of the focus group sessions.

The more detailed data on net exports also underscore similarities among counties in the San Joaquin Valley. The table below (Table 17) lists the top fifteen net exporting groups for all the reference counties. The order of the top net exporting groups is different between the counties in the San Joaquin Valley, but many of the groups listed are the same for all of the Valley economies. These include many agriculture and food processing sectors.

Even though the counties in the Valley were quite similar in 1996, they were not identical. Two health services sectors were among the top net exporting sectors in Fresno County. Insurance related sectors were also in the top twenty for Fresno. This was not the case for the other counties. Cotton production was more important to the three southern counties than to Stanislaus

and San Joaquin counties. As was apparent from other data already presented, agricultural production was more important in the counties of Merced, Fresno, and Madera than in Stanislaus and San Joaquin.

There were a number of other items that deserve mention that do not show up in the various lists of net exports. The broad sector of transportation & public utilities was a net exporter but within that sector motor freight transport and warehousing was a net importer. This same sector was a net exporter for the other Valley counties examined.

There were substantial differences between Merced County and the other Valley counties in the services group. Merced had no significant net exporters (net exports over \$10 million) in this broad industry group. The four other Valley counties had at least 2 sectors that had over \$10 million in net exports. As mentioned above, Merced was a net importer of health services as were Madera and San Joaquin. Fresno and Stanislaus were net exporters in the area of health services.

As one looks at Santa Clara County it becomes quite clear that it has a very different economic structure than the counties of the San Joaquin Valley. Interestingly, it once had an economy that was similar.

Table 17: Top Fifteen Exporting Sectors, 1996

<i>Merced</i>	<i>Fresno</i>	<i>Madera</i>	<i>Stanislaus</i>	<i>San Joaquin</i>
Poultry Processing	Fruits	Fruits	Wines Brandy & Brandy Spirits	Real Estate
Frozen Fruits Juices & Vegetables	Vegetables	Wines Brandy & Brandy Spirits	Canned Fruits & Vegetables	Canned Fruits & Vegetables
Dairy Farm Products	Agricultural, Forestry, Fishery Services	Tree Nuts	Dehydrated Food Products	Motor Freight Tra & Warehousing
Tree Nuts	Real Estate	Cotton	Tree Nuts	Vegetables
Cheese Natural & Processed Vegetables	Gas Production & Distribution Cotton	Computer & Data Processing Services Dairy Farm Products	Poultry Processing Dairy Farm Products	Wines Brandy & B Spirits Cereal Preparation
Canned Fruits & Vegetables	Poultry Processing	Mineral Wool	Real Estate	Fruits
Gas Production & Distribution Cotton	Owner-occupied Dwellings Dehydrated Food Products	Agricultural Forestry Fishery Services Canned Fruits & Vegetables	Sanitary Paper Products Vegetables	Salted & Roasted & Seeds Owner-occupied Dwellings
Nitrogenous & Phosphatic Fertilizers Fruits	Motor Freight Transport & Warehousing Canned Fruits & Vegetables	Glass Containers Vegetables	Potato Chips & Similar Snacks Chocolate & Cocoa Products	Dairy Farm Produ
Condensed & Evaporated Milk Bottled & Canned Soft Drinks & Water	Frozen Fruits Juices & Vegetables Doctors & Dentists	Refrigeration & Heating Equipment Automobile Repair & Services	Metal Cans Frozen Specialties	Miscellaneous Pla Products Frozen Fruits Juic Vegetables Religious Organiz
Fertilizers Mixing Only	Dairy Farm Products	Poultry & Eggs	Frozen Fruits Juices & Vegetables	Wet Corn Milling
Wines Brandy & Brandy Spirits	Hospitals	Real Estate	Prepared Feeds N.E.C	Commercial Fishin

* Source: MIG, IMPLAN Pro™

Employment Multipliers

This section reports employment multipliers. In fact, it covers two types of multipliers, both of which offer insights into the County's economy. One type relates the number of jobs per one million dollars in output for an industry. This information is interesting because it sheds light on some of the trends in industry employment growth that are and will be taking place in the County. The second type of multiplier reports the number of jobs that are associated with each job created in a particular industry. This is important because it highlights linkages within the economy.

The table below reports the number of jobs per one million dollars in output in 1996 for each of the broad industry sectors in Merced County. Multipliers for all 196 sectors in Merced are listed in Appendix A.

Table 18: Jobs per One Million Dollars of Output*

Industry Description	Jobs
Agriculture	16.9
Mining & Construction	11.1
Mfg./Food & Kindred	3.4
Mfg./Other	6.6
Trans. & Public Utilities	7.4
Wholesale Trade	10.7
Retail Trade	26.3
F.I.R.E.	4.7
Services	20
Government	22.2

* Source: MIG, IMPLAN Pro™

The highest values are in retail trade, government, and services. This reflects the fact that these industries are labor intensive and population-driven – i.e., as demand for their products and services increase, their employment grows substantially as well. Moreover, these sectors tend to serve local consumers. The upside to this is that as these sectors expand in response to population growth residents in Merced can expect to see more choices in retail trade and services. The downside is that services and retail trade are not high paying sectors.

Agriculture, mining & construction, wholesale trade, and transportation & public utilities fell in the middle. With all of the major construction that will be occurring in the County in the next 10

years, it is likely that there will be growth in this sector. The agriculture sector is an exporting sector and any increases in demand for that sector will be determined by forces outside the local economy.

The remaining sectors with lower levels of jobs per one million dollars in output in 1996 were manufacturing/other, F.I.R.E., and manufacturing/food processing. These numbers reflect the fact that these sectors rely more on machinery and technology than the others so they require fewer workers per one million dollars in output. It should be noted that the manufacturing sector brings billions of dollars into the local economy through exports. It will also become apparent that the businesses in these sectors are dependent on local firms for supplies, raw materials, and services. As a result, the impact of these firms multiplies through the economy to a greater degree than any of the other industry groups.

The next table reports the employment levels and the 25 highest jobs per one million dollars in output for sectors with at least 80 employees. As expected, this list has many service, retail, and government related sectors including domestic services, beauty and barber shops, apparel stores, eating & drinking establishments, and education. It also includes agricultural services and a couple of other agricultural businesses.

Table 19: Top 25 Jobs per \$1 Million in Output*

Description	Employment	Jobs Per \$1 million
Domestic Services	752	124.0
Labor and Civic Organizations	655	97.6
Detective and Protective Services	176	82.1
Residential Care	363	61.2
Sheep, Lambs and Goats	132	60.2
Agricultural, Forestry, Fishery Services	5,166	50.7
Landscape and Horticultural Services	107	48.4
Amusement and Recreation Services, N.E.C.	137	45.0
Beauty and Barber Shops	630	44.2
Personnel Supply Services	408	43.9
Federal Government - Military	416	42.3
Portrait and Photographic Studios	102	39.3
Hay and Pasture	1,650	38.5
Automobile Parking and Car Wash	219	38.1
Apparel & Accessory Stores	259	37.4
Bowling Alleys and Pool Halls	80	37.3
State & Local Government - Education	6,514	36.6
Miscellaneous Retail	2,008	35.3
Services To Buildings	464	34.9
General Merchandise Stores	1,781	34.2
Child Day Care Services	113	32.0
Eating & Drinking	4,480	31.7
Laundry, Cleaning and Shoe Repair	374	31.6
Social Services, N.E.C.	515	30.9
Nursing and Protective Care	1,017	29.9

* Source: MIG, IMPLAN Pro™

The next table reports the sectors with the lowest levels of jobs per one million dollars in output. Not surprisingly, it is made up primarily of manufacturing sectors.

Table 20: Lowest Jobs per \$1 Million in Output*

Description	Employment	Jobs per \$1 million
Banking	1,066	6.7
Dehydrated Food Products	119	6.6
Automobile Rental and Leasing	122	6.5
Cotton	538	6.5
Paperboard Containers and Boxes	191	6.1
Farm Machinery and Equipment	113	5.9
Dairy Farm Products	2,516	5.8
Real Estate	783	5.7
Frozen Fruits, Juices and Vegetables	1,425	5.5
Motor Vehicle Parts and Accessories	137	5.2
Canned Fruits and Vegetables	674	5.2
Communications, Except Radio and TV	170	4.3
Fertilizers, Mixing Only	315	4.3
Other State and Local Govt. Enterprises	229	4.2
Wines, Brandy, and Brandy Spirits	152	3.7
Poultry and Eggs	589	3.7
Meat Packing Plants	142	3.0
Cottonseed Oil Mills	96	3.0
Bottled and Canned Soft Drinks & Water	191	2.9
Fluid Milk	141	2.5
Nitrogenous and Phosphatic Fertilizers	420	2.1
Cheese, Natural and Processed	373	2.1
Condensed and Evaporated Milk	156	2.0
Gas Production and Distribution	376	1.3
Soybean Oil Mills	125	0.7

* Source: MIG, IMPLAN Pro™

The next table reports the employment multipliers for the general sectors of the economy. These numbers represent the number of jobs that are actually created when there is a job in a particular sector. The value for manufacturing/food & kindred is 3.87. This means that every job in that sector is connected to 3.87 jobs in the County. One of those jobs is in food processing while the other 2.87 jobs are in businesses that are affected by food processing. These may be businesses that supply the sector with raw materials and services. Others may hire people to meet the

demand generated by increased income. This example illustrates the linkages among industries that supply and demand each other's products.

Table 21: Employment Multipliers, Merced 1996*

Industry Description	Employment Multipliers
Agriculture	1.47
Mining & Construction	2.04
Mfg./Food & Kindred	3.87
Mfg./Other	2.44
Trans. & Public Utilities	2.36
Wholesale Trade	1.82
Retail Trade	1.3
F.I.R.E.	2.08
Services	1.57
Government	1.39

* Source: MIG, IMPLAN Pro™

The sectors that were connected to more than one job in other sectors in 1996 were manufacturing/food & kindred, manufacturing/other, transportation & public utilities, F.I.R.E., and mining & construction. This means that when construction or manufacturing expand, other sectors will be affected rather significantly. On the other hand, when retail trade and services expand, other sectors in the County will not be affected to the same extent.

The next table presents the 25 highest employment multipliers for the more detailed industry sectors. One can see that this list contains many manufacturing firms. These numbers in part reflect the linkages that exist between firms in these sectors and with other sectors in the County.

Table 22: Top 25 Employment Multipliers, Merced 1996*

Description	Employment	Employment Multiplier
Soybean Oil Mills	125	5.58
Cheese, Natural and Processed	373	4.99
Meat Packing Plants	142	4.42
Fluid Milk	141	4.27
Condensed and Evaporated Milk	156	4.02
Poultry and Eggs	589	3.71
Nitrogenous and Phosphatic Fertilizers	420	3.25
Gas Production and Distribution	376	2.82
Other State and Local Govt. Enterprises	229	2.53
Bottled and Canned Soft Drinks & Water	191	2.53
Cotton	538	2.43
Fertilizers, Mixing Only	315	2.42
Cottonseed Oil Mills	96	2.39
Vegetables	1,293	2.38
Dairy Farm Products	2,516	2.37
Frozen Fruits, Juices and Vegetables	1,425	2.31
Poultry Processing	2,979	2.23
Wines, Brandy, and Brandy Spirits	152	2.18
Canned Fruits and Vegetables	674	2.14
Tree Nuts	1,859	1.99
Fruits	999	1.98
Communications, Except Radio and TV	170	1.98
Insurance Carriers	1,206	1.92
Automobile Rental and Leasing	122	1.90
Radio and TV Broadcasting	88	1.87

* Source: MIG, IMPLAN Pro™

Table 23: Lowest 25 Employment Multipliers, Merced 1996*

Description	Employment	Employment Multipliers
Domestic Services	752	1.07
Labor and Civic Organizations	655	1.08
Detective and Protective Services	176	1.10
Federal Government - Military	416	1.12
Residential Care	363	1.14
Landscape and Horticultural Services	107	1.14
Agricultural, Forestry, Fishery Services	5,166	1.14
Amusement and Recreation Services, N.E.C.	137	1.15
Automobile Parking and Car Wash	219	1.15
Apparel & Accessory Stores	259	1.17
Miscellaneous Retail	2,008	1.17
Hay and Pasture	1,650	1.18
General Merchandise Stores	1,781	1.18
Personnel Supply Services	408	1.18
Bowling Alleys and Pool Halls	80	1.19
Eating & Drinking	4,480	1.21
Services To Buildings	464	1.21
Furniture & Home Furnishings Stores	345	1.22
State & Local Government - Education	6,514	1.23
Credit Agencies	217	1.23
Food Grains	109	1.23
Local, Interurban Passenger Transit	231	1.24
Portrait and Photographic Studios	102	1.24
Building Materials & Gardening	520	1.24
Child Day Care Services	113	1.25

* Source: MIG, IMPLAN Pro™

Location Quotients

The table below presents industry location quotients that are greater than 1.25 for Merced County for classifications with employment of 30 or more. These location quotients are generated using the 1997 data from ES202. This data set does not include any government employment, but it provides much more detailed information regarding private sector employment compared to the IMPLAN Pro data.

Location quotients are calculated by dividing the sector's percent of total regional employment by that sector's percent of total national employment. A number that is greater than one means that the region has a higher concentration of employment in that sector than in the nation. A value less than one means the opposite. Generally values between .75 and 1.25 are considered to be close to 1 and are interpreted as such.

One way that location quotients are used is to identify what are called base industries of a region. The term base industry usually refers to industries that export products out of the region thus bringing dollars into the region. Sectors with location quotients greater than 1.25 are often identified as exporting sectors. This is because they have a higher concentration of employment in the region than nationally. Assuming that the local consumers have consumption patterns that are similar to those in the rest of the nation, the extra employment in these sectors is assumed to be supplying outside consumers.

The highest location quotients for Merced County in 1997 were in agriculture or agriculturally-related sectors. In food production, tree nuts, dairy farms, poultry and eggs, and turkey and turkey eggs were important exporters. So were processing sectors such as canned fruits and vegetables, poultry slaughtering and processing, and cheese, natural and processed. These sectors use the raw materials supplied by agriculture. One thing that this suggests is that while the agricultural production sector does export to other regions, much of its output is processed in the County and exported with some value added. Hence, the high values for the agricultural production sectors do not result in proportionally higher exports.

Soil preparation services, farm machinery and equipment, and veterinary services also had high location quotients in 1997. Once again, this may mean that these sectors export to neighboring counties but another reason they are high is because they provide services to production agriculture. Further down on the list are such sectors as automotive repair shops and automotive glass replacement shops. This may mean that people from outside the County come to Merced to get their cars repaired, but more than likely it reflects the income levels in the County. With lower incomes, more people own older cars and are more likely to repair them than replace them.

The only industries in the business services sector with location quotients greater than 1.25 were disinfecting and pest control services and advertising, not elsewhere classified. The latter does not show up on the list below because it employed 29 people. Sectors with low location quotients will be identified and discussed later in the report.

Table 24: Location Quotients greater than 1.25 for Merced, 1997 Employment of 30+*

SIC	Description	Location Quotient	Number of Jobs
011	Cash Grains	10.779	148
013	Field Crops, Except Cash Grains	36.017	1,266
0139	Field Crops, Except Cash Grains, Not Elsewhere Classified	72.207	762
0161	Vegetables and Melons	19.080	754
017	Fruits and Tree Nuts	24.748	2,192
0173	Tree Nuts	201.305	1,123
0175	Deciduous Tree Fruits	7.054	239
0179	Fruits and Tree Nuts, Not Elsewhere Classified	71.627	425
0181	Ornamental Floriculture and Nursery Products	3.120	219
0191	General Farms, Primarily Crop	27.708	836
021	Livestock, Except Dairy and Poultry	4.400	135
0212	Beef Cattle, Except Feedlots	7.267	86
0241	Dairy Farms	81.700	2,026
025	Poultry and Eggs	5.517	123
0253	Turkey and Turkey Eggs	17.449	79
027	Animal Specialties	4.971	42
0711	Soil Preparation Services	24.175	53
072	Crop services	21.558	1,190
0721	Crop planting, cultivating, and protecting	29.238	249
0722	Crop harvesting, primarily by machine	51.909	350
0723	Crop preparation services for market, except cotton ginning	15.961	547

SIC	Description	Location Quotient	Number of Jobs
0724	Cotton ginning	7.761	44
0740	Veterinary services	1.688	152
0751	Livestock services, except veterinary	8.959	54
0761	Farm labor contractors	24.284	1,911
0762	Farm management services	5.289	48
1521	General contractors-single-family houses	1.512	468
1522	General contractors-residential buildings, other than single-family	1.469	35
1771	Concrete work	1.832	257
201	Meat products	14.223	3,406
2011	Meat packing plants	1.949	143
2015	Poultry slaughtering and processing	27.278	3,263
2022	Cheese, natural and processed	23.106	452
2023	Dry, condensed, evaporated products	14.899	121
2026	Fluid milk	4.030	123
2033	Canned fruits and vegetables	19.350	663
2034	Dehydrated fruits, vegetables, soups	23.480	206
2037	Frozen fruits and vegetables	86.206	2,066
2084	Wines, brandy, and brandy spirits	21.778	240
2086	Bottled and canned soft drinks	10.217	478
2431	Millwork	4.613	268
2448	Wood pallets and skids	5.877	122
2653	Corrugated and solid fiber boxes	2.323	152
2759	Commercial printing, N.E.C.	11.303	1,003
3081	Unsupported plastics film & sheet	7.011	217
3273	Ready-mixed concrete	2.598	137
3411	Metal cans	2.433	36
3412	Metal barrels, drums, and pails	23.208	84
3444	Sheet metalwork	2.389	141
3451	Screw machine products	1.662	44
3499	Fabricated metal products, N.E.C.	3.038	94
3523	Farm machinery and equipment	4.649	176
3648	Lighting equipment, N.E.C.	101.509	664
3679	Electronic components, N.E.C.	1.864	133
3713	Truck and bus bodies	3.165	63
3732	Boat building and repairing	8.644	241
3792	Travel trailers and campers	4.993	53
3999	Manufacturing industries, nec	1.372	42
4151	School buses	1.915	129

SIC	Description	Location Quotient	Number of Jobs
421	Trucking & courier services, ex. air	1.275	944
4212	Local Trucking without Storage	2.324	547
4832	Radio broadcasting stations	1.295	72
4841	Cable and other pay television services	1.977	170
4899	Communications services, nec	4.289	47
493	Combination utility services	3.719	295
5015	Motor vehicle parts, used	1.312	30
5083	Farm and garden machinery	3.422	204
514	Groceries and related products	1.421	631
5141	Groceries, general line	1.330	187
5145	Confectionery	6.247	174
5147	Meats and meat products	2.900	79
5148	Fresh fruits and vegetables	2.519	126
515	Farm-product raw materials	1.844	97
5154	Livestock	4.421	66
5172	Petroleum products, nec	1.340	61
5231	Paint, glass, and wallpaper stores	1.445	47
5251	Hardware stores	1.476	119
5531	Auto and home supply stores	1.630	313
5541	Gasoline service stations	1.589	521
5722	Household appliance stores	1.549	54
5943	Stationery stores	2.109	90
5949	Sewing, needlework, and piece goods	1.475	36
6061	Credit unions, Federally chartered	1.848	95
6062	Credit unions, not Federally chartered	1.708	56
6331	Fire, marine, and casualty insurance	2.412	634
6361	Title insurance	2.215	78
6515	Operators of residential mobile home sites	3.321	52
6552	Subdividers and developers, nec	1.897	67
7342	Disinfecting & pest control services	1.600	69
7532	Top & body repair & paint shops	1.444	143
7536	Automotive glass replacement shops	2.342	35
7539	Automotive repair shops, nec	1.715	46
7542	Carwashes	1.721	105
7549	Automotive services, nec	1.813	95
7933	Bowling centers	1.682	67
8042	Offices and clinics of optometrists	1.688	64
8059	Nursing and personal care facilities, nec	1.379	146

SIC	Description	Location Quotient	Number of Jobs
8092	Kidney dialysis centers	2.969	66
8099	Health and allied services, nec	1.523	59

* Source: MIG, ES202

Table 25 once again lists the sectors with high location quotients and identifies the sectors that grew more than the sector did nationally, grew more than the County growth rate, and with average earnings above the overall average for the County.

While base sectors showed strong employment gains, few of them could be considered well-paying. Many of the agriculture production sectors had strong growth rates but poor earnings when compared to the County average. Of the 16 agriculture sectors at the 4-digit SIC level listed, 11 had strong growth, but only 2 of these had earnings above the County average.

Many of the food processing sectors that show strong growth also had higher earnings. Of the 10 food processing industries at the 4-digit SIC level listed, 7 had strong growth ; 5 of these had earnings above the county average.

Other manufacturing sectors also exhibited strong growth and solid earnings levels. This does not hold up for the service sectors that make the list. While many service sectors had strong growth, they did not have strong earnings when compared to the County as a whole.

Table 25: High Location Quotient, Fast Growing, High Earnings Sectors, 1997*

SIC	Description	Grew more than ind. nationally	More than county average	Earnings above average for county
011	Cash Grains			X
013	Field Crops, Except Cash Grains	X	X	
0139	Field Crops, Except Cash Grains, Not Elsewhere Classified	X	X	
0161	Vegetables and Melons	X	X	
017	Fruits and Tree Nuts			
0173	Tree Nuts			
0175	Deciduous Tree Fruits	X	X	
0179	Fruits and Tree Nuts, Not Elsewhere Classified			
0181	Ornamental Floriculture and Nursery Products	X	X	
0191	General Farms, Primarily Crop			

SIC	Description	Grew more than ind. nationally	More than county average	Earnings above average for county
021	Livestock, Except Dairy and Poultry			
0212	Beef Cattle, Except Feedlots			X
0241	Dairy Farms	X	X	
025	Poultry and Eggs	X		
0253	Turkey and Turkey Eggs	X	X	
027	Animal Specialties	X	X	
0711	Soil Preparation Services			X
072	Crop services	X	X	
0721	Crop planting, cultivating, and protecting	X	X	
0722	Crop harvesting, primarily by machine	X	X	
0723	Crop preparation services for market, except cotton ginning			
0724	Cotton ginning	X	X	X
0740	Veterinary services	X	X	
0751	Livestock services, except veterinary			X
0761	Farm labor contractors			
0762	Farm management services	X	X	
1521	General contractors-single-family houses	X	X	X
1522	General contractors-residential buildings, not single-family	X	X	X
1771	Concrete work			
201	Meat products			X
2011	Meat packing plants	X	X	
2015	Poultry slaughtering and processing			X
2022	Cheese, natural and processed	X	X	X
2023	Dry, condensed, evaporated products	X	X	X
2026	Fluid milk			X
2033	Canned fruits and vegetables	X	X	X
2034	Dehydrated fruits, vegetables, soups			X
2037	Frozen fruits and vegetables	X	X	
2084	Wines, brandy, and brandy spirits	X	X	X
2086	Bottled and canned soft drinks	X	X	X
2431	Millwork	X	X	
2448	Wood pallets and skids	X	X	
2653	Corrugated and solid fiber boxes	X	X	X
2759	Commercial printing, nec	X	X	X
3081	Unsupported plastics film & sheet	X	X	X
3273	Ready-mixed concrete	X	X	X
3411	Metal cans	X	X	X
3412	Metal barrels, drums, and pails			X
3444	Sheet metalwork	X	X	X

SIC	Description	Grew more than ind. nationally	More than county average	Earnings above average for county
3451	Screw machine products			X
3499	Fabricated metal products, nec			X
3523	Farm machinery and equipment	X	X	X
3648	Lighting equipment, nec	X	X	X
3679	Electronic components, nec			X
3713	Truck and bus bodies	X	X	X
3732	Boat building and repairing	X	X	X
3792	Travel trailers and campers	X	X	
3999	Manufacturing industries, nec	X	X	
4151	School buses			
421	Trucking & courier services, ex. air	X		X
4212	Local Trucking without Storage	X	X	X
4832	Radio broadcasting stations			
4841	Cable and other pay television services	X	X	
4899	Communications services, nec	X	X	X
493	Combination utility services	X	X	
5015	Motor vehicle parts, used	X	X	
5083	Farm and garden machinery	X	X	X
514	Groceries and related products			X
5141	Groceries, general line			X
5145	Confectionery	X	X	X
5147	Meats and meat products			X
5148	Fresh fruits and vegetables			
515	Farm-product raw materials			
5154	Livestock			
5172	Petroleum products, nec			X
5231	Paint, glass, and wallpaper stores	X	X	X
5251	Hardware stores	X	X	
5531	Auto and home supply stores	X	X	
5541	Gasoline service stations	X	X	
5722	Household appliance stores	X	X	
5943	Stationery stores	X	X	
5949	Sewing, needlework, and piece goods			
6061	Credit unions, Federally chartered	X	X	
6062	Credit unions, not Federally chartered	X	X	
6331	Fire, marine, and casualty insurance			X
6361	Title insurance			X
6515	Operators of residential mobile home sites	X	X	
6552	Subdividers and developers, nec	X	X	

SIC	Description	Grew more than ind. nationally	More than county average	Earnings above average for county
7342	Disinfecting & pest control services	X	X	X
7532	Top & body repair & paint shops	X	X	X
7536	Automotive glass replacement shops	X	X	X
7539	Automotive repair shops, nec	X	X	
7542	Carwashes	X	X	
7549	Automotive services, nec	X	X	
7933	Bowling centers			
8042	Offices and clinics of optometrists			
8059	Nursing and personal care facilities, nec			
8092	Kidney dialysis centers	X	X	X
8099	Health and allied services, nec	X	X	X

* Source: MIG, ES202

The next three tables provide comparisons of the top 20 sectors in terms of location quotients for Merced County and the five reference counties. These sectors are all at the 4-digit SIC level of detail and are listed in order of SIC number and not in order of the size of the location quotient. This makes it a little easier to make comparisons of the types of industries that have high employment concentrations. These lists once again show the importance of agriculture to all of the counties within the San Joaquin Valley. Many of the highest location quotients are in agriculture and related sectors. This is clearly not the case for Santa Clara. The tables once again show that while the counties within the Valley are similar they are not identical.

Table 26: 20 Highest Location Quotient Sectors in Merced and Fresno, 1997*

SIC	Merced	SIC	Fresno
0139	Field Crops, Except Cash Grains, NEC	0131	Cotton
0161	Vegetables and Melons	0172	Grapes
0173	Tree Nuts	0173	Tree Nuts
0179	Fruits and Tree Nuts, NEC	0174	Citrus Fruits
0191	General Farms, Primarily Crop	0175	Deciduous Tree Fruits
0214	Sheep and Goats	0179	Fruits & Tree Nuts, NEC
0241	Dairy Farms	0191	General Farms, Primarily Crop
0711	Soil Preparation Services	0214	Sheep and Goats
0721	Crop planting, cultivating, and protecting	0721	Crop planting, cultivating, and protecting
0722	Crop harvesting, primarily by machine	0722	Crop harvesting, primarily by machine
0761	Farm labor contractors	0723	Crop prep. services for market, except cotton ginning
2015	Poultry slaughtering and processing	0761	Farm labor contractors
2022	Cheese, natural and processed	0762	Farm management services
2033	Canned fruits and vegetables	1499	Miscellaneous nonmetallic minerals
2034	Dehydrated fruits, vegetables, soups	2034	Dehydrated fruits, vegetables, soups
2037	Frozen fruits and vegetables	2037	Frozen fruits and vegetables
2084	Wines, brandy, and brandy spirits	2296	Tire cord and fabrics
3412	Metal barrels, drums, and pails	2429	Special product sawmills, nec
3648	Lighting equipment, nec	3211	Flat glass
4619	Pipelines, nec	3581	Automatic vending machines

*Source: MIG, ES202

Table 27: 20 Highest Location Quotient Sectors in Stanislaus and Madera, 1997*

SIC	Stanislaus	SIC	Madera
0173	Tree Nuts	0172	Tree Nuts
0175	Deciduous Tree Fruits	0173	Citrus Fruits
0241	Dairy Farms	0179	Horticultural Specialties
0251	Broiler, Fryer, and Roaster Chickens	0741	Veterinary services for Animal specialties
0252	Chicken Eggs	0742	Animal services, except veterinary
0253	Turkey and Turkey Eggs	0761	Farm management services
0722	Crop harvesting, primarily by machine	0762	Landscape and horticultural services
0761	Farm labor contractors	0781	Lawn and garden services
2033	Canned fruits and vegetables	0782	Ornamental shrub and tree services
2034	Dehydrated fruits, vegetables, soups	0783	Forestry
2037	Frozen fruits and vegetables	1520	General contractors-single-family houses
2066	Chocolate and cocoa products	1540	General contractors-industrial buildings & warehouses
2068	Salted and roasted nuts and seeds	2074	Soybean oil mills
2077	Animal and marine fats and oils	4210	Local Trucking without Storage
2084	Wines, brandy, and brandy spirits	4932	Combination utilities, nec
2096	Potato chips and similar snacks	4939	Water supply
2441	Nailed wood boxes and shook	5812	Drinking places
3221	Glass containers	5813	Miscellaneous retail
3411	Metal cans	6510	Operators of nonresidential buildings
3596	Scales and balances, exc. laboratory	7210	Power laundries, family & commercial

*Source: MIG, ES202

Table 28: 20 Highest Location Quotient Sectors San Joaquin and Santa Clara*

SIC	San Joaquin	SIC	Santa Clara
0161	Fruits and Tree Nuts	3559	General industrial machinery
0172	Tree Nuts	3571	Computer storage devices
0173	Citrus Fruits	3572	Computer terminals
0179	Horticultural Specialties	3577	Calculating and accounting equipment
0191	Agricultural Production-Livestock & Animal Specialties	3671	Printed circuit boards
0241	Poultry and Eggs	3672	Semiconductors and related devices
0723	Cotton ginning	3674	Electronic capacitors
0761	Farm management services	3679	Misc. electrical equipment & supplies
2033	Dehydrated fruits, vegetables, soups	3695	Electrical equipment & supplies, nec
2037	Frozen specialties, nec	3761	Space propulsion units and parts
2043	Rice milling	3764	Space vehicle equipment, nec
2063	Candy & other confectionery products	3795	Transportation equipment, nec
2068	Fats and Oils	3821	Environmental controls
2084	Distilled and blended liquors	3825	Analytical instruments
2441	Wood pallets and skids	3826	Optical instruments and lenses
2874	Fertilizers, mixing only	3827	Measuring & controlling devices, nec
2875	Agricultural chemicals, nec	3845	Ophthalmic goods
3211	Glass and glassware, pressed or blown	5065	Hardware, plumbing & heating equipment
4225	Special warehousing and storage, nec	7372	Computer integrated systems design
5989	Retail stores, nec	7373	Data processing and preparation

*Source: MIG, ES202

It has been pointed out that a number of sectors within Merced seem to be immature. Business services and health services are two that have been discussed in other sections of this report and in *Strategic Choices*. At the four digit SIC level, only advertising (not elsewhere classified) and disinfecting & pest control services had location quotients that were greater than 1.25. Only security systems services and business services (not elsewhere classified) had location quotients close to one; all others had location quotients below .75.

Table 29: Business Services Location Quotients for Merced, 1997*

SIC	Description	LQ
7311	Advertising agencies	0.07
7319	Advertising, nec	1.35
7322	Adjustment & collection services	0.13
7334	Photocopying & duplicating services	0.11
7338	Secretarial & court reporting	0.18
7342	Disinfecting & pest control services	1.60
7349	Building maintenance services, nec	0.68
7352	Medical equipment rental	0.51
7359	Equipment rental & leasing, nec	0.65
7361	Employment agencies	0.31
7363	Help supply services	0.17
7371	Computer programming services	0.05
7374	Data processing and preparation	0.02
7375	Information retrieval services	0.05
7378	Computer maintenance & repair	0.43
7379	Computer related services, nec	0.01
7381	Detective & armored car services	0.50
7382	Security systems services	0.94
7384	Photofinishing laboratories	0.08
7389	Business services, nec	0.78

*Source: MIG, ES202

The location quotients in health services were not as low. There are a few categories within the health services group with location quotients greater than 1.25 and many of them were very close to one. The location quotients for areas such as lodging, local trucking with storage, refrigerated warehousing and storage, and many retail categories were quite low.

Although Merced is a “Gateway to Yosemite,” the lodging numbers suggest it is principally a stopover rather than a destination. The trucking and storage sectors are part of the agriculture and food processing cluster and the low location quotients may indicate that there is room for development. The low retail numbers indicate that the County is still relatively small. As it grows, the County can expect to see a growth in employment levels.

Table 30: Health Services Location Quotients for Merced, 1997*

SIC	Description	LQ
8011	Offices and clinics of doctors of medicine	0.77
8021	Offices and clinics of dentists	1.09
8031	Offices of osteopathic physicians	0.67
8041	Offices and clinics of chiropractors	1.12
8042	Offices and clinics of optometrists	1.69
8043	Offices and clinics of podiatrists	1.08
8049	Offices of health practitioners, nec	0.53
8051	Skilled Nursing care facilities	1.07
8059	Nursing and personal care facilities, nec	1.38
8062	General medical and surgical hospitals	0.80
8071	Medical laboratories	0.25
8072	Dental laboratories	1.27
8082	Home health care services	0.34
8092	Kidney dialysis centers	2.97
8093	Specialty outpatient facilities, nec	1.21
8099	Health and allied services, nec	1.52

*Source: MIG, ES202

Employment Concentration Ratio

One final way to examine Merced's economic base relative to the reference counties is to use something that will be referred to as the employment concentration ratio (ECR). ECRs are similar to location quotients but use a different county, rather than the United States, as the reference area. A location quotient for tree nuts is the ratio of the percentage of employment in tree nuts in Merced County to the percentage of employment in tree nuts in the United States. The ECR is the ratio of the percentage of employment in tree nuts in Merced County to the percentage of employment in tree nuts in some other county such as Fresno. When the ECR is greater than 1, Merced has a higher concentration of employment in that particular industry than does the comparison county. An ECR below 1 means that Merced has a lower concentration of employment in that particular industry than does the comparison county. As with location quotients, ECRs between .75 and 1.25 will be considered close enough to one to be interpreted as similar employment concentrations.

ECRs were calculated with each of the reference counties. This section will illustrate some of the results of this process. One can turn to Appendix C to see all of the ratios and a more detailed discussion of the results.

When examining the ECR, one once again sees the importance of agriculture in Merced relative to the counties of Stanislaus and San Joaquin as many of the ECRs in this industry group are greater than 1.25. The importance of food processing to Merced County is also apparent in these data.

Overall, the ECR for Merced in business services in 1997 was less than one. Not only did the County have a relatively low concentration of employment in business services relative to the United States, but it also had a relatively low concentration of employment in business services compared to the surrounding counties and Santa Clara County. Once again this is consistent with all of the information presented so far. The ECRs for health services were a little different. For the most part, ECRs in health services for Merced were lower than one when compared to Fresno and Stanislaus. They were close to one when comparing Merced to San Joaquin, and generally greater than one when comparing Merced to Madera.

Table 31: Employment Concentration Ratios in Business Services for Merced, 1997*

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
7311	Advertising agencies	0.134	0.109	NA	0.287	0.09
7319	Advertising, nec	2.371	6.688	8.570	1.946	3.27
7322	Adjustment & collection services	0.274	0.237	0.253	0.166	0.30
7334	Photocopying & duplicating services	0.108	0.162	1.182	0.101	0.05
7338	Secretarial & court reporting	0.236	0.255	1.182	0.153	0.26
7342	Disinfecting & pest control services	0.935	1.089	2.266	0.888	1.30
7349	Building maintenance services, nec	1.154	1.481	3.239	2.081	0.53
7352	Medical equipment rental	1.584	0.207	0.985	0.497	1.17
7359	Equipment rental & leasing, nec	0.475	0.783	2.794	0.489	0.78
7361	Employment agencies	0.274	0.160	NA	0.338	0.19
7363	Help supply services	0.437	0.254	1.023	0.537	0.12
7371	Computer programming services	0.240	0.338	0.206	0.310	0.01
7374	Data processing and preparation	0.069	0.067	NA	1.490	0.04
7375	Information retrieval services	0.563	0.182	0.296	NA	0.01
7378	Computer maintenance & repair	1.448	2.998	NA	2.292	0.14
7379	Computer related services, nec	0.099	0.143	NA	0.134	0.00
7381	Detective & armored car services	0.438	0.355	3.137	0.846	0.37
7382	Security systems services	0.671	0.686	NA	1.559	1.90
7384	Photofinishing laboratories	0.220	0.031	0.089	2.483	0.11
7389	Business services, nec	1.170	1.233	2.824	1.304	0.86

*Source: MIG, ES202

Conclusion

While Merced County is similar to many of the counties within the San Joaquin Valley it is clearly not identical. Overall, earnings tend to be lower, and the County is less diverse economically. Given the county's size, one would expect Merced County to be economically less diverse.

Agriculture is the foundation of the County to a greater extent than some of the others in the San Joaquin Valley. This is evident in the output levels, employment levels, and the net export values. In addition, there is strong growth in this sector when compared to the state and the nation. These are all positive aspects of this industry group. It employs a large number of people and brings millions of dollars into the County. One of the drawbacks of the sector is that jobs in the groups are predominately low paying.

Food processing businesses also serve as an important base for the County. The sector as a whole does not employ as many people as some of the other broad industry groups, but it has strong growth numbers and generally pays well. This group produces a great deal of output and is the County's most important net exporter. Another benefit of this sector is that it boasts high employment multipliers. This is the existing industry area that should be targeted for expansion and retention efforts. A conclusion supported by other studies.

While agriculture and food processing are by far the most important industry groups in the County, there are other specific sectors that are vibrant. These include communication services, commercial printing, and sectors related to fertilizer production and distribution. All three show up in the different statistics including the location quotients and net exports. The latter makes sense because it services agriculture. The first two make sense because of a number of significant employers in the County. These industries need to continue to be supported and encouraged to expand.

Merced County's service sector, which includes business and health services, is not as well developed as in some of the other reference areas in the region. This suggests that the County is losing dollars to neighboring counties. Both the health services and business services sectors are

net exporting sectors. Advertising and disinfecting & pest control services are the only detailed sectors out of the broad business services group that have location quotients that are greater than one. Industries within the health services group are net importers.

Trying to add businesses in this group will be more difficult although there are changes occurring in the health services group that can be expected to improve the numbers for that group. Expansion in business services will in part depend on the development of a business community that can support it.

Retail trade and other services are areas of the economy where the County should anticipate growth. The population growth that the county will be experiencing will result in more activity in these industry groups. This is good news in that residents will have more choice for shopping, but the jobs that will be created in these groups are generally low paying.

Appendix A

Jobs per one million dollars in output, employment multipliers, and net exports by sector for Merced County, 1996. *Source, MIG, IMPLAN Pro

	Industry	Jobs per \$1 mil output	Employment Multiplier	Net Exports (millions)
1	Dairy Farm Products	5.79	2.37	135.812
2	Poultry and Eggs	3.65	3.71	-90.359
3	Ranch Fed Cattle	12.41	1.69	0.062
4	Range Fed Cattle	13.96	1.80	2.494
5	Cattle Feedlots	4.30	2.45	-2.877
6	Sheep Lambs and Goats	60.25	1.29	0.428
7	Hogs Pigs and Swine	10.41	1.60	-1.882
8	Other Meat Animal Products	13.52	1.65	-0.013
9	Miscellaneous Livestock	25.55	1.24	-0.247
10	Cotton	6.51	2.43	55.418
11	Food Grains	20.71	1.23	3.273
12	Feed Grains	13.73	1.51	2.334
13	Hay and Pasture	38.53	1.18	16.585
16	Fruits	11.05	1.98	42.921
17	Tree Nuts	10.27	1.99	131.664
18	Vegetables	8.39	2.38	82.945
19	Sugar Crops	16.45	1.35	4.303
20	Miscellaneous Crops	29.60	1.65	0.005
21	Oil Bearing Crops	16.71	1.34	0.355
22	Forest Products	7.28	1.99	0.098
23	Greenhouse and Nursery Products	11.80	1.55	0.025
24	Forestry Products	4.93	4.37	0.516
25	Commercial Fishing	11.83	1.41	0.261
26	Agricultural Forestry Fishery Services	50.70	1.14	-15.852
27	Landscape and Horticultural Services	48.40	1.14	-0.114
41	Sand and Gravel	12.12	1.37	0.735
48	New Residential Structures	12.08	1.58	-36.966
49	New Industrial and Commercial Buildings	10.29	1.61	-25.349
50	New Utility Structures	12.08	1.54	-4.584
51	New Highways and Streets	9.77	1.55	-5.837
53	New Mineral Extraction Facilities	31.60	1.24	-0.100
54	New Government Facilities	9.35	1.70	-12.924
55	Maintenance and Repair Residential	13.05	1.58	-10.082
56	Maintenance and Repair Other Facilities	16.90	1.42	-16.463
57	Maintenance and Repair Oil and Gas Wells	6.06	1.69	0.677
58	Meat Packing Plants	3.02	4.42	3.986
59	Sausages and Other Prepared Meats	4.92	2.93	-0.166

	Industry	Jobs per \$1 mil output	Employment Multiplier	Net Exports (millions)
60	Poultry Processing	7.46	2.23	259.371
62	Cheese Natural and Processed	2.08	4.99	92.857
63	Condensed and Evaporated Milk	1.96	4.02	40.127
65	Fluid Milk	2.52	4.27	24.429
67	Canned Fruits and Vegetables	5.16	2.14	77.810
68	Dehydrated Food Products	6.61	1.79	9.859
70	Frozen Fruits Juices and Vegetables	5.46	2.31	136.687
74	Rice Milling	2.16	2.78	0.155
78	Prepared Feeds N.E.C	2.34	2.96	3.623
79	Bread Cake and Related Products	7.30	1.74	-0.155
85	Salted and Roasted Nuts & Seeds	2.59	4.13	0.575
86	Cottonseed Oil Mills	3.01	2.39	3.463
87	Soybean Oil Mills	0.68	5.58	11.037
93	Wines Brandy and Brandy Spirits	3.71	2.18	25.300
95	Bottled and Canned Soft Drinks & Water	2.92	2.53	29.119
103	Food Preparations N.E.C	6.61	1.75	-0.395
108	Broadwoven Fabric Mills and Finishing	10.01	1.39	0.080
124	Apparel Made From Purchased Materials	14.27	1.33	-0.065
125	Curtains and Draperies	20.16	1.31	-0.163
128	Canvas Products	15.86	1.30	-0.023
129	Pleating and Stitching	39.89	1.13	-0.001
133	Logging Camps and Logging Contractors	8.37	1.38	-0.011
137	Millwork	14.11	1.31	0.500
138	Wood Kitchen Cabinets	16.99	1.28	-0.403
140	Structural Wood Members N.E.C	11.28	1.34	-0.258
142	Wood Pallets and Skids	17.46	1.30	0.058
144	Prefabricated Wood Buildings	10.57	1.40	0.037
147	Wood Products N.E.C	16.61	1.29	-0.183
148	Wood Household Furniture	12.59	1.39	-1.112
150	Metal Household Furniture	10.49	1.44	-0.029
156	Public Building Furniture	6.63	1.61	-0.359
157	Wood Partitions and Fixtures	13.29	1.43	-0.470
164	Paperboard Containers and Boxes	6.12	1.59	-18.266
167	Bags Plastic	6.73	1.54	0.616
170	Sanitary Paper Products	2.21	2.37	1.488
174	Newspapers	18.60	1.35	0.706
179	Commercial Printing	9.04	1.56	22.131
195	Drugs	6.24	1.78	-0.371
200	Paints and Allied Products	3.55	1.97	0.859
202	Nitrogenous and Phosphatic Fertilizers	2.15	3.25	44.516
203	Fertilizers Mixing Only	4.25	2.42	28.592

	Industry	Jobs per \$1 mil output	Employment Multiplier	Net Exports (millions)
207	Printing Ink	4.99	1.70	-1.098
220	Miscellaneous Plastics Products	5.89	1.78	5.130
228	Personal Leather Goods	40.66	1.14	-0.002
243	Concrete Products N.E.C	8.87	1.56	0.261
244	Ready-mixed Concrete	6.86	1.71	9.069
273	Metal Cans	2.74	1.99	-1.804
274	Metal Barrels Drums and Pails	6.91	1.53	8.705
286	Architectural Metal Work	11.16	1.36	9.151
289	Screw Machine Products and Bolts Etc.	10.86	1.46	4.023
295	Plating and Polishing	19.08	1.26	0.167
304	Miscellaneous Fabricated Wire Products	11.51	1.40	0.083
306	Fabricated Metal Products N.E.C.	7.63	1.61	7.780
309	Farm Machinery and Equipment	5.92	1.73	-1.588
315	Conveyors and Conveying Equipment	6.95	1.70	0.635
321	Special Dies and Tools and Accessories	11.83	1.53	-0.057
326	Textile Machinery	9.27	1.46	0.047
330	Food Products Machinery	8.78	1.59	-0.004
354	Industrial Machines N.E.C.	7.76	1.69	0.418
369	Lighting Fixtures and Equipment	7.34	1.59	11.223
378	Electronic Components N.E.C.	5.12	1.97	1.369
385	Truck and Bus Bodies	4.74	1.88	-0.753
386	Motor Vehicle Parts and Accessories	5.25	1.80	0.859
389	Aircraft	5.76	1.74	0.207
392	Ship Building and Repairing	9.74	1.52	0.244
393	Boat Building and Repairing	8.54	1.55	13.571
397	Travel Trailers and Camper	9.94	1.34	1.068
399	Transportation Equipment N.E.C	4.88	1.77	0.205
400	Search & Navigation Equipment	5.88	1.95	0.291
408	Surgical Appliances and Supplies	6.55	1.88	-0.213
420	Games Toys and Children's Vehicles	10.34	1.51	-0.049
429	Signs and Advertising Displays	13.52	1.36	0.079
432	Manufacturing Industries N.E.C.	11.35	1.48	0.179
433	Railroads and Related Services	5.69	1.90	-0.675
434	Local Interurban Passenger Transit	28.10	1.24	-1.800
435	Motor Freight Transport and Warehousing	10.12	1.80	-32.467
436	Water Transportation	4.97	1.95	-0.345
437	Air Transportation	9.93	1.56	-0.828
438	Pipe Lines Except Natural Gas	5.20	1.64	-0.157
439	Arrangement Of Passenger Transportation	27.70	1.21	-0.143
440	Transportation Services	14.09	1.47	-0.266
441	Communications Except Radio and TV	4.28	1.98	-8.623

	Industry	Jobs per \$1 mil output	Employment Multiplier	Net Exports (millions)
442	Radio and TV Broadcasting	9.31	1.87	-1.593
443	Electric Services	1.88	2.16	-0.625
444	Gas Production and Distribution	1.28	2.82	77.752
445	Water Supply and Sewerage Systems	4.62	2.19	0.963
446	Sanitary Services and Steam Supply	7.31	1.71	-1.005
447	Wholesale Trade	13.01	1.44	-13.759
448	Building Materials & Gardening	24.49	1.24	-1.204
449	General Merchandise Stores	34.22	1.18	-6.273
450	Food Stores	22.37	1.27	-6.269
451	Automotive Dealers & Service Stations	18.38	1.33	-9.896
452	Apparel & Accessory Stores	37.39	1.17	-0.997
453	Furniture & Home Furnishings Stores	27.40	1.22	-1.252
454	Eating & Drinking	31.74	1.21	-28.351
455	Miscellaneous Retail	35.34	1.17	-4.387
456	Banking	6.68	1.63	4.426
457	Credit Agencies	24.48	1.23	-0.275
458	Security and Commodity Brokers	8.18	1.87	-2.645
459	Insurance Carriers	10.42	1.92	7.743
460	Insurance Agents and Brokers	24.38	1.33	-4.354
461	Owner-occupied Dwellings	5.71	1.72	-10.883
462	Real Estate	24.22	1.30	-13.310
463	Hotels and Lodging Places	31.58	1.29	-3.450
464	Laundry Cleaning and Shoe Repair	39.30	1.24	-1.872
465	Portrait and Photographic Studios	44.22	1.35	-0.655
466	Beauty and Barber Shops	24.58	1.27	-0.011
467	Funeral Service and Crematories	20.26	1.50	0.690
468	Miscellaneous Personal Services	13.91	1.56	-1.942
469	Advertising	16.59	1.43	-0.058
470	Other Business Services	20.00	1.46	1.893
471	Photofinishing Commercial Photography	34.95	1.21	-0.167
472	Services To Buildings	11.47	1.56	1.317
473	Equipment Rental and Leasing	43.87	1.18	-2.080
474	Personnel Supply Services	15.78	1.39	-0.348
475	Computer and Data Processing Services	82.09	1.10	-0.638
476	Detective and Protective Services	6.54	1.90	-0.241
477	Automobile Rental and Leasing	38.05	1.15	-4.492
478	Automobile Parking and Car Wash	12.70	1.44	2.000
479	Automobile Repair and Services	13.89	1.35	8.030
480	Electrical Repair Service	14.60	1.36	-2.310
481	Watch Clock Jewelry and Furniture Repair	16.05	1.37	0.033
482	Miscellaneous Repair Shops	14.31	1.75	-3.595

	Industry	Jobs per \$1 mil output	Employment Multiplier	Net Exports (millions)
483	Motion Pictures	17.86	1.43	-3.072
484	Theatrical Producers Bands Etc.	37.27	1.19	-0.483
485	Bowling Alleys and Pool Halls	69.67	1.08	0.044
487	Racing and Track Operation	45.02	1.15	-0.034
488	Amusement and Recreation Services N.E.C.	26.97	1.32	-0.827
489	Membership Sports and Recreation Clubs	12.14	1.66	-1.262
490	Doctors and Dentists	29.89	1.27	-28.231
491	Nursing and Protective Care	15.63	1.48	-6.792
492	Hospitals	18.35	1.37	-14.032
493	Other Medical and Health Services	12.30	1.62	-10.322
494	Legal Services	28.13	1.29	-6.748
495	Elementary and Secondary Schools	28.38	1.27	-2.633
496	Colleges Universities Schools	26.76	1.28	-0.158
497	Other Educational Services	28.88	1.26	-0.583
498	Job Training & Related Services	32.02	1.25	-0.200
499	Child Day Care Services	30.86	1.28	-1.194
500	Social Services N.E.C.	61.22	1.14	-3.907
501	Residential Care	17.02	1.46	-0.926
502	Other Nonprofit Organizations	23.18	1.35	-2.696
503	Business Associations	97.64	1.08	0.496
504	Labor and Civic Organizations	5.12	2.53	-1.853
505	Religious Organizations	15.29	1.63	-2.064
506	Engineering Architectural Services	23.57	1.33	-1.634
507	Accounting Auditing and Bookkeeping	20.67	1.36	6.939
508	Management and Consulting Services	21.22	1.34	-1.987
509	Research Development & Testing Services	21.55	1.68	-0.424
510	Local Government Passenger Transit	4.20	2.53	-0.866
512	Other State and Local Govt. Enterprises	15.18	1.55	-3.560
513	U.S. Postal Service	42.35	1.12	-1.529
519	Federal Government - Military	21.43	1.35	0.000
520	Federal Government - Non-Military	36.62	1.23	0.000
522	State & Local Government - Education	22.59	1.30	0.000
523	State & Local Government - Non-Education	123.98	1.07	0.000

Appendix B: 1997 Location Quotients and Employment Levels for Merced County.

SIC	Industry Description	LQ	Employment
	AGRICULTURAL	13.02	11,290
01	Agricultural production-crops	18.88	5,416
011	Cash Grains	10.78	148
0115	Corn	5.24	25
013	Field Crops, Except Cash Grains	36.02	1,266
0139	Field Crops, Except Cash Grains, N. E. C.	72.21	762
016	Vegetables	19.08	754
0161	Vegetables and Melons	19.08	754
017	Fruits and Tree Nuts	24.75	2,192
0173	Tree Nuts	201.30	1,123
0175	Deciduous Tree Fruits	7.05	239
0179	Fruits and Tree Nuts, Not Elsewhere Classified	71.63	425
018	Horticultural Specialties	2.75	219
0181	Ornamental Floriculture and Nursery Products	3.12	219
019	General Farms, Primarily Crop	27.71	836
0191	General Farms, Primarily Crop	27.71	836
02	Agricultural Production-Livestock and Animal Specialties	26.44	2,343
021	Livestock, Except Dairy and Poultry	4.40	135
0211	Beef Cattle Feedlots	2.92	21
0212	Beef Cattle, Except Feedlots	7.27	86
0214	Sheep and Goats	19.61	15
024	Dairy Farms	81.70	2,026
0241	Dairy Farms	81.70	2,026
025	Poultry and Eggs	5.52	123
0251	Broiler, Fryer, and Roaster Chickens	1.61	7
0253	Turkey and Turkey Eggs	17.45	79
027	Animal Specialties	4.97	42
0279	Animal Specialties, Not Elsewhere Classified	9.21	26
029	General Farms, Primarily Livestock and Animal Specialties	7.47	18
0291	General Farms, Primarily Livestock and Animal Specialties	7.47	18
07	Agricultural services	7.45	3,523
071	Soil preparation services	24.17	53
0711	Soil Preparation Services	24.17	53
072	Crop services	21.56	1,190
0721	Crop planting, cultivating, and protecting	29.24	249
0722	Crop harvesting, primarily by machine	51.91	350

SIC	Industry Description	LQ	Employment
0723	Crop preparation services for market, except cotton ginning	15.96	547
0724	Cotton ginning	7.76	44
074	Veterinary services	1.69	152
0740	Veterinary services	1.69	152
075	Animal services, except veterinary	2.36	59
0751	Livestock services, except veterinary	8.96	54
0752	Animal specialty services, except veterinary	0.26	5
076	Farm labor and management services	22.32	1,959
0761	Farm labor contractors	24.28	1,911
0762	Farm management services	5.29	48
078	Landscape and horticultural services	0.52	110
0780	Landscape and horticultural services unallocated	0.52	110
08	Forestry	0.23	3
081	Timber tracts	0.60	3
0811	Timber tracts	0.60	3
09	Fishing, hunting, and trapping	0.84	5
091	Commercial fishing	1.07	5
0912	Finfish	1.89	5
	MINING	0.01	3
13	Oil and gas extraction	0.01	1
138	Oil and gas field services	0.01	1
1382	Oil and gas exploration services	0.09	1
14	Nonmetallic minerals, except fuels	0.04	2
144	Sand and gravel	0.11	2
1442	Construction sand and gravel	0.12	2
	CONSTRUCTION	0.63	1,731
15	General contractors and operative builder	0.93	598
152	General building contractors	1.51	503
1521	General contractors-single-family houses	1.51	468
1522	General contractors-residential buildings, other than single-family	1.47	35
154	General building contractors-nonresidential buildings	0.32	94
1541	General contractors-industrial buildings and warehouses	0.18	15
1542	General contractors-nonresidential buildings, other than industrial buildings and warehouses	0.37	79
16	Heavy construction, ex. building	0.47	182
161	Highway and street construction, except elevated highways	0.07	8
1611	Highway and street construction, except elevated highways	0.07	8
162	Heavy construction, except highway	0.64	174

SIC	Industry Description	LQ	Employment
1623	Water, sewer, pipeline, & communications & power line const.	0.72	85
1629	Heavy construction, not elsewhere classified	0.68	89
17	Special trade contractors	0.55	951
171	Plumbing, heating, air-conditioning	0.54	212
1711	Plumbing, heating, and air-conditioning	0.54	212
172	Painting and paper hanging	0.62	60
1721	Painting and paper hanging	0.62	60
173	Electrical work	0.26	86
1731	Electrical work	0.26	86
174	Masonry, stonework, and plastering	0.51	116
1741	Masonry and other stonework	0.12	10
1742	Plastering, drywall, and insulation	0.74	93
1743	Terrazzo, tile, marble, mosaic work	0.68	13
175	Carpentry and floor work	0.21	26
1751	Carpentry work	0.24	23
1752	Floor laying and floor work, N. E. C.	0.10	3
176	Roofing, siding, and sheet metal work	0.40	45
1761	Roofing, siding, and sheet metal work	0.40	45
177	Concrete work	1.83	257
1771	Concrete work	1.83	257
178	Water well drilling	0.91	10
1781	Water well drilling	0.91	10
179	Misc. special trade contractors	0.46	139
1791	Structural steel erection	0.11	4
1793	Glass and glazing work	0.95	19
1794	Excavation work	0.79	56
1795	Wrecking and demolition work	0.51	4
1796	Installing building equipment, N. E. C.	0.45	17
1799	Special trade contractors, N. E. C.	0.30	38
	MANUFACTURING	1.32	12,113
20	Food and kindred products	9.46	7,841
201	Meat products	14.22	3,406
2011	Meat packing plants	1.95	143
2015	Poultry slaughtering and processing	27.28	3,263
202	Dairy products	9.93	696
2022	Cheese, natural and processed	23.11	452
2023	Dry, condensed, evaporated products	14.90	121
2026	Fluid milk	4.03	123
203	Preserved fruits and vegetables	26.19	2,935

SIC	Industry Description	LQ	Employment
2033	Canned fruits and vegetables	19.35	663
2034	Dehydrated fruits, vegetables, soups	23.48	206
2037	Frozen fruits and vegetables	86.21	2,066
204	Grain mill products	0.49	30
2044	Rice milling	0.40	1
2048	Prepared feeds, N. E. C.	1.47	29
205	Bakery products	0.03	3
2051	Bread, cake, and related products	0.04	3
207	Fats and Oils	0.88	14
2074	Cottonseed oil mills	5.53	7
2075	Soybean oil mills	1.43	7
208	Beverages	8.03	718
2084	Wines, brandy, and brandy spirits	21.78	240
2086	Bottled and canned soft drinks	10.22	478
209	Misc. food and kindred products	0.44	39
2099	Food preparations, N. E. C.	1.11	39
21	Tobacco products	0.69	14
214	Tobacco stemming and redrying	4.10	14
2141	Tobacco stemming and redrying	4.10	14
22	Textile mill products	0.05	14
226	Textile finishing, except wool	0.42	14
2261	Finishing plants, cotton	0.91	14
23	Apparel and other textile products	0.04	16
233	Women's and misses' outerwear	0.03	4
2339	Women's and misses' outerwear, N. E. C.	0.05	4
239	Misc. fabricated textile products	0.11	12
2391	Curtains and draperies	0.41	4
2394	Canvas and related products	0.82	8
24	Lumber and wood products	1.14	444
241	Logging	0.63	25
2411	Logging	0.63	25
243	Millwork, plywood & structural members	2.00	290
2431	Millwork	4.61	268
2434	Wood kitchen cabinets	0.48	19
2439	Structural wood members, N. E. C.	0.16	3
244	Wood Containers	4.61	122
2448	Wood pallets and skids	5.88	122
245	Wood buildings and mobile homes	0.17	8
2452	Prefabricated wood buildings	0.73	8

SIC	Industry Description	LQ	Employment
25	Furniture and fixtures	0.14	36
251	Household furniture	0.07	9
2511	Wood household furniture	0.15	9
253	Public building & related furniture	0.09	2
2531	Public building and related furniture	0.09	2
254	Partitions and fixtures	0.58	25
2541	Wood partitions and fixtures	1.01	25
26	Paper and allied products	0.51	172
265	Paperboard containers and boxes	1.50	162
2653	Corrugated and solid fiber boxes	2.32	152
2655	Fiber cans, drums & similar products	1.38	10
267	Misc. converted paper products	0.08	10
2673	Bags: plastics, laminated, & coated	0.51	10
27	Printing and publishing	1.41	1,069
271	Newspapers	0.21	45
2711	Newspapers: publishing, or publishing and printing	0.21	45
275	Commercial Printing	3.65	1,024
2752	Commercial printing, lithographic	0.12	21
2759	Commercial printing, N. E. C.	11.30	1,003
28	Chemicals and allied products	0.12	63
283	Drugs	0.05	7
2836	Biological products exc. diagnostic	0.85	7
284	Soap, cleaners, and toilet goods	0.18	14
2841	Soap and other detergents	0.68	14
287	Agricultural chemicals	1.08	28
2873	Nitrogenous fertilizers	3.14	14
2875	Fertilizers, mixing only	2.91	14
289	Miscellaneous chemical products	0.31	14
2893	Printing ink	1.73	14
30	Rubber and misc. plastics products	0.47	231
308	Miscellaneous plastics products, N. E. C.	0.64	231
3081	Unsupported plastics film & sheet	7.01	217
3089	Plastics products, N. E. C.	0.06	14
31	Leather and leather products	0.47	21
317	Handbags and personal leather goods	4.41	21
3172	Personal leather goods, N. E. C.	6.78	21
32	Stone, clay, and glass products	0.52	140
327	Concrete, gypsum, and plaster products	1.31	140
3272	Concrete products, N. E. C.	0.08	3

SIC	Industry Description	LQ	Employment
3273	Ready-mixed concrete	2.60	137
34	Fabricated metal products	0.58	422
341	Metal cans and shipping containers	6.52	120
3411	Metal cans	2.43	36
3412	Metal barrels, drums, and pails	23.21	84
344	Fabricated structural metal products	0.70	157
3444	Sheet metalwork	2.39	141
3446	Architectural metal work	1.05	16
345	Screw machine products, bolts, etc.	0.86	44
3451	Screw machine products	1.66	44
347	Metal services, N. E. C.	0.06	4
3471	Plating and polishing	0.10	4
349	Misc. fabricated metal products	0.76	98
3496	Misc. fabricated wire products	0.14	4
3499	Fabricated metal products, N. E. C.	3.04	94
35	Industrial machinery and equipment	0.20	209
352	Farm and garden machinery	3.43	176
3523	Farm machinery and equipment	4.65	176
353	Construction and related machinery	0.10	12
3535	Conveyors and conveying equipment	0.60	12
354	Metalworking machinery	0.02	3
3545	Machine tool accessories	0.11	3
355	Special industry machinery	0.06	5
3552	Textile machinery	0.42	3
3556	Food products machinery	0.16	2
359	Industrial machinery, N. E. C.	0.07	13
3599	Industrial machinery, N. E. C.	0.09	13
36	Electronic & other electric equipment	0.96	797
364	Electric lighting and wiring equipment	7.45	664
3648	Lighting equipment, N. E. C.	101.51	664
367	Electronic components and accessories	0.42	133
3679	Electronic components, N. E. C.	1.86	133
37	Transportation equipment	0.59	533
371	Motor vehicles and equipment	0.47	227
3713	Truck and bus bodies	3.17	63
3714	Motor vehicle parts and accessories	0.52	137
3715	Truck trailers	1.63	27
372	Aircraft and parts	0.02	5
3721	Aircraft	0.04	5

SIC	Industry Description	LQ	Employment
373	Ship and boat building and repairing	3.15	245
3731	Ship building and repairing	0.08	4
3732	Boat building and repairing	8.64	241
379	Miscellaneous transportation equipment	2.12	56
3792	Travel trailers and campers	4.99	53
3799	Transportation equipment, N. E. C.	0.24	3
38	Instruments and related products	0.08	35
381	Search and navigation equipment	0.27	21
3812	Search and navigation equipment	0.27	21
385	Ophthalmic goods	0.81	14
3851	Ophthalmic goods	0.81	14
39	Miscellaneous manufacturing industries	0.29	56
399	Miscellaneous manufactures	0.71	56
3993	Signs and advertising specialties	0.42	14
3999	Manufacturing industries, N. E. C.	1.37	42
	TRANSPORTATION AND PUBLIC UTILITIES	0.72	2,174
41	Local and interurban passenger transit	1.01	214
411	Local and suburban transportation	0.54	55
4119	Local passenger transportation, N. E. C.	0.69	55
412	Taxicabs	0.27	4
4121	Taxicabs	0.27	4
414	Bus charter service	1.64	26
4141	Local bus charter service	4.54	26
415	School buses	1.91	129
4151	School buses	1.91	129
42	Trucking and warehousing	1.19	973
421	Trucking & courier services, ex. air	1.27	944
4212	Local Trucking without Storage	2.32	547
4213	Trucking, except local	0.91	378
4214	Local Trucking with Storage	0.19	7
4215	Courier Services, except Air	0.22	12
422	Public warehousing and storage	0.36	28
4221	Farm product warehousing and storage	1.58	6
4222	Refrigerated warehousing and storage	0.49	6
4225	General warehousing and storage	0.36	17
44	Water transportation	0.04	4
441	Deep sea foreign trans. of freight	0.55	4
4412	Deep sea foreign transportation of freight	0.55	4
45	Transportation by air	0.16	88

SIC	Industry Description	LQ	Employment
451	Air transportation, scheduled	0.13	64
4512	Air transportation, scheduled	0.14	35
4513	Air courier services	0.12	28
458	Airports, flying fields, & services	0.41	24
4581	Airports, flying fields, and airport terminal services	0.41	24
46	Pipelines, except natural gas	0.57	4
461	Pipelines, except natural gas	0.57	4
4619	Pipelines, N. E. C.	24.25	4
47	Transportation services	0.21	45
472	Passenger transportation arrangement	0.18	19
4724	Travel agencies	0.23	19
478	Miscellaneous transportation services	1.23	26
4783	Packing and crating	3.19	22
4785	Fixed facilities and inspection and weighing services for motor vehicle transpiration	1.21	3
48	Communication	0.71	493
481	Telephone communication	0.43	204
4812	Radiotelephone communications	0.95	70
4813	Telephone communications, exc. radio	0.33	134
483	Radio and television broadcasting	0.61	72
4832	Radio broadcasting stations	1.30	72
484	Cable and other pay TV services	1.98	170
4841	Cable and other pay television services	1.98	170
489	Communication services, N. E. C.	4.29	47
4899	Communications services, N. E. C.	4.29	47
49	Electric, gas, and sanitary services	0.83	353
491	Electric services	0.06	11
4911	Electric services	0.06	11
492	Gas production and distribution	0.03	2
4922	Natural gas transmission	0.14	2
493	Combination utility services	3.72	295
494	Water supply	0.14	2
4941	Water supply	0.14	2
495	Sanitary services	0.48	38
4953	Refuse systems	0.51	32
4959	Sanitary services, N. E. C.	0.35	5
497	Irrigation systems	5.32	5
4971	Irrigation systems	5.32	5
	WHOLESALE TRADE	0.53	1,735

SIC	Industry Description	LQ	Employment
50	Wholesale trade - durable goods	0.34	665
501	Motor vehicles, parts, and supplies	0.50	126
5012	Automobiles and other motor vehicles	0.18	13
5013	Motor vehicle supplies and new parts	0.50	71
5014	Tires and tubes	0.85	13
5015	Motor vehicle parts, used	1.31	30
502	Furniture and homefurnishings	0.09	7
5023	Homefurnishings	0.17	7
503	Lumber and construction materials	0.13	16
5031	Lumber, plywood, and millwork	0.11	7
5032	Brick, stone, & related materials	0.35	9
504	Professional & commercial equipment	0.34	145
5044	Office equipment	0.84	81
5045	Computers, peripherals & software	0.23	39
5046	Commercial equipment, N. E. C.	0.47	13
5047	Medical and hospital equipment	0.15	13
505	Metals and minerals, except petroleum	0.05	4
5051	Metals service centers and offices	0.06	4
506	Electrical goods	0.09	23
5063	Electrical apparatus and equipment	0.16	17
5065	Electronic parts and equipment	0.05	7
507	Hardware, plumbing & heating equipment	0.27	40
5072	Hardware	0.26	14
5074	Plumbing & hydronic heating supplies	0.43	25
5075	Warm air heating & air-conditioning	0.03	1
508	Machinery, equipment, and supplies	0.71	284
5083	Farm and garden machinery	3.42	204
5084	Industrial machinery and equipment	0.23	38
5085	Industrial supplies	0.42	32
5087	Service establishment equipment	0.24	10
509	Miscellaneous durable goods	0.12	20
5091	Sporting & recreational goods	0.08	2
5092	Toys and hobby goods and supplies	0.21	3
5093	Scrap and waste materials	0.24	15
51	Wholesale trade - nondurable goods	0.80	1,070
511	Paper and paper products	0.21	28
5112	Stationery and office supplies	0.35	27
5113	Industrial & personal service paper	0.02	1
512	Drugs, proprietaries, and sundries	0.02	2

SIC	Industry Description	LQ	Employment
5122	Drugs, proprietaries, and sundries	0.02	2
513	Apparel, piece goods, and notions	0.34	37
5131	Piece goods & notions	0.43	11
5136	Men's and boys' clothing	0.55	14
5137	Women's and children's clothing	0.25	11
514	Groceries and related products	1.42	631
5141	Groceries, general line	1.33	187
5143	Dairy products, exc. dried or canned	0.84	18
5145	Confectionery	6.25	174
5147	Meats and meat products	2.90	79
5148	Fresh fruits and vegetables	2.52	126
5149	Groceries and related products, N. E. C.	0.35	47
515	Farm-product raw materials	1.84	97
5153	Grain and field beans	0.17	5
5154	Livestock	4.42	66
5159	Farm-product raw materials, N. E. C.	3.31	26
516	Chemicals and allied products	0.05	4
5169	Chemicals & allied products, N. E. C.	0.07	4
517	Petroleum and petroleum products	1.16	89
5171	Petroleum bulk stations & terminals	0.90	28
5172	Petroleum products, N. E. C.	1.34	61
518	Beer, wine, and distilled beverages	0.26	20
5181	Beer and ale	0.41	20
519	Misc. nondurable goods	0.61	162
5191	Farm supplies	1.18	96
5192	Books, periodicals, & newspapers	0.07	3
5193	Flowers & florists' supplies	0.21	6
5198	Paints, varnishes, and supplies	0.20	3
5199	Nondurable goods, N. E. C.	0.68	55
	RETAIL TRADE	0.92	9,952
52	Building materials & garden supplies	0.84	380
521	Lumber and other building materials	0.64	173
5211	Lumber and other building materials	0.64	173
523	Paint, glass, and wallpaper stores	1.44	47
5231	Paint, glass, and wallpaper stores	1.44	47
525	Hardware stores	1.48	119
5251	Hardware stores	1.48	119
526	Retail nurseries and garden stores	0.90	41
5261	Retail nurseries and garden stores	0.90	41

SIC	Industry Description	LQ	Employment
53	General merchandise stores	1.19	1,567
531	Department stores	1.24	1,437
5311	Department stores	1.24	1,437
533	Variety stores	0.46	30
5331	Variety stores	0.46	30
539	Misc. general merchandise stores	1.08	100
5399	Misc. general merchandise stores	1.08	100
54	Food stores	0.91	1,555
541	Grocery stores	0.95	1,432
5411	Grocery stores	0.95	1,432
542	Meat and fish markets	0.74	17
5421	Meat and fish markets	0.74	17
543	Fruit and vegetable markets	0.70	10
5431	Fruit and vegetable markets	0.70	10
544	Candy, nut, and confectionery stores	0.33	5
5441	Candy, nut, and confectionery stores	0.33	5
546	Retail bakeries	0.60	60
5461	Retail bakeries	0.60	60
549	Miscellaneous food stores	0.74	31
5499	Miscellaneous food stores	0.74	31
55	Automotive dealers & service stations	1.35	1,530
551	New and used car dealers	1.22	629
5511	New and used car dealers	1.22	629
552	Used car dealers	0.84	38
5521	Used car dealers	0.84	38
553	Auto and home supply stores	1.63	313
5531	Auto and home supply stores	1.63	313
554	Gasoline service stations	1.59	521
5541	Gasoline service stations	1.59	521
555	Boat dealers	0.16	3
5551	Boat dealers	0.16	3
556	Recreational vehicle dealers	0.46	6
5561	Recreational vehicle dealers	0.46	6
557	Motorcycle dealers	1.12	18
5571	Motorcycle dealers	1.12	18
559	Automotive dealers, N. E. C.	0.65	3
5599	Automotive dealers, N. E. C.	0.65	3
56	Apparel and accessory stores	0.34	184
561	Men's & boys' clothing stores	0.02	1

SIC	Industry Description	LQ	Employment
5611	Men's and boys' clothing stores	0.02	1
562	Women's clothing stores	0.23	32
5621	Women's clothing stores	0.23	32
563	Women's accessory & specialty stores	0.75	20
5632	Women's accessory and specialty stores	0.75	20
564	Children's and infants' wear stores	0.05	1
5641	Children's and infants' wear stores	0.05	1
565	Family clothing stores	0.30	53
5651	Family clothing stores	0.30	53
566	Shoe stores	0.44	45
5661	Shoe stores	0.44	45
569	Misc. apparel & accessory stores	0.69	32
5699	Misc. apparel and accessory stores	0.69	32
57	Furniture and homefurnishings stores	0.69	335
571	Furniture and homefurnishings stores	0.61	154
5712	Furniture stores	0.87	127
5713	Floor covering stores	0.43	18
5714	Drapery and upholstery stores	0.34	2
5719	Misc. homefurnishings stores	0.12	7
572	Household appliance stores	1.55	54
5722	Household appliance stores	1.55	54
573	Radio, television, & computer stores	0.63	127
5731	Radio, TV, & electronic stores	0.94	84
5734	Computer and software stores	0.29	17
5735	Record & prerecorded tape stores	0.53	20
5736	Musical instrument stores	0.38	6
58	Eating and drinking places	0.92	3,466
581	Eating and drinking places	0.92	3,466
5810	Eating and drinking places unallocated	0.92	3,466
59	Miscellaneous retail	0.68	936
591	Drug stores and proprietary stores	1.15	354
5912	Drug stores and proprietary stores	1.15	354
592	Liquor stores	0.82	45
5921	Liquor stores	0.82	45
593	Used merchandise stores	1.00	56
5932	Used merchandise stores	1.00	56
594	Miscellaneous shopping goods stores	0.65	315
5941	Sporting goods and bicycle shops	0.63	58
5942	Book stores	0.20	13

SIC	Industry Description	LQ	Employment
5943	Stationery stores	2.11	90
5944	Jewelry stores	0.73	51
5945	Hobby, toy, and game shops	0.73	43
5946	Camera & photographic supply stores	0.27	3
5947	Gift, novelty, and souvenir shops	0.19	21
5949	Sewing, needlework, and piece goods	1.47	36
596	Nonstore retailers	0.17	28
5962	Merchandising machine operators	0.38	13
5963	Direct selling establishments	0.57	15
598	Fuel dealers	0.61	29
5983	Fuel oil dealers	0.08	2
5984	Liquefied petroleum gas dealers	1.12	25
5989	Fuel dealers, N. E. C.	3.50	2
599	Retail stores, N. E. C.	0.43	110
5992	Florists	0.52	32
5993	Tobacco stores and stands	0.30	2
5995	Optical goods stores	0.43	14
5999	Miscellaneous retail stores, N. E. C.	0.42	62
	FINANCE, INSURANCE, AND REAL ESTATE	0.67	2,281
60	Depository institutions	0.76	755
602	Commercial banks	0.72	519
6021	National commercial banks	0.39	166
6022	State commercial banks	1.24	353
603	Savings institutions	0.61	79
6035	Savings institutions, Federally chartered	0.56	40
6036	Savings institutions, not Federally chartered	0.68	39
606	Credit unions	1.79	151
6061	Credit unions, Federally chartered	1.85	95
6062	Credit unions, not Federally chartered	1.71	56
609	Functions closely related to banking	0.16	6
6099	Functions related to depository banking, N. E. C.	0.18	6
61	Nondepository institutions	0.26	74
611	Federal & Fed.-sponsored credit	0.49	5
6111	Federal and Fed.-sponsored credit	0.49	5
614	Personal credit institutions	0.34	30
6141	Personal credit institutions	0.34	30
615	Business credit institutions	0.05	3
6159	Misc. business credit institutions	0.14	3
616	Mortgage bankers and brokers	0.28	36

SIC	Industry Description	LQ	Employment
6162	Mortgage bankers and loan correspondents	0.28	29
6163	Loan Brokers	0.30	7
62	Security and commodity brokers	0.11	33
621	Security brokers and dealers	0.13	29
6211	Security brokers, dealers, and Flotation companies	0.13	29
628	Security and commodity services	0.07	4
6282	Investment advice	0.08	4
63	Insurance carriers	1.05	721
632	Medical service and health insurance	0.03	5
6324	Hospital and medical service plans	0.04	5
633	Fire, marine, and casualty insurance	2.41	634
6331	Fire, marine, and casualty insurance	2.41	634
636	Title insurance	2.22	78
6361	Title insurance	2.22	78
637	Pension, health, and welfare funds	0.13	3
6371	Pension, health, and welfare funds	0.13	3
64	Insurance agents, brokers, & service	0.68	242
641	Insurance agents, brokers, and service	0.68	242
6411	Insurance agents, brokers, and service	0.68	242
65	Real estate	0.65	450
651	Real estate operators and lessors	0.92	261
6512	Operators of nonresidential buildings	0.07	6
6513	Operators of apartment buildings	1.07	186
6514	Operators of dwellings other than apartment buildings	0.12	1
6515	Operators of residential mobile home sites	3.32	52
6519	Lessors of real property, N. E. C.	3.50	16
653	Real estate agents and managers	0.35	117
6531	Real estate agents and managers	0.35	117
655	Subdividers and developers	1.28	72
6552	Subdividers and developers, N. E. C.	1.90	67
6553	Cemetery subdividers and developers	0.24	5
67	Holding and other investment offices	0.06	6
671	Holding offices	0.06	3
6719	Offices of holding companies, N. E. C.	0.08	3
673	Trusts	0.13	3
6733	Trusts, N. E. C.	0.42	3
	SERVICES	0.54	8,879
70	Hotels and other lodging places	0.32	271
701	Hotels and motels	0.33	269

SIC	Industry Description	LQ	Employment
7011	Hotels and motels	0.33	269
702	Rooming and boarding houses	0.59	2
7021	Rooming and boarding houses	0.59	2
703	Camps and recreational vehicle parks	0.05	1
7032	Sporting and recreational camps	0.10	1
72	Personal services	0.55	320
721	Laundry, cleaning, & garment services	0.40	87
7211	Power laundries, family & commercial	0.20	3
7212	Garment pressing & cleaners' agents	0.21	2
7215	Coin-operated laundries and cleaning	0.66	14
7216	Drycleaning plants, except rug	0.24	20
7217	Carpet and upholstery cleaning	1.10	23
7218	Industrial launderers	0.93	25
7219	Laundry and garment services, N. E. C.	0.37	2
722	Photographic studios, portrait	0.78	27
7221	Photographic studios, portrait	0.78	27
723	Beauty shops	0.63	124
7231	Beauty shops	0.63	124
724	Barber shops	0.92	5
7241	Barber shops	0.92	5
726	Funeral service and crematories	1.03	49
7261	Funeral service and crematories	1.03	49
729	Miscellaneous personal services	0.35	28
7291	Tax return preparation services	0.84	23
7299	Miscellaneous personal services, N. E. C.	0.09	5
73	Business services	0.34	1,323
731	Advertising	0.28	35
7311	Advertising agencies	0.07	6
7319	Advertising, N. E. C.	1.35	29
732	Credit reporting and collection	0.09	6
7322	Adjustment & collection services	0.13	6
733	Mailing, reproduction, stenographic	0.05	8
7334	Photocopying & duplicating services	0.11	4
7338	Secretarial & court reporting	0.18	4
734	Services to buildings	0.77	354
7342	Disinfecting & pest control services	1.60	69
7349	Building maintenance services, N. E. C.	0.68	285
735	Misc. equipment rental & leasing	0.51	62
7352	Medical equipment rental	0.51	10

SIC	Industry Description	LQ	Employment
7359	Equipment rental & leasing, N. E. C.	0.65	52
736	Personnel supply services	0.19	277
7361	Employment agencies	0.31	51
7363	Help supply services	0.17	225
737	Computer and data processing services	0.04	26
7371	Computer programming services	0.05	8
7374	Data processing and preparation	0.02	3
7375	Information retrieval services	0.05	2
7378	Computer maintenance & repair	0.43	12
7379	Computer related services, N. E. C.	0.01	2
738	Miscellaneous business services	0.66	555
7381	Detective & armored car services	0.50	138
7382	Security systems services	0.94	27
7384	Photofinishing laboratories	0.08	3
7389	Business services, N. E. C.	0.78	387
75	Auto repair, services, and parking	1.02	561
751	Automotive rentals, no drivers	0.19	18
7513	Truck rental and leasing, no drivers	0.53	13
7519	Utility trailer rental	1.53	6
753	Automotive repair shops	1.12	343
7532	Top & body repair & paint shops	1.44	143
7533	Auto exhaust system repair shops	0.76	10
7534	Tire retreading and repair shops	1.46	10
7536	Automotive glass replacement shops	2.34	35
7537	Automotive transmission repair shops	0.92	13
7538	General automotive repair shops	0.66	86
7539	Automotive repair shops, N. E. C.	1.71	46
754	Automotive services, except repair	1.76	200
7542	Carwashes	1.72	105
7549	Automotive services, N. E. C.	1.81	95
76	Miscellaneous repair services	0.49	90
762	Electrical repair shops	0.56	31
7622	Radio and television repair	0.60	8
7623	Refrigeration service and repair	0.87	11
7629	Electrical repair shops, N. E. C.	0.40	12
763	Watch, clock, and jewelry repair	4.94	14
7631	Watch, clock, and jewelry repair	4.94	14
764	Reupholstery and furniture repair	0.28	3
7641	Reupholstery and furniture repair	0.28	3

SIC	Industry Description	LQ	Employment
769	Miscellaneous repair shops	0.37	42
7692	Welding repair	0.98	15
7694	Armature rewinding shops	0.78	8
7699	Repair services, N. E. C.	0.21	19
78	Motion pictures	0.41	109
783	Motion picture theaters	0.95	61
7832	Motion picture theaters, ex drive-in	0.98	61
784	Video tape rental	0.61	48
7841	Video tape rental	0.61	48
79	Amusement & recreation services	0.37	294
792	Producers, orchestras, entertainers	0.15	12
7929	Entertainers & entertainment groups	0.42	12
793	Bowling centers	1.68	67
7933	Bowling centers	1.68	67
794	Commercial sports	0.19	12
7948	Racing, including track operation	0.37	12
799	Misc. amusement, recreation services	0.34	203
7991	Physical fitness facilities	0.47	38
7992	Public golf courses	1.12	52
7993	Coin-operated amusement devices	0.05	2
7997	Membership sports & recreation clubs	0.40	62
7999	Amusement and recreation, N. E. C.	0.25	50
80	Health services	0.81	3,836
801	Offices & clinics of medical doctors	0.77	657
8011	Offices and clinics of doctors of medicine	0.77	657
802	Offices and clinics of dentists	1.09	339
8021	Offices and clinics of dentists	1.09	339
803	Offices of osteopathic physicians	0.67	16
8031	Offices of osteopathic physicians	0.67	16
804	Offices of other health practitioners	0.89	190
8041	Offices and clinics of chiropractors	1.12	47
8042	Offices and clinics of optometrists	1.69	64
8043	Offices and clinics of podiatrists	1.08	15
8049	Offices of health practitioners, N. E. C.	0.53	64
805	Nursing and personal care facilities	0.98	844
8051	Skilled Nursing care facilities	1.07	698
8059	Nursing and personal care facilities, N. E. C.	1.38	146
806	Hospitals	0.74	1,381
8062	General medical and surgical hospitals	0.80	1,381

SIC	Industry Description	LQ	Employment
807	Medical and dental laboratories	0.48	46
8071	Medical laboratories	0.25	19
8072	Dental laboratories	1.27	27
808	Home health care services	0.34	117
8082	Home health care services	0.34	117
809	Health and allied services, N. E. C.	1.53	246
8092	Kidney dialysis centers	2.97	66
8093	Specialty outpatient facilities, N. E. C.	1.21	121
8099	Health and allied services, N. E. C.	1.52	59
81	Legal services	0.41	190
811	Legal service	0.41	190
8111	Legal service	0.41	190
82	Educational services	0.05	35
821	Elementary and secondary schools	0.02	5
8211	Elementary and secondary schools	0.02	5
829	Schools & educational services, N. E. C.	0.38	29
8299	Schools and educational services, N. E. C.	0.38	29
83	Social services	0.82	981
832	Individual and family services	1.15	384
8322	Individual and family social services	1.15	384
833	Job training and related services	1.07	145
8331	Job training and Vocational rehabilitation services	1.07	145
835	Child day care services	0.31	88
8351	Child day care services	0.31	88
836	Residential care	0.95	332
8361	Residential care	0.95	332
839	Social services, N. E. C.	0.32	32
8399	Social services, N. E. C.	0.32	32
84	Museums, botanical, zoological gardens	0.27	12
841	Museums and art galleries	0.27	9
8412	Museums and art galleries	0.27	9
842	Botanical and zoological gardens	0.28	3
8422	Arboreta and botanical or zoological gardens	0.28	3
86	Membership organizations	0.18	87
861	Business associations	0.28	15
8611	Business associations	0.28	15
864	Civic and social associations	0.24	57
8641	Civic, social and fraternal associations	0.24	57
866	Religious organizations	0.22	14

SIC	Industry Description	LQ	Employment
8661	Religious organizations	0.22	14
869	Membership organizations, N. E. C.	0.03	1
8699	Membership organizations, N. E. C.	0.03	1
87	Engineering & management services	0.23	337
871	Engineering & architectural services	0.14	59
8711	Engineering services	0.16	54
8712	Architectural services	0.04	3
8713	Surveying services	0.07	2
872	Accounting, auditing, & bookkeeping	0.44	129
8721	Accounting, auditing, and bookkeeping services	0.44	129
873	Research and testing services	0.28	82
8731	Commercial physical research	0.28	31
8733	Noncommercial research organizations	0.46	31
8734	Testing laboratories	0.44	20
874	Management and public relations	0.14	66
8741	Management services	0.20	32
8742	Management consulting services	0.02	4
8743	Public relations services	0.32	6
8744	Facilities support services	0.14	6
8748	Business consulting, N. E. C.	0.21	18
88	Services, N. E. C.	2.32	433
881	Private households	2.32	433
8811	Private households	2.32	433

Appendix C: Employment Concentration Ratios

ECRs are similar to location quotients but use a different county as the reference area instead of using the United States. A location quotient for tree nuts is the ratio of the percentage of employment in tree nuts in Merced County to the percentage of employment in tree nuts in the United States. The ECR is the ratio of the percentage of employment in tree nuts in Merced County to the percentage of employment in tree nuts in some other county such as Fresno. When the ECR is greater than 1 means Merced has a higher concentration of employment in that particular industry than does the comparison county. An ECR below 1 means that Merced has a lower concentration of employment in that particular industry than does the comparison county. As with location quotients, ECRs between .75 and 1.25 will be considered close enough to one to be interpreted as similar employment concentrations.

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
	AGRICULTURAL	0.936	1.819	0.572	1.633	19.46
01	Agricultural production-crops	1.171	1.589	0.533	2.124	28.04
011	Cash Grains	14.708	3.060	NA	NA	NA
0115	Corn	NA	2.498	NA	NA	NA
013	Field Crops, Except Cash Grains	2.505	10.661	2.422	NA	NA
0139	Field Crops, Except Cash Grains, Not Elsewhere Classified	NA	10.576	7.506	NA	NA
016	Vegetables	1.912	1.667	NA	1.629	15.53
0161	Vegetables and Melons	1.912	1.667	NA	1.629	15.53
017	Fruits and Tree Nuts	0.728	1.552	0.260	1.368	68.45
0173	Tree Nuts	8.085	3.892	1.738	1.949	252.97
0175	Deciduous Tree Fruits	0.236	1.132	NA	0.355	25.08
0179	Fruits and Tree Nuts, Not Elsewhere Classified	2.589	1.896	0.668	4.711	82.53
018	Horticultural Specialties	3.700	0.515	NA	1.366	2.45
0181	Ornamental Floriculture and Nursery Products	5.068	NA	1.991	NA	3.98
019	General Farms, Primarily Crop	1.295	0.879	0.829	3.747	44.41
0191	General Farms, Primarily Crop	1.295	0.879	0.829	3.747	44.41
02	Agricultural Production-Livestock and Animal Specialties	6.059	4.919	2.638	2.062	124.87
021	Livestock, Except Dairy and Poultry	NA	3.519	1.023	1.873	18.10
0211	Beef Cattle Feedlots	NA	NA	NA	10.429	NA
0212	Beef Cattle, Except Feedlots	NA	2.604	0.959	1.504	11.91
0214	Sheep and Goats	1.552	NA	NA	NA	NA
024	Dairy Farms	8.992	6.249	3.326	3.051	1,369.13
0241	Dairy Farms	8.992	6.249	3.326	3.051	1,369.13
025	Poultry and Eggs	5.719	1.221	1.010	0.337	20.17
0251	Broiler, Fryer, and Roaster Chickens	1.365	NA	NA	0.083	NA
0253	Turkey and Turkey Eggs	6.160	NA	NA	0.639	NA
027	Animal Specialties	NA	NA	NA	NA	NA
0279	Animal Specialties, Not Elsewhere Classified	8.785	NA	2.561	0.949	NA
029	General Farms, Primarily Livestock and Animal Specialties	1.496	NA	NA	NA	NA
0291	General Farms, Primarily Livestock and Animal Specialties	1.496	NA	NA	NA	NA
07	Agricultural services	0.500	1.517	0.406	1.092	9.68
071	Soil preparation services	2.713	2.889	1.958	1.687	63.96
0711	Soil Preparation Services	2.713	2.889	1.958	1.687	63.96

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
072	Crop services	0.836	1.873	1.776	3.513	42.87
0721	Crop planting, cultivating, and protecting	0.751	3.868	1.429	4.480	70.11
0722	Crop harvesting, primarily by machine	3.316	5.409	1.642	2.986	81.00
0723	Crop preparation services for market, except cotton ginning	0.589	1.080	2.170	3.289	27.50
0724	Cotton ginning	0.766	NA	1.445	NA	NA
074	Veterinary services	2.694	1.956	1.797	1.306	3.01
0740	Veterinary services	2.694	1.956	1.797	1.306	3.01
075	Animal services, except veterinary	1.159	2.081	3.875	0.910	1.31
0751	Livestock services, except veterinary	10.137	17.987	NA	1.889	11.26
0752	Animal specialty services, except veterinary	0.110	0.197	0.328	0.138	0.12
076	Farm labor and management services	0.375	1.419	0.253	0.794	580.64
0761	Farm labor contractors	0.403	1.405	0.293	0.811	1,113.29
0762	Farm management services	0.100	2.321	0.039	0.437	27.96
078	Landscape and horticultural services	0.407	0.602	0.823	0.530	0.47
0780	Landscape and horticultural services unallocated	0.407	0.602	0.823	0.530	0.47
08	Forestry	0.724	NA	0.355	3.725	0.82
081	Timber tracts	2.172	NA	0.887	7.449	2.41
0811	Timber tracts	2.172	NA	0.887	7.449	2.41
09	Fishing, hunting, and trapping	3.620	NA	0.269	6.208	6.50
091	Commercial fishing	NA	NA	NA	NA	7.04
0912	Finfish	NA	NA	NA	NA	9.39
	MINING	0.034	0.074	0.041	1.490	0.34
13	Oil and gas extraction	0.021	0.083	NA	NA	0.68
138	Oil and gas field services	0.021	0.167	NA	NA	1.13
1382	Oil and gas exploration services	NA	NA	NA	NA	1.41
14	Nonmetallic minerals, except fuels	0.052	0.072	0.027	0.993	0.32
144	Sand and gravel	NA	0.084	0.059	0.993	NA
1442	Construction sand and gravel	NA	0.084	0.059	0.993	NA
	CONSTRUCTION	0.726	0.688	0.909	0.625	0.78
15	General contractors and operative builder	0.985	0.899	1.081	1.190	1.34
152	General building contractors	1.303	1.174	1.175	1.591	1.93
1521	General contractors-single-family houses	1.238	1.238	1.172	1.581	1.94
1522	General contractors-residential buildings, other than single-family	4.549	0.695	1.217	1.704	1.80
154	General building contractors-nonresidential buildings	0.640	0.449	0.751	0.564	0.52
1541	General contractors-industrial buildings and warehouses	1.689	0.789	0.739	1.379	0.30
1542	General contractors-nonresidential buildings, other than industrial buildings and warehouses	0.573	0.415	0.753	0.507	0.60
16	Heavy construction, ex. building	0.910	0.460	0.969	0.769	1.66
161	Highway and street construction, except elevated highways	0.114	0.060	0.182	0.145	0.22
1611	Highway and street construction, except elevated highways	0.114	0.060	0.182	0.145	0.22
162	Heavy construction, except highway	1.342	0.667	1.210	0.958	2.39
1623	Water, sewer, pipeline, and communications and power line construction	1.841	0.601	1.932	0.938	2.05
1629	Heavy construction, not elsewhere classified	1.307	1.235	0.892	1.285	3.76
17	Special trade contractors	0.604	0.653	0.818	0.469	0.57
171	Plumbing, heating, air-conditioning	0.755	0.765	1.062	0.625	0.61

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
1711	Plumbing, heating, and air-conditioning	0.755	0.765	1.062	0.625	0.61
172	Painting and paper hanging	0.605	0.844	1.223	0.434	0.52
1721	Painting and paper hanging	0.605	0.844	1.223	0.434	0.52
173	Electrical work	0.434	0.347	0.643	0.346	0.23
1731	Electrical work	0.434	0.347	0.643	0.346	0.23
174	Masonry, stonework, and plastering	0.372	0.618	0.516	0.252	0.39
1741	Masonry and other stonework	0.186	0.384	0.455	0.196	0.55
1742	Plastering, drywall, and insulation	0.456	0.774	0.687	0.244	0.40
1743	Terrazzo, tile, marble, mosaic work	0.238	0.312	0.192	0.482	0.28
175	Carpentry and floor work	0.215	0.208	0.279	0.116	0.22
1751	Carpentry work	0.257	0.340	0.400	0.122	0.37
1752	Floor laying and floor work, N. E. C.	0.095	0.053	0.084	0.086	0.05
176	Roofing, siding, and sheet metal work	0.465	0.309	0.309	0.326	0.52
1761	Roofing, siding, and sheet metal work	0.465	0.309	0.309	0.326	0.52
177	Concrete work	1.518	1.839	3.997	1.934	1.70
1771	Concrete work	1.518	1.839	3.997	1.934	1.70
178	Water well drilling	0.396	1.874	0.236	0.360	1.31
1781	Water well drilling	0.396	1.874	0.236	0.360	1.31
179	Misc. special trade contractors	0.509	0.539	0.663	0.433	0.82
1791	Structural steel erection	0.083	0.036	0.263	0.094	0.23
1793	Glass and glazing work	0.983	0.949	0.488	0.874	1.02
1794	Excavation work	1.314	2.469	1.947	2.726	4.01
1795	Wrecking and demolition work	1.267	1.499	NA	1.104	0.47
1796	Installing building equipment, N. E. C.	1.539	12.741	0.529	0.431	1.21
1799	Special trade contractors, N. E. C.	0.255	0.376	0.401	0.197	0.39
	MANUFACTURING	2.314	1.537	2.021	1.157	0.79
20	Food and kindred products	3.602	2.943	3.833	1.314	29.95
201	Meat products	5.640	19.904	NA	2.987	124.82
2011	Meat packing plants	1.759	2.112	NA	5.001	69.03
2015	Poultry slaughtering and processing	6.267	611.386	NA	2.954	NA
202	Dairy products	6.719	5.139	NA	1.810	52.26
2022	Cheese, natural and processed	NA	3.492	NA	4.966	39.57
2023	Dry, condensed, evaporated products	NA	NA	NA	3.196	NA
2026	Fluid milk	1.194	92.186	NA	0.490	NA
203	Preserved fruits and vegetables	3.676	2.195	4.294	1.254	26.49
2033	Canned fruits and vegetables	7.385	0.674	1.042	0.484	17.45
2034	Dehydrated fruits, vegetables, soups	0.479	123.514	4.348	0.502	4.09
2037	Frozen fruits and vegetables	7.448	7.418	NA	3.701	NA
204	Grain mill products	0.864	0.089	0.265	0.137	5.57
2044	Rice milling	NA	0.749	NA	NA	NA
2048	Prepared feeds, N. E. C.	2.070	0.906	0.519	0.145	14.85
205	Bakery products	0.028	0.046	0.443	1.862	0.11
2051	Bread, cake, and related products	0.043	0.050	0.443	1.862	0.17
207	Fats and Oils	0.390	NA	0.113	0.174	7.63
2074	Cottonseed oil mills	8.870	NA	0.057	NA	NA
2075	Soybean oil mills	NA	NA	NA	NA	19.71
208	Beverages	2.959	1.989	0.774	0.625	11.69

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
2084	Wines, brandy, and brandy spirits	3.314	0.774	0.283	0.234	16.82
2086	Bottled and canned soft drinks	3.785	28.098	NA	3.956	14.19
209	Misc. food and kindred products	0.217	1.093	0.699	0.125	2.86
2099	Food preparations, N. E. C.	0.285	1.257	0.699	0.757	4.61
21	Tobacco products	NA	NA	NA	NA	NA
214	Tobacco stemming and redrying	NA	NA	NA	NA	NA
2141	Tobacco stemming and redrying	NA	NA	NA	NA	NA
22	Textile mill products	0.208	0.477	NA	1.242	3.53
226	Textile finishing, except wool	3.942	NA	NA	5.794	10.75
2261	Finishing plants, cotton	3.942	NA	NA	5.794	13.91
23	Apparel and other textile products	0.676	0.084	0.270	1.045	0.49
233	Women's and misses' outerwear	2.027	1.713	0.131	2.483	0.62
2339	Women's and misses' outerwear, N. E. C.	6.758	1.713	0.131	2.483	0.67
239	Misc. fabricated textile products	0.568	0.063	NA	0.876	0.53
2391	Curtains and draperies	3.379	0.343	NA	4.966	1.11
2394	Canvas and related products	1.193	1.713	NA	0.993	1.85
24	Lumber and wood products	1.923	0.641	6.561	0.830	7.69
241	Logging	3.425	NA	3.694	NA	24.84
2411	Logging	3.425	NA	3.694	NA	24.84
243	Millwork, plywood & structural members	2.773	1.342	24.486	1.622	10.77
2431	Millwork	8.183	1.691	NA	9.644	37.42
2434	Wood kitchen cabinets	0.448	0.445	1.604	0.184	1.13
2439	Structural wood members, N. E. C.	0.102	0.200	NA	0.063	1.01
244	Wood Containers	2.463	0.905	36.054	1.170	7.61
2448	Wood pallets and skids	3.964	1.279	NA	1.858	147.22
245	Wood buildings and mobile homes	8.109	7.994	NA	0.035	33.79
2452	Prefabricated wood buildings	NA	NA	NA	0.064	45.05
25	Furniture and fixtures	0.452	0.114	10.639	0.278	0.71
251	Household furniture	0.158	0.066	NA	0.182	0.71
2511	Wood household furniture	0.302	0.116	NA	0.198	1.63
253	Public building & related furniture	5.068	NA	NA	0.037	NA
2531	Public building and related furniture	5.068	NA	NA	0.037	NA
254	Partitions and fixtures	1.545	0.155	7.388	1.052	1.60
2541	Wood partitions and fixtures	1.736	1.071	7.388	1.052	1.83
26	Paper and allied products	1.014	0.405	0.529	0.297	1.89
265	Paperboard containers and boxes	1.718	0.729	0.499	0.423	2.46
2653	Corrugated and solid fiber boxes	2.998	1.707	0.468	0.480	3.05
2655	Fiber cans, drums & similar products	3.899	NA	NA	NA	4.45
267	Misc. converted paper products	0.178	0.180	NA	0.051	1.29
2673	Bags: plastics, laminated, & coated	NA	NA	NA	8.277	NA
27	Printing and publishing	2.664	2.732	2.078	2.284	2.09
271	Newspapers	0.207	0.212	0.416	0.163	0.31
2711	Newspapers: publishing, or publishing and printing	0.207	0.212	0.416	0.163	0.31
275	Commercial Printing	6.847	8.100	3.439	11.994	4.74
2752	Commercial printing, lithographic	0.196	0.366	0.155	0.457	0.18
2759	Commercial printing, N. E. C.	23.535	14.526	6.175	25.413	19.30
28	Chemicals and allied products	0.777	0.292	18.618	1.125	0.21

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
283	Drugs	2.957	NA	NA	0.259	0.03
2836	Biological products exc. diagnostic	17.739	NA	NA	2.483	0.45
284	Soap, cleaners, and toilet goods	0.651	0.304	NA	1.053	0.38
2841	Soap and other detergents	70.957	0.591	NA	NA	0.45
287	Agricultural chemicals	1.067	0.232	8.275	4.966	5.77
2873	Nitrogenous fertilizers	1.203	NA	4.137	4.966	29.57
2875	Fertilizers, mixing only	70.957	0.291	NA	4.966	3.58
289	Miscellaneous chemical products	NA	NA	NA	3.160	0.89
2893	Printing ink	NA	NA	NA	NA	26.28
30	Rubber and misc. plastics products	1.812	0.524	1.177	0.979	1.04
308	Miscellaneous plastics products, N. E. C.	2.121	0.665	1.198	1.502	1.19
3081	Unsupported plastics film & sheet	33.328	NA	NA	NA	83.32
3089	Plastics products, N. E. C.	0.206	0.076	0.296	0.206	0.09
31	Leather and leather products	1.132	8.994	NA	5.794	14.78
317	Handbags and personal leather goods	NA	NA	NA	NA	44.35
3172	Personal leather goods, N. E. C.	NA	NA	NA	NA	70.96
32	Stone, clay, and glass products	0.604	0.297	0.127	0.293	0.85
327	Concrete, gypsum, and plaster products	1.494	0.678	1.217	2.431	2.86
3272	Concrete products, N. E. C.	0.185	0.022	NA	0.438	0.14
3273	Ready-mixed concrete	2.018	2.347	1.191	2.743	5.55
34	Fabricated metal products	1.099	0.620	2.422	0.481	0.86
341	Metal cans and shipping containers	25.342	3.362	NA	0.412	2,027.34
3411	Metal cans	7.603	1.009	NA	0.123	608.20
3412	Metal barrels, drums, and pails	NA	NA	NA	NA	NA
344	Fabricated structural metal products	0.587	0.382	1.289	0.436	1.44
3444	Sheet metalwork	2.836	4.104	13.890	1.542	2.16
3446	Architectural metal work	0.649	2.180	0.315	3.973	1.61
345	Screw machine products, bolts, etc.	NA	NA	NA	3.524	3.44
3451	Screw machine products	NA	NA	NA	3.524	4.06
347	Metal services, N. E. C.	0.094	0.052	0.088	0.552	0.03
3471	Plating and polishing	0.107	0.176	NA	1.104	0.04
349	Misc. fabricated metal products	9.934	1.180	NA	2.863	3.65
3496	Misc. fabricated wire products	5.068	1.713	NA	0.764	0.78
3499	Fabricated metal products, N. E. C.	10.357	7.045	NA	6.865	23.35
35	Industrial machinery and equipment	0.335	0.613	0.179	0.333	0.05
352	Farm and garden machinery	4.575	4.059	1.825	2.241	NA
3523	Farm machinery and equipment	4.670	4.059	1.825	2.241	NA
353	Construction and related machinery	0.126	0.185	0.158	0.805	0.73
3535	Conveyors and conveying equipment	NA	0.418	NA	0.903	0.89
354	Metalworking machinery	1.014	0.127	0.887	0.088	0.08
3545	Machine tool accessories	NA	NA	0.887	1.064	0.30
355	Special industry machinery	0.091	0.078	0.019	0.170	0.01
3552	Textile machinery	NA	NA	NA	NA	50.68
3556	Food products machinery	0.044	0.031	0.008	0.068	0.65
359	Industrial machinery, N. E. C.	0.163	0.123	0.854	0.039	0.03
3599	Industrial machinery, N. E. C.	0.237	0.125	0.854	0.094	0.03
36	Electronic & other electroc equipment	4.396	1.930	157.023	7.582	0.15

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
364	Electric lighting and wiring equipment	373.931	995.305	NA	NA	73.80
3648	Lighting equipment, N. E. C.	373.931	NA	NA	NA	172.58
367	Electronic components and accessories	96.299	0.380	26.203	4.403	0.03
3679	Electronic components, N. E. C.	224.697	4.480	NA	4.651	0.17
37	Transportation equipment	4.480	1.704	4.145	5.110	0.67
371	Motor vehicles and equipment	2.996	0.782	1.765	2.349	13.41
3713	Truck and bus bodies	3.757	3.564	NA	4.601	56.02
3714	Motor vehicle parts and accessories	2.734	0.614	1.065	6.300	9.72
3715	Truck trailers	3.421	0.547	NA	0.459	NA
372	Aircraft and parts	3.620	0.999	NA	NA	1.38
3721	Aircraft	25.342	NA	NA	NA	9.39
373	Ship and boat building and repairing	12.543	26.232	NA	101.391	188.14
3731	Ship building and repairing	20.273	NA	NA	1.655	22.53
3732	Boat building and repairing	12.464	25.803	NA	NA	214.29
379	Miscellaneous transportation equipment	2.512	6.995	NA	10.696	0.52
3792	Travel trailers and campers	268.622	13.241	NA	NA	42.64
3799	Transportation equipment, N. E. C.	0.136	NA	NA	0.573	0.67
38	Instruments and related products	0.273	0.413	NA	0.316	0.01
381	Search and navigation equipment	10.644	NA	NA	17.381	0.04
3812	Search and navigation equipment	10.644	NA	NA	17.381	0.04
385	Ophthalmic goods	0.788	NA	NA	0.319	1.73
3851	Ophthalmic goods	0.788	NA	NA	0.319	1.73
39	Miscellaneous manufacturing industries	0.507	0.464	1.182	1.324	0.99
399	Miscellaneous manufactures	2.426	0.517	16.549	2.075	1.63
3993	Signs and advertising specialties	0.898	0.208	NA	0.621	0.97
3999	Manufacturing industries, N. E. C.	11.204	2.469	24.824	8.691	2.18
	TRANSPORTATION AND PUBLIC UTILITIES	0.880	0.575	1.120	1.022	1.31
41	Local and interurban passenger transit	1.454	1.451	1.581	1.121	2.02
411	Local and suburban transportation	0.680	1.012	0.580	0.632	0.86
4119	Local passenger transportation, N. E. C.	0.685	1.288	0.580	0.746	1.03
412	Taxicabs	0.278	0.999	0.158	0.187	0.59
4121	Taxicabs	0.278	0.999	0.158	0.187	0.59
414	Bus charter service	3.765	1.344	NA	1.218	1.74
4141	Local bus charter service	8.785	NA	NA	1.218	2.57
415	School buses	3.070	2.004	NA	2.256	6.58
4151	School buses	3.070	2.004	NA	2.256	6.58
42	Trucking and warehousing	1.041	0.410	1.121	0.916	2.24
421	Trucking & courier services, ex. air	1.159	0.522	1.092	1.065	2.33
4212	Local Trucking without Storage	1.247	0.601	1.202	1.148	4.33
4213	Trucking, except local	1.171	0.515	1.117	1.021	2.05
4214	Local Trucking with Storage	0.386	0.112	0.099	0.424	0.17
4215	Courier Services, except Air	0.346	0.116	NA	0.514	0.23
422	Public warehousing and storage	0.265	0.052	8.275	0.159	1.00
4221	Farm product warehousing and storage	0.380	0.281	NA	0.596	NA
4222	Refrigerated warehousing and storage	0.207	0.273	1.773	0.057	2.53
4225	General warehousing and storage	0.292	0.036	NA	0.330	0.76
44	Water transportation	0.845	0.042	NA	0.828	8.45

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
441	Deep sea foreign trans. of freight	NA	NA	NA	NA	NA
4412	Deep sea foreign transportation of freight	NA	NA	NA	NA	NA
45	Transportation by air	0.325	0.612	6.502	0.700	0.33
451	Air transportation, scheduled	0.292	0.513	NA	0.614	0.26
4512	Air transportation, scheduled	0.287	0.504	NA	0.604	0.38
4513	Air courier services	0.287	0.506	NA	0.605	0.18
458	Airports, flying fields, & services	0.760	1.308	3.546	4.257	1.24
4581	Airports, flying fields, and airport terminal services	0.760	1.308	3.546	4.257	1.24
46	Pipelines, except natural gas	0.845	0.857	NA	NA	11.26
461	Pipelines, except natural gas	0.845	0.857	NA	NA	11.26
4619	Pipelines, N. E. C.	NA	NA	NA	NA	NA
47	Transportation services	0.281	0.293	1.108	0.369	0.27
472	Passenger transportation arrangement	0.357	0.370	0.802	0.445	0.15
4724	Travel agencies	0.396	0.398	0.802	0.507	0.20
478	Miscellaneous transportation services	0.794	0.506	3.842	0.609	5.94
4783	Packing and crating	1.448	0.929	NA	1.188	15.49
4785	Fixed facilities and inspection and weighing services for motor vehicle transpiration	NA	NA	NA	1.064	8.45
48	Communication	0.853	1.089	0.952	1.202	1.05
481	Telephone communication	0.659	0.683	0.431	0.872	0.68
4812	Radiotelephone communications	1.163	0.950	2.299	1.369	1.11
4813	Telephone communications, exc. radio	0.538	0.594	0.302	0.733	0.57
483	Radio and television broadcasting	0.356	1.429	2.503	0.553	1.57
4832	Radio broadcasting stations	0.931	1.429	2.503	1.090	2.97
484	Cable and other pay TV services	4.683	1.853	11.164	3.703	1.73
4841	Cable and other pay television services	4.683	1.853	11.164	3.703	1.73
489	Communication services, N. E. C.	1.578	4.026	NA	NA	2.31
4899	Communications services, N. E. C.	1.578	4.026	NA	NA	2.31
49	Electric, gas, and sanitary services	0.953	0.853	0.966	1.676	1.67
491	Electric services	0.416	0.647	0.722	3.902	1.82
4911	Electric services	0.416	0.647	0.722	3.902	1.82
492	Gas production and distribution	NA	0.500	NA	NA	NA
4922	Natural gas transmission	NA	NA	NA	NA	NA
493	Combination utility services	1.242	2.091	3.353	3.157	3.55
4932	Gas and other services combined	1.397	35.375	3.353	104.642	622.98
494	Water supply	0.375	0.016	0.045	0.993	0.06
4941	Water supply	0.375	0.016	0.045	0.993	0.06
495	Sanitary services	0.400	0.312	0.175	0.337	0.43
4953	Refuse systems	0.391	0.305	0.149	0.328	0.44
4959	Sanitary services, N. E. C.	0.384	0.300	NA	0.327	0.32
497	Irrigation systems	0.817	1.666	2.955	NA	16.89
4971	Irrigation systems	0.817	1.666	2.955	NA	16.89
	WHOLESALE TRADE	0.630	0.603	1.027	0.712	0.53
50	Wholesale trade - durable goods	0.470	0.508	0.658	0.627	0.25
501	Motor vehicles, parts, and supplies	0.373	0.563	5.319	0.677	1.07
5012	Automobiles and other motor vehicles	0.130	0.121	2.561	0.566	1.47
5013	Motor vehicle supplies and new parts	0.518	0.929	10.491	0.549	0.76

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
5014	Tires and tubes	0.370	1.344	NA	1.076	3.14
5015	Motor vehicle parts, used	0.457	0.988	2.533	1.433	2.61
502	Furniture and homefurnishings	0.296	0.617	0.591	0.316	0.08
5023	Homefurnishings	0.696	1.049	NA	1.580	0.22
503	Lumber and construction materials	0.178	0.103	0.086	0.239	0.24
5031	Lumber, plywood, and millwork	0.150	0.143	0.414	0.348	0.17
5032	Brick, stone, & related materials	0.616	0.509	0.069	0.447	1.27
504	Professional & commercial equipment	0.762	1.087	1.158	1.139	0.15
5044	Office equipment	1.515	2.228	NA	2.186	0.80
5045	Computers, peripherals & software	0.856	1.982	0.659	1.467	0.06
5046	Commercial equipment, N. E. C.	0.749	0.847	NA	2.306	0.72
5047	Medical and hospital equipment	0.186	0.232	0.384	0.234	0.20
505	Metals and minerals, except petroleum	0.057	0.038	0.050	0.120	0.13
5051	Metals service centers and offices	0.057	0.038	0.050	0.120	0.13
506	Electrical goods	0.308	0.233	1.046	0.279	0.02
5063	Electrical apparatus and equipment	0.431	0.225	1.435	0.364	0.14
5065	Electronic parts and equipment	0.358	0.382	0.591	0.217	0.01
507	Hardware, plumbing & heating equipment	0.406	0.641	0.876	0.424	0.53
5072	Hardware	0.470	0.488	NA	1.337	0.39
5074	Plumbing & hydronic heating supplies	0.741	0.882	1.137	0.369	1.18
5075	Warm air heating & air-conditioning	0.030	0.273	0.045	0.083	0.06
508	Machinery, equipment, and supplies	0.682	0.679	0.898	0.792	1.63
5083	Farm and garden machinery	1.523	1.381	0.843	1.747	74.92
5084	Industrial machinery and equipment	0.378	0.465	1.248	0.362	0.42
5085	Industrial supplies	0.502	0.295	1.182	0.399	0.81
5087	Service establishment equipment	0.201	0.316	0.657	0.243	0.34
509	Miscellaneous durable goods	0.174	0.196	0.100	0.222	0.15
5091	Sporting & recreational goods	0.317	0.666	NA	0.709	0.09
5092	Toys and hobby goods and supplies	2.534	0.346	NA	0.213	0.28
5093	Scrap and waste materials	0.151	0.286	0.084	0.284	0.27
51	Wholesale trade - nondurable goods	0.801	0.683	1.573	0.778	1.61
511	Paper and paper products	0.686	0.666	0.637	0.589	0.51
5112	Stationery and office supplies	2.042	2.998	1.228	0.753	2.61
5113	Industrial & personal service paper	0.038	0.032	0.045	0.083	0.03
512	Drugs, proprietaries, and sundries	0.118	0.130	0.169	0.552	0.05
5122	Drugs, proprietaries, and sundries	0.118	0.130	0.169	0.552	0.05
513	Apparel, piece goods, and notions	1.359	0.948	1.682	0.753	1.17
5131	Piece goods & notions	1.798	10.992	0.500	NA	1.74
5136	Men's and boys' clothing	0.724	0.375	NA	NA	1.78
5137	Women's and children's clothing	6.195	10.992	NA	0.683	0.79
514	Groceries and related products	0.959	0.711	5.328	1.081	2.57
5141	Groceries, general line	3.884	0.506	7.895	1.067	4.49
5143	Dairy products, exc. dried or canned	1.448	1.285	5.319	0.115	7.80
5145	Confectionery	4.666	3.161	3.546	5.611	20.70
5147	Meats and meat products	0.942	2.213	NA	1.140	3.44
5148	Fresh fruits and vegetables	0.450	1.234	5.319	34.762	2.65
5149	Groceries and related products, N. E. C.	0.349	0.241	4.630	0.567	0.48

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
515	Farm-product raw materials	2.235	1.711	0.896	0.792	63.03
5153	Grain and field beans	0.275	0.136	0.090	0.226	3.52
5154	Livestock	11.150	15.220	1.345	1.251	NA
5159	Farm-product raw materials, N. E. C.	1.345	1.658	7.684	0.547	219.63
516	Chemicals and allied products	0.144	0.255	NA	0.248	0.05
5169	Chemicals & allied products, N. E. C.	0.169	0.307	NA	0.382	0.07
517	Petroleum and petroleum products	1.652	2.135	1.384	0.825	3.92
5171	Petroleum bulk stations & terminals	1.183	1.332	NA	0.638	2.77
5172	Petroleum products, N. E. C.	2.008	2.950	0.949	0.953	4.84
518	Beer, wine, and distilled beverages	0.218	0.112	0.909	0.294	0.60
5181	Beer and ale	0.314	0.201	NA	0.464	0.73
519	Misc. nondurable goods	0.431	0.556	0.560	0.430	1.03
5191	Farm supplies	0.362	0.685	0.692	0.433	5.94
5192	Books, periodicals, & newspapers	0.634	2.248	NA	0.092	0.17
5193	Flowers & florists' supplies	0.434	0.108	0.154	1.242	0.34
5198	Paints, varnishes, and supplies	0.245	0.184	NA	0.287	0.40
5199	Nondurable goods, N. E. C.	0.702	0.705	0.493	0.910	0.56
	RETAIL TRADE	1.059	0.950	1.268	0.896	1.32
52	Building materials & garden supplies	0.954	0.620	1.090	0.665	1.38
521	Lumber and other building materials	0.694	0.429	0.852	0.438	0.82
5211	Lumber and other building materials	0.694	0.429	0.852	0.438	0.82
523	Paint, glass, and wallpaper stores	1.151	1.204	1.852	1.269	2.70
5231	Paint, glass, and wallpaper stores	1.151	1.204	1.852	1.269	2.70
525	Hardware stores	1.579	1.316	1.303	1.580	5.29
5251	Hardware stores	1.579	1.316	1.303	1.580	5.29
526	Retail nurseries and garden stores	1.517	0.574	2.203	0.697	1.65
5261	Retail nurseries and garden stores	1.517	0.574	2.203	0.697	1.65
53	General merchandise stores	1.285	1.061	1.384	1.038	2.27
531	Department stores	1.245	1.085	1.311	1.037	2.22
5311	Department stores	1.245	1.085	1.311	1.037	2.22
533	Variety stores	1.118	0.511	4.433	0.548	2.00
5331	Variety stores	1.118	0.511	4.433	0.548	2.00
539	Misc. general merchandise stores	2.613	1.071	3.477	1.444	3.54
5399	Misc. general merchandise stores	2.613	1.071	3.477	1.444	3.54
54	Food stores	1.201	1.066	0.960	0.870	1.64
541	Grocery stores	1.292	1.099	0.965	1.023	1.86
5411	Grocery stores	1.292	1.099	0.965	1.023	1.86
542	Meat and fish markets	0.406	0.375	0.558	0.741	1.27
5421	Meat and fish markets	0.406	0.375	0.558	0.741	1.27
543	Fruit and vegetable markets	4.608	1.249	NA	1.129	0.79
5431	Fruit and vegetable markets	4.608	1.249	NA	1.129	0.79
544	Candy, nut, and confectionery stores	0.342	0.500	0.084	0.089	0.37
5441	Candy, nut, and confectionery stores	0.342	0.500	0.084	0.089	0.37
546	Retail bakeries	0.658	1.117	2.533	0.322	0.65
5461	Retail bakeries	0.658	1.117	2.533	0.322	0.65
549	Miscellaneous food stores	1.001	1.347	1.409	0.531	0.72
5499	Miscellaneous food stores	1.001	1.347	1.409	0.531	0.72

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
55	Automotive dealers & service stations	1.312	1.171	1.470	1.203	2.15
551	New and used car dealers	1.303	1.149	1.745	1.096	1.60
5511	New and used car dealers	1.303	1.149	1.745	1.096	1.60
552	Used car dealers	1.107	1.055	1.321	1.085	5.06
5521	Used car dealers	1.107	1.055	1.321	1.085	5.06
553	Auto and home supply stores	1.126	1.001	1.285	1.032	2.58
5531	Auto and home supply stores	1.126	1.001	1.285	1.032	2.58
554	Gasoline service stations	1.886	1.542	1.351	1.934	3.26
5541	Gasoline service stations	1.886	1.542	1.351	1.934	3.26
555	Boat dealers	0.422	0.147	0.177	0.138	0.63
5551	Boat dealers	0.422	0.147	0.177	0.138	0.63
556	Recreational vehicle dealers	0.110	0.185	NA	0.164	0.68
5561	Recreational vehicle dealers	0.110	0.185	NA	0.164	0.68
557	Motorcycle dealers	3.801	1.101	3.546	0.638	1.50
5571	Motorcycle dealers	3.801	1.101	3.546	0.638	1.50
559	Automotive dealers, N. E. C.	0.106	0.749	NA	0.828	1.15
5599	Automotive dealers, N. E. C.	0.106	0.749	NA	0.828	1.15
56	Apparel and accessory stores	0.538	0.547	1.576	0.542	0.41
561	Men's & boys' clothing stores	0.056	0.030	0.148	0.028	0.04
5611	Men's and boys' clothing stores	0.056	0.030	0.148	0.028	0.04
562	Women's clothing stores	0.403	0.400	0.946	0.441	0.34
5621	Women's clothing stores	0.403	0.400	0.946	0.441	0.34
563	Women's accessory & specialty stores	0.600	1.620	NA	1.155	1.27
5632	Women's accessory and specialty stores	0.600	1.620	NA	1.155	1.27
564	Children's and infants' wear stores	0.069	0.071	NA	0.055	0.09
5641	Children's and infants' wear stores	0.069	0.071	NA	0.055	0.09
565	Family clothing stores	0.521	0.582	1.119	0.612	0.26
5651	Family clothing stores	0.521	0.582	1.119	0.612	0.26
566	Shoe stores	0.683	0.619	1.565	0.579	0.70
5661	Shoe stores	0.683	0.619	1.565	0.579	0.70
569	Misc. apparel & accessory stores	1.096	0.979	NA	0.993	0.92
5699	Misc. apparel and accessory stores	1.096	0.979	NA	0.993	0.92
57	Furniture and homefurnishings stores	0.798	0.808	1.414	0.799	0.59
571	Furniture and homefurnishings stores	0.748	0.804	1.282	0.683	0.98
5712	Furniture stores	1.048	1.421	2.085	0.874	1.57
5713	Floor covering stores	0.456	0.245	0.626	0.302	1.00
5714	Drapery and upholstery stores	0.169	0.300	0.591	0.261	0.43
5719	Misc. homefurnishings stores	0.210	0.318	0.259	0.543	0.13
572	Household appliance stores	1.555	1.173	2.280	1.176	1.78
5722	Household appliance stores	1.555	1.173	2.280	1.176	1.78
573	Radio, television, & computer stores	0.710	0.716	1.365	0.857	0.33
5731	Radio, TV, & electronic stores	0.920	1.291	1.056	1.027	0.62
5734	Computer and software stores	0.375	0.296	2.512	0.879	0.09
5735	Record & prerecorded tape stores	0.680	0.540	5.911	0.662	0.49
5736	Musical instrument stores	0.461	0.333	1.773	0.355	0.34
58	Eating and drinking places	1.017	0.964	1.308	0.902	1.21
581	Eating and drinking places	1.017	0.964	1.308	0.902	1.21

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
5810	Eating and drinking places unallocated	1.017	0.964	1.308	0.902	1.21
59	Miscellaneous retail	0.813	0.733	1.320	0.683	0.91
591	Drug stores and proprietary stores	0.968	0.909	1.162	0.768	1.62
5912	Drug stores and proprietary stores	0.968	0.909	1.162	0.768	1.62
592	Liquor stores	0.909	0.999	0.985	1.315	1.49
5921	Liquor stores	0.909	0.999	0.985	1.315	1.49
593	Used merchandise stores	1.213	0.803	NA	0.621	1.56
5932	Used merchandise stores	1.213	0.803	NA	0.621	1.56
594	Miscellaneous shopping goods stores	0.799	0.646	1.919	0.695	0.66
5941	Sporting goods and bicycle shops	0.702	0.619	1.371	0.571	0.54
5942	Book stores	0.503	0.639	3.842	0.286	0.17
5943	Stationery stores	0.916	1.336	7.599	2.352	1.20
5944	Jewelry stores	0.917	0.869	1.507	0.513	1.58
5945	Hobby, toy, and game shops	0.991	0.331	NA	0.676	0.73
5946	Camera & photographic supply stores	0.380	0.243	0.887	0.298	0.17
5947	Gift, novelty, and souvenir shops	0.397	0.307	0.365	0.470	0.26
5949	Sewing, needlework, and piece goods	1.738	1.300	10.639	0.894	2.05
596	Nonstore retailers	0.438	0.736	5.516	0.470	0.39
5962	Merchandising machine operators	0.784	2.051	NA	0.497	1.34
5963	Direct selling establishments	0.402	0.517	NA	0.846	0.45
598	Fuel dealers	1.065	0.813	0.323	1.895	18.15
5983	Fuel oil dealers	3.379	NA	NA	NA	NA
5984	Liquefied petroleum gas dealers	0.946	1.071	0.279	2.299	15.64
5989	Fuel dealers, N. E. C.	10.137	0.162	NA	0.451	NA
599	Retail stores, N. E. C.	0.537	0.516	1.102	0.428	0.58
5992	Florists	0.617	0.657	0.556	0.516	1.01
5993	Tobacco stores and stands	0.350	0.461	1.182	0.138	0.80
5995	Optical goods stores	1.163	1.076	1.655	0.610	0.85
5999	Miscellaneous retail stores, N. E. C.	0.463	0.450	1.929	0.424	0.45
	FINANCE, INSURANCE, AND REAL ESTATE	0.877	0.787	2.192	1.270	1.26
60	Depository institutions	1.217	0.744	2.242	1.188	1.49
602	Commercial banks	1.236	0.920	1.966	1.134	1.54
6021	National commercial banks	0.570	0.816	0.943	0.661	0.62
6022	State commercial banks	2.744	0.980	4.012	1.712	5.20
603	Savings institutions	0.843	0.209	1.334	0.716	1.05
6035	Savings institutions, Federally chartered	0.845	0.209	1.313	0.629	1.07
6036	Savings institutions, not Federally chartered	0.841	0.208	1.356	0.835	1.04
606	Credit unions	1.704	2.275	NA	2.819	2.16
6061	Credit unions, Federally chartered	6.978	5.696	NA	2.359	2.27
6062	Credit unions, not Federally chartered	0.747	1.127	NA	4.214	1.99
609	Functions closely related to banking	0.331	0.999	0.443	0.426	0.31
6099	Functions related to depository banking, N. E. C.	0.331	0.999	0.443	0.426	0.36
61	Nondepository institutions	0.472	0.621	2.734	0.476	0.65
611	Federal & Fed.-sponsored credit	0.384	0.319	NA	0.376	7.04
6111	Federal and Fed.-sponsored credit	0.384	0.319	NA	0.376	7.04
614	Personal credit institutions	0.626	0.908	1.970	1.049	1.27
6141	Personal credit institutions	0.626	0.908	1.970	1.049	1.27

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
615	Business credit institutions	0.103	0.196	NA	0.135	0.16
6159	Misc. business credit institutions	0.148	0.196	NA	0.339	0.30
616	Mortgage bankers and brokers	0.538	0.654	3.040	0.394	0.51
6162	Mortgage bankers and loan correspondents	0.523	0.654	2.857	0.379	0.51
6163	Loan Brokers	0.612	0.656	4.137	0.483	0.47
62	Security and commodity brokers	0.296	0.622	0.673	0.372	0.28
621	Security brokers and dealers	0.396	0.630	0.952	0.381	0.35
6211	Security brokers, dealers, and Flotation companies	0.396	0.630	0.952	0.381	0.35
628	Security and commodity services	0.124	0.600	0.215	0.382	0.11
6282	Investment advice	0.124	0.600	0.215	0.382	0.14
63	Insurance carriers	1.210	1.165	4.955	4.087	3.29
632	Medical service and health insurance	0.120	0.017	NA	0.776	0.14
6324	Hospital and medical service plans	0.131	0.017	NA	0.955	0.17
633	Fire, marine, and casualty insurance	2.534	4.187	74.945	6.322	5.82
6331	Fire, marine, and casualty insurance	2.534	4.187	74.945	6.322	5.82
636	Title insurance	1.532	1.250	0.623	1.424	1.79
6361	Title insurance	1.532	1.250	0.623	1.424	1.79
637	Pension, health, and welfare funds	0.190	0.112	NA	0.392	0.24
6371	Pension, health, and welfare funds	0.190	0.112	NA	0.392	0.24
64	Insurance agents, brokers, & service	0.632	0.709	2.466	1.138	1.44
641	Insurance agents, brokers, and service	0.632	0.709	2.466	1.138	1.44
6411	Insurance agents, brokers, and service	0.632	0.709	2.466	1.138	1.44
65	Real estate	0.742	0.640	1.546	0.932	0.71
651	Real estate operators and lessors	0.970	1.031	6.707	1.185	1.13
6512	Operators of nonresidential buildings	0.100	0.100	0.591	0.281	0.16
6513	Operators of apartment buildings	1.174	1.259	12.215	1.644	1.29
6514	Operators of dwellings other than apartment buildings	0.076	0.057	0.591	0.022	0.10
6515	Operators of residential mobile home sites	2.143	2.784	4.391	1.745	2.43
6519	Lessors of real property, N. E. C.	1.210	1.777	NA	1.528	0.90
653	Real estate agents and managers	0.393	0.416	0.512	0.545	0.33
6531	Real estate agents and managers	0.393	0.416	0.512	0.545	0.33
655	Subdividers and developers	3.146	0.475	3.274	1.640	1.65
6552	Subdividers and developers, N. E. C.	4.468	0.509	3.046	3.540	2.38
6553	Cemetery subdividers and developers	0.634	0.254	NA	0.200	0.32
67	Holding and other investment offices	0.047	0.128	0.064	0.137	0.13
671	Holding offices	0.354	0.428	0.177	0.466	0.78
6719	Offices of holding companies, N. E. C.	0.354	0.428	0.177	0.466	0.79
673	Trusts	0.027	0.562	NA	0.087	0.20
6733	Trusts, N. E. C.	0.524	8.994	NA	0.196	0.61
	SERVICES	0.674	0.659	0.895	0.709	0.50
70	Hotels and other lodging places	0.671	0.997	0.316	1.127	0.68
701	Hotels and motels	0.705	1.039	0.378	1.121	0.68
7011	Hotels and motels	0.705	1.039	0.378	1.121	0.68
702	Rooming and boarding houses	5.068	1.999	0.118	4.966	0.97
7021	Rooming and boarding houses	5.068	1.999	0.118	4.966	0.97
703	Camps and recreational vehicle parks	0.050	0.120	0.008	NA	0.25
7032	Sporting and recreational camps	0.080	2.998	0.009	NA	0.29

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
72	Personal services	0.677	0.632	1.784	0.531	0.90
721	Laundry, cleaning, & garment services	0.338	0.476	0.970	0.372	0.72
7211	Power laundries, family & commercial	1.086	0.749	NA	0.248	1.03
7212	Garment pressing & cleaners' agents	0.203	0.074	0.197	0.043	0.09
7215	Coin-operated laundries and cleaning	0.845	0.893	0.827	1.337	2.17
7216	Drycleaning plants, except rug	0.301	0.387	3.940	0.410	0.49
7217	Carpet and upholstery cleaning	1.340	0.663	4.531	1.680	1.75
7218	Industrial launderers	0.302	NA	2.463	0.309	1.36
7219	Laundry and garment services, N. E. C.	0.290	0.240	NA	0.709	0.36
722	Photographic studios, portrait	0.752	0.786	NA	0.632	1.48
7221	Photographic studios, portrait	0.752	0.786	NA	0.632	1.48
723	Beauty shops	1.419	0.722	6.663	0.584	0.88
7231	Beauty shops	1.419	0.722	6.663	0.584	0.88
724	Barber shops	2.112	1.363	NA	1.774	1.72
7241	Barber shops	2.112	1.363	NA	1.774	1.72
726	Funeral service and crematories	1.217	1.148	2.228	1.484	6.32
7261	Funeral service and crematories	1.217	1.148	2.228	1.484	6.32
729	Miscellaneous personal services	0.579	0.418	0.613	0.357	0.45
7291	Tax return preparation services	1.014	0.439	0.850	0.544	1.06
7299	Miscellaneous personal services, N. E. C.	0.196	0.341	0.269	0.138	0.13
73	Business services	0.613	0.483	1.130	0.771	0.18
731	Advertising	0.569	0.512	10.343	0.695	0.42
7311	Advertising agencies	0.134	0.109	NA	0.287	0.09
7319	Advertising, N. E. C.	2.371	6.688	8.570	1.946	3.27
732	Credit reporting and collection	0.267	0.155	0.253	0.160	0.23
7322	Adjustment & collection services	0.274	0.237	0.253	0.166	0.30
733	Mailing, reproduction, stenographic	0.095	0.173	0.788	0.094	0.04
7334	Photocopying & duplicating services	0.108	0.162	1.182	0.101	0.05
7338	Secretarial & court reporting	0.236	0.255	1.182	0.153	0.26
734	Services to buildings	1.103	1.384	2.989	1.649	0.60
7342	Disinfecting & pest control services	0.935	1.089	2.266	0.888	1.30
7349	Building maintenance services, N. E. C.	1.154	1.481	3.239	2.081	0.53
735	Misc. equipment rental & leasing	0.453	0.382	1.309	0.268	0.70
7352	Medical equipment rental	1.584	0.207	0.985	0.497	1.17
7359	Equipment rental & leasing, N. E. C.	0.475	0.783	2.794	0.489	0.78
736	Personnel supply services	0.395	0.230	1.259	0.486	0.12
7361	Employment agencies	0.274	0.160	NA	0.338	0.19
7363	Help supply services	0.437	0.254	1.023	0.537	0.12
737	Computer and data processing services	0.200	0.212	0.049	0.529	0.01
7371	Computer programming services	0.240	0.338	0.206	0.310	0.01
7374	Data processing and preparation	0.069	0.067	NA	1.490	0.04
7375	Information retrieval services	0.563	0.182	0.296	NA	0.01
7378	Computer maintenance & repair	1.448	2.998	NA	2.292	0.14
7379	Computer related services, N. E. C.	0.099	0.143	NA	0.134	0.00
738	Miscellaneous business services	0.792	0.660	2.583	1.160	0.64
7381	Detective & armored car services	0.438	0.355	3.137	0.846	0.37
7382	Security systems services	0.671	0.686	NA	1.559	1.90

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
7384	Photofinishing laboratories	0.220	0.031	0.089	2.483	0.11
7389	Business services, N. E. C.	1.170	1.233	2.824	1.304	0.86
75	Auto repair, services, and parking	1.009	0.896	1.602	0.981	1.24
751	Automotive rentals, no drivers	0.214	0.613	0.626	0.771	0.23
7513	Truck rental and leasing, no drivers	1.734	0.886	NA	0.807	1.41
7519	Utility trailer rental	0.441	1.799	NA	2.483	1.69
753	Automotive repair shops	1.078	0.839	1.207	0.916	1.42
7532	Top & body repair & paint shops	1.243	1.099	1.300	1.268	1.46
7533	Auto exhaust system repair shops	2.204	1.666	1.970	2.069	2.56
7534	Tire retreading and repair shops	12.671	0.908	NA	0.497	8.89
7536	Automotive glass replacement shops	5.544	2.018	3.448	2.483	8.45
7537	Automotive transmission repair shops	0.757	1.257	0.404	0.367	1.57
7538	General automotive repair shops	0.654	0.456	0.770	0.595	0.81
7539	Automotive repair shops, N. E. C.	1.074	1.014	3.021	1.078	2.35
754	Automotive services, except repair	1.482	1.063	5.373	1.160	1.81
7542	Carwashes	1.185	0.902	6.896	0.899	1.72
7549	Automotive services, N. E. C.	2.049	1.325	4.319	1.709	1.91
76	Miscellaneous repair services	0.334	0.345	0.794	0.319	0.62
762	Electrical repair shops	0.352	0.958	3.665	0.658	0.58
7622	Radio and television repair	0.541	1.845	NA	0.903	0.88
7623	Refrigeration service and repair	0.885	0.999	3.251	0.546	4.04
7629	Electrical repair shops, N. E. C.	0.197	0.719	3.546	0.662	0.29
763	Watch, clock, and jewelry repair	5.913	6.995	NA	NA	7.63
7631	Watch, clock, and jewelry repair	5.913	6.995	NA	NA	7.63
764	Reupholstery and furniture repair	0.245	0.473	0.253	0.621	0.36
7641	Reupholstery and furniture repair	0.245	0.473	0.253	0.621	0.36
769	Miscellaneous repair shops	0.252	0.191	0.451	0.182	0.51
7692	Welding repair	1.334	0.405	0.269	0.642	1.22
7694	Armature rewinding shops	1.193	0.774	4.728	0.355	4.22
7699	Repair services, N. E. C.	0.128	0.110	0.535	0.103	0.28
78	Motion pictures	0.863	0.836	0.524	0.884	0.77
783	Motion picture theaters	1.108	1.288	0.555	1.377	1.00
7832	Motion picture theaters, ex drive-in	1.108	1.288	1.093	2.524	1.20
784	Video tape rental	0.770	0.648	0.604	0.637	0.79
7841	Video tape rental	0.770	0.648	0.604	0.637	0.79
79	Amusement & recreation services	0.422	0.484	0.900	0.506	0.46
792	Producers, orchestras, entertainers	0.441	0.255	0.887	0.432	0.21
7929	Entertainers & entertainment groups	1.170	0.330	0.887	0.784	0.59
793	Bowling centers	2.021	1.366	NA	1.270	2.94
7933	Bowling centers	2.021	1.366	NA	1.270	2.94
794	Commercial sports	0.197	0.428	3.546	2.292	0.50
7948	Racing, including track operation	0.258	1.058	3.546	5.959	13.52
799	Misc. amusement, recreation services	0.365	0.427	0.656	0.425	0.39
7991	Physical fitness facilities	0.615	0.285	0.387	0.232	0.52
7992	Public golf courses	1.187	1.559	3.842	16.140	2.04
7993	Coin-operated amusement devices	0.247	0.240	0.148	0.060	0.24
7997	Membership sports & recreation clubs	0.724	0.466	0.748	0.461	0.61

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
7999	Amusement and recreation, N. E. C.	0.145	0.299	0.484	0.350	0.27
80	Health services	0.859	0.868	1.397	0.740	1.33
801	Offices & clinics of medical doctors	0.677	0.667	1.339	0.553	1.02
8011	Offices and clinics of doctors of medicine	0.677	0.667	1.339	0.553	1.02
802	Offices and clinics of dentists	1.028	0.826	0.945	0.727	0.88
8021	Offices and clinics of dentists	1.028	0.826	0.945	0.727	0.88
803	Offices of osteopathic physicians	1.287	3.426	NA	NA	11.26
8031	Offices of osteopathic physicians	1.287	3.426	NA	NA	11.26
804	Offices of other health practitioners	1.107	1.026	2.160	0.717	1.00
8041	Offices and clinics of chiropractors	0.873	0.927	1.736	0.523	1.38
8042	Offices and clinics of optometrists	1.843	1.487	2.102	0.736	1.74
8043	Offices and clinics of podiatrists	1.086	1.249	8.866	1.960	2.24
8049	Offices of health practitioners, N. E. C.	0.922	0.806	2.225	0.795	0.57
805	Nursing and personal care facilities	1.212	1.015	1.564	1.012	2.54
8051	Skilled Nursing care facilities	1.246	1.020	1.563	1.057	2.38
8059	Nursing and personal care facilities, N. E. C.	1.197	0.988	1.569	0.837	3.74
806	Hospitals	0.735	0.797	1.360	0.656	1.25
8062	General medical and surgical hospitals	0.931	0.797	1.360	0.689	1.36
807	Medical and dental laboratories	0.824	0.793	3.399	0.580	0.45
8071	Medical laboratories	0.504	1.238	2.807	0.330	0.24
8072	Dental laboratories	1.487	0.632	3.990	1.242	1.17
808	Home health care services	0.608	1.083	4.068	0.888	1.87
8082	Home health care services	0.608	1.083	4.068	0.888	1.87
809	Health and allied services, N. E. C.	1.576	2.379	1.163	2.106	3.42
8092	Kidney dialysis centers	3.636	4.711	1.258	2.875	4.98
8093	Specialty outpatient facilities, N. E. C.	1.097	2.812	0.761	2.044	3.14
8099	Health and allied services, N. E. C.	2.136	1.272	NA	1.703	2.93
81	Legal services	0.481	0.737	1.134	0.709	0.43
811	Legal service	0.481	0.737	1.134	0.709	0.43
8111	Legal service	0.481	0.737	1.134	0.709	0.43
82	Educational services	0.097	0.038	0.827	0.157	0.03
821	Elementary and secondary schools	0.116	0.018	0.134	0.049	0.03
8211	Elementary and secondary schools	0.116	0.018	0.134	0.049	0.03
829	Schools & educational services, N. E. C.	0.394	1.242	5.714	0.343	0.29
8299	Schools and educational services, N. E. C.	0.394	1.242	5.714	0.343	0.29
83	Social services	0.948	0.758	0.376	1.130	1.26
832	Individual and family services	2.011	1.120	0.618	1.841	1.95
8322	Individual and family social services	2.011	1.120	0.618	1.841	1.95
833	Job training and related services	3.037	0.990	0.104	1.354	1.18
8331	Job training and Vocational rehabilitation services	3.037	0.990	0.104	1.354	1.18
835	Child day care services	0.555	0.308	0.981	0.546	0.41
8351	Child day care services	0.555	0.308	0.981	0.546	0.41
836	Residential care	0.842	0.671	0.677	0.954	1.84
8361	Residential care	0.842	0.671	0.677	0.954	1.84
839	Social services, N. E. C.	0.131	1.296	3.152	0.743	0.51
8399	Social services, N. E. C.	0.131	1.296	3.152	0.743	0.51
84	Museums, botanical, zoological gardens	0.742	1.090	0.047	NA	0.38

SIC	Description	ECR-Fresno	ECR-San Joaquin	ECR-Madera	ECR-Stanislaus	ECR-Santa Clara
841	Museums and art galleries	0.556	0.818	0.035	NA	0.32
8412	Museums and art galleries	0.556	0.818	0.035	NA	0.32
842	Botanical and zoological gardens	NA	NA	NA	NA	1.01
8422	Arboreta and botanical or zoological gardens	NA	NA	NA	NA	1.01
86	Membership organizations	0.235	0.297	0.418	0.162	0.25
861	Business associations	0.445	0.378	0.739	0.376	0.52
8611	Business associations	0.445	0.378	0.739	0.376	0.52
864	Civic and social associations	0.287	0.583	0.340	0.858	0.43
8641	Civic, social and fraternal associations	0.287	0.583	0.340	0.858	0.43
866	Religious organizations	0.201	0.145	1.655	0.125	0.11
8661	Religious organizations	0.201	0.145	1.655	0.125	0.11
869	Membership organizations, N. E. C.	0.052	0.187	0.197	0.004	0.08
8699	Membership organizations, N. E. C.	0.052	0.187	0.197	0.004	0.08
87	Engineering & management services	0.360	0.432	0.787	0.433	0.14
871	Engineering & architectural services	0.286	0.665	0.684	0.476	0.08
8711	Engineering services	0.378	0.797	1.030	0.635	0.08
8712	Architectural services	0.059	0.161	0.591	0.084	0.05
8713	Surveying services	0.161	0.857	0.070	0.621	0.37
872	Accounting, auditing, & bookkeeping	0.340	0.528	1.733	0.425	0.41
8721	Accounting, auditing, and bookkeeping services	0.340	0.528	1.733	0.425	0.41
873	Research and testing services	0.784	1.481	2.203	0.630	0.09
8731	Commercial physical research	2.311	1.859	1.666	2.749	0.05
8733	Noncommercial research organizations	2.345	30.978	1.666	1.924	0.24
8734	Testing laboratories	0.618	0.821	NA	0.284	0.14
874	Management and public relations	0.270	0.169	0.287	0.298	0.15
8741	Management services	0.217	0.104	0.249	0.198	0.21
8742	Management consulting services	0.086	0.072	0.045	0.134	0.04
8743	Public relations services	0.950	1.999	NA	0.828	0.16
8744	Facilities support services	3.801	NA	0.591	NA	0.31
8748	Business consulting, N. E. C.	0.426	0.701	3.546	0.813	0.14
88	Services, N. E. C.	0.478	1.200	1.684	0.784	2.68
881	Private households	0.478	1.200	1.684	0.784	2.68
8811	Private households	0.478	1.200	1.684	0.784	2.68