

Silicon Valley area was the early establishment of the semi-conductor production industry.

Most major computing systems manufacturing companies act primarily as final assembly operations and buy in most of the components and other peripherals they require on an OEM basis. Thus, substantial continuing business is offered to a variety of suppliers. There is no particular advantage to being located in a specific geographic area when manufacturing consists of assembly. For this reason, the computer industry has spread throughout the Southwestern U.S. as manufacturers have discovered the advantages of "tapping" available labour forces, professional and unskilled, in other areas. Los Angeles, Orange County, and San Diego in Southern California; Phoenix, Arizona; Salt Lake City, Utah; Boulder and Denver in Colorado, are examples. The relative location of these centers is shown on the area map which follows.

There seems to be no reason to regard these areas as specialist production areas although Silicon Valley is the acknowledged leader in semi-conductor production and Colorado has of late become recognized as an information storage center. A number of major information-users have relocated there including Storage Technology Corp., the nation's tenth largest computer manufacturer and a specialist in computer information transferral. We noted in an earlier section that increasing production costs and the desire to remain competitive has forced a number of the early leaders in the industry to move production facilities outside the U.S.*

* Industry analysts predict that this trend will continue.

3.2 MARKET CENTERS IN THE SOUTHWESTERN U.S.

The focal market center in the Southwestern U.S. is the State of California. According to the 1981 census, the State has a population of 23.9 million and contains more than 8.8 million households with an effective buying income of over \$216 million. California is undoubtedly a national leader. Retail sales in California in 1980 totalled \$108.15 billion and equal those of New York, Chicago, Detroit, and Philadelphia combined. In 1981 California produced a total of \$192.3 billion of manufactured goods, an increase of 9 percent over 1980 figures, despite the severe intervening recession. Canadian companies offering specialized computer products to certain segments of the market will note that California has the largest percentage of physicians — 13 percent of the national total; dentists — 11.8 percent; and hospitals — 8.7 percent — of any state in the U.S. In addition, California is the nation's leading agricultural production center. Farm receipts are in excess of \$13 billion and the state's farmers are considered among the most progressive in the nation. Unlike most older eastern market centers, the California market place is highly condensed with over 80 percent of all consumers, commercial businesses and manufacturing confined to two compact and readily defined geographic areas.

The Los Angeles marketing area — has a population of 10.7 million and is the nation's second largest populated center. The Los Angeles area is responsible for half of the economy of the State of California. This intense concentration of consumers and business prospects is contained within an area which has a 60 mile radius centered on downtown Los Angeles. The area consists of Los Angeles County, Orange County and the inhabited portions of three other counties. More than 28,000 manufacturing establishments are contained in the area and employment has consistently increased at a substantially greater rate than the national average. The Los Angeles market area ships approximately 55 percent of the State's total dollar value in manufactured goods and is responsible for 59 percent of California's value added by manufacture total. San Diego lies 108 miles to the south of Los Angeles and is often regarded as an extension of Los Angeles for marketing purposes.

The Los Angeles area with its diversity of industry is one of the world's major markets and offers excellent opportunities for export oriented Canadian computer producers. Los Angeles would make an ideal base for Canadian companies who wish to establish their own marketing and sales operations in the Southwestern U.S. The other centers selected for this study are within easy air travel distance of Los Angeles.

The San Francisco marketing area — has a population of 5.18 million (22 percent of the State's total inhabitants). San Francisco produces approximately 25 percent of California's total manufactured shipments. Industrial growth in most sectors has been somewhat slower than in the Los Angeles region. The San Francisco marketing area contains approximately 8,700 manufacturing establishments and, like Los Angeles, almost all of the population and manufacturing in the area is confined to a 60 mile radius circle centered on the city of San Francisco. The Silicon Valley region is located in the San Francisco marketing area.

By any standards, the State of California can be regarded as a major economy in its own right, having a gross regional product which places it eighth among the world's top ten ranking industrial economies. California is the main employment center in the western U.S. and contains 60 percent of the population of the U.S.'s seven Western States. There can be no doubt that California offers serious export prospects to Canadian computer producers from a commercial, business and a consumer point of view.

Three other states selected for this study are also becoming increasingly important production and marketing centers for the computer industry.

Arizona — with a population of 2.79 million in 1981 lists mining and agriculture among its principal industries but, at the same time, publishing, electronics, metal fabricating, aircraft and missile production are considered an important part of the State's economy. Arizona contains approximately 2,838 manufacturing establishments and shipped