

B. Computer Hardware and Software, Telecommunications, Defence Electronics

Silicon Valley is the world centre for the computer industry. Most of the major computer chip manufacturers, Intel (\$1.9 billion), National Semiconductor (\$1.8 billion), Chips and Technology, Fairchild, Advanced Micro Devices (\$997 million) are based here as are the major manufacturers of chip making equipment. While the local market share of silicon equipment has fallen to around 35%, a large percentage of new developments in computer technology still comes from this entrepreneurial centre.

Also headquartered here are the related industries such as: CAD/CAM; software development labs (eg IBM); personal computer manufacturers [Apple (10,000 people), Amdahl (10,000 people), Atari, Hewlett Packard (90,000 people), Tandem Sun]; Defence Electronics [CAE Link Singer, Harris, Litton, FMC, Avantek, California Microwave, Varian, Watkin Johnson]; Scientific Instruments [Varian, HP]; Telecommunications [3 Com, Novell, Northern Telecom, Rolm]; and Space [Lockheed Missles and Space, Ford Aerospace], etc.

KEY ORGANIZATIONS

Much of the early success in Silicon Valley is attributed to Stanford University. Stanford still runs a highly active technology transfer office that holds a large number of patents. Five other technology transfer offices exist in the area universities. Several private labs also have technology transfer offices.

Stanford is far from the only major university in the area. Other major institutions such as Berkley, Cal Poly, University of San Francisco, San Jose State, are all within the Bay area.

On the industrial side such research facilities as the Xerox Research park in Menlo Park (home of the Macintosh ikon approach and desktop publishing to name a few), Stanford Research Institute (3500 researchers) are all potential sources of technology cooperation agreements and collaboration.

On the government side, major labs such as Lawrence Berkley (6000) researchers, Lawrence Livermore (7000 researchers) for weapons, materials, and supercomputing are important.

The private sector has extensive research programs. For example IBM has over 2000 researchers at its St. Theresa research facility. Genetech runs one of the largest biotech/pharmaceutical commercial research and development labs in the US.

KEY SUPPORT PROGRAMS

California is open for business. Over 25% of investment is from foreign sources and most of this investment is in the technology sectors.

A. Venture Capital

Silicon Valley is the home of 25-30 % of the venture capital for high tech in the US. This large venture capital pool supports a significant percentage of the R&D done by the small entrepreneurial companies in the Valley.

B. Defence Spending

NASA Ames, Lockheed satellites, etc. are examples of military and space programs that are partially government funded and that support the local R&D community. In 1985 over 30 billion dollars in defence prime contracts were received by California firms. California receives over 20.8% of the prime defence contracts fuelling a large amount of high tech research and contracts.