Joint Venture's Index of Silicon Valley

Measuring Progress Toward a 21st Century Community
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We are pleased to present Joint Venture’s Index of Silicon Valley, the first comprehensive set of indicators on our region’s economy and quality of life. The Index of Silicon Valley was developed by Joint Venture: Silicon Valley Network—a collaborative forum for addressing regional issues that affect both our economy and community.

WHY THE INDEX OF SILICON VALLEY?

Silicon Valley is one of the most exciting economic regions in the world. Yet there is no easily accessible source of regional data on the Valley’s economic vitality and quality of life. The Index of Silicon Valley is designed to be this source.

The Index is an ongoing effort to track progress toward a 21st century community. The vision of a 21st century community, first outlined in the Blueprint for a 21st Century Community (June 1993), is a region that successfully connects its economy and quality of life. In this vision, world-class quality of life supports world-class people and companies. Our people and our companies, in turn, contribute to improving the region’s economy and quality of life.

AN ONGOING PROCESS

This inaugural version includes 26 indicators reflecting trends in the Valley’s economy and quality of life. It also includes a Summary Economic Index—a composite of six basic economic indicators. The indicators will be updated and refined annually; new ones will be added as they become available and are deemed important. In future versions, our objective is to also publish a summary quality-of-life index.

SNAPSHOT OF THE VALLEY

The indicators tell a story of new challenges and promise for our region.

- **Our Economic Paradox**—From 1991-1993, Silicon Valley lost jobs, yet enjoyed real wage increases and strong export growth. As our country’s value-added leader, we are a high-productivity economy that is continuously restructuring.

- **Signs of Economic Opportunity**—Software emerged as our fastest growing job generator. Venture capital has shifted toward software, communications, and biotechnology, laying the foundation for future growth.

- **Challenge of Full Participation**—A fundamental challenge facing our region is ensuring that all people have the opportunity to improve themselves and contribute to our community. Some troubling signs: increasing child-poverty rates, high drop-out rates from high school for growing minority groups, community health issues.

- **New Progress on Old Issues**—Our community has made progress in three significant areas. Housing affordability has improved, air quality has improved dramatically, and delays on our freeways have gone down.

We welcome your comments and questions.

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WHAT IS A GOOD INDICATOR?

Indicators are measurements that tell us how we are doing: whether we are going up or down; forward or backward; getting better, worse, or staying the same. Good indicators meet the following criteria:

- They are bellwethers that reflect fundamentals of long-term community health
- They can be understood and accepted by the community
- They have interest and appeal for use by the media
- They are statistically measurable on a frequent basis

The initial 26 indicators that follow were chosen in consultation with the Joint Venture Board, a Project Advisory Board of Bay Area economists, and the Joint Venture initiatives. With input from the Silicon Valley community and additional research, future versions of the Index will include modifications of existing indicators as well as some new ones.

HOW TO USE THE INDEX

We hope the Index of Silicon Valley will be used:

- to increase understanding among decision makers and the public about how the Valley is doing
- to track progress towards the vision of a 21st century community
- to identify critical issues that need to be addressed

WHAT IS SILICON VALLEY?

Joint Venture defines Silicon Valley as Santa Clara County plus adjacent parts of San Mateo (to Highway 92), Alameda (to Fremont/Newark), and Santa Cruz (to Scotts Valley) counties. This definition reflects the geographic location patterns of the Valley’s driving industries and its workforce.

With a population of over 2 million people, this region has more residents than 18 U.S. states.

The indicators reflect this definition of Silicon Valley, except where noted as Santa Clara County.

WHAT IS AN INDUSTRY CLUSTER?

Several of the indicators relate to “industry clusters.” An industry cluster:

- is a geographic concentration of interdependent, internationally competitive firms in related industries,
- represents talent and technology capabilities that are more specialized in Silicon Valley than in other regions, and
- includes a significant number of companies that sell their products and services outside the region.

The driving clusters in Silicon Valley are computers/communications, semiconductors, software, bioscience, defense/space, environment, innovation/manufacturing services, and business services. Appendix B details the specific sub-sectors making up each cluster.

Healthy, outward-oriented industry clusters are a critical prerequisite for a healthy economy. Clusters are dynamic; over time, existing clusters will transform and new clusters will develop from our region’s talent and technology base.

RELATED JOINT VENTURE ACTIVITIES

In addition to tracking the progress of the economy and community through the Index of Silicon Valley, Joint Venture is involved in two related activities:

- Benchmarking the progress of Joint Venture—Progress by Joint Venture’s initiatives in meeting their measurable objectives is tracked on a quarterly basis.
- Silicon Valley cities’ economic profiles—As part of the Joint Venture Economic Development Team, written information on individual Silicon Valley cities will be made available to businesses and individuals interested in this region.
# Economic Indicators

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## Appendix A: Data Sources

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| Appendix B: Definitions | B1 |
The summary economic index is the unweighted average of annual changes in six basic economic indicators.

The index of six summary indicators reveals the paradox of Silicon Valley's economy. While the indicator of total employment has fallen since 1990, all of the other indicators have risen. Since 1990, the indicators of average wages, gazelles (high-growth companies), exports, and venture capital have all risen. In 1993 and 1994, business confidence turned upward. The paradox is that rising wages, sales, and exports reflect a competitive economy, while defense downsizing, national recession, and business restructuring have slowed job growth.
1994 data are preliminary or estimated.
**Annual Job Losses End**

**WHY IS IT IMPORTANT?**

Job growth is one of the most important indicators of economic vitality. Annual net job gains or losses are a basic measure of economic health.

**HOW ARE WE DOING?**


What drove the net job loss? Defense companies downsized. Due to restructuring and productivity gains, large high-tech companies did not need to add workers. Job growth in new industries and small companies failed to make up the difference.

Annual job losses have ended. Joint Venture has estimated an employment gain of approximately 0.7% in 1994.

Data does not include self-employed workers.

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**Software Leading Job Creator**

**WHY IS IT IMPORTANT?**

Understanding trends in driving industry clusters is key to understanding the Valley’s economic future. Industry clusters drive regional economies. A cluster is a concentration of complementary industries that generate wealth by exporting from the region. These driving clusters are more concentrated than in other regions. Our region’s ability to sustain dynamic, internationally competitive clusters is the key determinant of our ability to sustain vibrant household, government, and local-business serving sectors.

See Appendix B for cluster definitions. In Silicon Valley, about 36% of the workforce is employed by cluster industries.

**HOW ARE WE DOING?**

Employment in cluster industries declined more rapidly than total employment (5% vs. 2.4%) between 1989 and 1993. Defense downsizing and business restructuring led to losses in four of the eight clusters. The biggest job losses were in defense (-17,332) and semiconductors (-11,775). Software added 9,356 jobs and grew by 54% from 1989-1993. From 1989-1993, overall cluster job loss totaled 16,507.
WHY IS IT IMPORTANT?

This indicator shows what happened to employment in different clusters in the most recent annual period. This data is from a new data set that will provide employment data for the broad Silicon Valley region (Santa Clara County plus adjacent portions of San Mateo, Santa Cruz, and Alameda counties) from 1992 on.

HOW ARE WE DOING?

From first quarter 1993 to first quarter 1994, net jobs in the driving Valley clusters increased by 1,669. Software and business services added 3,420 and 3,521 jobs respectively. This growth along with growth in innovation/manufacturing services and bioscience was enough to offset the losses in defense and computers.
Real Wages Increase 7% since 1990

**WHY IS IT IMPORTANT?**
Real wage growth has become as important a measure of Silicon Valley's economic vitality as job quantity.

**HOW ARE WE DOING?**
From 1990 to 1994, real wages in Santa Clara County increased 7.2%. Nationally, wages increased 3%. It is significant that real wages in our region continued to rise during 1991-1993, a period of job losses.

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Average real wages for Santa Clara County 1990-1994

Source: Bureau of Labor Statistics, San Francisco Bay Area Consumer Price Index
All figures in 1994 dollars.

Cluster Wages Increase 12% Over Four Years

**WHY IS IT IMPORTANT?**
Average wage increases in driving cluster industries are an indicator of the wealth generating impact that export-oriented industries have in our region. Healthy cluster industries should lead to healthy local-serving industries.

**HOW ARE WE DOING?**
On this measure, the Valley is doing remarkably well. Overall, real cluster wages increased 12% from 1989 to 1993. The highest average wages were earned in semiconductors ($62,476) and software ($60,959). These industries also posted the largest wage increases (29% and 16% over four years). This indicator suggests that while the Valley lost employment between 1989-1993 in its cluster industries, on average, jobs that remained were relatively high-skilled, high-wage jobs.

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Average wages in Santa Clara County by cluster, 1993.

Source: California Employment Development Department
Bureau of Labor Statistics
WHY IS IT IMPORTANT?

In a 21st century community, companies benefit from the skills held by people with diverse backgrounds to build competitive advantage. At all levels in the region’s companies and organizations, people will be comfortable working with colleagues of different backgrounds.

HOW ARE WE DOING?

Women and minorities made substantial progress in the 1980’s moving into managerial and engineering occupations in Silicon Valley. The number of women in managerial positions increased 108% from 28,858 to 59,933. The number in engineering positions increased 178% from 4,399 to 12,236. The share of women employed in administrative/secretarial positions fell from 33% to 26% between 1980 and 1990.

Managers from minority backgrounds increased from 13,534 to 32,642 (141%). Minorities in engineering occupations increased from 8,405 to 21,874 (160%).

In 1990, women made up 44% of the Silicon Valley workforce, and minorities 38%.

The share of women and minorities in managerial and engineering occupations, Santa Clara County

Source: EDD/Labor Market Information Division
**Valley Exports More Than Double in 6 Years**

![Graph showing export sales from Silicon Valley zip codes 940, 945, 950, 951](image)

Source: U.S. Department of Commerce, Exporter Location Series

### WHY IS IT IMPORTANT?

Exports generate wealth and jobs for a region and are an important indicator of global competitiveness. The U.S. Department of Commerce estimates that every $1 billion increment in new export sales creates an average of 20,000 jobs. Strong growth in export sales reflects the global competitiveness of Silicon Valley products.

By 2010, world imports by America's trading partners are projected to increase from $2 trillion to $5 trillion in real terms. Serving these growing markets is key to employment and sales growth of existing and new Silicon Valley firms.

### HOW ARE WE DOING?

Between 1987 and 1993, export sales of Valley industries skyrocketed. Exports grew 133%, from $9.3 billion to $21.7 billion. Nationally, exports grew 103%.

Silicon Valley drives California’s trading activity more significantly than its size would suggest. With less than 10% of California’s population, Silicon Valley accounts for 32% of California’s exports.

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**Valley is Value-Added Leader**

![Graph showing average value-added per manufacturing-worker hour for Santa Clara County and key domestic competitors](image)

Source: Census of Manufacturers, 1987

### WHY IS IT IMPORTANT?

To sustain increases in standard of living, 21st century communities must have value-added per worker that increases over time. High and increasing value-added in companies is a prerequisite for high and increasing income for people. While many factors affect a company’s ability to add value, key determinants include education and training, work organization, managerial expertise, degree of specialization, and corporate culture.

### HOW ARE WE DOING?

Silicon Valley is the most productive technology-based region in the country. Value-added per worker hour in manufacturing stands at $99, about 27% above the region’s closest competitor, Austin. From 1977 to 1987, Silicon Valley value-added increased 19%, while the national average increased 9%. When the new 1992 value-added data is released in Spring of 1995, we will be able to see if Silicon Valley is sustaining its competitive edge relative to other regions.
WHY IS IT IMPORTANT?

Venture capital is one of three main sources of funding used to start and grow new companies. Other sources include personal savings and investment by family and friends. Typically, venture capital is attracted to firms with potential for exceptionally high rates of growth (25-40% annually) over a 5 to 10-year period. These firms are highly innovative in their technology and market focus.

The amount of venture capital invested in our region and the types of industries supported are predictors of future job and output growth.

HOW ARE WE DOING?

From 1990 to 1993, venture-capital investments in Silicon Valley firms increased over 6% in real terms. This strong growth rate during a time of economic downturn reflects long-term confidence in Silicon Valley as an entrepreneurial wellspring.

Underlying this net increase in investment are significant shifts in targeted sectors. Biotechnology replaced software as the most popular venture investment, attracting 34% of 1993 investments. Investments in biotechnology, communications, and software increased 87%, 34%, and 33%, respectively from 1990 to 1993 in real terms. Semiconductor investment fell 35%.

Through the first three quarters of 1994, venture-capital financing is already at $643,852,000 — poised for another record setting year.

WHY IS IT IMPORTANT?

The number of gazelles is an important indicator of the economic vitality of Silicon Valley. A gazelle, a term coined by David Birch of Cognetics, Inc., is a company that has grown at an annual compounded growth rate of 20% for the last four years, starting with at least $1 million in sales. By generating accelerated increases in output and jobs, these firms stimulate the development of other businesses and personal spending throughout the region.

Traditionally, Silicon Valley has served as a wellspring for fast growing start-up firms.

HOW ARE WE DOING?

The region remains a hotbed for gazelles. In 1994, there were 42 publicly held gazelles. Nearly 15% of the Valley's 300 public firms have doubled sales since 1990. Nationally, only 3% of all firms sustain this level of growth.
**Market Financing Increasing in Silicon Valley Firms**

**WHY IS IT IMPORTANT?**
Financing from public-equity and debt markets is essential for business expansion. Equity financing includes initial public offerings, follow-on common stock, and convertible preferred offerings. Debt financing includes straight debt, convertible subordinated notes, and convertible subordinated debentures. (Data do not include venture-capital or commercial-bank financing.) The level of market financing is an important indicator of how well Silicon Valley is attracting capital for business expansion and job creation.

**HOW ARE WE DOING?**
Silicon Valley is a leading region for attracting capital from public markets. Total market financing for Silicon Valley companies within five industry clusters has increased since 1990. Total financing for the five-year period was $9.9 billion. The largest financing since 1990 was for the computer/communications cluster ($3.9 billion) and semiconductors ($1.8 billion). The environmental industry represented only 0.3% of total financings.

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**Valley Business Optimism Increasing**

**WHY IS IT IMPORTANT?**
In a 21st century community, businesses and people will have confidence in the ability of the region to meet their needs and transition through difficult times. Business confidence can serve as an indicator of business’s desire to remain and expand in the region.

**HOW ARE WE DOING?**
After reaching the low point in 1992, business confidence of Santa Clara County companies rose above that of the Bay Area, moving from 29% to 60%. This progress is significant and approaches the Valley’s high of 71% in 1987.
WHY IS IT IMPORTANT?

Most students must complete high school and two years of trade school or post-secondary education in order to gain access to a quality job. The high school drop-out rate is therefore a risk indicator that warns of lost potential and future societal costs.

In a global economy, a highly multicultural, skilled workforce has unique advantages. Providing a quality education for all ethnic groups should be a critical objective in Silicon Valley; reducing the drop-out rate for all ethnic groups is one measure of success.

HOW ARE WE DOING?

In the last five years, the high school drop-out rate has declined significantly among all ethnic groups. The 1993 rate (9.0%) was well below the California average of 15.9%. A goal of President Bush's Goals 2000 was to reduce the national drop-out rate below 10% by the Year 2000. Silicon Valley has surpassed the target seven years ahead of schedule, while dealing with the added challenge of LEP (Limited English Proficiency) students comprising 16-19% of the school population.

While progress is encouraging, Pacific Islanders, Hispanics, and African-American students continue to drop out of high school at twice the rate of other ethnic groups.

WHY IS IT IMPORTANT?

Companies increasingly compete in a global marketplace where knowledge is the key to success. With the advent of the information age, the organization that leverages its knowledge best wins. The future knowledge base of Silicon Valley rests with its students. The academic performance of high school students is a strong indicator of the skill potential of the future workforce, of the potential for a society to solve its long-range problems, and of future economic prosperity for a region.

HOW ARE WE DOING?

Approximately 75% of Silicon Valley high schools perform at or above the state average. While this is good news, few of our schools perform at top levels. According to Average Performance Value (APV) report designers, high APV scores (above 70) suggest schools that are outstanding. Only 9% of Silicon Valley high schools have an APV score in this range.

The performance-based-testing component of the APV reveals that most students in Silicon Valley are ill-prepared to meet the demands of the knowledge-based workplace. Approximately two-thirds of 10th graders demonstrate “no or limited mathematical thinking and understanding of mathematical ideas.” Two-thirds of 10th graders have reading skills that are “not at the level of incorporating critical thinking, questioning, and analysis of the text.”
Public Doubts Local Schools Have Improved

**WHY IS IT IMPORTANT?**

Although this measure is a subjective judgment about school improvement, it is significant because people act based on their perceptions. People are more likely to invest time and money in their local schools if they believe their efforts will make a difference. If schools seem to be improving, then parents as well as businesses are more likely to stay in Silicon Valley and build a future here.

**HOW ARE WE DOING?**

Only 15% of the Silicon Valley public feels the schools in their community have improved over the last five years. Optimism increases in households where children are in school, but two-thirds of those households feel their local schools have stayed the same or gotten worse in recent years.

Nationally, the share of people who feel their local schools have improved is over ten percentage points higher than the share of Silicon Valley residents who feel their local schools have improved.

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**Responses from the greater Silicon Valley Community to the question: Has the quality of the public schools in your community improved, stayed about the same, or gotten worse over the past 5 years?**

**Respondents who feel schools have improved in Silicon Valley and nationally**

WHY IS IT IMPORTANT?

Air quality is fundamental to the health of people, nature, and the economy. In a 21st century community, people will recognize the interdependence of the economy and environment and change behaviors to prevent further degradation of the environment. Air quality is strongly affected by production, transportation, and population patterns and practices. Poor air quality diminishes the attractiveness of the region as a place to work and live and can increase health care costs and social stress.

The number of days Silicon Valley air exceeds the federal and state ozone standards gauges the effectiveness of air-quality regulations. Ozone is the main component of smog and is created when organic emissions are exposed to sunlight.

HOW ARE WE DOING?

Over the last 10 years, Silicon Valley has made remarkable progress decreasing the number of days when ozone concentration exceeds the federal and state standards.

The federal standard is 120 parts per billion (ppb). From 1984 to 1988, the average number of days exceeding the federal standard was 16.6. From 1989 to 1993, the average was 1.2 days per year. No days have exceeded the standard yet in 1994. The state standard is stricter at 90 ppb.
Low-Birth-Weight Infants Exceed National Target

The share of infants with low birth weights is a predictor of future costs communities will incur for preventable health problems and special education. According to the Office of Technology Assessment, for every low birth weight avoided through early or comprehensive prenatal care, the health care system saves $14,000-$30,000 in hospitalization and long-term healthcare costs. Poor nutrition while in the womb is the major reason why babies are small at birth. A 21st century community will ensure that mothers of all backgrounds have access to and are encouraged to use prenatal health care and enjoy sound nutrition.

How Are We Doing?
The share of low-birth-weights in Santa Clara County (5.3%) is less than the state average (5.8%), but not yet to the 5% national target set by the U.S. Public Health Service. A disturbing trend for the future is exceptionally large shares of Hispanic, African-American, and teen mothers that access prenatal care late (after first trimester) or not at all.

The rate of late/no prenatal care among African-Americans is 27%, among Hispanics is 32%, and among mothers ages 14-17 is 43%.

Poverty Afflicts 1 of 7 Children

21st century communities work to ensure that all people have the opportunity to participate in and benefit from the community's economic development. Children who grow up in poverty face significant hurdles to becoming contributing members of society—poor nutrition, poor access to preventive health care, increased risk of dropping out, increased risk of pregnancy.

Since poverty is measured directly only every 10 years through the national census, this indicator estimates poverty increases based on increases in the AFDC case load.

How Are We Doing?
In the 1990 Census, child-poverty rates for Santa Clara County were significantly below California and U.S. average, but had increased from 1980. Since 1989, the share of children living in poverty is estimated to have increased from 10% to 14%.

In Santa Clara County, child poverty is highly concentrated geographically; three-fourths of the children growing up in poverty live in 30% of the region's census tracts. These tracts are clustered primarily in downtown East San Jose and Gilroy. In this "poverty zone" occur 67% of births to adolescents, 61% of births to mothers with late or no prenatal care, and 51% of tuberculosis cases.
**WHY IS IT IMPORTANT?**

As the large baby-boomer population ages, Silicon Valley needs to be aware of the post-retirement situation facing growing segments of its population.

**HOW ARE WE DOING?**

Women in Santa Clara County are nearly twice as likely as men to sink below the poverty line. (Poverty is currently defined as $9,414 for couples, and $7,363 for singles.) The 1990 Census showed that in 1989 7.8% of senior women in Santa Clara County lived in poverty, as did 4% of men. Nationally, the poverty rates for senior women and men are 15% and 8% respectively. Women make up about 59% of the elderly population, but account for 73% of all elderly poor.

The chief reason for this disparity, which has widened slightly since 1980, is that fewer women have private pensions, and their private pensions and social security pay less. Historically, women on average worked fewer years, earned less pay, and tended to stay employed for shorter periods of time than men. A second reason is longer life expectancies.

Poverty among senior citizens has decreased from 35% in 1960 to 12% today. We have not yet seen similar results for children.

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**WHY IS IT IMPORTANT?**

The more we drive, the more we congest our roads, pollute our air, and consume a non-renewable resource. In a 21st century community, people will minimize drive-alone commute trips. Workplaces and communities will provide other commute options—public transit, carpooling, telecommuting, housing within walking or biking distance from offices.

Vehicle hours of delay measures recurring congestion on our freeways during the weekday.

**HOW ARE WE DOING?**

From 1988 to 1993, average daily vehicle hours of delay on freeways in Santa Clara County decreased 18.5%, from 15,720 hours to 12,810. The key factor driving delays down is the addition of lane capacity. A second factor is the completion of construction projects that had been causing delays.

Commute times and average one-way commute distance for residents of Santa Clara County are the second lowest in the Bay area, 24 minutes to travel 11.9 miles.
Housing Affordability Improving

Why is it important?

The variety, affordability, and location of housing affect a region’s ability to maintain a viable economy and high quality of life. A 21st century community understands that businesses need workers with widely varying skill levels and plans for a variety of appropriately located housing serving different income levels.

For this indicator, Silicon Valley affordability is compared to that of Austin, an often-mentioned competitor for corporate expansions.

How are we doing?

The share of Silicon Valley residents who can afford median-priced homes has increased dramatically from 19% to 38% in the last five years. Key drivers of this change are lower mortgage rates, declining median home prices due to depressed demand and buyer confidence, new lower-priced housing developments, and continued increases in per-capita personal income.

The affordability gap between Silicon Valley and Austin (often cited as a competitor) has narrowed considerably, from a 39 to a 28-point difference.

If Austin’s economy continues experiencing the rapid population and job growth that characterized Silicon Valley in the 1970s and 1980s, this gap in affordability should continue to decrease.

Valley Leads Exponential Growth in Internet Use

Why is it important?

The Internet is not simply a computer network, but a communications medium. Just as the telephone and fax machine are essential business tools, the ability to share data, communicate by electronic mail, and release company information by computer are quickly becoming required tools for business in the ’90s. By connecting to the Internet, companies are able to send and retrieve information over this global network of more than 20 million computers.

How are we doing?

While the growth rate of registration on the Internet has been exponential nationwide, Silicon Valley clearly is the hottest area of activity. Total growth over the last five years has exceeded 14,000%. The 408 and 415 area codes have the greatest number of companies registered on the Internet in the U.S. and Canada. Of the more than 17,000 company registrations nationwide by July 15, 1994, over 15% were in the 408 and 415 area codes. Silicon Valley boasts 12 cities in the top 25 of either per-capita or total commercial registrations.
**WHY IS IT IMPORTANT?**

Voter participation is an indicator of citizen confidence in political institutions, commitment to a democratic system, and optimism about the ability of individuals to affect community decision-making. A democratic society governs itself with a high degree of participation from residents who feel a responsibility to get involved and a confidence that they can make a difference.

**HOW ARE WE DOING?**

Primary voter turnout has ranged from a high of 65% in 1978 to a low of 32% in 1994. The general trend has been downward. In the four primary elections from 1978 to 1984, voter turnout averaged 55%; in the four primary elections from 1986 to 1992, turnout averaged 44%.

**WHY IS IT IMPORTANT?**

In a 21st century community, people will invest in their community to make it as good as it can be. There will be strong, long-standing traditions of charitable giving and community involvement. Data on personal giving can be considered an indicator of personal involvement in and commitment to our community.

**HOW ARE WE DOING?**

One way to judge a community’s philanthropy is to compare its charitable giving with the income of its residents. Of the 50 largest metropolitan regions in the United States, the San Jose Metropolitan Area has the largest gap between per capita income (ranking 3rd) and per capita giving (ranking 39th). This means that people in our region give far less to charitable causes than might be expected from their income level.

Why is this? Like many other California communities, Silicon Valley has large numbers of new residents who may not have yet formed strong ties to the region. A second reason could be lack of understanding about community problems, and their linkages to people’s lives. Finally, the cost of living is relatively high in Silicon Valley.
Good/Bad News in Corporate Giving

![Graph showing contributions per employee in 1993 for Silicon Valley and National companies.](image)

**Contributions per employee, 1993**

Source: "Corporate Community Involvement in Silicon Valley" American Leadership Forum/Community Foundation of Santa Clara County

**Why is it important?**

In a 21st century community, businesses, in enlightened self-interest, invest in their community, ensuring that it remains a good place for businesses to grow and for workers to live. Not only are resources leveraged, but business leaders set a pervasive tone for the community as a place where organizations and individuals with financial resources use them for the good of the whole. In a virtuous cycle, people feel a responsibility to give their time and resources to make the community healthy for thriving business, and business reinvests back into the community.

**How are we doing?**

A recent survey of giving practices among Silicon Valley firms found that our region’s largest firms (those over 2,500 employees) gave 1.14% of pretax profits to charity, compared to the 1% national average. Local mid-sized companies (1,000 to 2,500 employees), however, gave less than the national average.

While matching the national average is a worthy accomplishment, companies in high-quality communities develop a tradition of greatly exceeding the national average. In Minneapolis, for example, 111 companies give at least 5% of their pretax profits to community organizations each year.

Crime Rates Lower Than State, Nation

![Graph showing crime rates in Silicon Valley and the nation.](image)

**Why is it important?**

The level and perception of crime in a community are two of the most significant factors in individuals’ assessment of their quality of life. Crime is unique with respect to the wide range of costs it incurs in a community. There is the direct loss of life and property along with the resources expended to fight crime. In addition, the fear, frustration, and anger resulting from crime chisel away at our sense of community and civic responsibility.

**How are we doing?**

Santa Clara County has the lowest crime rate of California’s seven largest metropolitan regions. Our violent crime rate is less than half the statewide rate. Our property crime rate is about one-fourth less than the state and national averages.

From 1989 to 1993, violent crime in Santa Clara County increased 8%; property crime dropped 8.6%.

A troubling trend is increased violence among young people. Admissions to the Santa Clara County juvenile hall increased 45% between 1989 and June 30, 1994.

*San Jose Metropolitan Statistical Area (SJMSA) is Santa Clara County.*
Appendix A: Data Sources

1994 ESTIMATES FOR SUMMARY ECONOMIC INDEX

Annual employment: 1994 employment for Santa Clara County was estimated to have increased by 0.7% from 1993. In March 1994, the Employment Development Department (EDD) announced that it had undercounted employment for the state by 200,000. Allocating the appropriate portion of employment to Santa Clara County would result in an undercount of 13,000. While the EDD establishment survey showed a 0.9% decline in employment in Santa Clara County from 1993-1994, the household survey indicated a 2.3% increase. The household survey includes the undercount. By allocating an additional 13,000 to employment in 1994, we estimate a 0.7% increase which is safely within the bounds of the 0.9% decline from the establishment survey and the 2.3% increase from the household survey.

Average wages: 1994 average wages for Santa Clara County were estimated to have increased by 2.5%. While local wage data is not yet available for 1994, nationally average wages have increased between 2-3%. We assume that Santa Clara falls within an average national range for wage increases.

REAL WAGES INCREASE 7% SINCE 1990

Quarterly wages are provided by the California Employment Development Department for all industries in Silicon Valley. Joint Venture averaged the industry wages to determine average annual wages for three major groups: industry clusters, other basic industries, local serving industries. Wages have been converted into constant 1994 dollars using the San Francisco Bay Area Consumer Price Index published by the Bureau of Labor Statistics.

CLUSTER WAGES INCREASE 12% OVER FOUR YEARS

Average wages are provided by the California Employment Development Department for each cluster in Santa Clara County. EDD averages the wages for each industry on the basis of second quarter data for each year. Wages have been converted into constant 1994 dollars using the San Francisco Bay Area Consumer Price Index published by the Bureau of Labor Statistics.

WOMEN, MINORITIES PROGRESSING TO HIGH-END OCCUPATIONS

This indicator shows how the proportion of women and minorities in the managerial and engineering occupations increased from 1980 to 1990. “Engineering and Computer/Natural Sciences” occupations include engineers, architects, surveyors, mathematical and computer scientists, and natural scientists. “Minorities” includes African-American (non-Hispanic), Hispanic (all races), Asian (non-Hispanic), Native American, and other races. Data compiled by California EDD.

VALLEY EXPORTS MORE THAN DOUBLE IN 6 YEARS

Data is provided by the U.S. Department of Commerce, International Trade Administration, from the Exporter Location Series. Data cover the geographic area with zip codes beginning 940, 943, 950, and 951. Data include manufactured and non-manufactured goods, but do not include services. (In Silicon Valley, non-manufactured exports are less than 1% of total exports.) Export sales for 1988, 1989, and 1990 are estimated.

VALLEY IS VALUE-ADDED LEADER

The indicator reflects value-added per worker hour for Santa Clara County, five domestic competitors, and the national average. The data come from the 1987 U.S. Census of Manufacturers “Value-added by manufacture” and “Production-worker hour” data sets. “Value-added by manufacture”—This measure is adjusted to account for the value
added by merchandising operations and the net change from beginning and end-of-year inventories. "Production-worker hour"—This measure covers paid (including overtime) work hours at the plant. It excludes hours paid for vacations, holidays, or sick leave. The figures for the Index of Silicon Valley come from dividing the value added by manufacturing in Santa Clara County by the number of worker hours to arrive at a proxy of how many individual workers contribute to the production process here in Silicon Valley. This is then compared to other regions in the nation. The Census of Manufacturers is conducted every five years by the U.S. Department of Commerce. More recent Census of Manufacturers data reflecting 1992 will be released in Spring, 1995.

VENTURE CAPITAL SHIFTS TOWARD BIOSCIENCE, COMMUNICATIONS, AND SOFTWARE

Data on venture capital come from the quarterly report of the San Jose Mercury News, "The Money Tree." Based on surveys of Bay Area venture capital firms, this report tracks 1) which local companies receive funding, 2) their location, and 3) the type of technology being financed. For Silicon Valley indicators, only investments in firms located in Silicon Valley were included. (See Appendix B for definition of Silicon Valley.)

SILICON VALLEY REMAINS HOTBED FOR GAZELLE-TYPE FIRMS

Data are from the San Jose Mercury News, "How Local Companies Fared." This is a quarterly report which tracks publicly traded firms in the Valley. Gazelles are companies that have doubled their revenue in the four years beginning with $1 million in sales.

MARKET FINANCING INCREASING IN SILICON VALLEY FIRMS

Data provided by Securities Data Company, Inc. Data compiled by Lehman Brothers.

VALLEY BUSINESS OPTIMISM INCREASING

Data come from the annual "Bay Area Poll" conducted for the Bay Area Council by Field Research Corporation each October. The question asked is, "Turning to business conditions in the Bay Area as a whole, do you think during the next 12 months that financially we’ll have good times, somewhat good times, somewhat bad times, or bad times?"

HIGH SCHOOL DROP-OUT RATES DOWN: RATES HIGH FOR SOME GROUPS

Data include cumulative 3-year drop-out rates for 10th-12th grade students in Santa Clara County and San Mateo County.

SCHOOLS PERFORM ABOVE AVERAGE; SERIOUS DEFICIENCIES IN BASIC SKILLS REMAIN

These data are from the California Department of Education data for public schools in Santa Clara County, and Fremont Unified School District. The Average Performance Value (APV) is a composite of 10 measures that include numbers of students completing courses required for admission to the UC system, the number of students attending a UC or California State campus, SAT results, geometry enrollment, CLAS results, advanced placement exams, and dropout rates. The APV is one indicator of the readiness of high school students to enter a workplace that demands strong basic skills, problem-solving, and critical thinking abilities.

PUBLIC DOUBTS LOCAL SCHOOLS HAVE IMPROVED

Data from Field Research Corporation surveys of October and November, 1994; Phi Delta Kappa/Gallup Poll, May/June, 1994.

BAD-AIR DAYS DECLINE DRAMATICALLY

The Bay Area Air Quality Management District takes daily measurements of air quality at seven monitoring stations in Silicon Valley. These stations are Los Gatos, Alum Rock, Mountain View, Redwood City, San Jose-4th Street, San Jose-East, and San Jose-SC.

LOW-BIRTH-WEIGHT INFANTS EXCEED NATIONAL TARGET

Data are from the State of California, Department of Health Services, Birth Records. Babies weighing under 2500 grams are considered "low birth weight." 1993 data are preliminary.

POVERTY AFFLICTS 1 OF 7 CHILDREN

Child poverty estimates are from Santa Clara County Executive's Office, Office of Budget and Analysis. Poverty is measured directly by the U.S. Census every 10 years. Poverty estimates for the Index of Silicon Valley are based on the number of children receiving Aid to Families with Dependent Children (AFDC). The ratio of "AFDC children" to "poverty children" is calculated using 1990 Census data (for 1989) as the base year. This ratio is then applied to annual AFDC children data for future years to arrive at child poverty estimates for future years. (Data for children receiving AFDC come from the Santa Clara County Social Services Agency.)
65+ WOMEN TWICE AS LIKELY AS MEN TO LIVE IN POVERTY

Elderly poverty estimates are from Santa Clara County Executive’s Office, Office of Budget and Analysis. Poverty is measured directly by the U.S. Census every 10 years. Poverty estimates for the Index of Silicon Valley are based on the number of seniors eligible for Medi-Cal each year. The ratio of “Medi-Cal seniors” to “poverty seniors” is calculated using 1990 Census data (for 1989) as the base year. This ratio is then applied to the annual Medi-Cal seniors data for future years to arrive at estimates of seniors in poverty for future years. (Data on seniors eligible for Medi-Cal are from the California Department of Health Services.)

VEHICLE DELAYS DECLINING

Vehicle hours of delay are a multiplicative function of three factors. The first factor (v) is the volume, or potential capacity. This is 2000 passenger cars/lane/hour. The second factor (d) is the duration of the congestion. Congestion is defined as a condition where the average speed drops below 35 mph for 15 minutes or more on a typical weekday. The third factor (t) is travel time. Data are collected via “floating cars” equipped with a computerized program that records car speed and time it travels.

HOUSING AFFORDABILITY IMPROVING

Housing affordability data for Santa Clara County are provided by California Association of Realtors. The “% who can afford the median priced home” is calculated as follows: Assume 20% downpayment on the county's median home price. Using a national mortgage interest rate (a weighted average between fixed and adjustable) compute monthly payment of principal, interest, taxes, and insurance. Multiply monthly payment by 12 to get total annual cost. Assuming annual housing costs should be no more than 30% of gross income, determine what share of households can afford the monthly payments. Data for Austin are provided by the Texas Real Estate Center.

VALLEY LEADS EXPONENTIAL GROWTH IN INTERNET USE

Data provided by Internet Info of Falls Church, Virginia, info@internetinfo.com. Internet domain name registration is voluntarily made with interNIC, the Internet registry.

VOTER PARTICIPATION DECLINING

Data provided by Office of Santa Clara County Registrar of Voters.

WIDEST GAP BETWEEN PERSONAL INCOME AND GIVING

Data on personal giving are from The Chronicle of Philanthropy (February 22, 1994). Rankings are based on per capita giving to major national charities, including United Way, the American Red Cross, Jewish federations, the American Cancer Society, the YMCA, Goodwill Industries, and Boy Scouts/Girl Scouts.

GOOD/BAD NEWS IN CORPORATE GIVING

Data are from a new project, Corporate Community Involvement in Silicon Valley, sponsored by American Leadership Forum and the Community Foundation of Santa Clara County, and conducted by Kirk Hanson of the Stanford Business School, Peter Hero of the Community Foundation of Santa Clara County, and James Koch of Santa Clara University’s Leavey School of Business. The project surveyed the 100 largest firms in Silicon Valley about giving of money and volunteer hours, and institutional commitment to community involvement. Fifty-three firms participated. The indicator “corporate contributions per employee” will be tracked at least every two years. In 1995, the project will attempt to secure comparisons with other regions.

CRIME RATES LOWER THAN STATE, NATION

Data are from the FBI Uniform Crime Report, Crime in the United States. The Uniform Crime Report does not report statistics for the Santa Clara County before 1991. Data before this period are compiled by adding up individual city data.
## Appendix B: Definitions

### Silicon Valley

Where possible, Joint Venture's Index of Silicon Valley collected data for the economic region of Silicon Valley. This includes Santa Clara County as its core and extends into the following adjacent zip codes:

<table>
<thead>
<tr>
<th>City</th>
<th>Zip Code</th>
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<tbody>
<tr>
<td>Alameda County</td>
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</tr>
<tr>
<td>Fremont</td>
<td>94536-39, 94555</td>
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<tr>
<td>Union City</td>
<td>94587</td>
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<tr>
<td>Newark</td>
<td>94560</td>
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<tr>
<td>San Mateo County</td>
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<td>Menlo Park</td>
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<td>Atherton</td>
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<td>Redwood City</td>
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<td>94070</td>
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<td>94002</td>
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<td>Foster City</td>
<td>94404</td>
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<td>East Palo Alto</td>
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<tr>
<td>Santa Cruz County</td>
<td></td>
</tr>
<tr>
<td>Scotts Valley</td>
<td>95066-67</td>
</tr>
</tbody>
</table>

### Bioscience Industry

- **283** Drugs
- **384** Surgical medical and dental instruments and supplies
- **8071** Medical laboratories
- **382** Laboratory apparatus and analytical, optical, measuring, and controlling instruments (except 3822, 3825, and 3826)

### Defense/Aerospace Industry

- **348** Small arms ammunition
- **3671** Electron tubes
- **372** Aircraft and parts
- **376** Guided missiles and space vehicles
- **3795** Tanks and tank components
- **381** Search, detection, navigation, guidance, aeronautical, and nautical systems, instruments, and equipment

### Semiconductor Industry

- **3559** Special industry machinery
- **3674** Semiconductors and related devices
- **3825** Instruments for measuring and testing electricity and electrical signals

### Computers/Communications Industry

- **3571** Electronic computers
- **3572** Computer storage devices
- **3577** Computer peripheral equipment, n.e.c.
- **3672** Printed circuit boards
- **3679** Electronic components, n.e.c.**
- **3695** Magnetic and optical recording, media
- **3661** Telephone and telegraph apparatus
- **3663** Radio and television broadcasting and communications equipment
- **3669** Communications equipment, n.e.c.

### Software Industry

- **7371** Computer programming services
- **7372** Prepackaged software
- **7373** Computer integrated systems design
- **7374** Computer processing and data preparation and processing services
- **7375** Information retrieval services

### Environmental Industry

- **3564** Industrial and commercial fans and blowers and air purification equipment
- **3589** Service industry machinery, n.e.c.
- **495** Sanitary services
- **5093** Scrap and waste materials

### Innovation/Manufacturing Related Services

- **5045** Computers, and computer peripheral equipment and software (wholesale trade)
- **5065** Electronics parts and equipment, n.e.c. (wholesale trade)
- **7376** Computer facilities management services
- **7377** Computer rental and leasing
- **7378** Computer maintenance and repair
- **7379** Computer related services, n.e.c.
- **8711** Engineering services
- **873** Research and testing services

### Business Services

- **275** Printing
- **731** Advertising
- **732** Consumer credit reporting agencies
- **733** Mailing, reproduction, commercial art and photography, and stenographic services
- **735** Miscellaneous equipment rental and leasing
- **736** Personnel supply services
- **738** Miscellaneous business services
- **81** Legal services
- **8712** Architectural services
- **872** Accounting, auditing, and bookkeeping services
- **874** Management and public relations services

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*The numbers correspond to federal Standard Industrial Classification (SIC) codes.

**n.e.c. means “not elsewhere classified”*
Joint Venture is a dynamic new model of regional rejuvenation. Our vision is to create a community collaborating to compete globally. We are a network of people in business, government, education and the community who have joined together to provide a neutral forum for tackling regional issues through action-oriented initiatives.

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