JOINT VENTURE'S 1998 INDEX
OF SILICON VALLEY
MEASURING PROGRESS TOWARD A 21ST CENTURY COMMUNITY
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Joint Venture: Silicon Valley Network

Joint Venture is a non-profit organization with a vision of building a sustainable community collaborating to compete globally. We bring people together from business, government, education, and the community to identify and to act on regional issues affecting economic vitality and quality of life in Silicon Valley. We serve as a catalyst, a neutral forum where the private and public sectors come together to drive toward results.

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Introduction

WHY AN INDEX OF SILICON VALLEY?
Joint Venture's fourth annual Index of Silicon Valley provides a set of indicators tracking our region's economy and quality of life. The Index is an ongoing effort to track progress toward a 21st century community. The vision of a 21st century community, first outlined in Blueprint for a 21st Century Community (June 1993), is a region that successfully connects its economy and quality of life in a vital cycle.

Joint Venture developed the Index:
- to provide a reliable source of objective information about the economy and quality of life in Silicon Valley, and
- to serve as a catalyst for others to work with Joint Venture and independently to improve all aspects of the Silicon Valley community.

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 36 indicators that follow were chosen in consultation with the Joint Venture Board of Directors and an Advisory Board of Bay Area economists. Twenty-one of the indicators appeared in previous versions of the Index of Silicon Valley. Fifteen are new. Appendix A provides data sources for all indicators.

WHY USE THE INDEX?
We hope the Index of Silicon Valley will be used:
- to track progress toward our vision of a 21st century community.
- to increase understanding among decisionmakers and the public about how our Valley is doing.
- 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, Alameda, and Santa Cruz counties in Northern California. This definition reflects the geographic location patterns of the Valley's driving industries and its workforce. (See map on page 4.)

With a population of more than 2 million people, this region has more residents than 17 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,
- representing talent and technology capabilities that are more specialized in Silicon Valley than in other regions, and
- including a significant number of companies that sell their products and services outside the region.

The driving clusters in Silicon Valley are computers/communications, semiconductors/semiconductor equipment, software, bioscience, defense/space, innovation services, and professional services. Appendix B details the specific subsectors constituting 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.
Table of Contents

INDEX HIGHLIGHTS ........................................................................................................ 4

I. ECONOMIC INDICATORS .......................................................................................... 6

   JOB QUANTITY
   Silicon Valley Employment Increases 200,000 Since 1992 ................................... 6
   Job Growth Led by Software, Computers/Communications ............................... 6
   Special Analysis: County Employment Growth Outstrips County Labor Supply .... 7

   JOB QUALITY
   Average Real Wage Continues Growing Faster Than National Average ............... 7
   Average Wage for Software Cluster Reaches $85,000; Six Clusters Exceed $60,000 .. 8
   Household Income Distribution Widening .............................................................. 8

   BUSINESS VITALITY
   Silicon Valley Companies Drive 40% of California’s Exports ............................ 9
   Gazelles Drop From 73 to 64; IPOs Drop Also ................................................... 9
   New Business Starts Rise 13%; Adding 3,500 Companies in 1997 ....................... 10
   29% of Bay Area Boards Include Women, Less Than National Average .......... 10
   Venture Capital Grows 54% in 1997 to $2.7 Billion ........................................... 11
   Corporate R&D Nearing 16% as Share of Sales .................................................. 11
   Federal R&D at Bay Area Universities Levels Off in 1990s ................................. 12
   Commercial Vacancy Rate Drops to Lowest in Decade — 4.4% ......... 12

II. QUALITY OF LIFE INDICATORS ............................................................................. 13

   EDUCATION AND WORKFORCE
   High School Drop-out Rate Declines ................................................................. 13
   Students Perform Well on SATs; Only 12% of Test-Takers are Hispanic ........... 13
   Community Colleges Enroll More Than 90,000 .............................................. 14
   Fewer Engineering Graduates From Silicon Valley Universities Since 1994 ...... 14
   Special Analysis: 84% of Positions At “Fast 50” Firms Require More Than High School Diploma .. 15

   BUILT ENVIRONMENT
   Vehicle Delays More Than Double in Two Years .............................................. 15
   Per Capita Transit Ridership Up 10% Since 1994 ................................................ 16
   Housing Affordability Drops; Rental Market Increasingly Stressed .................. 16
   Housing Starts Reach 10-Year High ................................................................. 17

   NATURAL ENVIRONMENT
   Bad-Air Days Decline ......................................................................................... 17
   Carbon Emissions Increase Nearly 20% In a Decade ........................................ 18
   Per Capita Water Usage Rising ......................................................................... 18

   COMMUNITY HEALTH
   Percentage of Low Birth-Weight Infants Remains Above National Target ......... 19
   Nearly 10% of Hospitalizations Preventable With Early Care ......................... 19
   County Not Yet Meeting National Goals for Unhealthy Behaviors ................. 20

   CHILDREN AND YOUTH
   Steady Improvement in Childhood Immunizations ......................................... 20
   Child-Support Collections Rise ......................................................................... 21
   Since 1993, Child-Care Slots Up 9%, Costs Up 26%, Vacancies Drop ............ 21
   As AFDC Caseloads Decline, Child Poverty Estimate Drops ......................... 22

   CIVIC ENGAGEMENT AND GOVERNANCE
   Large-Company Giving Per Local Employee Increases 49% ............................ 22
   83% of Households Give an Average of 2.1% of Income to Charity .................. 23
   Special Analysis: Per Capita City Revenue Declines, While State and Federal Revenue Grows ... 23

APPENDIX A: DATA SOURCES .................................................................................. A-1

APPENDIX B: DEFINITIONS ...................................................................................... B-1
Index Highlights

AN ECONOMY WITH JOB GROWTH, RISING WAGES, AND EXPANDING EXPORTS

Silicon Valley’s economic indicators remain positive. Strong job growth continued in 1997, and the region’s exports are the highest in the nation. Measures of business vitality remain strong, although there is a reduction in the number of fast-growth “gazelle” companies and initial public offerings (IPOs).

- Silicon Valley has added more than 200,000 jobs since 1992. An estimated 53,000 jobs were added in 1997.
- Growth in the software and computers/communications sectors drove employment gains.
- In 1997, Silicon Valley’s average annual wage increased in real terms by 2.2% to $46,000.
- Income growth in higher-income households has outpaced that of middle- and lower-income households.
- Silicon Valley leads the nation in exports and now represents 40% of California’s exports.
- The number of “gazelle” firms and IPOs declined in 1997, after peaking in 1996.
- Venture capital increased by 54% over 1996.

THE SILICON VALLEY REGION

1. BELMONT 10. LOS GATOS 19. SAN CARLOS
2. CAMPBELL 11. MENLO PARK 20. SAN JOSE
3. CUPERTINO 12. MILPITAS 21. SAN MATEO
4. EAST PALO ALTO 13. MONTE SERENO 22. SANTA CLARA
5. FREMONT 14. MORGAN HILL 23. SANTA CRUZ
6. FOSTER CITY 15. MOUNTAIN VIEW 24. SARATOGA
7. GILROY 16. NEWARK 25. SCOTTS VALLEY
8. LOS ALTOS 17. PALO ALTO 26. SUNNYVALE
9. LOS ALTOS HILLS 18. REDWOOD CITY 27. WOODSIDE

Total area—1,500 square miles
Total population—2.3 million
Total jobs—1.2 million
Ethnic composition—50% white, 23% Hispanic, 23% Asian/Pacific Islander, 4% African American
Foreign born—23% of residents were born in a foreign country
Age distribution—0-9 years old 16%; 10-19 12%; 20-44 43%; 45-64 20%; 65+ 9%
Educational attainment—82% at least high school graduate; 33% at least bachelor’s degree
A COMMUNITY FACING CAPACITY CONSTRAINTS WITH SOME SIGNS OF MARKET RESPONSE

The indicators show continued capacity constraints in the face of rapid job growth. Traffic congestion and housing costs place pressure on the Valley's ability to sustain its quality of life. However, housing starts and commercial space are growing in response to market demand.

- Employment has grown faster than local labor supply since 1994, creating pressure for more workers to commute into the region.
- Women hold only 4% of the top executive positions in the Bay Area's 200 largest companies.
- Daily vehicle hours of delay in the region have escalated from a total of 8,800 in 1994 to 20,500 in 1996.
- Only 37% of Silicon Valley residents can afford a median-priced home. Average apartment rental rates have increased 29% since the end of 1995, contrasted with an 8% increase in median income.
- At 12,000, new housing starts reached a 10-year high in 1997. Since 1992, however, Silicon Valley has created 200,000 jobs, but only 38,000 housing units.
- Commercial vacancy rates fell to 4.4% in 1997. Commercial space increased by 4.5%.

IMPROVEMENT SHOWN IN QUALITY OF LIFE MEASURES; SOME CHALLENGES REMAIN

Quality of life measures show improvement in some areas for education and children. New measures suggest increased corporate giving, and individual giving above the national average. A disturbing trend is the decline in the number of engineering graduates from Silicon Valley universities.

- High school drop-out rates declined from 3.1% to 2.4% in the 1996-97 school year.
- SAT scores among the region's students have improved in each of the last three years.
- The number of engineering degrees granted by local universities declined 9.7% since 1994.
- The region exceeded state air standards four days in 1997.
- Low birth-weight babies declined slightly, but remain above the national target.
- Child immunizations have steadily increased since 1993.
- Large-company giving per local employee increased 49% in real terms from $316 in 1994 to $470 in 1997.
- Eighty-three percent of Silicon Valley households donate to charity, compared to 69% nationally.
Silicon Valley Employment Increases 200,000 Since 1992

**Why is this important?**
Annual net job gains or losses are a basic measure of economic health. This indicator tracks employment from a unique set of employment data tailored to cover the entire Silicon Valley region (see map on page 4).

**How are we doing?**
Since 1992, Silicon Valley has added more than 200,000 jobs. This includes an estimated 53,000 jobs added in 1997, and 59,000 jobs added in 1996. The 20% increase in the number of jobs added since 1992 brings the total jobs in the region to more than 1.2 million.

---

Job Growth Led by Software, Computers/Communications

**Why is this important?**
This indicator shows how employment in different clusters changed in the most recent annual period. A cluster is a concentration of complementary industries that generates wealth by exporting from the region. The seven clusters tracked account for 39% of all non-governmental employment in the region. (See Appendix B for a description of each cluster.)

**How are we doing?**
Net employment in Silicon Valley's seven cluster industries increased by 30,300 from second quarter 1996 to second quarter 1997.

The biggest job gains were in software (8,300), computers/communications (2,500), and innovation services (6,100). Since 1992 software has added 35,300 jobs, an increase of 140%—making software the region's fastest-growing cluster. The computers/communications cluster added 15,632 jobs since 1992, an increase of 17%, and remains the region's largest cluster. Innovation services, which includes activities such as contract manufacturing and research services, added 25,700 jobs since 1992, an increase of 51%.

The defense/aerospace cluster lost 900 jobs in the past year. Since 1992, the defense cluster has lost a total of 15,900 jobs.
Special Analysis: County Employment Growth Outstrips County Labor Supply

**WHY IS THIS IMPORTANT?**

Increasingly, Silicon Valley corporations cite the limited availability of skilled workers as a major impediment to success. When local employment grows faster than local labor supply, regions experience a tight labor market. Wages are bid up and employers seek workers from farther away, creating increased traffic congestion and more time away from home.

**HOW ARE WE DOING?**

Labor supply is the combination of all residents currently working and those actively looking for work. Industry employment is all people currently employed in Santa Clara County. In the 1980s and early 1990s, the resident labor supply grew faster than employment. Beginning in 1994, this pattern reversed; employment has grown 16% while the local labor force has grown 8%.

As the local labor supply becomes tight, companies employ more workers living in bordering areas. This source, however, is also constricted. Alameda, San Mateo, and Santa Cruz counties are all experiencing their lowest unemployment rates since 1990.

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Average Real Wage Continues Growing Faster Than National Average

**WHY IS THIS IMPORTANT?**

Growth of the average annual wage in inflation-adjusted (real) terms is an indicator of job quality. It is as important a measure of Silicon Valley's economic vitality as job quantity.

**HOW ARE WE DOING?**

After stagnating from 1992 through 1994, growth of the average annual per employee wage in Silicon Valley continues to outpace the national average. In 1997, the average real wage grew 2.2% after accounting for inflation (estimates based on first half of 1997). Nationally, the average wage increased 1.2%.

In 1997, the average Silicon Valley wage was $46,000, compared to $29,900 nationally. The average wage in Silicon Valley cluster industries was $65,200.

The San Jose Metropolitan Area has the second-highest average wage of all metro regions in the United States. New York ranks first. San Francisco ranks third.

The Valley’s high productivity and global demand for its products allow wages to increase above the rate of inflation.
Average Wage for Software Cluster Reaches $85,000; Six Clusters Exceed $60,000

Why is this important?
Average annual wage increases in driving cluster industries are an indicator of the wealth-generating impact that outward-oriented industries have on Silicon Valley. Healthy cluster industries should lead to healthy local-serving industries.

How are we doing?
Average annual wages in the software and semiconductors/equipment clusters continued to lead in 1996, reaching $85,300 and $75,400, respectively.

Both defense/aerospace ($65,400) and innovation services ($64,800) have jumped up in the ranking of average wage. Innovation services (including engineering, research, and test services) recorded the largest increase in average wage, gaining more than $7,000 since 1995. Professional services ($36,400) remained below the Silicon Valley average.

Household Income Distribution Widening

Why is this important?
Successful communities are places of opportunity where lower-skilled workers have sufficient resources to support their families and a chance to move ahead. Gains from rising productivity are distributed among wage earners. There is upward mobility between income groups, and a stable or narrowing gap between the highest- and lowest-household incomes.

How are we doing?
One measure of income inequality is the ratio of median household income to the average household income. Median household income is the amount at which half of all local households are below and half are above. The median income is typically lower than the average because households with very high incomes pull the average up.

In Santa Clara County, the ratio of median to average household income has decreased from 70% in 1987 to 60% in 1997. This indicates widening disparity between lower- and upper-income households.

Since 1987, average household income increased 18% in real terms from $85,740 to $101,010 (1997 dollars). However, the median household income dropped -0.4% from $60,370 in 1987 to $60,140 in 1997.
Silicon Valley Companies Drive 40% of California's Exports

**WHY IS THIS IMPORTANT?**
Exports generate wealth and jobs for a region and are an important indicator of global competitiveness.

Serving growing global demand for high-tech goods is key to employment and sales growth for existing and new Silicon Valley firms.

**HOW ARE WE DOING?**
In 1996, exports from Silicon Valley-based firms grew 9% from $36.3 billion to $39.7 billion. Statewide exports grew 4%; nationally, exports grew 6%.

Silicon Valley companies account for 40% of California's export sales. Silicon Valley's share of California export sales has increased steadily from 28% in 1991.

Exports from Santa Clara County alone, at $29.3 billion, constitute 74% of the Silicon Valley region's total exports. In 1996, Santa Clara County alone surpassed the Detroit metropolitan region as the nation's number one exporting area.

Gazelles Drop From 73 to 64; IPOs Drop Also

**WHY IS THIS IMPORTANT?**
A gazelle is a company starting with at least $1 million in sales that has grown at an annual compounded growth rate of 20% for each of the last four years. By generating accelerated increases in output and jobs, these firms stimulate the development of other businesses and personal spending throughout the region.

The number of initial public offerings (IPOs) is an indicator of future gazelles.

**HOW ARE WE DOING?**
After peaking in 1996, the number of gazelles and IPOs both decreased in 1997.

In 1997, the number of gazelle firms decreased to 64, after reaching a high of 73 in 1996. Seventeen percent of the Valley’s public firms were gazelles.

The number of IPOs declined to 39 in 1997, after reaching a high of 72 in 1996.
New Business Starts Rise 13%, Adding 3,500 Companies in 1997

**WHY IS THIS IMPORTANT?**

Silicon Valley's innovation and economic vitality rely upon the entrepreneurial spirit of its people. One way this spirit is expressed is through starting new businesses.

**HOW ARE WE DOING?**

In 1997, an estimated 3,575 new incorporations were registered, up 13.4% from 3,152 in 1996.

In 1996, Santa Clara County created 180 new companies per 100,000 residents, compared to 147 statewide. This is a significant increase from 1990 when Santa Clara County started 140 companies per 100,000, compared to 145 statewide.

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29% of Bay Area Boards Include Women, Less Than National Average

**WHY IS THIS IMPORTANT?**

Today, women make up more than 44% of the Silicon Valley workforce and, increasingly, women are moving into managerial and professional positions. A key measure is to what extent experienced women contribute to companies' leadership teams.

**HOW ARE WE DOING?**

Only 29% percent of the largest publicly traded firms in the nine-county Bay Area (57 companies) have at least one woman on their board of directors. Fifteen companies (8%) have at least two female board members.

The Bay Area's female board representation compares poorly to national averages. Of the national Fortune 500, 84% of companies have a woman on their board and 36% have at least two. Industry specialization accounts for part of this discrepancy. Nationally, computer software and engineering are among the industries with the lowest representation of women.

Of the top five executive positions at the Bay Area's 200 largest publicly traded firms (1,000 positions), 41 are held by women. This amounts to only 4% of the top positions.

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Source: CDB Infotek, *Estimate*

**NEW BUSINESS INCORPORATIONS EACH YEAR, SANTA CLARA COUNTY**

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Source: San Jose Business Journal, San Francisco Business Times, Catalyst
Venture Capital Grows 54% in 1997 to $2.7 billion

**WHY IS THIS IMPORTANT?**
Venture capital is one of three primary sources of funding used to start and grow new companies. Other sources include personal savings and investment by family and friends. Typically, only firms with potential for exceptionally high rates of growth (25-40% annually) over a five- to 10-year period will attract venture capital. These firms are usually 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 1996 to 1997, venture capital investments in Silicon Valley firms increased 54%, from $1.8 billion to $2.7 billion.

Software/Internet attracted the largest share of total investment, at 38% (up from 25% in 1996). This represents a 40% increase from the 1996 investment level. Communications, the largest recipient in 1996 (31%), received 25% of 1997 investment.

*Source: San Jose Mercury News*

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Corporate R&D Nearing 16% as Share of Sales

**WHY IS THIS IMPORTANT?**
Corporate research and development (R&D) spending is an important indicator of whether companies are investing in their future. Corporate R&D is essential for developing new products and services that help companies stay on the cutting edge, keep growing, and producing more jobs.

**HOW ARE WE DOING?**
In 1996 R&D as a percentage of sales increased to 15.7% from 13.3% in 1995. This compares to a 7.7% ratio of R&D-to-sales for the nation. Silicon Valley is home to some of the most R&D-intensive industries in the country, including semiconductors, biomedical, computers, defense/aerospace, and software.

In 1996 R&D expenditures by publicly traded firms based in Silicon Valley totaled $17.3 billion. This amount represents a 30% real increase over total expenditures in 1995, and is 8.9% of the total U.S. R&D for publicly traded firms.

*Source: Compustat*
Federal R&D at Bay Area Universities Levels Off in 1990s

**WHY IS THIS IMPORTANT?**
Research universities are the major source of basic research in the United States. Basic research is the foundation for the science and technology innovations that fuel economic competitiveness and enhance quality of life.

The federal government has traditionally funded about 60% of research and development conducted at universities nationally.

**HOW ARE WE DOING?**
After growing rapidly during the 1980s, federally funded R&D at Bay Area universities has remained constant since 1992. This reflects the changes in federal R&D spending since the end of the Cold War. Nationally, defense-related R&D has declined and budgetary pressures have slowed funding increases for domestic R&D programs.

The Bay Area’s strength as a leading center for academic research depends on continued federal support for R&D. UC-Berkeley ranks as one of the nation’s top public research universities and Stanford ranks as one of the top private research universities. Both universities receive substantial funds for federally funded R&D.

Commercial Vacancy Rate Drops to Lowest in Decade — 4.4%

**WHY IS THIS IMPORTANT?**
Vacancy rates are a leading indicator of economic activity. Declining vacancies for commercial space often lead to rate increases and investment in property development. The advent of a tight market could influence some companies to grow elsewhere.

**HOW ARE WE DOING?**
During the first three quarters of 1997, the average vacancy rates for commercial space—including office, R&D, manufacturing, and warehouse—dropped to 4.4%. Shortages of quality space drove average quoted lease rates for R&D space to an all-time high of $1.34 per square foot per month.

Driving these changes is the continuing economic boom spurring corporate expansions and business starts. This is translating into a strong, unprecedented increase in demand for higher quality space for offices, R&D activity, and high-end manufacturing facilities.

The surge in demand led to new construction in 1997. Since January 1997, 8 million square feet of commercial space has been added, a 4.5% increase.
High School Drop-out Rate Declines

**WHY IS THIS IMPORTANT?**
Most students must complete high school and two years of trade school or post-secondary education 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?**
Preliminary data for the 1996-97 school year show that 2.4% of students dropped out in grades 9 through 12 in Santa Clara County and San Mateo County. This is a decline from 3.1% in the 1995-96 school year.

The drop-out rate for Hispanics fell significantly from 6.4% to 4.5%, the largest improvement for any ethnic group. The drop-out rate decreased for all ethnic groups except Pacific Islanders; their rate increased from 3.8% to 4.5%.

---

Students Perform Well on SATs; Only 12% of Test-Takers are Hispanic

**WHY IS THIS IMPORTANT?**
The academic performance and higher-education readiness of today's high school students indicate the potential of Silicon Valley's next-century workforce. Higher education is a basic requirement for a growing share of jobs in the Silicon Valley economy.

**HOW ARE WE DOING?**
Until the state implements a standardized test, Silicon Valley lacks a comparable measure of how well schools are performing. Scores from the SAT (Scholastic Achievement Test), taken by 42% of Valley high school seniors, become a proxy.

Continuing an upward trend, in the 1996-97 school year, students scored 5% higher than the California average and 4.4% higher than the national average on the SAT. Test scores have improved in each of the last three years.

Ideally, the portion of SAT test-takers for each ethnic group should be the same as its portion of the grade 12 population. However, while Hispanics are 26% of the grade 12 population, they constitute only 12% of SAT test-takers. Whites are 40% of the grade 12 population, and 41% of test-takers. Asians are 28% of the grade 12 population, and 42% of test-takers. African Americans are 5% of the grade 12 population, and 4% of test-takers.

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Sources:
- Santa Clara County and San Mateo County Offices of Education
- California Department of Education
Community Colleges Enroll More Than 90,000

**WHY IS THIS IMPORTANT?**
Community colleges serve a vital role in preparing the workforce of Silicon Valley, providing a wide range of curricula targeted to a variety of employer and student educational goals.

**HOW ARE WE DOING?**
Community colleges touch the lives of more than 90,000 Silicon Valley residents. Enrollments dipped in 1994 and 1995 because of lean state apportionments and state-imposed fee increases, but are regaining.

Residents look to community colleges to meet diverse education goals. Less than 40% of students are preparing to transfer to a four-year institution. The remainder are taking courses to upgrade skills, explore career opportunities, or complete a two-year degree or certificate.

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Fewer Engineering Graduates From Silicon Valley Universities Since 1994

**WHY IS THIS IMPORTANT?**
Regions that are well-served by engineering programs have a strong workforce advantage. A recent Department of Commerce analysis found that the nation will need to add an estimated 95,000 information technology workers each year through 2005. Meeting the demand for these workers will be exceptionally important in Silicon Valley.

This indicator shows the potential local pool of engineering talent for technology-based industries.

**HOW ARE WE DOING?**
Since 1994 the total number of engineering degrees awarded annually from local universities has decreased 9.7%, from 2,722 to 2,459 in 1996. Bachelor degrees dropped from 1,005 to 858. Master's degrees have dropped from 1,517 to 1,390. Doctorate degrees have remained constant at just above 200.

Within engineering, the major shift at local schools has been away from electrical engineering degrees (declined 18% from 1990 to 1996) to computer engineering (increased 42% from 1990 to 1996).

Although national data indicate a precipitous drop in computer science degrees (down 40% since 1986), Silicon Valley's output has increased slightly since 1991. In 1995, Silicon Valley institutions awarded 423 computer science degrees.
Special Analysis: 84% of Positions At “Fast 50” Firms Require More Than High School Diploma

WHY IS THIS IMPORTANT?
To participate in the dynamic sectors of the economy, people and institutions must keep up with increasing education and skill requirements. Education levels of people at the region’s fastest-growing companies are an indicator of rising basic education standards.

HOW ARE WE DOING?
A survey of 42 of the region’s 50 fastest-growing companies found that 84% of positions require education or training beyond high school.

Seventy percent of administrative positions and 53% of manufacturing positions require some college education or training. Virtually all technical support positions and managerial/professional positions require at least some college education or training.

Presently, 25% of managers hold advanced degrees beyond the bachelor level. This is expected to increase to 80% by 2000. Eleven percent of technical support staff hold advanced degrees.

The occupational structure of these fast-growth companies is 48% managers and professionals, 44% manufacturing/production, 21% technical staff, and 7% administrative.

Vehicle Delays More Than Double in Two Years

WHY IS THIS IMPORTANT?
The more we drive, the more we congest our roads, pollute our air and water, and consume a non-renewable resource. Ultimately, both quality of life and worker productivity suffer. A 21st century community provides other options—public transit, carpooling, telecommuting, housing within walking or biking distance from offices—to mitigate the negative externalities of traffic congestion.

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

HOW ARE WE DOING?
In 1996 the average daily vehicle hours of delay on freeways in Santa Clara County reached the highest level since 1990. Each weekday in 1996, an average of 20,500 hours were spent in freeway delays, an increase of 130% from the low point of 8,800 hours just two years ago.

Santa Clara County’s vehicular delays are the second-highest among Bay Area counties. Alameda County is the highest at 35,400 hours.
Per Capita Transit Ridership Up 10% Since 1994

**WHY IS THIS IMPORTANT?**

The development and use of public transit helps improve the quality of life by decreasing highway congestion and pollution. The availability of public transit also provides non-auto owners access to job opportunities in the Valley and mobility for youth, the disabled, and the elderly. Ridership per capita indicates whether a larger share of the population is using public transit.

**HOW ARE WE DOING?**

After decreasing to 70 million rides at the end of the recession in 1994, ridership on Silicon Valley’s light-rail, bus, and CalTrain systems increased to an estimated 81 million rides in 1997 (a 15% increase). On a per capita basis, this is an increase from 31 to 34.3 rides per capita—a 10% increase.

Bus systems are the most widely used form of public transportation, accounting for 81% of the total annual rides in Santa Clara and San Mateo counties. Ridership on Santa Clara County’s light-rail systems stands at almost 7 million currently, while CalTrain transported 8.2 million riders.

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Housing Affordability Drops; Rental Market Increasingly Strained

**WHY IS THIS IMPORTANT?**

The affordability, variety, and location of housing affect a region’s ability to maintain a viable economy and a high quality of life. Lack of affordable housing in a region encourages longer commutes from outside the region, which diminishes productivity, curtails family time, and increases traffic congestion. Lack of affordable rental housing can cause unsafe occupancy levels and household stress.

**HOW ARE WE DOING?**

In 1997, 37% of Silicon Valley households could afford to purchase a median-priced home, down from 41% in 1996. This contrasts with the national average of 65%.

Since the end of 1995, average apartment-rental rates have increased 29%, compared to an 8% increase in median income.

Rental rate increases are being driven by increased demand due to the job boom, unmatched by increased rental supply. Current rental stock remains near capacity. Average occupancy declined only slightly from 1996 to 1997, from 98.6% to 96.9%.
**Housing Starts Reach 10-Year High**

**WHY IS THIS IMPORTANT?**
A sustainable community plans for a variety of appropriately located and affordable housing for people of different income levels. Communities choose either to match increased demand for housing with increased supply, or to accept higher housing costs, longer commutes, and workforce shortages.

**HOW ARE WE DOING?**
After bottoming out in 1993, housing starts are now picking up the pace. Total housing starts in 1997 are estimated at 11,600 units—up from 8,800 units in 1996. Of all the new housing starts, 53% are single family and 47% are multi-family units.

Although housing starts are increasing, job growth is increasing much faster. Since 1992, Silicon Valley added almost 38,000 housing units. Jobs in the region, meanwhile, increased by 200,000.

The main reasons why growth in housing supply lags demand are lack of appropriately zoned land, resistance to higher-density housing, and some lengthy development approval processes.

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**Bad-Air Days Decline**

**WHY IS THIS IMPORTANT?**
High quality air is fundamental to the health of people, nature, and our economy.

The number of days Silicon Valley air exceeds ozone standards is an indicator of air contamination.

**HOW ARE WE DOING?**
In 1997 Silicon Valley experienced no “bad-air days” as measured against the federal standard. The region exceeded the stricter state standard four days, declining from 24 days in 1996.

Factors responsible for this year’s improvement include California’s mandated cleaner-burning motor vehicle fuel and the ocean-warming phenomenon known as El Niño.

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Source: Bay Area Air Quality Management District
Carbon Emissions Increase Nearly 20% in a Decade

**WHY IS THIS IMPORTANT?**
The level of carbon emissions reflects Silicon Valley’s contribution to altering the chemistry of the atmosphere, and global climate change. The principal source of carbon emissions is the combustion of fossil fuels through transportation and electricity generation.

**HOW ARE WE DOING?**
Since 1986, carbon emissions have increased nearly 20%, with two-thirds of this increase coming from transportation.

In 1996, the level of carbon emissions attributable to energy utility sales and gasoline sales in Santa Clara County was 3.6 million tons. Approximately 55% of these carbon emissions were attributable to gasoline usage, 27% from natural gas, and 18% from electricity.

Due to the diverse fuel mix for electric generation, Northern California has a lower portion of its carbon emissions associated with the electric utility sector than most other parts of the country.

*Source: Silicon Valley Environmental Partnership*

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Per Capita Water Usage Rising

**WHY IS THIS IMPORTANT?**
Clean, fresh water is a limited resource in a region where water supply is subjected to changes in climate and state and federal regulation. Long-term sustainability requires a community to efficiently use and re-use its water.

**HOW ARE WE DOING?**
On a per capita basis, Santa Clara County’s annual consumption of water is returning to the levels of the pre-drought period. About 70% of usage is by households and 30% is by companies.

The low point for water use, 1991, was a year of extreme water use reduction efforts and the depth of the economic recession.

Despite a larger population and employment base, water usage remains less than 1987-88 levels because of recycling and conservation efforts.

*Source: Santa Clara Valley Water District*

*Estimate*
Percentage of Low Birth-Weight Infants Remains Above Target

**WHY IS THIS IMPORTANT?**

The proportion of children with low birth-weight is a predictor of future costs. Communities will incur for preventable health problems, special education, and crime. According to the U.S. Office of Technology Assessment, for every low birth-weight avoided through early comprehensive prenatal care, the healthcare system saves $14,000 to $30,000 in hospitalization and long-term health-care costs. Poor nutrition while in the womb is the major reason why babies are small at birth.

A baby is considered low-weight at 5 pounds, 6 ounces.

**HOW ARE WE DOING?**

The share of low-weight births in Santa Clara County declined slightly from 6.2% in 1996 to 6.1% in 1997. The state average remained constant at 6.1%. In Alameda County, low-weight births were 7%, in San Mateo County 5.7%, and in Santa Cruz County 4.4%. Five percent is the national target set by the U.S. Public Health Service.

Mothers under 15 and mothers over 40 experience the highest rates of low-weight births at 9.3% and 8.9%, respectively. African American mothers experience the highest rate of low-weight births at 12.1%, while Hispanic and Pacific Islander mothers share the lowest rate of 5.5%.

Nearly 10% of Hospitalizations Preventable With Early Care

**WHY IS THIS IMPORTANT?**

Access to timely primary health care prevents illness, premature death, and financial costs to individuals and society. “Ambulatory Care-Sensitive Conditions” (ACS) are conditions for which hospitalization is normally preventable with timely primary care. These include conditions such as asthma, diabetes, pneumonia, hypertension, and dehydration.

Hospitalizations preventable by timely outpatient care increase the costs of public and private health insurance.

**HOW ARE WE DOING?**

Nearly 10% of total hospitalizations are to treat illnesses normally preventable with timely primary care. This share has edged up from 8.6% in 1993, and 9.2% in 1994. The most frequently treated conditions were pneumonia, followed by pulmonary disease and diabetes.

The cost of these hospitalizations was $135 million in 1995. At an average charge of $9,874, only 13,619 people were served with this expenditure.

County surveys show that the major barrier to accessing primary care is financial.
County Not Yet Meeting National Goals for Unhealthy Behaviors

**WHY IS THIS IMPORTANT?**
Lifestyle choices cause 51% of premature deaths. Nationally, the most important preventable causes of early death in order of importance are tobacco use, physical inactivity, unhealthy diet, and alcohol/drug usage. These unhealthy behaviors are related to heart disease, cancer, and stroke.

Santa Clara County’s new Behavioral Risk Factor Survey compares residents’ health status to the Healthy People 2000 National Health Objectives.

**HOW ARE WE DOING?**
Overall, Santa Clara County has met 50% of the national objectives monitored (41 out of 82). However, in the two behaviors most linked to premature death, tobacco use and non-exercise, Santa Clara County has not yet met the national goal.

Nearly 17% of Santa Clara County residents smoke, compared to the 15% national objective. Rates of smoking are highest for two sub-populations: adults with a high school education or less (26%) and Hispanics (23%).

Twenty-two percent of residents report no exercise or physical activity outside of work, compared to the Year 2000 objective of 15%.

Steady Improvement in Childhood Immunizations

**WHY IS THIS IMPORTANT?**
Timely childhood immunizations promote health, save lives, prevent significant disability, and lower medical costs. Up-to-date immunizations for children entering kindergarten have reached 95% following a state mandate requiring immunizations prior to school entry. However, children under age 2 historically have had much lower rates of up-to-date immunizations.

**HOW ARE WE DOING?**
Significant improvements have been made by the cities, counties, and schools to properly immunize all children throughout the region. In 1996, 66.7% of Santa Clara County children under 2 had up-to-date immunizations, as did 69% of San Mateo toddlers. These rates compare favorably to the California average of 57.3%, but fall short of the Year 2000 objective of 90%. A national Centers for Disease Control survey rates Santa Clara County as having the second-highest rate of immunizations for this age group nationally.

Compared to California, all race/ethnic groups in Santa Clara County have higher rates of up-to-date immunizations. However, there is significant variation across these groups: Whites (69.3%), Asians (67.8%), Hispanics (52.9%), and African Americans (44.2%).
Child-Support Collections Rise

WHY IS THIS IMPORTANT?
Effective child-support enforcement can lessen poverty for many children. Also, it reinforces personal responsibility and decreases support costs borne by the taxpayers.

HOW ARE WE DOING?
Since 1990 the total amount of child support (including arrears) distributed in Santa Clara County increased 150% to $60.5 million. Distribution of currently owed support has also increased 88% to $31.3 million. One factor contributing to the rise is the region's improved economy. Increased enforcement efforts are another factor.

The percentage of new cases opened with orders of support has increased from 22% in 1994 to 44% in 1997. This indicator is important because support cannot be collected without an order.

At the end of fiscal year 1997, Santa Clara County had 50,998 cases open with orders of support. In 1996-97, 11,689 new cases were opened.

Since 1993 Child-Care Slots Up 9%, Costs Up 26%, Vacancies Drop

WHY IS THIS IMPORTANT?
More than 188,000 children (0-13 years) in Santa Clara County have both parents or the single parent head-of-household in the labor force. Access to child care that is safe and that meets the developmental needs of children is essential for the long-term health of both society and the economy.

HOW ARE WE DOING?
With increased numbers of working parents, the demand for child care continues to rise. Although the number of licensed child-care slots has increased more than 9% since 1993 to 54,000, the vacancy rate is falling. The overall 1997 vacancy rate was 7%. Child-care centers are virtually full with a 3% average vacancy rate.

The cost of child care increased 26% in real terms from 1993 to 1997. In October 1997, the average cost of full-time infant care (0-2 years) by a licensed child-care center was $782 per month. The average is $510 per month for preschool-age (2-5 years) care.
As AFDC Caseloads Decline, Child Poverty Estimate Drops

<table>
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<th>NUMBER OF CHILDREN LIVING IN POVERTY, SANTA CLARA COUNTY</th>
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<td>15,000</td>
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Source: Santa Clara County Office of Budget and Analysis

**WHY IS THIS IMPORTANT?**

Children who grow up in poverty face significant hurdles to becoming contributing members of society—poor nutrition, poor access to preventative health care, increased risk of dropping out or falling behind in school, and increased risk of pregnancy and criminal behavior.

**HOW ARE WE DOING?**

Historically, Santa Clara County has estimated annual changes in the child poverty rate since the 1990 Census by using changes in the Aid to Families with Dependent Children (AFDC) caseload. As the unemployment rate has fallen since 1994, so has the AFDC caseload. Another contributing factor in this past year's drop is the impending elimination of the AFDC program.

Using this method, the share of children living in poverty has decreased to 9.2% from a high of 13.9% in 1993-94.

Note that this method would not pick up any increased share of children in working poor families.

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Large-Company Giving Per Local Employee Increases 49%

**WHY IS THIS IMPORTANT?**

An important source of giving and volunteerism in many communities is that provided by large, established corporations. An indicator of corporate community involvement is corporate giving per employee, as well as organized efforts to direct employee volunteers to community efforts.

**HOW ARE WE DOING?**

A 1994 and 1997 survey of 30 of the largest Silicon Valley companies shows a significant jump in the amount of annual giving to local charities per local employee, from $316 to $470 (1997 dollars), a 49% increase.

Giving as a percentage of pre-tax profits remained constant from 1994 to 1997 at 1.1%.

The survey also showed a significant increase in the percentage of companies with organized volunteer programs—from 60% to 72%. Forty-four percent of companies provide unpaid time off for volunteer activities and 72% have a matching gift program.

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Source: Community Foundation Silicon Valley, American Leadership Forum/Silicon Valley
83% of Households Give an Average of 2.1% of Income to Charity

WHY IS THIS IMPORTANT?

Silicon Valley is a gifted region—with an enormous wealth of human and financial resources. And the health of the economy depends on the health of the community. The rate of individual giving and volunteerism are important indicators of commitment to making the community a better place in which to live and work.

HOW ARE WE DOING?

Eighty-three percent of Silicon Valley households contribute to charity, significantly higher than the national average of 69%. Silicon Valley households give an average of 2.1% of income to charity—a share comparable to households nationally (2.2%).

A much higher percentage of Silicon Valley households direct giving to schools or educational institutions (36%) than the national average (18%).

Forty-nine percent of Silicon Valley residents volunteer at least some amount of time each week, the same as the national average. Of those who volunteer, Silicon Valley residents spend an average of 3.7 hours per week volunteering, compared to 4.2 hours nationally.

Special Analysis: Per-Capita City Revenue Declines, While State and Federal Revenue Grows

WHY IS THIS IMPORTANT?

City governments provide essential services for households and businesses.

HOW ARE WE DOING?

Aggregated together, the total amount of city tax revenue per capita declined 4% from 1985 to 1995, adjusting for inflation. During the same period, total revenue per capita for the state of California increased 5% and for the United States increased 23%.

The decline in local tax revenue per capita is due to the fact that population increased 18% from 1985 to 1995, outpacing the 13% gain in tax revenue. If growth in employment was factored into the per capita calculation, the decline in tax revenue would be even greater. The cities in Santa Clara County did experience an increase in tax revenue per capita during the economic growth from 1985 to 1990, but then a decline from 1990 to 1995.

The major structural shift in sources of tax revenue has been toward reliance on sources other than property and sales tax. In 1985, 65% of revenue was from property and sales tax; this decreased to 58% in 1994-95. Other revenue sources include the hotel tax, franchise tax, business license tax, and utility tax.

Source: State Controller, California Department of Finance, Tax Foundation
Appendix A: Data Sources

**SILICON VALLEY EMPLOYMENT INCREASES 200,000 SINCE 1992**
The Labor Market Information Division of the California Employment Development Department (EDD) and Joint Venture: Silicon Valley Network have constructed a unique data set to track employment and wages in the Silicon Valley region based on unemployment insurance filings. This data series begins in 1992 and is updated quarterly. This data set does not cover self-employment, agriculture workers, or military personnel.

**JOB GROWTH LED BY SOFTWARE, COMPUTERS/COMMUNICATIONS**
Cluster employment estimates are drawn from the EDD/Joint Venture: Silicon Valley Network data set and are based on federal Standard Industrial Code (SIC) classifications. These codes track economic activity by sector and have been arranged by Joint Venture: Silicon Valley Network to best encompass the employment activity found in Silicon Valley's driving industry clusters.

**SPECIAL ANALYSIS: COUNTY EMPLOYMENT GROWTH OUTSTRIPS COUNTY LABOR SUPPLY**
Data are from the Bureau of Labor Statistics' Current Population Survey and Current Employer Statistics survey conducted by the California Employment Development Department.

**AVERAGE REAL WAGE CONTINUES GROWING FASTER THAN NATIONAL AVERAGE**
Data are derived from the EDD/Joint Venture: Silicon Valley Network data set and the Average Annual Pay By State and Industry report of the Bureau of Labor Statistics. This information comes from individual firm reporting of payroll amounts in compliance with unemployment insurance rules. All wages have been adjusted into 1997 dollars using the All Urban Consumers U.S. City Average CPI published by the Bureau of Labor Statistics.

**AVERAGE WAGE FOR SOFTWARE CLUSTER REACHES $85,000; SIX CLUSTERS EXCEED $60,000**
Mean payroll per employee wages for each cluster derived from the EDD/Joint Venture: Silicon Valley Network data set.

**HOUSEHOLD INCOME DISTRIBUTION WIDENING**
Household income data are from Regional Financial Associates based on analysis of Bureau of Economic Analysis (BEA) and Census data. It is important to note that many factors contribute to changes in household incomes, including household size and characteristics.

**SILICON VALLEY COMPANIES DRIVE 40% OF CALIFORNIA'S EXPORTS**
Data is provided by the U.S. Department of Commerce, International Trade Administration, from the Exporter Location Series. Data is sales by exporters in the geographic area with ZIP codes beginning 940, 945, 950, and 951. Data include manufactured and agriculture goods, but not services. Collaborative Economics adjusted the Commerce Department data using the GDP price deflator.

**GAZELLES DROP FROM 73 TO 64; IPOS DROP ALSO**
Data for deriving the number of gazelle firms is from The San Jose Mercury News, “How Local Companies Fared,” a quarterly report that tracks publicly traded firms in the Valley. The number of IPOs is also tracked throughout the year by The San Jose Mercury News.

**NEW BUSINESS STARTS RISE 13%, ADDING 3,500 COMPANIES IN 1997**
Data are the number of new business incorporations in Santa Clara County registered with the California Secretary of State. This information is compiled by CDB Infotek.

**29% OF BAY AREA BOARDS INCLUDE WOMEN, LESS THAN NATIONAL AVERAGE**
Data were gathered by the San Jose Business Journal and the San Francisco Business Times from corporations' Securities Exchange Commission (SEC) filings. The 200 largest firms are for the Bay Area and are measured by total revenue. National data of the Fortune 500 were gathered by Catalyst.
VENTURE CAPITAL GROWS 54% IN 1997 TO $2.7 BILLION
Data come from the quarterly report of the San Jose Mercury News, "The Money Tree," based on research by Price Waterhouse. For the 1998 Index of Silicon Valley, only investments in firms located in Silicon Valley were included. Collaborative Economics estimated the 1997 total venture capital funding level based on the first three quarters and historical patterns.

CORPORATE R&D NEARING 16% AS SHARE OF SALES
Data compiled by Standard and Poor's Compustat for the Silicon Valley region based on public firm 10K and 10Q reporting with the SEC. In Silicon Valley, more than 400 firms report such information with the SEC.

FEDERAL R&D AT BAY AREA UNIVERSITIES LEVELS OFF IN 1990S
Data from the National Science Foundation, Science Resources Studies Division and include Santa Clara University, Stanford University, UC-Berkeley, UC-San Francisco, and UC-Santa Cruz. Citation of UC-Berkeley as the top public research university and Stanford University as the top private research university is from Hugh Graham and Nancy Diamond, The Rise of American Research Universities, (Johns Hopkins, 1997).

COMMERCIAL VACANCY RATE DROPS TO LOWEST IN DECADE—4.4%
Data from Cornish & Carey Commercial/OnCor International, Santa Clara office. Data cover Santa Clara County plus the southern portion of Alameda County. Data for R&D space are provided "triple net" or "NNN," which is a base lease rate that excludes the costs of utilities, janitorial services, taxes, maintenance, and insurance.

HIGH SCHOOL DROP-OUT RATE DECLINES
Data include the rates for students who drop out each year in Santa Clara and San Mateo Counties. This information was compiled by the Office of Education in each county in accordance with the California Basic Educational Data System. 1997 data for the Mountain View-Los Altos High School District is estimated based on the prior year.

STUDENTS PERFORM WELL ON SATS; ONLY 12% OF TEST-TAKERS ARE HISPANIC
SAT data from California Department of Education's Education, Planning and Information Center includes Santa Clara and San Mateo counties.

COMMUNITY COLLEGES ENROLL MORE THAN 90,000
Data developed by the research offices of the eight community colleges in the Santa Clara Valley region. The community colleges are DeAnza, Evergreen, Foothill, Gavilan, Mission, Ohlone, San Jose City, and West Valley. Statewide data is from the California Community College Chancellor's Office.

FEWER ENGINEERING GRADUATES FROM SILICON VALLEY UNIVERSITIES SINCE 1994
Data are from information gathered by the American Association of Engineering Societies for the following Silicon Valley institutions: Cogswell College, San Jose State University, Santa Clara University, Stanford University, and UC-Santa Cruz.

SPECIAL ANALYSIS: 84% OF POSITIONS AT "FAST 50" FIRMS REQUIRE MORE THAN HIGH SCHOOL DIPLOMA
Data are from a survey of the 50 fastest-growing companies in Silicon Valley in 1997 conducted by Joint Venture: Silicon Valley Network. Forty-two of the "Fast 50" companies participated in the survey.
VEHICLE DELAYS MORE THAN DOUBLE IN TWO YEARS
Data provided by Caltrans District 04 Highway Congestion Monitoring Program. Vehicle hours of delay are a multiplicative function of three factors. The first factor (v) is the volume, or potential capacity. This is 2,000 passenger cars per lane per hour. The second factor (d) is the duration of the congestion. Congestion is defined as a condition in which 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 as it travels.

The Caltrans District 04 “floating car” program has been discontinued. Unless reinstated in future Caltrans budgets, this is the last year this measurement will be available.

PER CAPITA TRANSIT RIDERSHIP UP 10% SINCE 1994
Data are the sum of the total rides sold annually on the light rail, the bus systems in Santa Clara and San Mateo counties, and CalTrain.

HOUSING AFFORDABILITY DROPS; RENTAL MARKET INCREASINGLY STRAINED
Housing affordability data from the National Association of Home Builders, Housing Opportunity Index. The Index is based on the median price of a home sold in each region. The 1997 figure is the average of the first three quarters.

Apartment data from surveys conducted by Realfacts of all apartment complexes in the county of 40 or more units. Excluded are subsidized housing, Section 8 or HUD housing, and senior complexes. Rental rates are the average of all types of units. Rates are the prices charged to new residents when apartments turn over.

HOUSING STARTS REACH 10-YEAR HIGH
Data on housing starts by city from the Construction Industry Research Board. Silicon Valley data set created by Collaborative Economics.

BAD-AIR DAYS DECLINE
The Bay Area Air Quality Management District takes daily measurements of air quality monitoring stations in Silicon Valley. The indicator reflects the number of days that at least one of these stations exceeds federal or state standards.

CARBON EMISSIONS INCREASE NEARLY 20% IN A DECADE
Silicon Valley Environmental Partnership calculated carbon emissions by converting consumption of electricity, natural gases, and fossil fuels in the Santa Clara County into carbon emissions using fuel-to-carbon dioxide conversion factors.

PER CAPITA WATER USAGE RISING
Water use data from Santa Clara Valley Water District. An acre-foot of water is about 326,000 gallons and is enough to meet the needs of two typical families for a year.

PERCENTAGE OF LOW BIRTH-WEIGHT INFANTS REMAINS ABOVE NATIONAL TARGET
Data from the State of California, Department of Health Services, Birth Records. Babies weighing under 2,500 grams (5 pounds, 6 ounces) are considered “low birth-weight.”
NEARLY 10% OF HOSPITALIZATIONS PREVENTABLE WITH EARLY CARE
Ambulatory Care Sensitive (ACS) Conditions are a group of chronic and acute conditions for which timely and adequate clinical preventive and primary care services are likely to avoid hospitalizations. The Santa Clara County Public Health Department compiled data on hospitalizations due to ACS conditions from the hospital discharge database. Data for 1993 do not include ACS costs for Santa Clara County residents at non-Santa Clara County hospitals.

COUNTY NOT YET MEETING NATIONAL GOALS FOR UNHEALTHY BEHAVIORS
Data are from the Behavioral Risk Factor Survey, based on a national survey system developed by the Centers for Disease Control and Prevention in 1981. In 1997 the Santa Clara County Public Health Department conducted the survey at the county level for the first time to assess the prevalence of health-related risk behaviors among Santa Clara County adults.

STEADY IMPROVEMENT IN CHILDHOOD IMMUNIZATIONS
Data are from Santa Clara County Public Health Department. Up-to-date immunizations means children who by the age of 2 have received the following series of immunizations: 3 polio, 4 diptheria, tetanus, pertussis (DTP), and 1 mump, measles, and rubella (MMR).

CHILD-SUPPORT COLLECTIONS RISE
Information provided by Santa Clara County District Attorney’s Office. Distributed collections are those amounts that were actually applied to cases during the fiscal year. New cases include all applications for a variety of services. Some cases require only the establishment of orders for paternity or medical insurance. Other cases call for a full range of services, including the establishment and enforcement of on-going child support and support arrears.

SINCE 1993 CHILD-CARE SLOTS UP 9%, COSTS UP 26%, VACANCIES DROP
Data provided by the Community Coordinated Child Development Council (4C Council) of Santa Clara County. Licensed child care can be provided either in a home or at a child-care center. In Santa Clara County, 54% of licensed child-care slots is provided by centers. Forty-six percent is provided by child-care homes. The lowest vacancies in the county are slots for school-age children.

AS AFDC CASELOADS DECLINE, CHILD POVERTY ESTIMATE DROPS
Data are from Santa Clara County’s Executive Office, Office of Budget and Analysis.

LARGE-COMPANY GIVING PER LOCAL EMPLOYEE INCREASES 49%
Data are from research conducted by Stanford University on behalf of Community Foundation Silicon Valley and American Leadership Forum-Silicon Valley. Thirty companies participated in both the 1994 and 1997 surveys. One-hundred of the region’s largest companies were contacted for each survey.

83% OF HOUSEHOLDS GIVE AN AVERAGE OF 2.1% OF INCOME TO CHARITY
Data are from surveys conducted by the Field Research Corporation on behalf of Community Foundation Silicon Valley and by Independent Sector.

SPECIAL ANALYSIS: PER CAPITA CITY REVENUE DECLINES, WHILE STATE AND FEDERAL REVENUE GROWS
City revenue data are from Financial Transactions Concerning Cities of California, Annual Report 1994-95 Fiscal Year. Data are for all cities in Santa Clara County. State data are from the California Department of Finance, Statistical Abstract. Federal data are from Tax Foundation, Washington, D.C.
Appendix B: Definitions

SILICON VALLEY
Where possible, Silicon Valley
Indicators collected data for
the economic region of Silicon
Valley. This includes all of
Santa Clara County as its core
and extends into the following
adjacent ZIP codes:

CITY ZIP CODE
Alameda County
Fremont 94536-39, 94555
Union City 94587
Newark 94560

San Mateo County
Menlo Park 94025
Atherton 94027
Redwood City 94061-65
San Carlos 94070
Belmont 94002
San Mateo 94400-03
Foster City 94444
East Palo Alto 94303

Santa Cruz County
Scotts Valley 95066-67

INDUSTRY CLUSTERS
Semiconductor/Semiconductor
Equipment 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 communica-
tions equipment
3669 Communications equip-
ment, n.e.c.**

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

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

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

Professional Services
275 Printing
276 Manifold business forms
279 Service industries for the
printing trade
731 Advertising
732 Consumer credit reporting
agencies
733 Mailing, reproduction,
commercial art and
photography, and
stenographic services
736 Personnel supply services
81 Legal services
8712 Architectural services
8713 Surveying services
872 Accounting, auditing, and
bookkeeping services
874 Management and public
relations services

* The numbers correspond to federal
Standard Industrial Classification (SIC) codes.
** n.e.c. means "not elsewhere
classified"
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