Joint Venture: Silicon Valley Network

Joint Venture: Silicon Valley Network is a nonprofit organization that brings together Silicon Valley leaders from business, government, education and the community to identify and to solve issues affecting the region. Joint Venture’s mission is to enable all people in Silicon Valley to succeed in the new economy.

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Welcome to the *Index of Silicon Valley* for the year 2000.

Joint Venture developed the annual *Index of Silicon Valley* to provide a reliable source of objective information about the economy and quality of life in Silicon Valley. Good information about ourselves as a region has helped create a sense of regional identity. It has also helped Joint Venture and others to improve many aspects of our Silicon Valley community.

By measuring a broad base of indicators cutting across Silicon Valley’s economy, community and environment, the *Index* identifies emerging challenges and opportunities facing the region. When the *Index* was first produced, Silicon Valley was feeling the effects of the worst recession in California since the Great Depression. At that time, the *Index* highlighted the need to sustain the Valley’s economic vitality. This year’s *Index* reveals a very different problem—an emerging Digital Divide in Silicon Valley—and the new challenge of connecting all people in our community to the unparalleled opportunities in the new Digital Economy.

This year’s *Index* continues the tradition begun last year of measuring progress toward the 17 goals for the economy, environment, society and regional stewardship established in *Silicon Valley 2010: A Regional Framework for Growing Together*. Joint Venture released *Silicon Valley 2010* in October 1998, after more than 2000 community members participated in developing 17 goals for our region’s future.

This 2000 *Index* includes 25 indicators measuring progress toward the 17 goals. In addition, the 2000 *Index* includes 10 important regional trend indicators.

To access the full library of Joint Venture reports, visit us on the Web at www.jointventure.org. We wish you fascinating reading, and new insight into how you can make a difference achieving the goals of *Silicon Valley 2010*.

Ruben Barrales
President & CEO
Joint Venture: Silicon Valley Network
Introduction

**WHAT IS SILICON VALLEY?**
Joint Venture defines Silicon Valley as Santa Clara County plus adjacent parts of San Mateo, Alameda, and Santa Cruz counties (see map on p. 4). This definition reflects the core location of the Valley’s driving industries and most of its workforce.

With a population of more than 2.5 million people, this region has more residents than 18 of the U.S. states.

The indicators reflect this definition of Silicon Valley, except where noted as different.

**WHAT IS A GOOD INDICATOR?**
Indicators are measurements that tell us how we are doing: whether we are going up or down; going forward or backward; getting better, worse, or staying the same. Good indicators:

- are bellwethers that reflect fundamentals of long-term regional health;
- reflect the interests and concerns of the community;
- are statistically measurable on a frequent basis; and
- measure outcomes, rather than inputs.

The 35 indicators that follow were chosen in consultation with the Index Advisory Board, the Joint Venture Board, and more than 60 community experts.

Appendix A provides detail on data sources for each indicator.

**WHAT IS AN INDUSTRY CLUSTER?**
Several of the economic indicators relate to “industry clusters.” An industry cluster is a geographic concentration of interdependent firms in related industries, and includes a significant number of companies that sell their products and services outside the region.

Healthy, outward-oriented industry clusters are a critical prerequisite for a healthy economy. The driving clusters in Silicon Valley are:

- computers/communications
- semiconductors/semiconductor equipment
- software
- bioscience
- defense/space
- innovation services
- professional services.

Together, these clusters represent nearly 40% of all jobs in Silicon Valley.

Clusters are dynamic. Over time, existing clusters will transform and new clusters will develop from our region’s talent and technology base. The Internet cluster is a good example. In July 1999, Joint Venture released an analysis of the emerging Internet cluster in Silicon Valley (for a copy, visit www.jointventure.org). Prepared by A.T. Kearney, the report found that the emerging Internet cluster is comprised of companies from established industry clusters such as computers/communications, software, financial services and retail, as well as companies from the new “dot com” sector.

Although it is possible to identify local companies with Internet-related activities, government statistics do not yet track employment in these companies as a separate sector. The widespread adoption of a new federal industry classification scheme, the North American Industry Classification System, over the next few years should improve our ability to track Internet-related companies as a sector.

In addition to tracking driving industry clusters, the Index provides employment, wage and value-added data for the other industries in the Silicon Valley economy, such as local services and construction.

Appendix B identifies the specific subsectors constituting each cluster.
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2000 Index Highlights

The 2000 Index of Silicon Valley tells the story of a region with slowing quantitative job growth, but qualitative gains in innovation, entrepreneurship and wages.

The Index reports progress in education performance following significant efforts by educators, businesses, and parents to improve the quality of education in Silicon Valley. Yet it shows wide disparity in education achievement by ethnicity, with Hispanic students lagging particularly. (See “Digital Divide” Special Analysis that follows.)

While serious challenges remain in housing and transportation, recent land use decisions are consistent with the Silicon Valley 2010 goals of a more livable region. This year’s Index also shows signs of progress in regional stewardship.

SHIFT FROM QUANTITATIVE TO QUALITATIVE ECONOMIC GROWTH DRIVEN BY INNOVATION

Strong quantitative job growth of recent years has given way to a more qualitative economic growth characterized by innovation, entrepreneurship and higher wages.

• Silicon Valley employment grew an estimated 1.7% in 1999, adding 21,200 jobs. This compares with 2.9% growth in 1998 (36,600 jobs) and 5.2% growth in 1997 (61,400 jobs).

• Software continues to have the fastest job growth among industry clusters, adding 12,600 new jobs. Employment in computers/communications held constant, and semiconductors/equipment declined by 13,400 jobs.

• Silicon Valley is home to 61 of the 500 fastest-growing high-tech companies in the United States, including three of the top five fastest-growing firms nationally.

• Venture capital investment nearly doubled in 1999 to $6.1 billion.

• Initial public offerings reached a record level in 1999, at 77.

• In 1999, the region’s average wage increased 5.1% in real terms, from $51,100 to $53,700. This compares to a national increase of 3.4% to $33,700.

• Average wages in the software cluster exceeded $95,000, retaining software’s position as the Valley’s highest-paying industry.

• In the last two years, households at the bottom 20% of the income distribution saw their income increase slightly, but their 1999 income remains below 1992 levels.
EDUCATION SHOWS IMPROVEMENT

The Index shows across-the-board improvement in education performance, although disparities exist across ethnicity (see “Digital Divide” Special Analysis that follows.)

- Fifty-four percent of Silicon Valley third graders scored at or above the national median for reading comprehension in 1999, an increase from 51% in 1998. Only 19% of students with limited English proficiency scored above the national median, an improvement from 17% in 1998.
- On average, 29% of ninth- and tenth-grade students were enrolled in Intermediate Algebra in 1999, up from 26% in 1998.
- On average, 47% of high-school students completed the course requirements for UC/CSU entrance in 1998. This share has increased steadily from 36% in 1994.
- For the first time since 1994, the number of engineering degrees awarded from local universities increased, from 3,807 degrees in 1997 to 3,998 in 1998.

QUALITY OF LIFE SHOWS MIXED PROGRESS

The Index shows improvement in several quality of life indicators, but troubling problems remain in housing and transportation.

- Santa Clara County leads both the nation and California in immunization rates for children ages 18–35 months.
- Both the violent crime rate and the juvenile crime rate continue to decline, 11% and 17% respectively.
- In 1999, only 37% of Silicon Valley houses were affordable for households with a median income, down from 38% in 1998. This number contrasts with the national average of 68%.
- Per capita ridership on public transportation did not show any improvement from 1998 to 1999.

DEVELOPMENT PATTERNS CHANGING

Recent land use decisions are consistent with the Silicon Valley 2010 goals of preserving open space and using land efficiently.

- In 1999, 25% of Silicon Valley and its perimeter were permanently protected open space, up from 23% in 1998.
- Last year Silicon Valley cities approved new residential development at an average of 10.3 units per acre, compared with 4.9 units per acre overall.
- Fifty-seven percent of new housing units and 35% of new jobs were located near transit last year.

SIGNS OF REGIONAL STEWARDSHIP

Regional stewardship means taking responsibility to solve regional problems and meet long-term goals. This year’s Index shows signs of progress on several measures of regional stewardship.

- Since 1992, individuals, families and companies have established 675 new charitable funds at community foundations, contributing $484 million.
- Between 1995 and 1997, a benchmark group of 78 nonprofit organizations experienced rapid growth in the number of people served, earned income and endowments.
- Capital investment by local governments in Silicon Valley jumped 30% between 1996 and 1997 (the latest year for which data are available), after having declined or grown only nominally each year since 1990.
- Relative to other regions, Silicon Valley arts and cultural organizations are smaller, less capitalized and less likely to have budget deficits.
Special Analysis: Silicon Valley’s Digital Divide

By tracking a broad base of indicators that spans the economy, society and environment, the Index identifies emerging issues facing the region. The 2000 Index reveals a growing Digital Divide in Silicon Valley.

WHAT IS THE DIGITAL DIVIDE?

The Digital Divide is about more than connecting to the Internet; it is about connecting to opportunity in the new digital economy. Silicon Valley’s Digital Divide is the gap between different communities in workforce, education, the economy and technology.

WORKFORCE GAP: Our current supply of skilled labor does not meet the needs of the high-technology companies that fuel our region’s economy. Joint Venture’s Workforce Study, which was released in the spring of 1999, identified a workforce gap of 31 to 37% of the high-tech industry demand for workers in Silicon Valley. The cost of this workforce gap to high-tech industry is approximately $3–4 billion in incremental hiring and opportunity costs.

EDUCATION GAP: On every measure of educational attainment in this year’s Index, wide variation exists by ethnicity. This is a particularly critical challenge for Silicon Valley, because low education attainment afflicts our fastest-growing population, Hispanics, most extensively.

- Fifty-seven percent of Hispanic students graduate high school, compared with 86% of white students and 97% of Asian students.
- On average, 29% of ninth- and tenth-grade students were enrolled in Intermediate Algebra in 1999, up from 26% in 1998. Only 19% of Hispanics were enrolled.
- On average, 47% of high-school students completed the course requirements for UC/CSU entrance in 1998. Only 23% of Hispanic students met this requirement.
- Hispanics earn only 6% of engineering degrees awarded by local universities.

Sources: A.T. Kearney Workforce Initiative Survey, Santa Clara Valley Transportation Authority, Association of Bay Area Governments, Employment Development Department

Sources: Alameda, Santa Clara and San Mateo County Offices of Education
**ECONOMIC GAP:** In addition to gaps in our supply of skilled labor and educational preparation, the region faces wide income disparity among different groups. There has been a widening income gap during the 1990s in Silicon Valley. While incomes of the lowest 20% of households have increased slightly the last two years, those incomes are still below 1992 levels (see page 18).

**TECHNOLOGY GAP:** Access to technology varies by race and income.

- In the San Francisco Bay Area, 46% of people with household incomes less than $40,000 access the Internet compared to 81% with household incomes more than $80,000 (Bay Area Council, 1999).
- Thirty-seven percent of Hispanics in the Bay Area use a computer on a frequent basis compared to 59% of non-Hispanic Whites (Public Policy Institute of California, 1999).

**BOTH THE NEW ECONOMY AND CHANGING DEMOGRAPHICS AFFECT THE DIGITAL DIVIDE**

These gaps widen as the New Economy creates new skills demands at the same time that the demographics of the Valley continue to change. As our population becomes more diverse, special efforts are required to ensure that the Digital Divide does not continue to widen.

As we enter the year 2000, we cross an important demographic milestone: no racial/ethnic group is a statistical majority. Anglos represent 49% of the combined population of Santa Clara and San Mateo counties and only 39% of the school-aged population. Population projections point to increased diversity of our region as we advance toward 2010.

**IMPLICATIONS FOR SILICON VALLEY**

Joint Venture believes that Silicon Valley's continued economic and social vitality is dependent on our ability to prepare more people in the region for the demands of the new workforce, whether in high tech or other fields. This is the challenge that will be the focus of Joint Venture's work as we explore ways to enable all people in Silicon Valley to succeed in the new Digital Economy.
Silicon Valley Job Growth Cools

**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 Silicon Valley region (see Appendix B).

**HOW ARE WE DOING?**

In 1999, Silicon Valley realized a net increase of an estimated 21,200 jobs, a 1.7% annual growth rate.

This represents a slowing from 1998’s 2.9% growth rate (36,600 jobs) and a significant departure from three years of very rapid employment growth from 1995 to 1997. In 1995, 1996 and 1997 Silicon Valley’s net employment grew 5.5%, 4.8% and 5.2% respectively, adding at least 54,000 jobs each year.

Since 1992, the first year of the regional employment dataset, Silicon Valley has seen a net increase of more than 275,000 new jobs. The total number of jobs in the region is 1.3 million.

This dataset does not include self-employed people. Approximately 15% of tax returns from the combined Santa Clara and San Mateo County region report income from self-employment.

Software Jobs Grow, Computers Constant, Semiconductors Decline

**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 nearly 40% of all non-governmental employment in the region.

**HOW ARE WE DOING?**

Within the cluster industries, the biggest job gains remained in software, which added 12,600 jobs between the second quarter of 1998 and the second quarter of 1999. The second-largest growth was in innovation services with 7,400, followed by professional services with 3,100. The large computers/communications cluster (114,000 total jobs) held relatively constant adding 170 jobs.

Three clusters showed net job losses. Bioscience lost 1,250 jobs, defense/aerospace lost 5,300 jobs and semiconductors/semiconductor equipment lost 13,400 jobs. In last year’s Index, bioscience and semiconductors/semiconductor equipment were among the top four industry job gainers.

Of the other Silicon Valley industries, construction/transportation/public utilities experienced the strongest growth, adding 9,200 jobs. Other strong performers were government/education (5,200) and local and visitor services (4,650). Miscellaneous manufacturing lost 5,700 jobs.
Average Wage Increased 5% in 1999

WHY IS THIS IMPORTANT?
Growth of the average annual wage in inflation-adjusted terms is an indicator of job quality. It is as important a measure of Silicon Valley’s economic vitality as job growth.

HOW ARE WE DOING?
In 1999 the average wage in Silicon Valley grew 5.1% after accounting for inflation, from $51,100 to $53,700. Nationally the increase was 3.4%.

Silicon Valley’s average wage is more than 59% above the nation’s ($33,700).

The Valley’s high productivity allows wages to increase above the rate of inflation.

Average Wage for Software Cluster Exceeds $95,000; Largest-Employing Sector—Local and Visitor Services—Remains Below $23,000

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 can stimulate local-serving industries, as companies and the people they employ spend money on goods and services offered within the region.

HOW ARE WE DOING?
Of the cluster industries, software continues to have the highest average annual wages, reaching $95,800 in 1998. The second highest cluster is semiconductors/equipment at $86,300, followed by computer/communications at $80,200 and innovation services at $72,900. For the second year in a row, computer/communications demonstrated the largest absolute ($7,160) and relative (9.8%) increase from the previous year.

Among the other industries in Silicon Valley, finance/insurance/real estate remains the highest at $54,000. The largest employing sector, local and visitor services, has an average annual wage of $22,900.
**WHY IS THIS IMPORTANT?**

*Silicon Valley 2010* called for a shift from evaluating the success of the economy by quantitative growth—more jobs, more consumption of resources, more congestion—to qualitative growth—enhanced productivity, better use of resources and jobs with advancement potential open to more residents.

This indicator compares growth in average real wages to growth in new jobs for each year from 1993 to 1999. Average real wages is but one factor that defines job quality.

**HOW ARE WE DOING?**

In 1993–1994, the region added more than 40,000 jobs. Silicon Valley’s average wages, however, stagnated during this period. Although the region was gaining new jobs, it was also losing jobs in well-paying sectors such as semiconductors and defense.

Through the robust growth period of 1995 to 1997, job growth was paralleled by strong gains in the region’s average real wage.

Although job growth slowed significantly in the past two years, average real wage growth has remained strong—4.8% in 1998 and 5.1% in 1999. This indicates qualitative economic growth at a time when quantitative growth has slowed.

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**Merchandise Exports Decline 11%; Region’s Share of State Exports Also Shrinks, But Software and Service Exports Are Not Counted**

**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 1998, merchandise exports from Silicon Valley-based firms declined 11% from $37.9 billion to $33.6 billion. Statewide, exports decreased 7%. Nationally, exports declined 1%.

Silicon Valley companies accounted for 34% of California’s non-agricultural export sales in 1998, a decrease from 36% in 1997.

Part of this decline is attributable to softened demand for semiconductors and semiconductor equipment in Asia. In addition, much of the Valley’s recent growth is being spurred by U.S. demand for Internet-related equipment and services.

Equally important, the decline reflects the fact that official government trade datasets do not include exports of services, including most software. Joint Venture considers this a significant flaw that will increasingly understate the Valley’s global reach relative to other more manufacturing-intensive regions.
IPOs Surge to Record Level, M&As Increase as Well

**WHY IS THIS IMPORTANT?**
Through initial public offerings (IPOs) and mergers and acquisitions (M&As), companies access funds to develop technologies and products to their next level. Also, both IPOs and M&As are important routes to liquidity for entrepreneurs and investors in entrepreneurial companies.

The numbers of IPOs and M&As are indicators of successful entrepreneurship and future high-growth companies.

**HOW ARE WE DOING?**
At 77, the number of IPOs in 1999 surpassed the record level of 72 set in 1996. The IPO market in 1997 and 1998 was relatively modest due to market concerns about the viability of the large number of IPOs in the prior two years. However, in 1999 the number of IPOs jumped 140% from the 1998 level. The increase has been driven largely by Internet-related companies.

After a three-year decline, the number of M&As edged up about 3% in 1999 to 157. This is in contrast to a national M&A market which saw 20% fewer deals in 1999 than in 1998.

Source: [San Jose Mercury News, Securities Data Corporation](http://www.sjmercury.com)

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Commercial Vacancy Edges Up Slightly in 1999; Lease Rates Hold Steady

**WHY IS THIS IMPORTANT?**
Vacancy rates are a leading indicator of economic activity.
Declining vacancies for commercial space reflect strong demand by growing companies, leading typically to rate increases and investment in property development. Rising vacancies reflect slowing demand relative to supply.

**HOW ARE WE DOING?**
For the second year in a row, average vacancy rates for R&D space edged up slightly, increasing from 6.6% in 1998 to 8.6% in 1999. While vacancy rates have returned to 1995 levels, they are still historically low—one-third the peak rate of 1990. This slight increase in vacancy reflects new space coming on line. Lease rates for R&D space are holding steady at $1.70.

Demand for space remains very strong and capacity remains tight although an estimated 11 to 12 million square feet of space were added in 1999.

Source: [Cornish & Carey Commercial/Oncor International](http://www.cornishcarey.com)

*First three quarters of 1999*
Slight Increase in Engineering Graduates from Local Universities

**Why is this important?**
Access to talent is a top factor influencing business location decisions (see Joint Venture’s Internet Cluster Analysis, 1999.) This indicator shows the potential local pool of engineering talent for technology-based industries.

**How are we doing?**
The total number of engineering degrees awarded from local universities increased slightly in 1998, from 3,807 to 3,998. Driving this increase was a jump in Masters degrees awarded from 1,621 to 1,935, nearly matching the 1994 high.

The total number of engineering degrees awarded annually from local universities has decreased 8% from the 1994 high, compared to a 3% decline nationally during the same period.

In 1998, the greatest numbers of degrees were awarded in computer engineering and electrical engineering, 977 and 881 respectively.

The greatest shift at local schools has been away from electrical engineering degrees (which have declined 21% since 1987) to computer engineering degrees (which have grown 81% since 1987). Asian American students earn 48% of all BS engineering degrees awarded by Silicon Valley engineering programs, Whites earn 37% and Hispanics 6%.

Housing Affordability Declines Slightly; Rental Rates Rise Slowly

**Why is this important?**
The affordability, variety and location of housing affect a region’s ability to maintain a viable economy and high quality of life. Lack of affordable housing in a region encourages longer commutes, which diminish productivity, curtail family time and increase traffic congestion. Lack of affordable rental housing can cause unsafe occupancy levels and household stress.

**How are we doing?**
In 1999, 37.6% of Santa Clara County houses were affordable for households with a median income, down from 38.3% in 1998. This number contrasts with the national average of 68.3%.

The decline is due to slightly higher interest rates, a slowdown in median income growth and an increase in the median home price of 14% in 1999 to $346,000.

In 1999, average apartment rental rates increased by 4% compared to a 7% increase in median income. The average monthly rent was $1,357. Occupancy rates are at 97%, up from 96% in 1998.
This second part of the Index of Silicon Valley is organized according to the four theme areas and 17 goals of Silicon Valley 2010: A Regional Framework for Growing Together. Joint Venture released Silicon Valley 2010 in October 1998, after more than 2,000 residents and community leaders gave input on what they would like Silicon Valley to become by the year 2010. For more information about the Silicon Valley 2010 vision, goals and recommended progress measures, call 408/271-7213 or visit www.jointventure.org on the Internet.
**Silicon Valley 2010 Goals**

### OUR INNOVATIVE ECONOMY INCREASES PRODUCTIVITY AND BROADENS PROSPERITY

**GOAL 1: INNOVATION AND ENTREPRENEURSHIP.**
Silicon Valley continues to lead the world in technology and innovation.

**GOAL 2: QUALITY GROWTH.** Our economy grows from increasing skills and knowledge, rising productivity and more efficient use of resources.

**GOAL 3: BROADENED PROSPERITY.** Our economic growth results in an improved quality of life for lower-income people.

**GOAL 4: ECONOMIC OPPORTUNITY.** All people, especially the disadvantaged, have access to training and jobs with advancement potential.

### OUR INCLUSIVE SOCIETY CONNECTS PEOPLE TO OPPORTUNITIES

**GOAL 10: EDUCATION AS A BRIDGE TO OPPORTUNITY.**
All students gain the knowledge and life skills required to succeed in the global economy and society.

**GOAL 11: TRANSPORTATION CHOICES.** We overcome transportation barriers to employment and increase mobility by investing in an integrated, accessible regional transportation system.

**GOAL 12: HEALTHY PEOPLE.** All people have access to high quality, affordable health care that focuses on disease- and illness-prevention.

**GOAL 13: SAFE PLACES.** All people are safe in their homes, workplaces, schools and neighborhoods.

**GOAL 14: ARTS AND CULTURE THAT BIND COMMUNITY.**
Arts and cultural activities reach, link and celebrate the diverse communities of our region.

### OUR COMMUNITIES PROTECT THE NATURAL ENVIRONMENT AND PROMOTE LIVABILITY

**GOAL 5: PROTECT NATURE.** We meet high standards for improving our air and water quality, protecting and conserving natural resources.

**GOAL 6: PRESERVE OPEN SPACE.** We increase the amount of permanently protected open space, publicly accessible parks and green space.

**GOAL 7: EFFICIENT LAND RE-USE.** Most residential and commercial growth happens through recycling land and buildings in existing developed areas. We grow inward, not outward, maintaining a distinct edge between developed land and open space.

**GOAL 8: LIVABLE COMMUNITIES.** We create vibrant community centers where housing, employment, schools, places of worship, parks and services are located together, all linked by transit and other alternatives to driving alone.

**GOAL 9: HOUSING CHOICES.** We place a high priority on developing well-designed, housing options that are affordable to people of all ages and income levels. We strive for balance between growth in jobs and housing.

### OUR REGIONAL STEWARDSHIP DEVELOPS SHARED SOLUTIONS

**GOAL 15: CIVIC ENGAGEMENT.** All residents, business people and elected officials think regionally, share responsibility and take action on behalf of our region’s future.

**GOAL 16: TRANSCENDING BOUNDARIES.** Local communities and regional authorities coordinate transportation and land use planning for the benefit of everybody. City, county and regional plans, when viewed together, add up to a sustainable region.

**GOAL 17: MATCHING RESOURCES AND RESPONSIBILITY.**
Valley cities, counties and other public agencies have reliable, sufficient revenue to provide basic local and regional public services.
GOAL 1: INNOVATION AND ENTREPRENEURSHIP  Silicon Valley continues to lead the world in technology and innovation.

Fast-Growth Public Companies Number 86

WHY IS THIS IMPORTANT?
High numbers of fast-growth companies reflect healthy levels of innovation in the Valley. By generating accelerated increases in sales, these firms stimulate the development of other businesses and personal spending throughout the region.

HOW ARE WE DOING?
Gazelles are publicly traded companies that have grown at least 20% for each of the last four years, starting with at least $1 million in sales. In 1999, the number of gazelle firms decreased slightly to 86 from 92 in 1998. Twenty percent of the Valley’s public firms were gazelles. This figure compares with 21% in 1998.

Of the 500 fastest-growing technology companies in the United States between 1994 and 1998, as measured by Deloitte & Touche LLP (includes mostly privately held companies), 61 were based in Silicon Valley in 1999 (12% of the total). Silicon Valley’s number of “Fast 500” companies has declined from 74 in 1997 and 62 in 1998.

In 1999, Silicon Valley was home to three of the top five fastest-growing companies nationally: Siebel Systems, Excite@Home and Netscape.

Venture Capital Investment Nearly Doubles in One Year to $6.1 Billion

WHY IS THIS IMPORTANT?
Companies that have passed the screen of venture capitalists are innovative, are entrepreneurial, and have growth potential. Typically, only firms with potential for exceptionally high rates of growth over a five- to 10-year period will attract venture capital. These firms are usually highly innovative in their technology and market focus.

HOW ARE WE DOING?
From 1998 to 1999, venture capital investments in Silicon Valley firms increased 90% from $3.2 billion to $6.1 billion.

The size of the average investment in 1999 was $9.6 million, a dramatic increase from $5.8 million in 1998.

Investment in Software/Internet companies attracted the largest share of total investment, at 33% (down from 45% in 1998). Communications captured the second-largest investment share at 28% up from 22% in 1998. Two sectors with significant new investment in 1999 are Consumer Products (11%) and Business Services (8%). Investment in Semiconductor and Chip Making Equipment declined to 2% from 8% in 1998.
GOAL 2: QUALITY GROWTH  Our economy grows from increasing skills and knowledge, rising productivity and more efficient use of resources.

Real Per Capita Income Continues to Grow Faster than the Nation’s

WHY IS THIS IMPORTANT?
Growing real income per capita is a bottom-line measure of a wealth-creating, competitive economy. The indicator is total personal income from all sources (e.g., wages, investment earnings, self-employment) adjusted for inflation and divided by the total resident population.

HOW ARE WE DOING?
During the 1990s, real per capita income for Santa Clara County increased 32%, compared with 13% for the nation. This differential between regional and national growth rates is accelerating.

Even as job growth slowed between 1998 and 1999, real per capita income in Santa Clara County increased 3.6%, compared to 2.4% for the nation.

Per capita income rises when a region generates wealth faster than the population increases.

Source: Regional Financial Associates
WHY IS THIS IMPORTANT?
Value added is a proxy for productivity and reflects how much economic value companies create.
Increased value added is a prerequisite for increased wages. Innovation, process improvement and industry/product mix drive value added, which is derived by subtracting the costs of a company’s materials, inputs and contracted services from the revenue earned from its products.

HOW ARE WE DOING?
Overall value added per employee has increased steadily since 1994 at an average annual rate of 5%. Between 1998 and 1999 overall value added per employee increased 3% to $114,500.

Four clusters have value added per employee significantly above the average. Computers/communications had the highest value added, at $289,000 per employee. Semiconductors/equipment had the second-highest value added, at $240,800. Software had $166,900, and innovation services had $139,000.

Except for bioscience, value added by Silicon Valley clusters is higher than the national average. This accounts for their exceptionally high wages.

Of the other more local-serving industry sectors, wholesale trade and finance/insurance/real estate had a higher value added per employee than the regional average—$134,200 and $131,200 respectively. All sectors add more value than their respective national average.
GOAL 3: BROADENED PROSPERITY Our economic growth results in a higher standard of living for lower-income people.

Income of Poorest Households Increases Slightly, but Remains Below 1992 Level

**WHY IS THIS IMPORTANT?**
This progress measure looks at change in household income at the top 20% and bottom 20% of the income distribution. Household income includes income from wages, investments, Social Security and welfare payments for all people in the household. Though the data presented are the best available at the regional level, data are derived from an annual sample of as few as 200 households. Thus, these data are more useful for tracking long-term trends rather than specific year-to-year movements.

The indicator compares income available to a representative household at identical points in the distribution over different periods of time (the 80th percentile, the 20th percentile). In fact, over time, specific households and individuals move up and down the distribution. Data on this “mobility” is in the process of being developed at the regional level.

**HOW ARE WE DOING?**
After remaining at approximately $34,000 during the start of the economic boom (1994–96), inflation-adjusted income of representative households at the lowest 20th percentile of the income distribution has started to rise. Between 1996 and 1998, their household income rose approximately 7.5%. However, the 1998 level of $36,700 remains below the income level earned by the bottom 20% of households in the early 1990s.

The increase in the lowest 20th percentile follows a national trend where tight labor markets are increasing average wages.

Between 1996 and 1998, inflation-adjusted income of representative households at the 80th percentile increased 28.4%.
**GOAL 4: ECONOMIC OPPORTUNITY** All people, especially the disadvantaged, have access to training and jobs with advancement potential.

High School Graduation Rate Remains Steady at 75%, Varies by Ethnicity

**WHY IS THIS IMPORTANT?**
Increasingly, accessing quality jobs requires not only graduating high school, but education or training beyond. The high school graduation rate is a risk indicator that warns of lost potential and future societal costs resulting from people being un- or under-employed.

A multicultural, highly skilled workforce has unique advantages for a globally competitive region. Providing a quality education for all ethnic groups should be a prime objective in Silicon Valley; improving graduation rates for all ethnic groups is a basic measure of success.

**HOW ARE WE DOING?**
In 1999, 75% of the students who enrolled as freshmen in public high schools in 1995 graduated as seniors. The Silicon Valley graduation rate was approximately eight points higher than the statewide average in 1998.

Graduation rates vary widely by ethnicity. Asian students achieved the highest graduation rate, at 97% (1998 data). Seventy-eight percent of White students graduated. The graduation rate among Hispanic students was the lowest at 57%, up from 55% in 1997.

Sources: Alameda, Santa Clara and San Mateo County Offices of Education.
**GOAL 5: PROTECT NATURE** We meet high standards for improving our air and water quality, protecting and restoring the natural environment and conserving natural resources.

**Bad-Air Days Decrease**

**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. Ozone is the main component of smog and is created when volatile organic compounds and nitrogen oxides are exposed to sunlight. Vehicles are the primary source of such emissions.

**HOW ARE WE DOING?**
In 1999, Silicon Valley experienced one bad-air day as measured against the federal ozone standard, down from three in 1998. The region exceeded the stricter state standard 12 days, compared to 21 days in 1998.

**Health of Santa Clara Watershed Declines**

**WHY IS THIS IMPORTANT?**
The health of bays, lakes and rivers depends on the health of their watershed, the land area from which all water drains. Without careful planning, development, road construction and agriculture can adversely affect watershed quality by contributing sediment from erosion and by releasing contaminants such as household chemicals, oil and debris from roads, and fertilizer and pesticide runoff.

There are 14 major watersheds in the Santa Clara Basin, which covers more than 50% of the land mass of the Silicon Valley region.

**HOW ARE WE DOING?**
The U.S. Environmental Protection Agency has developed a composite rating of the Santa Clara Basin’s overall watershed health. Ratings range from one (the best) to six (the worst). In 1999, the rating for the Santa Clara Basin was revised downward from four to five.

The most serious signs of weakness are high contaminant levels in fish, water unfit for swimming, loss of wetlands and impairment of drinking water sources before treatment.

High potential for increased urban run-off and continued rapid population growth make us vulnerable to future declines in watershed health.
GOAL 6: PRESERVE OPEN SPACE  We increase the amount of permanently protected open space, publicly accessible parks and green space.

Permanently Protected Open Space in Silicon Valley and Surrounding Area Increases

WHY IS THIS IMPORTANT?
Preserving open space protects natural habitats, provides recreational opportunities, focuses development and safeguards the visual appeal of our region.

This indicator tracks lands permanently protected through public ownership or conservation easements. This is the second year that open space data have been collected for Silicon Valley and its perimeter.

HOW ARE WE DOING?
In 1999, 25% of Silicon Valley and its perimeter was permanently protected open space, up from 23% in 1998. This includes 473,717 acres in Santa Clara, San Mateo and Santa Cruz counties, and Alameda County south of Oakland.

Fifty-six percent of this permanently protected open space is accessible to the public (266,334 acres.)

The largest single open space acquisition in 1999 was the Trust for Public Land’s purchase of 10,400 acres of Coast Dairy. The second largest acquisition was made by the new Santa Clara Valley Open Space Authority and The Nature Conservancy purchasing 8,482 acres of Lakeview Meadows. The Peninsula Open Space Trust also made major purchases of open space in 1999, including Rancho Cañada De Oro.

GOAL 7: EFFICIENT LAND RE-USE  Most residential and commercial growth happens through recycling land and buildings in developed areas. We grow inward, not outward, maintaining a distinct edge between developed land and open space.

Efficiency of Land Used for Housing Increases

WHY IS THIS IMPORTANT?
Directing growth into already developed areas provides more efficient use of land and infrastructure resources than does sprawling into green areas and building more infrastructure. By directing growth to already developed areas, local jurisdictions can reinvest in existing neighborhoods, develop more efficient transportation systems and preserve nearby rural settings.

HOW ARE WE DOING?
A survey of 26 Silicon Valley cities found that scarce land resources are being used more efficiently for housing. During 1999, Silicon Valley cities approved new residential developments at an average of 10.3 units per acre. In 1998, the average of new residential development was 6.6 units per acre. This compares to an overall regional ratio of 4.9 housing units per acre.

Urban service areas expand when cities annex land and provide infrastructure services such as water, sewer and roads. In 1999, Silicon Valley’s urban service area did not expand.
**GOAL 8: LIVABLE COMMUNITIES** We create vibrant communities where housing, employment, places of worship, parks and services are located together and are linked by transit and other alternatives to driving alone.

### 57% of New Housing, 35% of New Jobs Located Near Transit

**WHY IS THIS IMPORTANT?**
Focusing new economic and housing development near rail stations and major bus corridors reinforces the creation of compact, walkable communities linked by transit. This helps to reduce traffic congestion on Silicon Valley freeways.

**HOW ARE WE DOING?**
Silicon Valley cities are approving more residential and commercial/industrial development near rail stations and along major bus corridors.

In 1999, 57% of all new housing units approved by Valley cities were on property within one-quarter mile of a rail station or major bus corridor. Thirty-five percent of new commercial/industrial developments were also located within one-quarter mile of transit, representing nearly 18,500 potential new jobs. This compares favorably to the previous year, when 29% of new housing units and 26% of new jobs were located near transit.

**GOAL 9: HOUSING CHOICES** We place a high priority on developing well-designed housing options that are affordable to people of all ages and income levels. We strive for balance between growth in jobs and growth in housing.

### 14% of New Housing Is Affordable to Lower-Income Households

**WHY IS THIS IMPORTANT?**
Our economy and community life depend on a broad range of jobs. Building housing affordable to lower- and moderate-income households provides access to opportunity and maintains balance in our communities.

**HOW ARE WE DOING?**
In 1999, Silicon Valley cities approved 1,700 new affordable housing units. This number represents 14% of total net new housing units approved (12,200).

Though more units in total were approved, the current year performance represents a slight decline from 1998 when 15% of the 10,600 units approved were affordable.

Affordable rental housing is available to households making up to 60% of the median income. These are primarily units developed by non-profit housing developers, or units set aside as “affordable” in market-rate developments. There are currently 33,000 households on the Santa Clara County Housing Authority’s waiting list for affordable housing.
WHY IS THIS IMPORTANT?
Building housing commensurate with job growth helps mitigate commute traffic, moderate housing price increases and ease workforce shortages.

HOW ARE WE DOING?
In 1999, an estimated 7,831 housing units were built in Silicon Valley. This number is lower than the 11,105 units built in 1998. Multi-family housing was 49% of total starts.

In 1999, the ratio of new jobs to new housing was approximately 3 to 1, because of a slowing in job growth. Since 1992, the Silicon Valley region has added more than 275,000 jobs and created 54,600 housing units (5 jobs for every 1 housing unit.)

Part of what causes commute traffic is the structural imbalance in the creation of jobs and housing within Silicon Valley’s six major subregions. Between June 1998 and June 1999, for example, the southern San Mateo County region produced 19 jobs for every one housing unit. Southwest Alameda County and South Santa Clara County produced four jobs and three jobs for every one housing unit. North and Central Santa Clara County generated two jobs for every one housing unit.

Sources: Construction Industry Research Board, Employment Development Department
GOAL 10: EDUCATION AS A BRIDGE TO OPPORTUNITY

WHY IS THIS IMPORTANT?

Research shows that students who do not achieve reading mastery by the end of third grade are at risk of falling behind further in school.

Silicon Valley does not have a standardized way to measure mastery of reading at the end of third grade. The only measure available regionally is the Stanford Achievement test series, Ninth edition (SAT 9), which measures performance relative to a national distribution.

HOW ARE WE DOING?

Fifty-four percent of Silicon Valley third graders scored at or above the national median for reading comprehension in 1999, an increase from 51% in 1998. Twenty-nine percent of the third grade readers were at or above the top quartile, up from 27% in 1998. In 1999, 25% of Silicon Valley third-graders are found at or below the bottom quartile, an improvement from 28% in 1998.

These aggregate scores contrast sharply with those of students with Limited English Proficiency (the SAT 9 tests reading only in English). More than 57% of the LEP students scored below the lowest quartile mark. This is an improvement, however, from 59% in 1998.

Top-performing LEP students showed some gains in 1999, with 19% scoring at or above the national median, up from 17% in 1998.

GOAL 10: EDUCATION AS A BRIDGE TO OPPORTUNITY

Nearly One-Third of Students Enrolled in Intermediate Algebra, Varies Widely by Ethnicity

WHY IS THIS IMPORTANT?

Completing Algebra I and moving on to advanced math courses is important for students planning to enter post-secondary education as well as for students entering the workforce after high school, especially for technology jobs. This indicator shows the share of 9th- and 10th-grade students enrolled in Intermediate Algebra, which follows Algebra I and is typically taken in 9th or 10th grade.

HOW ARE WE DOING?

In 1999, 29% of ninth and tenth graders in Silicon Valley were enrolled in Intermediate Algebra. This is up from 26% in 1998.

Wide disparity in enrollment exists across ethnicity. Slightly less than 40% of Asian students are enrolled in Intermediate Algebra, followed by Filipinos at 35%. Thirty-one percent of White students enrolled, and 25% of African-American students. Only 19% of Hispanic students were enrolled in Intermediate Algebra, though this is up from 13% in 1998.

All groups are enrolled above statewide averages.
More Students Completing Courses for College Entrance

**WHY IS THIS IMPORTANT?**

Passing a breadth of core courses required for college entry is a measure of achievement, capacity and readiness. Completing some type of education beyond high school is increasingly important for participating in the high-wage sectors of the Silicon Valley economy. A Joint Venture survey of the region’s fastest-growing companies found that 84% of positions require education or training beyond high school.

**HOW ARE WE DOING?**

The share of high school students who complete the courses required for entrance to the University of California (UC) or California State University (CSU) systems increased from 43% in 1997 to 47% in 1998. Silicon Valley compares very favorably with the state average of 33%.

The number of students completing the requirements in Silicon Valley has steadily increased since 1994 when only 36% of students met the standard.

Performance, however, varies widely by ethnicity. Only 23% of Hispanic and 22% of African-American students completed these courses in 1998, compared with 66% of Asian students and 47% of white students.

**GOAL 11: TRANSPORTATION CHOICES**

We overcome transportation barriers to employment and increase mobility by investing in an integrated, accessible regional transportation system and other alternatives to driving alone.

Transit Ridership Per Capita Shows No Change

**WHY IS THIS IMPORTANT?**

People want more choice in how they get to work, to school or to run errands. A greater percentage of workers using alternatives to driving alone indicates progress in increasing access to jobs and in improving the livability of our communities. Pedestrian- and transit-oriented development in neighborhoods and employment and shopping centers increases opportunities for walking, bicycling and using transit.

**HOW ARE WE DOING?**

Per capita ridership on public transportation did not change in 1999, remaining at 33.5 annual rides per person. Total ridership increased 2%, from 80.5 million in 1998 to more than 81 million in 1999, but population increased at a similar rate.

Ridership increased on light rail, Caltrain and VTA buses, but has decreased on SamTrans buses by 11% since 1994.

A 1999 survey of Valley commuters found that 79% drove to work alone, 15% shared a ride, 4% used transit and 1.5% walked or biked to work. The share of commuters using transit has increased from 2.8% in 1990. Carpooling also increased from 12.4% in 1990, facilitated by a nearly complete system of high occupancy vehicle (HOV) lanes.

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Sources: Valley Transportation Authority, SamTrans, Altamont Commuter Express, RIDES for Bay Area Commuters
*Estimate
**GOAL 12: HEALTHY PEOPLE** All people have access to high-quality, affordable health care that focuses on disease and illness prevention.

Child Immunization and Heart Disease Show Improvement, Low-Weight Births Do Not

**WHY IS THIS IMPORTANT?**

The proportion of children with low birth weight is a predictor of future costs that communities will incur for preventable health problems, special education and crime. Timely childhood immunizations promote long-term health, save lives, prevent significant disability and lower medical costs. Coronary health disease is the cause of death that is most preventable through proper nutrition, exercise, not smoking and access to basic health care.

Disaggregating health data helps uncover areas of need and monitor at-risk populations. Poor health outcomes are generally correlated with poverty, which is correlated with poor access to preventive health care and education.

**HOW ARE WE DOING?**

The share of low-weight births increased slightly in 1998, from 5.9% in 1997 to 6%. The region is not showing strong improvement toward surpassing the Year 2000 objective of 5% set by the U.S. Public Health Service. Across ethnicity, Native American mothers experienced the highest rate of low-weight births at 11.2%, followed by African-American mothers at 9.7%. Chinese-American and white mothers had the lowest rates at 5.2% and 5.3% respectively.

According to a National Center for Disease Control Survey, Santa Clara County leads both the nation and California in immunization rates for children ages 18–35 months. Immunization rates increased sharply from 75% in 1997 to 86% in 1998, the highest level in at least five years.

The county’s death rate due to coronary heart disease, 72 per 100,000, is more than 25% below the state average and the Year 2000 objective. Whites have the highest rate of deaths due to coronary heart disease.
GOAL 13: SAFE PLACES All people are safe in their homes, workplaces, schools and neighborhoods.

Crime Rate Continues Decline

WHY IS THIS IMPORTANT?
The level and perception of crime in a community are significant factors that affect quality of life. Crime has wide-ranging effects on communities. In addition to economic costs, the fear, frustration and instability resulting from crime chisel away at our sense of community and undermine people’s ability to get ahead.

HOW ARE WE DOING?
The violent crime rate continued its decline, falling 11% in 1999 to 424 per 100,000 residents.

Of the seven most populated counties, Santa Clara county ranked fourth in violent crime reduction during the first half of 1999 compared with the same period in 1998.

Juvenile felony arrests declined 17% from 1997 to 1998, to 463 per 100,000 10- to 17-year-olds. Driving this decline were decreased assault rates.

Sources: FBI, California Department of Justice
* Estimate
GOAL 14: ARTS AND CULTURE THAT BIND COMMUNITY

Arts and cultural activities reach, link and celebrate the diverse communities of our region.

Arts and Cultural Organizations Are Fiscally Lean but Predominantly Small and Undercapitalized

WHY IS THIS IMPORTANT?

The arts are playing an increasingly important role in the region and our individual lives. Through the arts and cultural activities Silicon Valley celebrates and draws inspiration from its diversity and shared community experiences. Creativity and artistic expression are important catalysts for an economy based on innovation and change.

HOW ARE WE DOING?

A recent survey commissioned by Cultural Initiatives Silicon Valley found Silicon Valley to be an under-developed cultural community relative to national averages.

Analysis of 129 local organizations found that 74% operate with budgets of less than $250,000. Smaller budget organizations generally rely more heavily upon volunteers and have less developed management systems.

Compared to other regions, Silicon Valley cultural organizations are significantly undercapitalized. Cash reserves total 16% of operating budgets compared to a national standard of 25%. Permanent endowment resources total 16% of expenditures compared to a national standard of 200%.

However, in contrast to other regions Silicon Valley organizations consistently operate in the black. In only one of the past four years has the aggregated budgets of cultural organizations resulted in a deficit, and for that year it was significantly less than one percent. This compares to other regions around the country where deficits of one to four percent are common.

Silicon Valley cultural organizations increasingly rely upon admissions and ticket sales to balance their budgets. Earned income has been the most important source of new revenue—increasing an estimated 23% in real terms from 1996 to 1999.
GOAL 15: CIVIC ENGAGEMENT Residents, businesspeople and elected officials think regionally, share responsibility and take action on behalf of the region’s future.

Giving through Community Foundations Escalates

WHY IS THIS IMPORTANT?
Giving back to the community and helping others less fortunate is an important part of citizenship in a region. In addition, private philanthropy can play a strategic role in exploring new approaches to challenging social problems.

Community foundations help plan and administer charitable giving activities for individuals, families and corporations. After establishing a charitable fund at a community foundation, donors can recommend that their funds be granted to certain charitable organizations. Foundation staff also bring donors charitable investment opportunities.

HOW ARE WE DOING?
From 1992 through the third quarter of 1999, individuals, families and several corporations established 675 new charitable funds at the two largest community foundations in the Silicon Valley region. The dollar value of gifts to and grants from these donors increased steadily since 1992. Donors contributed $484 million to funds at Community Foundation Silicon Valley and Peninsula Community Foundation. In turn, the foundations granted $173 million from these funds during this period.

Nonprofit Sector Grew Rapidly in Last Three Years

WHY IS THIS IMPORTANT?
Silicon Valley’s nonprofit sector includes organizations that provide products and services in a variety of areas that affect the region’s economy and quality of life: health, housing, food, social services, training, arts and culture.

HOW ARE WE DOING?
Between 1995 and 1997, a benchmark group of 78 nonprofit organizations experienced rapid growth in the number of people served, earned income and endowments.

The nonprofit organizations served 40% more individuals in 1998 than in 1995. Combined, the organizations served 3.6 million individuals (unduplicated), up from 2.5 million in 1995. Organizations serving the neediest people with housing, shelter, and food increased their reach the most, up 66%.

From 1995 to 1998, nonprofits’ revenue from earned income grew 70% and their revenue from government contracts and grants grew 76%. Both represent income that nonprofits generate in return for their products or services, as distinct from charitable contributions. Combined, earned and government revenue sources are now 78% of the total nonprofit revenue, up from 69% in 1995.

Even as nonprofits become more contract-oriented, income from charitable contributions remains critical for organizational development—investment in professional accounting, personnel, fundraising and employee training capabilities.
GOAL 16: TRANSCENDING BOUNDARIES Local communities and regional authorities coordinate their transportation and land use planning for the benefit of everyone. City, county and regional plans, when viewed together, add up to a sustainable region.

Agriculture Conservation Easement Project Good Example of Collaboration

WHY IS THIS IMPORTANT?
Solving the Valley’s most pressing land use problems requires collaboration across jurisdictions.

This indicator provides a best-in-class example of interjurisdictional partnering: the Santa Clara County Agricultural Conservation Easement project is a collaboration among cities, the county, non-profits and land owners to establish a means for keeping land in agricultural production.

HOW ARE WE DOING?
In 1996, the County of Santa Clara, the City of Gilroy and the Local Area Formation Commission (LAFCO) jointly developed and adopted a plan to stem the loss of agricultural lands in southern Santa Clara County.

To expedite the implementation of that plan, the Greenbelt Alliance and the Farm Bureau teamed up with the County of Santa Clara, the Santa Clara County Open Space Authority, the Land Trust for Santa Clara County, the cities of Gilroy, Morgan Hill and San Jose and farmers and property owners to develop a set of guidelines for the implementation of an Agricultural Conservation Easement (ACE) program.

A conservation easement is a deed restriction that landowners voluntarily place on their property to protect resources such as agricultural land. They are used by the landowners to authorize a qualified conservation organization or public agency to monitor and enforce the restriction set forth in the agreement. ACE acquisition programs compensate property owners upfront for restricting the future use of their land, typically with tax benefits and/or monetary compensation. After selling a conservation easement, the landowner retains all of the rights of ownership that are not specifically restricted by the easement.

ACE programs benefit both the property owner and the community. Property owners could lower their tax liability and increase operating capital for managing their farms or ranches. The community benefits by improving its ability to direct future growth, contain sprawl, maintain viable locally-operated farms, and by protecting agricultural lands and access to open space.

Responsibility for implementing the ACE project recommendations lies primarily with the Santa Clara County Open Space Authority, the Land Trust for Santa Clara County and other members of the ACE Implementation Committee.
GOAL 17: MATCHING RESOURCES AND RESPONSIBILITY

Valley cities, counties and other public agencies have reliable, sufficient revenue to provide basic local and regional public services.

After Years of Falling Behind, Government Capital Expenditures Increase 30%

WHY IS THIS IMPORTANT?
To maintain service levels, capital expenditures by local government must keep up with both population and job growth. Capital expenditures fund road, bridge and storm drain construction and maintenance; police and fire equipment; water and sewer system improvements; and parks, libraries and community facilities.

HOW ARE WE DOING?
In 1997, capital expenditures increased dramatically, reversing the previous downward trend. Between 1988 and 1996, annual capital expenditures of Valley communities did not keep pace with population and employment growth, decreasing in real terms by 10% overall. In 1997, aggregate capital expenditures jumped 30%. Twenty of the 27 cities increased their capital expenditures over 1996 levels, half of them by 50% or more. Expenditures were primarily for street maintenance and repair, recreational facilities and sewer system repairs. Economic growth has increased sales tax and other revenues, enabling cities to start projects previously deferred for lack of funds.

Source: California State Controller’s Reports
Appendix A: Data Sources

REGIONAL TREND INDICATORS

SILICON VALLEY JOB GROWTH COOLS
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.

SOFTWARE JOBS GROW, COMPUTERS CONSTANT, SEMICONDUCTORS DECLINE
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 clusters.

AVERAGE WAGE INCREASED 5% IN 1999
Data are derived from the EDD/Joint Venture: Silicon Valley Network data set and the Average Annual Pay Levels in Metropolitan Areas report of the Bureau of Labor Statistics and Regional Financial Associates. This information comes from individual firm reporting of payroll amounts in compliance with unemployment insurance rules. All wages have been adjusted into 1999 dollars using the All Urban Consumers CPI published by the Bureau of Labor Statistics.

AVERAGE WAGE FOR SOFTWARE CLUSTER EXCEEDS $95,000; LARGEST-EMPLOYING SECTOR—LOCAL AND VISITOR SERVICES—REMAINS BELOW $23,000
Mean payroll per employee wages for each cluster derived from the EDD/Joint Venture: Silicon Valley Network data set.

OVERALL SHIFT FROM QUANTITATIVE TO QUALITATIVE ECONOMIC GROWTH
Data are derived from the EDD/Joint Venture: Silicon Valley Network data set of payroll and jobs in the Silicon Valley region and from information from Regional Financial Associates for the San Jose Metropolitan Area.

MERCHANDISE EXPORTS DECLINE 11%; REGION'S SHARE OF STATE EXPORTS ALSO SHRINKS, BUT SOFTWARE AND SERVICE EXPORTS ARE NOT COUNTED
Data are 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, 943, 950, and 951. Data include manufactured and non-manufactured tangible goods, but not services. Note: this year’s dataset has been revised from the previous years’ to reflect a more accurate geographic definition of Silicon Valley.

IPOs SURGE TO RECORD LEVEL, M&As INCREASE AS WELL
The number of initial public offerings is tracked throughout the year by the San Jose Mercury News. Data on mergers and acquisitions is provided by Securities Data Corporation. The estimate for 1999 is based on actual numbers through December 8, 1999. M&As are assigned the location of the “acquiree.”

COMMERCIAL VACANCY EDGES UP SLIGHTLY IN 1999; LEASE RATES HOLD STEADY
Data from Cornish and Carey Commercial/Oncor International, Santa Clara office. Data cover Santa Clara County, excluding Palo Alto, plus the southern portion of Alameda County. Vacancy rate is calculated by dividing space available through either direct lease or sublease by total inventory. 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.

SLIGHT INCREASE IN ENGINEERING GRADUATES FROM LOCAL UNIVERSITIES
Engineering programs serving the Silicon Valley include programs at San Jose State University, Santa Clara University, Stanford University, UC Berkeley, UC Santa Cruz, Cogswell College and San Francisco State University.

HOUSING AFFORDABILITY DECLINES SLIGHTLY; RENTAL RATES RISE SLOWLY
Housing affordability data are from the National Association of Home Builders, Housing Opportunity Index. The Index is based on the median home price, median family income and interest rates. The 1999 figure is the average of the first three quarters.

Apartment data are from surveys conducted by Realfacts of all apartment complexes in Santa Clara 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. The 1999 figure is as of September 30.
PROGRESS MEASURES FOR SILICON VALLEY 2010

FAST-GROWTH PUBLIC COMPANIES NUMBER 86
Data for deriving the number of gazelle firms are from the San Jose Mercury News, “How Local Companies Fared,” a quarterly report that tracks publicly traded firms in the Valley. Gazelles are measured from first quarter to first quarter. The Fast 500 program is sponsored by Deloitte & Touche LLP.

VENTURE CAPITAL INVESTMENT NEARLY DOUBLES IN ONE YEAR TO $6.1 BILLION
Data come from the quarterly report of the San Jose Mercury News, “The Money Tree,” based on research by PricewaterhouseCoopers. For the Index of Silicon Valley, only investments in firms located in Silicon Valley were included. Collaborative Economics estimated the 1999 total venture capital funding level based on the first three quarters and historical growth patterns in the fourth quarter.

R&D-RELATED EMPLOYMENT CONTINUES TO OUTPACE NATION BY WIDE MARGIN
Data are from Regional Financial Associates based on data collected from the Bureau of Labor Statistics. R&D related occupations include the following occupational categories: engineers and architects, mathematical and computer scientists, natural scientists, engineering technicians, science technicians and other technicians.

REAL PER CAPITA INCOME CONTINUES TO GROW FASTER THAN THE NATION’S
Data are from the Bureau of Economic Analysis and Regional Financial Associates and are for Santa Clara County.

VALUE ADDED PER EMPLOYEE IS HIGH AND RISING
Value added is derived by subtracting the total cost of inputs, other than direct labor costs, from the stated value of the final goods produced. Estimates are from Regional Financial Associates and are for Santa Clara County. Values are adjusted to 1999 dollars.

INCOME OF POOREST HOUSEHOLDS INCREASES SLIGHTLY, BUT REMAINS BELOW 1992 LEVEL
Data are from the March Supplement of the Census Bureau’s Current Population Survey (CPS). The CPS sample was determined representative of Santa Clara County by comparing variables of income, age, gender and race/ethnicity to data reported in the 1990 Census.

High school graduation rate remains steady at 75%, varies by ethnicity
Data include the graduation rates for students in Silicon Valley school districts. Graduation rates are compiled by comparing the number of ninth graders enrolled to the number who receive their diplomas four years later. This information was provided by the Alameda, Santa Clara and San Mateo County Offices of Education and the California Department of Education in accordance with the California Basic Educational Data System.

BAD-AIR DAYS DECREASE
The Bay Area Air Quality Management District takes daily measurements of air quality at monitoring stations in Silicon Valley. The indicator reflects the number of days that at least one of these stations exceeds the federal or state one-hour standards. Stations include Fremont, Mountain View, Los Gatos, San Jose 4th Street, Gilroy, Redwood City, San Martin and San Jose East.

HEALTH OF SANTA CLARA WATERSHED DECLINES
Data are from the U.S. Environmental Protection Agency’s Index of Watershed Indicators website for the Coyote Watershed. Prepared with support of the Silicon Valley Environmental Partnership.
PERMANENTLY PROTECTED OPEN SPACE IN SILICON VALLEY AND SURROUNDING AREA INCREASES

Data are from GreenInfo Network and are for Santa Clara, San Mateo and Santa Cruz counties and for all of Alameda county excluding the cities of Alameda, Albany, Berkeley, Emeryville, Oakland and Piedmont. Regularly updated information is not yet available for Monterey and San Benito counties. Data include lands owned by the public and lands in private ownership protected by conservation easement. Not included are lands that are protected as open space solely through local General Plans and zoning regulations. Parcels of open space land less than five acres are not included. “Publicly accessible open space” is defined as lands that are open to the public with no special permit required.

EFFICIENCY OF LAND USED FOR HOUSING INCREASES

Land use data for cities in Santa Clara County were compiled by the Valley Transportation Authority, Congestion Management Program as part of the annual Land Use Monitoring Survey. Joint Venture also surveyed all cities outside of Santa Clara County. Survey compilation and analysis were completed by Center for Urban Analysis and Collaborative Economics. Participating cities include: Campbell, Cupertino, East Palo Alto, Foster City, Fremont, Gilroy, Los Altos, Milpitas, Monte Sereno, Mountain View, Newark, Palo Alto, Redwood City, San Jose, San Mateo, Santa Clara, Santa Cruz, Saratoga, Scotts Valley, Sunnyvale and Union City. Unincorporated Santa Clara County is also included. Data are for fiscal year 1998-99 (July, ’98–June, ’99).

57% OF NEW HOUSING, 35% OF NEW JOBS LOCATED NEAR TRANSIT

Same as previous indicator.

14% OF NEW HOUSING IS AFFORDABLE TO LOWER-INCOME HOUSEHOLDS

Same as previous indicator. Joint Venture also conducted an affordable housing survey of all cities within Santa Clara County.

ONE NEW HOME FOR EVERY 19 NEW JOBS IN SOUTH SAN MATEO REGION

Data on housing starts by city from the Construction Industry Research Board. Silicon Valley employment data created by California Employment Development Department. Compilation and analysis by Collaborative Economics.

“South San Mateo County” includes Atherton, Belmont, East Palo Alto, Foster City, Menlo Park, Redwood City, San Carlos and San Mateo. “North Santa Clara County” includes Cupertino, Los Altos, Los Altos Hills, Milpitas, Mountain View, Palo Alto, Santa Clara and Sunnyvale. “Central Santa Clara County” includes Campbell, Los Gatos, Monte Sereno, San Jose and Saratoga. “Southwest Alameda County” includes Fremont, Newark and Union City. “South Santa Clara County” includes Gilroy, Morgan Hill and the San Martin area within unincorporated San Clara County.

THIRD-GRADE READING PERFORMANCE IMPROVES RELATIVE TO NATION

Data are from the Stanford 9 test of the California Department of Education. The test was given in spring of 1998 and 1999. Stanford 9 is a norm-referenced test, rather than a criterion-referenced test. Students’ scores are compared to national norms, rather than to absolute achievement.

NEARLY ONE-THIRD OF STUDENTS ENROLLED IN INTERMEDIATE ALGEBRA, VARIES WIDELY BY ETHNICITY

Data are from the California Basic Educational Data System (CBEDS) annual report of the California Department of Education.

MORE STUDENTS COMPLETING COURSES FOR COLLEGE ENTRANCE

Data are from the California Department of Education.

TRANSIT RIDERSHIP PER CAPITA SHOWS NO CHANGE

Data are the sum of the annual ridership on the light rail, the bus systems in Santa Clara and San Mateo counties, and Caltrain. The 1999 annual estimate is based on the first eight months. The Altamont Commuter Express (ACE) commuter train is not included. Train service from Stockton to San Jose started in October of 1998. As of September 1999, more than 1,070 passengers use the train daily.

Data on commute modes are from the 1990 Census and the RIDES for Bay Area Commuters Commute Profile 1999, 1990 Census data are for work destinations located in MTC Superdistricts 6 through 14 & 16. 1999 RIDES data reflect residents of the nine-county Bay Area who work full-time in Silicon Valley.
CHILD IMMUNIZATION AND HEART DISEASE SHOW IMPROVEMENT, LOW-WEIGHT BIRTHS DO NOT

Data on low birth-weight infants are from the State of California, Department of Health Services. Weight of less than 2,500 grams (5 pounds, 6 ounces) for babies is considered “low birth weight.” Data on child immunizations are from the Centers for Disease Control. Data on coronary heart disease are from the County of Santa Clara Public Health Department. Regional and time series data have been age-adjusted.

CRIME RATE CONTINUES DECLINE

Violent crime data are from the FBI’s Uniform Crime Reports. Arrest data are from the California Attorney General’s Office, Department of Justice, “Juvenile Felony Arrests.” Violent offenses include homicide, forcible rape, assault and kidnapping. 1999 data estimates are based on the Department of Justice’s Preliminary Report, published in November 1999.

ARTS AND CULTURAL ORGANIZATIONS ARE FISCALLY LEAN BUT PREDOMINANTLY SMALL AND UNDERCAPITALIZED

Data are from Cultural Initiatives Silicon Valley.

GIVING THROUGH COMMUNITY FOUNDATIONS ESCALATES

Data were provided by Community Foundation Silicon Valley and Peninsula Community Foundation.

NONPROFIT SECTOR GREW RAPIDLY IN LAST THREE YEARS

Data are from a 1998 survey by Community Foundation Silicon Valley of a benchmark group of 81 nonprofit organizations that also took part in a 1995 survey. The nonprofit organizations in the benchmark group are not statistically representative of the nonprofit sector as a whole.

AGRICULTURE CONSERVATION EASEMENT PROJECT GOOD EXAMPLE OF COLLABORATION

Example developed in conjunction with the Santa Clara County ACE Project Task Force.

AFTER YEARS OF FALLING BEHIND, GOVERNMENT CAPITAL EXPENDITURES INCREASE 30%

Data are from Financial Transactions Concerning Cities of California, Annual Reports, Fiscal Year 1987-88 to 1996-97, Employment Development Department, Department of Finance, and Bureau of Labor Statistics. Data include 27 cities, towns and dependent special districts and do not include redevelopment agencies and independent special districts.

The growth in population and employment is calculated by adding to population growth 50% of the employment growth. The assumption is that two employees make demands on city services equivalent to one resident. This is a conservative assumption of the support that cities provide to companies (e.g., police, fire, roads.)
Appendix B: Definitions

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

<table>
<thead>
<tr>
<th>CITY</th>
<th>ZIP CODE</th>
</tr>
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<tbody>
<tr>
<td><strong>Alameda County</strong></td>
<td></td>
</tr>
<tr>
<td>Fremont</td>
<td>94536-39, 94555</td>
</tr>
<tr>
<td>Union City</td>
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<tr>
<td>Newark</td>
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<td><strong>Santa Cruz County</strong></td>
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</tr>
<tr>
<td>Scotts Valley</td>
<td>95066-67</td>
</tr>
</tbody>
</table>

**INDUSTRY CLUSTERS**

*Semiconductors/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 communications equipment
- 3669 Communications equipment, 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

**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

**Innovation/Manufacturing Related Services**

- 5045 Computers and computer peripheral equipment and software (wholesale trade)

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

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California Department of Transportation
California Employment Development Department, San Francisco
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Cultural Initiatives Silicon Valley
Deloitte & Touche, L.L.P.
Federal Bureau of Investigation
GreenInfo Network

Local Agency Formation Commission
National Association of Home Builders
National Science Foundation
Peninsula Community Foundation
PricewaterhouseCoopers, L.L.P.
Public Policy Institute of California
Realfacts
Regional Financial Associates
San Jose Mercury News
San Mateo County Office of Education
Santa Clara County Office of Education
Santa Clara County Public Health Department
Santa Clara Valley Water District
Securities Data Corporation
Silicon Valley Environmental Partnership
U.S. Bureau of Economic Analysis
U.S. Bureau of Labor Statistics
U.S. Bureau of the Census
U.S. Department of Commerce Exporter Location Series
U.S. Department of Housing and Urban Development
U.S. Environmental Protection Agency
Valley Transportation Authority, Congestion Management Program