

SPECIAL ANALYSIS

*Our Shifting
Economic and
Population
Profiles*

JOINT VENTURE'S **2003**
index

of silicon valley

MEASURING PROGRESS
TOWARD THE GOALS OF
SILICON VALLEY 2010



Joint Venture: Silicon Valley Network

Joint Venture: Silicon Valley Network is a regional, nonpartisan voice and a civic catalyst for solutions to problems that impact all sectors of the community. Joint Venture brings together established and emerging leaders from business, labor, government, education, nonprofits and the broader community to build a sustainable region that competes globally. We work to promote economic prosperity and improve the quality of life in the region, making Silicon Valley a better place to live and work. Joint Venture welcomes your participation in its various activities, which are described in detail at www.jointventure.org.

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Welcome to Joint Venture's 2003 *Index of Silicon Valley*.

In 1998, Joint Venture wove together the ideas and insights of more than 2,000 community members to create *Silicon Valley 2010: A Regional Framework for Growing Together*. This landmark publication encompasses four areas of focus—Innovative Economy, Livable Environment, Inclusive Society and Regional Stewardship—and provides a blueprint for our region.

Joint Venture publishes the annual *Index of Silicon Valley* to gauge the region's progress toward the *Silicon Valley 2010* vision. Using a variety of regional indicators, the *Index* offers a comprehensive, up-to-date look at the region's economy and quality of life. The *Index* is valuable not only for what it says about year-to-year changes, but also for the perspective it provides on the broader trends shaping Silicon Valley.

Ultimately, the *Index* is intended to catalyze action on the challenges and opportunities facing our region. Drawing on the findings presented here, all sectors of the community—residents, businesses, government, labor, education, philanthropy, community-based nonprofits—can work together in building a better future for the region and realizing the *Silicon Valley 2010* vision.

We are pleased this year to present a special analysis that explores fundamental economic and population shifts taking place in Silicon Valley. The first part of this special analysis examines how the region's economic structure has transformed over the past 10 years. Software has replaced hardware/equipment as the driving industry area, with other, newer shifts now beginning to emerge. The second part of this special analysis looks at the changing population of the Valley, which has grown more diverse, more international and better educated in recent years.

These profound shifts, as well as the other trends described in this *Index*, highlight the need for regional leadership to respond to our changing economic and social challenges. To learn how you can get involved, or to access our full library of publications and resources, please visit www.jointventure.org.

A handwritten signature in black ink, reading "Marguerite Wilbur".

Marguerite Wilbur
President and 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 page 4). This definition reflects the core location of the Valley's driving industries and most of its workforce. Silicon Valley's concentration of industry cluster employment is unique in the Bay Area. With a population of more than 2.3 million, this region has more residents than 17 U.S. states. The indicators reflect this definition of Silicon Valley, except where noted. As the region continues to grow, Joint Venture's initiatives will have an even wider geographic range, encompassing parts of San Benito County and the greater Bay Area.

WHAT IS AN INDICATOR?

Indicators are measurements that tell us how we are doing; whether we are going up or down, going forward or backward, getting better or 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 37 indicators that follow were chosen in consultation with the *Index* Advisers and the Joint Venture Board.

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 strong economy.

New Industry Cluster Groupings

This year, the *Index* presents revised industry cluster groupings that take advantage of the federal government's transition to the new North American Industry Classification System (NAICS). NAICS restructures industry categories based on modern production processes and services, and thus greatly improves upon the old Standard Industry Classification (SIC) system. The *Index*'s industry cluster groupings represent current employment specializations in Silicon Valley relative to the nation. Together, they employ 30% of the region's workforce. (A list of individuals who advised on the *Index*'s industry classification using the NAICS codes is presented in the Acknowledgments on page 41.)

These industry cluster groupings are used in the 2003 *Index* and will be used to track changes in future years. They are an improvement on the earlier cluster definitions because they allow better tracking of software, business-related services and corporate offices, all of which are now significant employers in the regional economy. The driving industry clusters in Silicon Valley are:

- Computer and Communications Hardware Manufacturing
- Semiconductor and Semiconductor Equipment Manufacturing
- Electronic Component Manufacturing
- Biomedical, including biopharmaceuticals (15% of employment in this cluster), medical devices (50%), and research and development in the life sciences (35%)
- Software, including software publishers and software services
- Innovation Services, including technical services and business services (e.g., human resources, legal)
- Creative Services that integrate art, design and technology (e.g., graphic design, advertising, marketing)
- Corporate Offices, including headquarters, subsidiary and regional offices

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

Appendix B identifies the specific subsectors constituting each cluster.

Table of Contents

2003 INDEX HIGHLIGHTS	4
SPECIAL ANALYSIS	
SILICON VALLEY IN TRANSITION: SHIFTING ECONOMIC AND POPULATION PROFILES	6
I. REGIONAL TREND INDICATORS	
Region Loses Jobs for Second Year	12
Employment Declines across All Clusters; Software Is Hardest Hit	12
Average Pay Declines by 6%	13
Corporate Offices Cluster Has Highest Average Pay	13
Office Vacancy Rates Reach 20%; Lease Rates Fall to 1997 Level	14
II. PROGRESS MEASURES FOR SILICON VALLEY 2010	15
SILICON VALLEY 2010 GOALS	16
INNOVATIVE ECONOMY	
Number of Gazelle Companies Falls to 9, the Lowest Level since 1992	17
Venture Capital Investment Returns to 1998–99 Levels	17
Almost 400 Public Companies Are Headquartered in Silicon Valley, an 80% Increase over 1992	18
Real Per Capita Income Declines by 4%	18
Value Added per Employee Increases Again	19
Annual Income for Low-Income Households Surpasses 1993–94 Levels for the First Time ..	19
Concentration of Poverty Slightly Changed Between 1990 and 2000	20
Child Care Providers' Education Levels Vary by Type of Care and Staff Position	21
Half of Fast-Growth Jobs Require Bachelor's Degrees, While Half Require No Formal Postsecondary Education	21
Number of Math, Science and Engineering Graduates Increased 18% in 1990s, Led by Asian Students and Women	22
LIVABLE ENVIRONMENT	
Gasoline Consumption Rises to 754 Gallons per Driver	22
Release of Toxic Chemicals Declines and Stabilizes	23
Permanently Protected Open Space Increases to 26%	23
Region Is Curtailing Urban Sprawl through Efficient Land Use	24
Less Than One-Third of Newly Approved Housing and Workplaces Are near Transit	24
Approvals for New Housing Drop; 29% of New Units Are Affordable	25
Housing Affordability Rises for Second Year in a Row	25
INCLUSIVE SOCIETY	
Children Entering Kindergarten Are Most Prepared in Physical Development and General Knowledge; Preschool Aids Low-Income Children	26
Third-Grade Reading Scores for English Learners Improve	27
Enrollment in Intermediate Algebra Varies Widely by Ethnicity	28
Graduation Rate Increases for the First Time since 1998; Share of Students Meeting UC/CSU Requirements Remains Constant	28
Per Capita Transit Ridership Declines by 7%	29
Rail Network More than Doubled between 1990 and 2002	29
Hospitalization for Childhood Asthma Increases, Now Exceeds Federal Target	30
Violent Crime Rate Increases Slightly; Juvenile Arrests Decline 22%	31
40% of Districts Align Music and Visual Arts Education with New State Standards	31
REGIONAL STEWARDSHIP	
Fewer Households Give, but Increased Proportion Make Large Gifts	32
Voter Participation Declines from Previous Midterm Elections	33
Corporations Contribute 7% of Nonprofits' Income, Half the 1998 Level	33
Award-Winning Program Offers Incentives for Transit-Oriented Development in San Mateo County	34
Since Proposition 13, the Majority of Property Tax Has Not Funded City Government	35
APPENDIX A: DATA SOURCES	36
APPENDIX B: DEFINITIONS	40
ACKNOWLEDGMENTS	41

2003 Index Highlights



THE SILICON VALLEY REGION

Total area—1,500 square miles

Total population—2.3 million

Total jobs—1.35 million

Ethnic composition—45% White, non-Hispanic;
26% Asian/Pacific Islander; 21% Hispanic; 5% two or more races;
3% African American

Foreign born—34% of residents were born in a foreign country

Age distribution—0–9 years old, 14%; 10–19, 13%; 20–44, 42%;
45–64, 21%; 65 and older, 10%

Adult educational attainment—84% at least a high school graduate;
41% at least a bachelor's degree

The *2003 Index of Silicon Valley* tells the story of a region in transition as it responds to an economic boom and bust cycle and deeper economic and structural changes. But we also see a region making progress on some important long-term goals outlined in *Silicon Valley 2010: A Regional Framework for Growing Together*.

Several key economic indicators—including total jobs, average pay and venture capital investment—have returned to near 1998 levels. Productivity, however, has continued to increase, extending an upward trend that began almost a decade ago.

The region has undergone major economic and demographic shifts in recent years. Structural economic change has occurred, with employment shifting from hardware to software and services, and with a new shift toward biomedical. During the past decade, the region's population became not only more diverse, but also more international and more educated.

The local education system is improving in some areas, such as graduation rates and English Learners' third-grade reading scores. The region's development pattern is continuing to move toward the livability goals of the *Silicon Valley 2010* vision, with trends toward more permanently protected open space, more efficient land use and an expanded rail network. But we still have a housing affordability problem.

Other social and civic challenges remain. The average income of households at the 20th percentile has surpassed the 1993 level, but has not kept pace with the increased cost of living. Local municipalities are increasingly dependent on sales tax and fee revenue, as only 9% of property taxes go to fund city government.

Silicon Valley must sustain progress and commit to meeting long-term economic, social and environmental goals, even as it adjusts through the latest short-term economic cycle and adapts to fundamental changes taking place in the region.

KEY ECONOMIC INDICATORS RETURN TO PRE-BOOM LEVELS

- Silicon Valley lost 127,000 jobs—or about 9 percent of total employment—between the first quarter of 2001 and the second quarter of 2002. Job losses during this period equal more than half the total job gains experienced from 1998 to 2000.
- Average annual pay declined by 6% to \$62,500—slightly above the 1998 level, \$58,600.
- Venture capital investment in Silicon Valley companies decreased 42% to \$4.8 billion, a level just above that in 1998.
- Average lease rates for office and R&D space fell to \$1.55 per square foot—similar to lease rates of 1997 (\$1.50).
- The number of public companies headquartered in the region was 393 in 2001, just above the 1998 level of 371.

EDUCATION SHOWS PROGRESS

- Third-grade SAT 9 reading scores for English Learners improved substantially; 30% scored at or above the national median in 2002, compared to 25% in 2001.
- The high school graduation rate increased 1.8 percentage points to 72%, the first increase since 1998.
- The number of science, engineering, math and computer science degrees awarded increased 18% between 1990 and 2000, led by more Asian and female graduates with such degrees.
- Forty percent of Silicon Valley schools have aligned music and visual arts curricula to the new California State Content Standards.
- A new measure in San Mateo County of children's readiness for kindergarten shows that low-income children with formal preschool experiences had significantly higher readiness scores than did those without such experiences.

SOCIAL CONCERNS REMAIN

- In 2001, the average income earned by a representative household at the 20th percentile of Silicon Valley households surpassed the 1993–94 income levels for the first time. However, the cost of living increased 22% during this period.
- In 2002, the share of households that could afford to purchase the median-priced home increased to 26%, up from a low of 18% in 2000. This share still contrasts sharply with the national average of 56%.
- From 1999 to 2000, hospitalization rates for childhood asthma increased from 21 per 10,000 children age 5 and younger to 25 per 10,000—a substantial jump.
- In 2000, 45% of the region's poor lived in the 20% of census tracts with the highest poverty rates, compared with 48% of the region's poor in 1990.

DEVELOPMENT PATTERN IMPROVES IN SOME WAYS

- Approved housing increased to 11.4 units per acre, the highest ratio in five years.
- Between 1984 and 2000, Santa Clara County's population grew 22%, but its acres of urbanized land grew only 7%.
- In 2002, 26% of land in Silicon Valley and around its perimeter was permanently protected open space, up from 22% in 1998.
- Between 1990 and 2002, the rail transit network more than doubled from 49 miles to 110 miles.
- In 2002, Silicon Valley cities approved 6,360 new housing units, down from 9,375 the previous year.
- Less than one-third of all new housing units and workplaces approved in 2002 were located near transit.

ENVIRONMENTAL CHALLENGES CHANGE

- Toxic chemicals released by manufacturers decreased by two-thirds between 1987 and 2000.
- Annual average gasoline consumption by drivers in Santa Clara County reached 754 gallons in 2001, a 23% increase from 613 gallons in 1992.

REGIONAL STEWARDSHIP NEEDED TO SUSTAIN PROGRESS

- In 2002, 78% of households in Silicon Valley reported donating money or property to a charity or nonprofit organization, down from 83% in 1998.
- In November 2002, 52% of registered voters cast ballots, down from 61% in the most recent midterm elections (November 1998).
- In 2002, corporations contributed 7% of nonprofits' income, half the 1998 share (16%).
- Only 9% of property tax raised locally goes to fund city services.

Special Analysis

Silicon Valley in Transition: Shifting Economic and Population Profiles

The Silicon Valley economy and population have changed in fundamental ways over the past decade. This special analysis examines these structural changes and suggests implications—for the future of Silicon Valley’s competitiveness and workforce, for the kinds of communities the region will have, and for the need for regional leadership.

Silicon Valley’s Changing Economic Structure

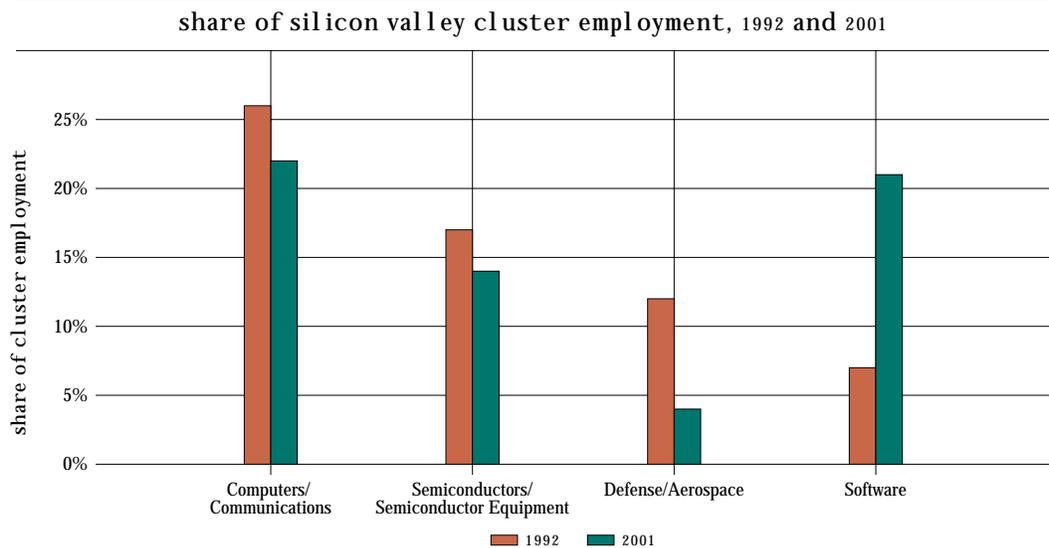
Transformations in the Silicon Valley economy have produced a regional employment base in which software is a major driving force, hardware’s prominence has decreased, business-related services account for a significant share of jobs, and biomedical is emerging. Understanding the various—and changing—dimensions of the region’s employment structure is essential to paving the way for future economic growth.

BEYOND BOOM AND BUST: HOW SILICON VALLEY’S ECONOMY SHIFTED IN THE 1990s

Underneath the recent boom and bust business cycle, there was a deeper shift in the economic structure of Silicon Valley in the 1990s. Software increased as a proportion of employment in the region’s driving industries, while the share of employment in hardware and equipment declined.

The inaugural *Index* in 1995 identified seven industry groupings that have been used over the past eight years to track changes in our region’s driving, export-oriented industry clusters. Industry cluster data illustrate the shift in regional employment that occurred during the economic expansion of 1992 to 2001.

- The share of total cluster employment declined in hardware industry clusters, traditionally areas of strength for the region. Between 1992 and 2001, Computers/Communications declined by 4% as a share of cluster employment, Semiconductors/Semiconductor Equipment declined by 3%, and Defense/Aerospace declined by 8%.
- Meanwhile, Software grew substantially as a share of cluster employment. The share of Silicon Valley’s total industry cluster employment in Software tripled from 7% in 1992 to 21% in 2001.



Source: Employment Development Department

THE VALLEY’S ECONOMY HAS SHIFTED BEFORE

During the 1970s, the structure of the Silicon Valley economy shifted from defense to integrated circuits, and in the 1980s, it shifted from integrated circuits to personal computers. Each of these structural shifts was shaped by technology innovation and by external shocks (e.g., defense spending or cutbacks, national economic cycles). Each built on the networks of talent, suppliers and service providers created in the earlier economy. In the 1990s, the Silicon Valley economy again shifted, this time toward software.

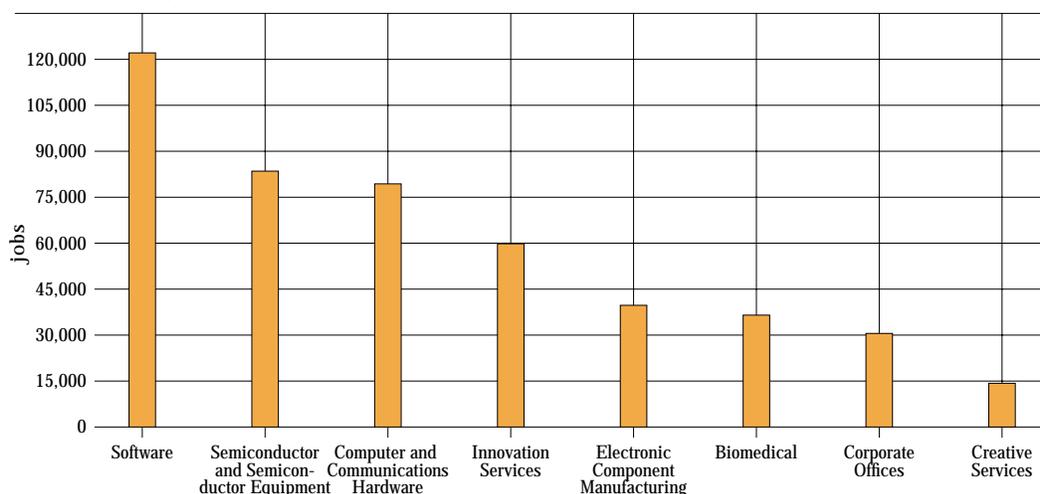
SILICON VALLEY TODAY

The current Silicon Valley economy has a diverse group of employment concentrations, led by Software. A revised set of industry cluster definitions—based on the new NAICS codes and created to better reflect the region’s economic structure (see page 2)—offers a valuable snapshot of the region’s employment concentrations today, and provides a basis for tracking cluster employment over time.

Employment figures from 2001—the most recent full year for which data are available—show the following:

- Software had the largest cluster employment in 2001 (averaging 122,000 employees), followed by Semiconductor and Semiconductor Equipment Manufacturing (84,000) and Computer and Communications Hardware Manufacturing (79,000).
- Combined employment in Innovation Services, Creative Services and Corporate Offices totaled 105,000, close to the size of Software alone.
- Employment in Biomedical averaged 36,500. This includes biopharmaceuticals (15% of the total), medical devices (50%) and bio-related research and development (35%).

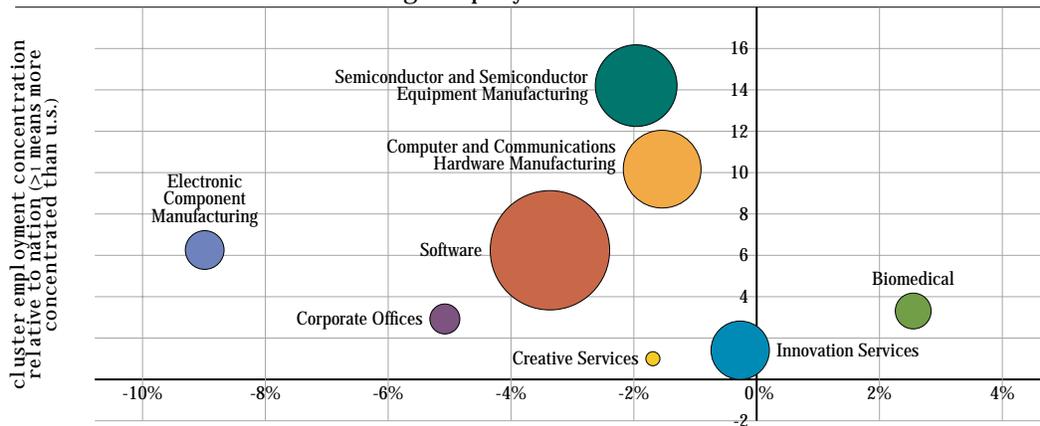
average annual employment in silicon valley’s industry clusters, 2001



Source: Employment Development Department

The following chart shows three key characteristics of each industry cluster: cluster employment, the cluster’s employment concentration *relative to the nation*, and the cluster’s *change* in employment concentration relative to the nation during 2001. All of these industry clusters have employment concentrations that are greater than their national counterparts—as high as 14 times greater, in the case of Semiconductor and Semiconductor Equipment Manufacturing.

current silicon valley industry clusters by employment concentration (vertical axis), change in employment concentration in 2001 (horizontal axis) and average employment (size of circle)



Source: Employment Development Department

The chart shows that regional employment concentration relative to the nation declined in 2001 for all clusters *except* Biomedical, which had a 2.6% increase. Hardware-oriented clusters all experienced decreased employment concentrations, with declines of 9% for Electronic Component Manufacturing, 2% for Semiconductor and Semiconductor Equipment Manufacturing, and 1.5% for Computer and Communications Hardware Manufacturing. Even Software, the largest of all clusters in terms of employment, declined by 3.4% in employment concentration relative to the nation.

In sum, 2001 data suggest that Biomedical and related areas could become increasingly important parts of the region's economy. At the same time, should the employment concentrations in Software and the hardware clusters continue to decline in future years, it would indicate declining regional competitiveness in many of the major high-tech sectors.

THE NEXT SILICON VALLEY

Silicon Valley leaders must focus on determining how the region will be globally competitive and thrive economically in the years to come. There are two important steps to an economic recovery in Silicon Valley. The first key is recovering competitive advantage in Silicon Valley's current industry clusters through increased productivity. The second is to find new means of wealth generation through innovation and entrepreneurship in emerging regional specialties.

Joint Venture's Next Silicon Valley Initiative found that future innovations are likely to occur as information technology continues to innovate and as new ideas are commercialized at the convergence of three technology fields: information technology, nanotechnology and biotechnology. Software and Innovation Services are important connective tissue among these three fields.

To prepare for the future Silicon Valley economy, business and civic leaders should address questions like the following:

- What are the challenges and opportunities associated with the shift from hardware to software, the potential emergence of biomedical, and significant employment in business-related services?
- What kinds of hardware manufacturing activity can remain competitive in the Valley?
- How should our education and training systems adapt to prepare our local workforce for the next Silicon Valley economy?
- How can local governments, which rely largely on sales tax for revenue, maintain services in an economy based increasingly on software and services firms that generate little sale tax?

For further reading, see *Preparing for the Next Silicon Valley: Opportunities and Choices* at www.jointventure.org/nsv.

Silicon Valley's Changing Population Profile

While the economic structure of the Valley has been changing, so has its population profile. During the past decade, the region's population became not only more diverse, but also more international and more educated. This change was driven by migration patterns as well as by natural growth of the local population.

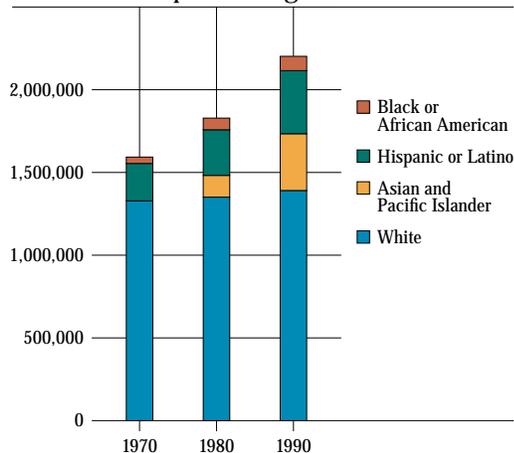
A REGION OF DIVERSE CULTURES AND ETHNICITIES

Over the past 30 years, Silicon Valley's demographic makeup has changed dramatically.

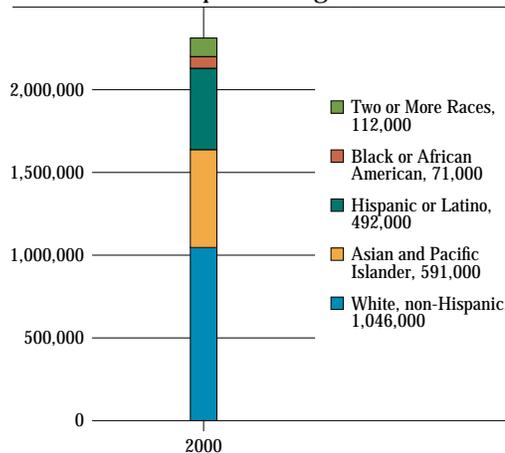
Between 1970 and 1990, Silicon Valley's population growth, from 1.4 million to 2.0 million, primarily resulted from large increases in the Hispanic, Asian and Black populations. Thus, even as the number of White residents edged up slightly during this period, the White population as a share of all Silicon Valley residents decreased from 83% to 63%.

The revised race and ethnicity categories used in Census 2000 (see Appendix A for discussion) allow us to capture the great diversity of Silicon Valley today. Forty-five percent of residents are White, non-Hispanic, while 26% are Asian/Pacific Islander, 21% are Hispanic or Latino, and 3% are Black or African American. Approximately 5% of Census 2000 respondents in Silicon Valley consider themselves to be of two or more races. After Los Angeles and New York, San Jose is the most diverse metropolitan area in the country.

silicon valley population by ethnicity and hispanic origin, 1970–1990



silicon valley population by ethnicity and hispanic origin, 2000



Source: U.S. Census Bureau

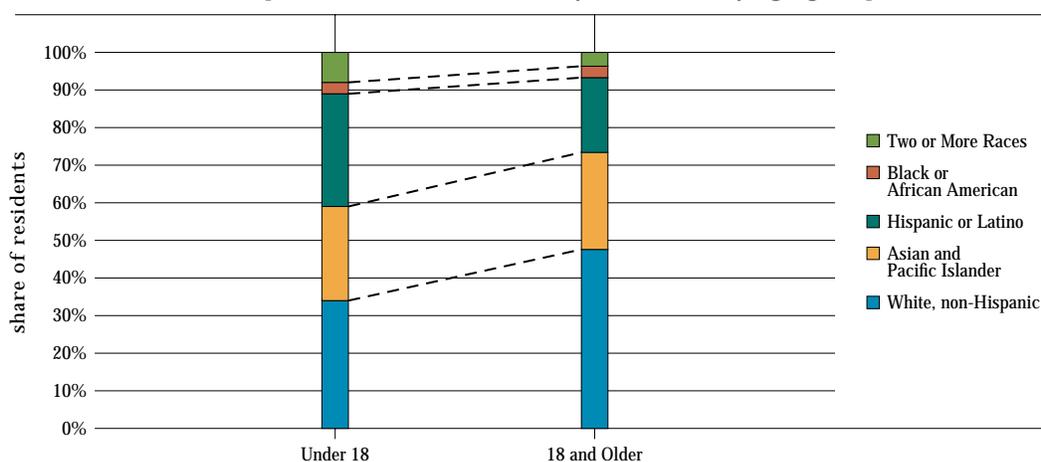
Note: Sums for 1970–1990 exceed total population because persons of Hispanic or Latino origin are counted separately from race. For example, a White individual of Hispanic origin would be counted in both categories. Also, Census 2000 race and ethnicity categories differ from those used by the Census in prior years. Thus, 1970–1990 Census data by race and ethnicity are not directly comparable to 2000 data.

In 2000, more than 34% of our population was born outside of the United States, compared to 23% in 1990. Of those residents who are foreign-born, 57% were born in an Asian country, and 28% were born in a Latin American country. A full 45% of Silicon Valley residents speak a language other than English as their primary language at home. Among large metropolitan areas, San Jose is third—behind only Miami and Los Angeles—in the proportion of foreign-born residents.

THE ETHNIC COMPOSITION OF YOUNG RESIDENTS POINTS TO A MORE DIVERSE REGION IN THE FUTURE

The region’s trend toward greater diversity will continue because the region’s young residents (those under 18) are decidedly more diverse than the adult population.

ethnic composition of silicon valley residents by age group, 2000

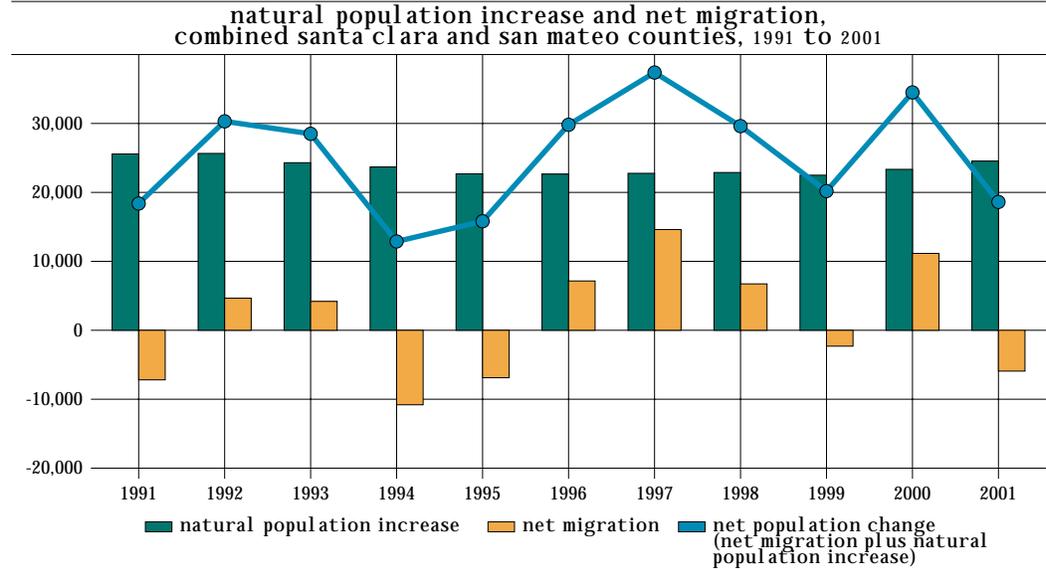


Source: U.S. Census Bureau

Whereas about half of Silicon Valley residents 18 and older are White, non-Hispanic, this proportion is just over one-third for residents under 18. Almost one-third (30%) of residents under 18 are Hispanic, compared to 20% for older residents. In addition, residents under 18 are twice as likely to be of two more races (8% vs. 4%) than are older residents.

THE INCREASING DIVERSITY OF THE VALLEY WAS SHAPED BY NATURAL POPULATION GROWTH AND FOREIGN IMMIGRATION

From 1991 to 2001, the region experienced a net population gain of 276,000. Ninety-four percent of this increase, or 261,000 residents, were added as a result of natural population growth (number of births minus the number of deaths in the resident population), which remained relatively steady during this period. The remaining gain of 15,000 residents was the result of net migration. Migration flows fluctuated considerably between 1991 and 2001, primarily in response to economic cycles and the cost of living.



Source: California Department of Finance

The region experienced substantial population turnover between 1991 and 2001. Net *foreign* migration was positive during this period, as the number of people moving here from other countries exceeded by 208,000 the number of Silicon Valley residents who left the United States. During this same period, the region had a negative net *domestic* migration: 193,000 more people left Silicon Valley for elsewhere in the United States than moved here from other parts of the country.

THE MAJORITY OF PEOPLE LEAVING THE VALLEY RELOCATED IN NEIGHBORING PARTS OF CALIFORNIA AND THE BAY AREA

Among the people moving to other U.S. regions, a large proportion (almost 40%) moved to nearby parts of California: the greater Bay Area, the Central Valley and the Sacramento region. The high cost of housing in Santa Clara and San Mateo counties is widely acknowledged as a key factor that drives Silicon Valley residents to relocate to these neighboring regions.

Among those moving into Silicon Valley from other parts of the United States, the largest inflow came from other large urban areas: Southern California, New York, Boston and Chicago.

domestic migration flows: 1993–2000

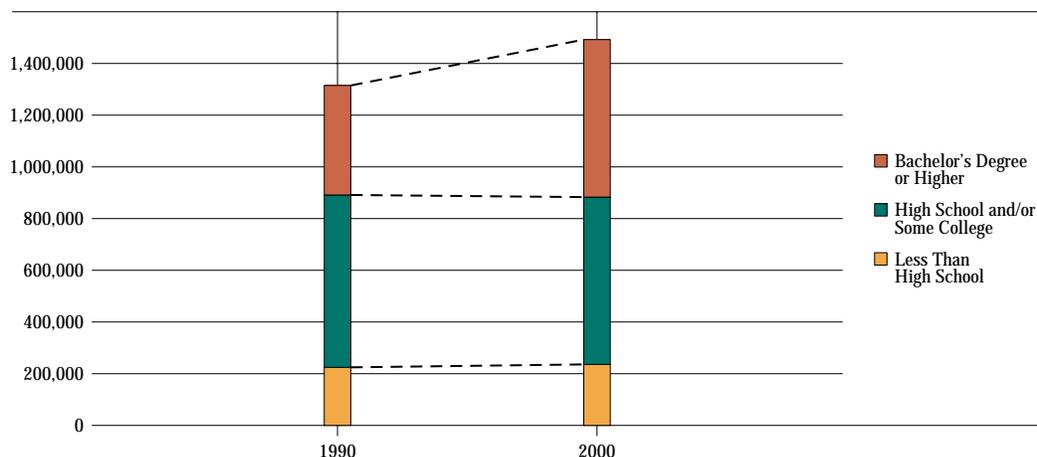
Top Sources	Net Inflow	Top Destinations	Net Outflow
Southern California	9,865	Other Bay Area	-53,975
New York	5,911	Central Valley	-20,024
Boston	2,865	Sacramento	-14,196
Chicago	2,617	Portland	-4,206
Washington, D.C.	1,813	Seattle	-3,661
Detroit/Ann Arbor	1,473	Las Vegas	-3,440

Source: IRS, Robert Cushing

GROWING SHARE OF RESIDENTS HAVE A BACHELOR'S DEGREE OR HIGHER

Migration patterns have raised the education level of the region. Between 1990 and 2000, the number of residents with a bachelor's degree or higher jumped dramatically, from 423,000 to 609,000. As a result, the share of the population with a bachelor's degree or higher increased from 32% to 41%. During this same period, the share with a high school degree and/or some college decreased from 51% to 43%, while the share with less than high school declined very slightly from 17% to 16%. Among large metropolitan areas, San Jose is the third most educated area in the country as measured by share of residents who are college graduates, behind San Francisco and Washington, D.C.

educational attainment of silicon valley residents age 25 and older, 1990 and 2000



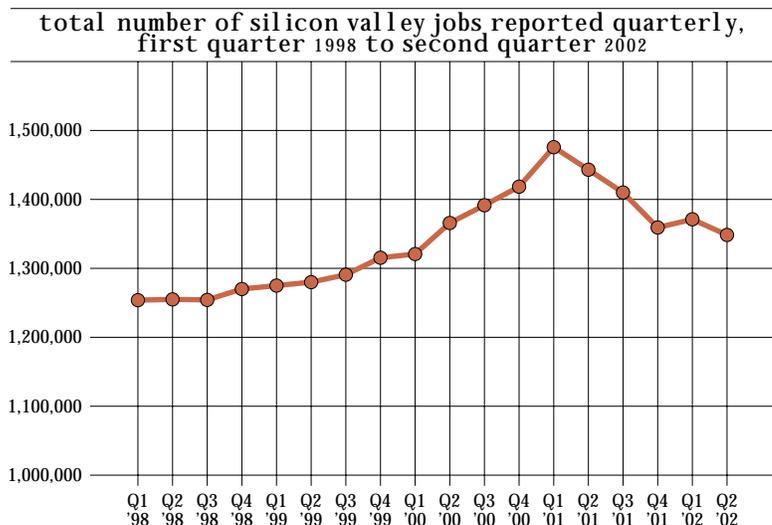
Source: U.S. Census Bureau

CULTIVATING A DIVERSE YET UNIFIED REGION

Silicon Valley's population change accelerated in the 1990s, at the same time that our economy experienced significant shifts. Today, the region's leaders face some important questions.

- How can we welcome newcomers to the region, connect them to long-time residents and build commitment to this community?
- How do we align our region's changing population profile and shifting economic structure?
- How can we leverage residents' international perspectives and networks for the competitiveness of the region?
- As a culturally and ethnically diverse region, how do we assure a cohesive, inclusive community?

Region Loses Jobs for Second Year



Source: Employment Development Department

WHY IS THIS IMPORTANT?

Job gains or losses are a basic measure of economic health. This indicator reports total jobs on a quarterly basis in order to track overall job gains/losses and to show exactly when most of the change in regional employment has occurred in recent years.

HOW ARE WE DOING?

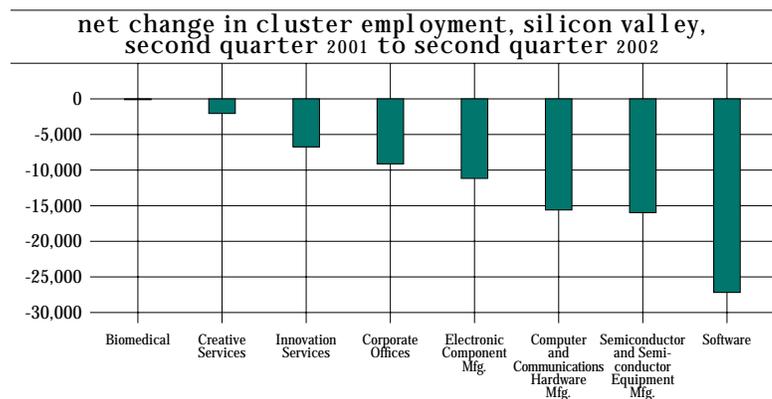
Silicon Valley lost 127,000 jobs between the first quarter of 2001 and the second quarter of 2002, following three years of accelerating job growth.

The net jobs gained since the beginning of 1992 (the first year of the regional data set) is 344,000. From 1992 to 2000, the region added nearly 472,000 jobs. Job losses in 2001 and the first two quarters of 2002 equal more than half the total job gains experienced from 1998 to 2000 (222,000).

Despite this substantial recent job loss, quarterly data show that regional employment actually stabilized in 2002. The greatest job loss took place during 2001, when regional employment declined from nearly 1.5 million jobs in the first quarter of 2001 to 1.35 million jobs in the fourth quarter. During the first two quarters of 2002, the total number of jobs remained close to 1.35 million.

Employment data include both full-time and part-time employees, but do not include individuals who are self-employed.

Employment Declines across All Clusters; Software Is Hardest Hit



WHY IS THIS IMPORTANT?

This indicator shows how employment in different clusters and other industries changed in the most recent annual period.

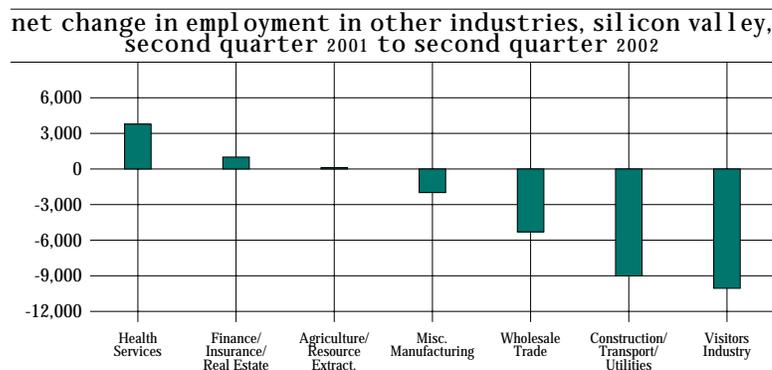
HOW ARE WE DOING?

Overall, Silicon Valley's driving industry clusters lost 22% of jobs from the year prior, declining from 484,000 jobs in the second quarter of 2001 to 396,000 jobs in the second quarter of 2002.

Software suffered the greatest job losses, from 128,000 jobs in quarter two of 2001 to 101,000 jobs in quarter two of 2002. The second largest decline was in Semiconductor and Semiconductor Equipment Manufacturing, which lost 16,000 jobs. Computer and Communications Hardware Manufacturing lost 15,600 jobs.

Of the region's driving industry clusters, Biomedical was the least impacted, losing only 100 jobs, followed by Creative Services and Innovation Services, which lost 2,100 and 6,800 jobs, respectively.

Some of Silicon Valley's other industries gained jobs: Health Services gained 3,800 jobs, Finance/Insurance/Real Estate gained 1,000, and Agriculture/Resource Extraction gained 100. Job losses in the Visitors Industry (10,100) were the highest among this group, followed by Construction/Transportation/Public Utilities (9,000), Wholesale Trade (5,300) and Miscellaneous Manufacturing (2,000).



Source: Employment Development Department

Average Pay Declines by 6%

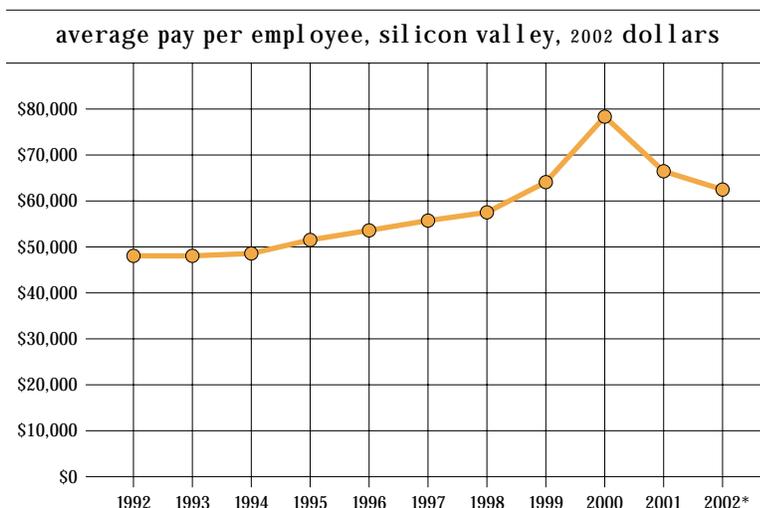
WHY IS THIS IMPORTANT?

Growth of average annual pay in inflation-adjusted terms is an indicator of job quality. It is as important a measure of Silicon Valley's economic vitality as is job growth. Average pay includes salary and wages, bonuses, and stock options.

HOW ARE WE DOING?

The estimated average pay in Silicon Valley declined 6% in 2002 to \$62,500 (after accounting for inflation). This is the second year of decline from the peak of \$79,800 in 2000. Still, average pay in 2002 remained above the 1998 level.

Silicon Valley's average pay remains more than twice the nation's average pay of \$38,400.



Source: Employment Development Department
*Estimate

Corporate Offices Cluster Has Highest Average Pay

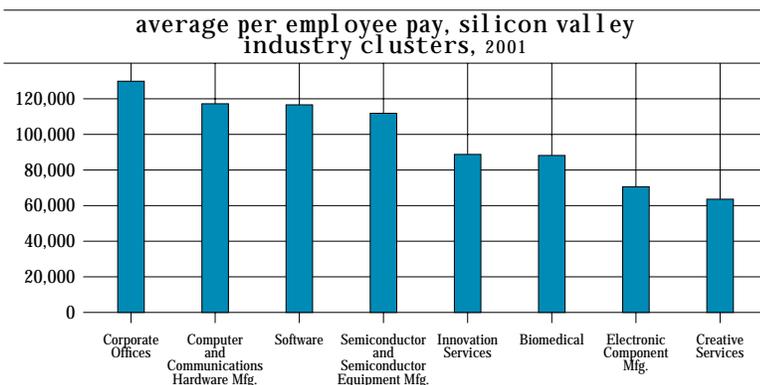
WHY IS THIS IMPORTANT?

Average pay in Silicon Valley's driving industry clusters reflects in part the wealth-generating impact of outward-oriented industries (industries that sell to customers outside of the region). Average pay in these clusters also reflects employers' competition for skilled workers.

HOW ARE WE DOING?

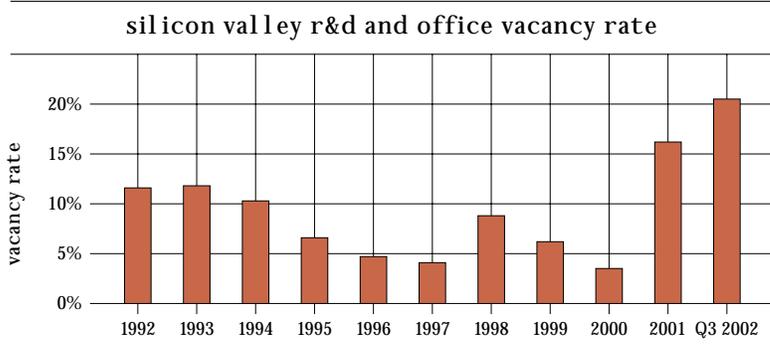
In 2001, average pay in Corporate Offices was the highest of all the clusters at \$130,000. Average pay in Computer and Communications Hardware Manufacturing was second highest at \$117,300, followed by Software at \$116,600, and Semiconductor and Semiconductor Equipment Manufacturing at \$112,000. Average pay levels in Innovation Services and Biomedical were \$89,000 and \$88,000, respectively. Of the driving industry clusters, Creative Services had the lowest pay, averaging \$64,000.

Among the other industries in Silicon Valley, Finance/Insurance/Real Estate had the highest average pay at \$79,000. This was followed by average pay in Wholesale Trade (\$73,000) and Construction/Transportation/Public Utilities (\$57,000). The lowest paying industry of this group was the Visitors Industry, which paid \$27,000 on average.



Source: Employment Development Department

Office Vacancy Rates Reach 20%; Lease Rates Fall to 1997 Level

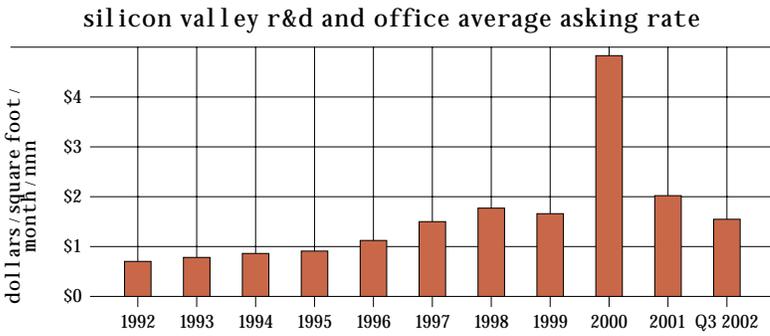


WHY IS THIS IMPORTANT?

Vacancy rates are a leading indicator of economic activity. Declining vacancies for R&D and office space reflect strong demand by growing companies, leading typically to lease rate increases and investment in property development. Rising vacancies reflect slowing demand relative to supply.

HOW ARE WE DOING?

The vacancy rate for R&D and office space in Silicon Valley rose to 20% by the third quarter of 2002. This follows the surge from an all-time low of 4% in 2000 to 16% in 2001. The overall vacancy increase has been driven largely by vacancies in sublease space, which now account for more than 35% of total availability.



Average monthly lease rates for R&D and office space fell to \$1.55 per square foot by the third quarter of 2002. This rate is in line with lease rates in 1997.

Source: BT Commercial Real Estate
 Note: Lease rate data are provided "triple net" (NNN), which is a base lease rate that excludes the costs of utilities, janitorial, taxes, maintenance and insurance.

Silicon Valley 2010



INNOVATIVE
ECONOMY



LIVABLE
ENVIRONMENT



INCLUSIVE
SOCIETY



REGIONAL
STEWARDSHIP

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 published *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 *Silicon Valley 2010* vision, goals and recommended progress measures, call (408) 271-7213, or visit our Web site at www.jointventure.org.

Silicon Valley 2010 Goals

<p>OUR INNOVATIVE ECONOMY INCREASES PRODUCTIVITY AND BROADENS PROSPERITY</p>	<p>OUR INCLUSIVE SOCIETY CONNECTS PEOPLE TO OPPORTUNITIES</p>
<p>GOAL 1: INNOVATION AND ENTREPRENEURSHIP. Silicon Valley continues to lead the world in technology and innovation.</p> <p>GOAL 2: QUALITY GROWTH. Our economy grows from increasing skills and knowledge, rising productivity and more efficient use of resources.</p> <p>GOAL 3: BROADENED PROSPERITY. Our economic growth results in an improved quality of life for lower-income people.</p> <p>GOAL 4: ECONOMIC OPPORTUNITY. All people, especially the disadvantaged, have access to training and jobs with advancement potential.</p>	<p>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.</p> <p>GOAL 11: TRANSPORTATION CHOICES. We overcome transportation barriers to employment and increase mobility by investing in an integrated, accessible regional transportation system.</p> <p>GOAL 12: HEALTHY PEOPLE. All people have access to high-quality, affordable health care that focuses on disease- and illness-prevention.</p> <p>GOAL 13: SAFE PLACES. All people are safe in their homes, workplaces, schools and neighborhoods.</p> <p>GOAL 14: ARTS AND CULTURE THAT BIND COMMUNITY. Arts and cultural activities reach, link and celebrate the diverse communities of our region.</p>
<p>OUR COMMUNITIES PROTECT THE NATURAL ENVIRONMENT AND PROMOTE LIVABILITY</p>	<p>OUR REGIONAL STEWARDSHIP DEVELOPS SHARED SOLUTIONS</p>
<p>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.</p> <p>GOAL 6: PRESERVE OPEN SPACE. We increase the amount of permanently protected open space, publicly accessible parks and green space.</p> <p>GOAL 7: EFFICIENT LAND REUSE. 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.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p>

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

Number of Gazelle Companies Falls to 9, the Lowest Level since 1992

WHY IS THIS IMPORTANT?

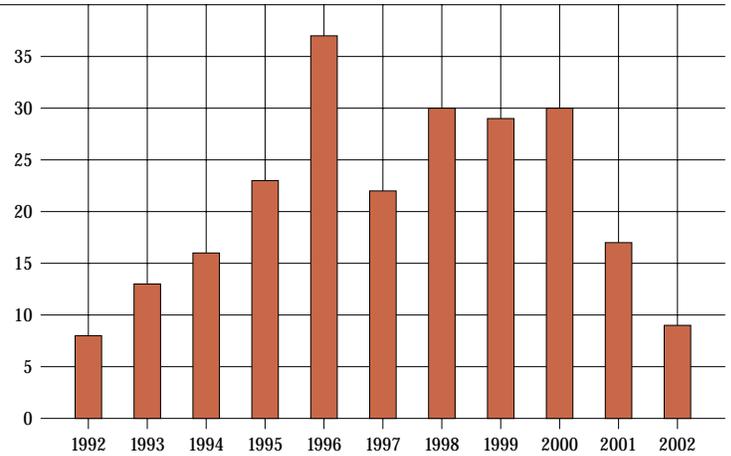
High numbers of fast-growth companies reflect high levels of innovation in the Valley. By generating accelerated increases in sales, these firms stimulate the development of other businesses and personal spending throughout the region.

HOW ARE WE DOING?

Gazelles are publicly traded companies whose revenues have grown at least 20% for each of the last four years, starting with at least \$1 million in sales.

The number of gazelle firms in Silicon Valley declined from 17 in 2001 to 9 in 2002. This is the fewest number of gazelle firms since the 1992 trough of the previous recession. The nine gazelle companies in 2002 were Affymetrix, Inc.; eBay, Inc.; Greater Bay Bancorp; Inhale Therapeutic Systems; Liberate Technologies; Net IQ Corp.; Sangstat Medical Corp.; Verisign, Inc.; and Virage Logic Corp.

number of publicly traded gazelle firms in silicon valley



Source: Standard & Poor's

Venture Capital Investment Returns to 1998-99 Levels

WHY IS THIS IMPORTANT?

New venture capital investment is a leading indicator of innovation. 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 5- to 10-year period will attract venture capital. These firms are usually highly innovative in their technology and market focus.

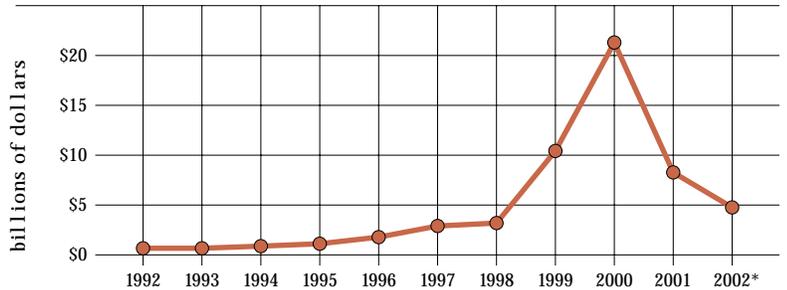
HOW ARE WE DOING?

Venture capital investment declined for the second year in a row, from \$8.3 billion in 2001 to an estimated \$4.8 billion in 2002, a decrease of 42%. The current level of venture capital investment in Silicon Valley companies falls between that in 1998 and 1999.

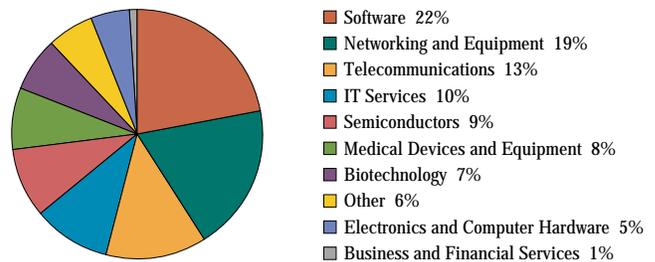
As of the third quarter of 2002, venture capitalists had funded 361 deals, compared to 356 deals during the same period in 2001. Average deal size decreased from \$12.2 million in 2001 to \$9.9 million in 2002. The region's share of national venture capital investment remained steady at 21%; this compares to 20% in 2001 and 24% in 2000.

Software companies attracted the largest share (22%) of total investment. Networking and Equipment captured the second largest share of investment at 19%, followed by Telecommunications at 13%. Investment in Semiconductors was 9% of all venture capital investment, an increase over 2001, when Semiconductors were 5% of all investment. Investment in Information Technology (IT) Services was 10%, and investment in Medical Devices and Equipment was 8% of all venture capital investment in Silicon Valley firms.

total venture capital financing in silicon valley firms



venture capital investment in silicon valley firms by industry



Source: MoneyTree Survey; PricewaterhouseCoopers, Venture Economics and the National Venture Capital Association
*Estimate

Almost 400 Public Companies Are Headquartered in Silicon Valley, an 80% Increase over 1992



Source: Standard & Poor's

WHY IS THIS IMPORTANT?

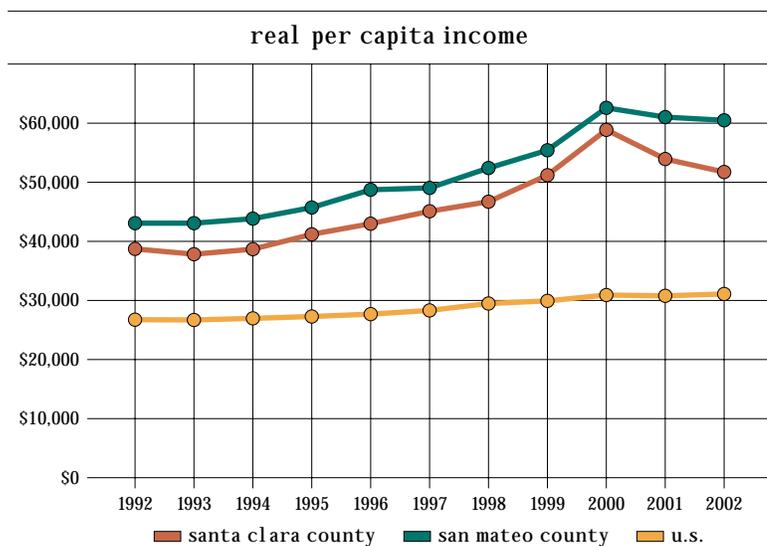
The number of corporate headquarters reflects a region's penchant for entrepreneurship as well as its overall economic climate. Corporate headquarters provide important benefits to the economy and community. Headquarters operations tend to create business for service providers (financial, legal, marketing, sales) and generate travel to the region for meetings. Headquarters tend to have stronger ties to their home community, through philanthropy and civic leadership, than do regional offices and branch plants of corporations with headquarters elsewhere.

HOW ARE WE DOING?

The number of public companies headquartered in Silicon Valley has nearly doubled since 1992 and peaked at more than 435 in 1999–2000. In 2001, the number of headquartered companies fell to 393.

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

Real Per Capita Income Declines by 4%



Source: Economy.com

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

HOW ARE WE DOING?

For the second year since the peak in 2000, real per capita income declined.

In inflation-adjusted terms, per capita income in Santa Clara County decreased from \$54,000 to \$51,700, a decline of 4%. In San Mateo County, per capita income declined only slightly, from \$61,000 to \$60,500.

Nationally, per capita income is \$31,100 and increased 1% in 2002.

Value Added per Employee Increases Again

WHY IS THIS IMPORTANT?

Value added is a proxy for productivity and reflects how much economic value companies create.

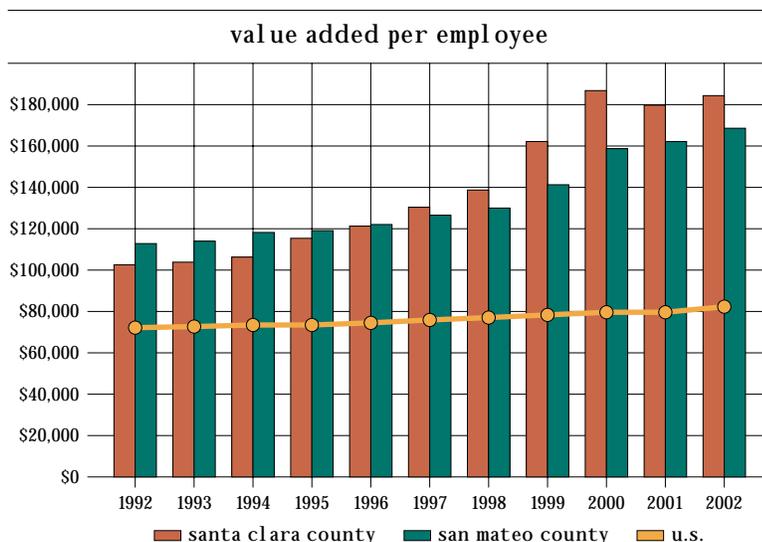
Increased value added is a prerequisite for increased wages. Innovation, process improvement and industry/product mix are all factors that drive value added. Value added is derived by subtracting the costs of a company's materials, inputs and contracted services from the revenue earned from its products.

HOW ARE WE DOING?

Value added per employee in Santa Clara County increased in 2002, after falling in 2001 from the 2000 peak. Between 2001 and 2002, value added rose from \$179,700 per employee to \$184,300.

In San Mateo County, value added per employee increased steadily in the last two years, from \$158,800 in 2000 to \$168,600 in 2002.

The national average for value added per employee is \$82,300.



Source: Economy.com

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

Annual Income for Low-Income Households Surpasses 1993–94 Levels for the First Time

WHY IS THIS IMPORTANT?

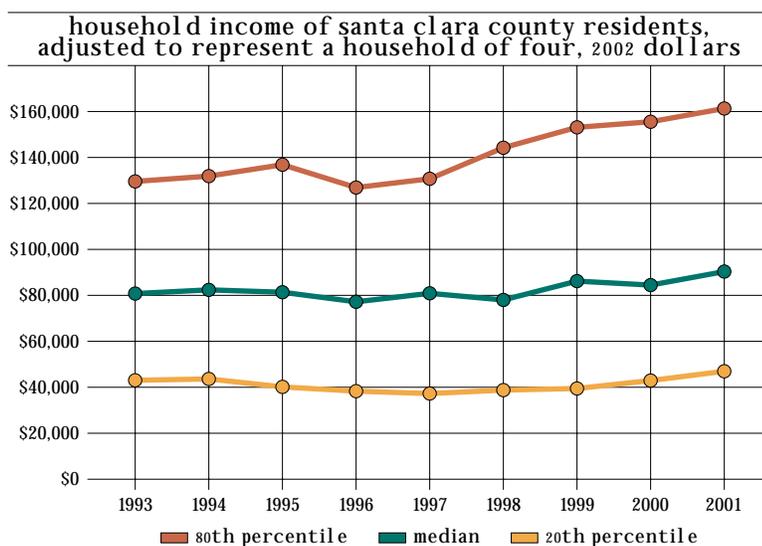
This progress measure shows changes in standard of living among households at different income levels. This indicator tracks over time the income available to a representative four-person household at the 80th percentile, median and 20th percentile of the income distribution. Household income includes income from wages, investments, Social Security and welfare payments for all people in the household.

HOW ARE WE DOING?

In 2001, inflation-adjusted incomes of households at the 20th percentile surpassed the 1993–94 levels for only the first time, after declining and stagnating through the second half of the 1990s. A representative household at the 20th percentile earned around \$47,000 in 2001.

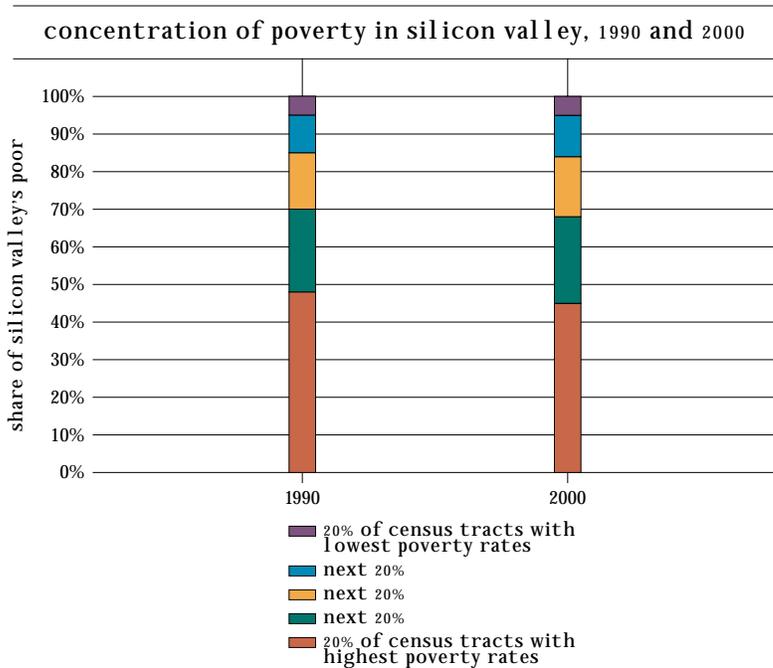
Nationally, household incomes at the 20th percentile rose 17% between 1993 and 2001, to \$27,700. In Santa Clara County, these incomes grew 9% in inflation-adjusted terms. However, between 1993 and 2001 the local cost of living increased 22%.

Since 1993, inflation-adjusted incomes of households at the 80th percentile have increased 24%, to an estimated \$161,300. Median household income has increased 12%, to \$90,000.



Source: U.S. Census Bureau

Concentration of Poverty Slightly Changed Between 1990 and 2000



Source: U.S. Census Bureau

WHY IS THIS IMPORTANT?

Geographic concentration of poverty measures the amount of economic segregation that exists within a region. Studies have shown that low-income communities do better when their residents are connected to the region and that metropolitan economies grow faster when the poor are included. Pockets of concentrated poverty reduce access to jobs, education, networks and health, and thus exacerbate the challenges faced by poor people.

This indicator looks at the share of poor people in Silicon Valley who reside in the poorest census tracts (census tracts are geographic areas of about 2,000 to 8,000 people developed for use by the U.S. Census). For this analysis, “poor” is defined as living below the federal poverty line, which is approximately \$18,000 for a family of four.

HOW ARE WE DOING?

Despite the economic boom of the 1990s, the concentration of poverty did not significantly change between 1990 and 2000. Approximately 45% of all poor people in Silicon Valley are concentrated in the poorest 20% of census tracts, compared to 48% in 1990.

The overall percentage of Silicon Valley residents living below the federal poverty line went from 7.0% in 1990 to 7.1% in 2000. This regional poverty rate is still well below the national rate of 12.4% and California’s rate of 14.2%. However, the federal poverty threshold does not account for geographic differences in cost of living. Because cost of living in the region is 1.5 times that of the nation as a whole, the official poverty rate underestimates the number and percentage of people having severe difficulties in making ends meet in this region.

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

Child Care Providers' Education Levels Vary by Type of Care and Staff Position

WHY IS THIS IMPORTANT?

Access to high-quality child care enables parents to work and children to learn. High-quality child care includes education that prepares preschool children for kindergarten and a lifetime of learning. One important factor in child care quality is the education and training completed by child care providers, including courses in early childhood education (ECE) or child development.

HOW ARE WE DOING?

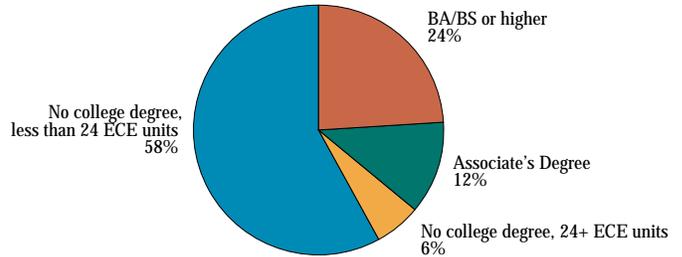
The two most common types of licensed care are family child care, provided in an individual's home, and child care centers.

Among family care homes, 58% of providers had less than a college degree and had completed fewer than 24 ECE units (the number needed to be considered "highly qualified"). Nearly one quarter had a bachelor's degree or higher.

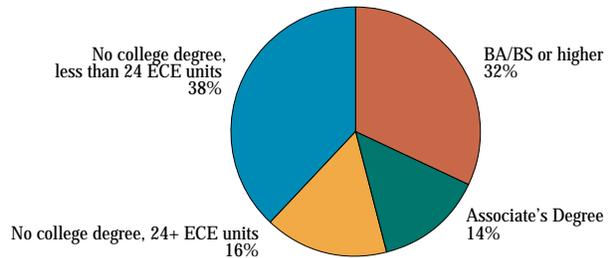
On average, center-based providers were more educated than family care providers. However, education levels varied widely by staff position. Most directors (67%) held a bachelor's degree, compared with only 33% of teachers and 16% of assistant teachers.

Low salaries and high turnover are barriers to developing a highly qualified child care workforce. To improve training and retention, the statewide CARES program offers stipends that promote providers' professional development.

family child care providers, degrees and ece units completed, santa clara and san mateo counties, 2002



child care center staff, degrees and ece units completed, santa clara and san mateo counties, 2002



Sources: The Center for the Child Care Workforce, The California Child Care Resource & Referral Network

Half of Fast-Growth Jobs Require Bachelor's Degrees, While Half Require No Formal Postsecondary Education

WHY IS THIS IMPORTANT?

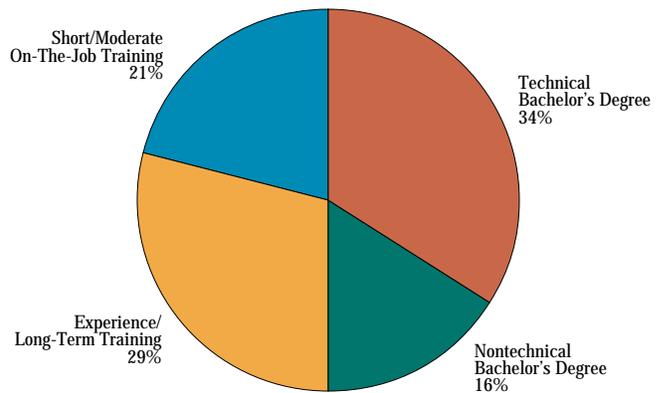
To provide opportunity for a diverse population, the region's economy should create jobs for a variety of education and skill levels, and develop pathways for progressing to jobs that require higher skill levels and increased education and training.

HOW ARE WE DOING?

During the economic boom of 1995 to 1999, 15 occupations with the greatest absolute job growth accounted for close to half (48%) of Santa Clara County's net nonfarm job growth. Of the total jobs added in these occupations, half required at least a bachelor's degree (34% a technical bachelor's, 16% nontechnical). The other half required short/moderate on-the-job training (21%) or long-term on-the-job training/work experience (29%), but no formal postsecondary education.

On average, the fast-growth occupations requiring a technical bachelor's degree (e.g., computer engineers, systems analysts) paid \$72,000. Those requiring a nontechnical bachelor's (e.g., top executives, accountants) paid \$79,000. Fast-growth occupations requiring short/moderate on-the-job training (e.g., janitors, truck drivers) paid \$23,000 on average. Those requiring long-term on-the-job training/work experience (e.g., electrical equipment assemblers, carpenters) paid \$31,000 on average.

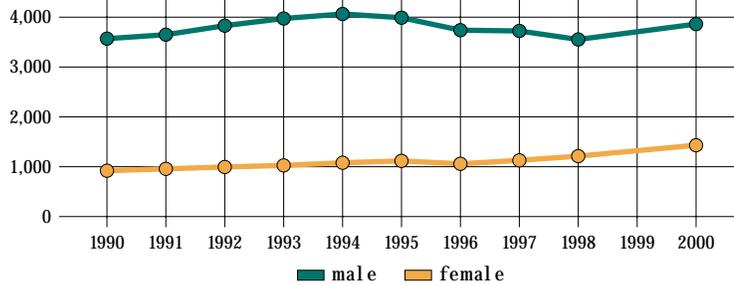
education/training required for jobs added in 15 fastest-growth occupations 1995-1999, santa clara county



Source: Employment Development Department
Note: A complete list of the 15 fast-growth occupations is presented in Appendix A.

Number of Math, Science and Engineering Graduates Increased 18% in 1990s, Led by Asian Students and Women

degrees awarded by bay area colleges and universities in science, engineering, math and computer science, by gender



WHY IS THIS IMPORTANT?

The number of science, engineering, math and computer science degrees awarded is an indicator of Silicon Valley’s future talent pool. A local workforce equipped with strong technical skills is a valuable resource for generating new ideas and innovative products and services. This indicator shows the number of degrees awarded at all levels by Bay Area postsecondary institutions in the fields of science, engineering, math and computer science (SEMC).

HOW ARE WE DOING?

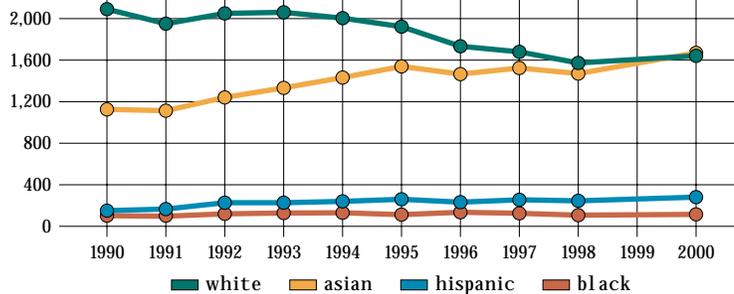
The number of degrees awarded in SEMC increased 18%, from 4,490 in 1990 to 5,294 in 2000.

In 2000, women earned 27% of all SEMC degrees, up from 20% in 1990. The number of SEMC degrees awarded to women increased 55% between 1990 and 2000 (from 922 to 1,433), while the degrees awarded to men increased by 8% during the same time.

More Asian students earned SEMC degrees by the end of the 1990s. Asian students earned 1,126 such degrees in 1990 and 1,670 in 2000. Whites earned 2,090 degrees in 1990 and 1,642 degrees in 2000. The number of SEMC degrees earned by Hispanics and Blacks increased between 1990 and 2000, rising from 151 to 280 and from 103 to 116, respectively.

For more on preparing students to thrive in the region’s technology-driven economy, see Joint Venture’s *2002 Workforce Study* at www.jointventure.org/workforce.

degrees awarded by bay area colleges and universities in science, engineering, math and computer science, by race/ethnicity

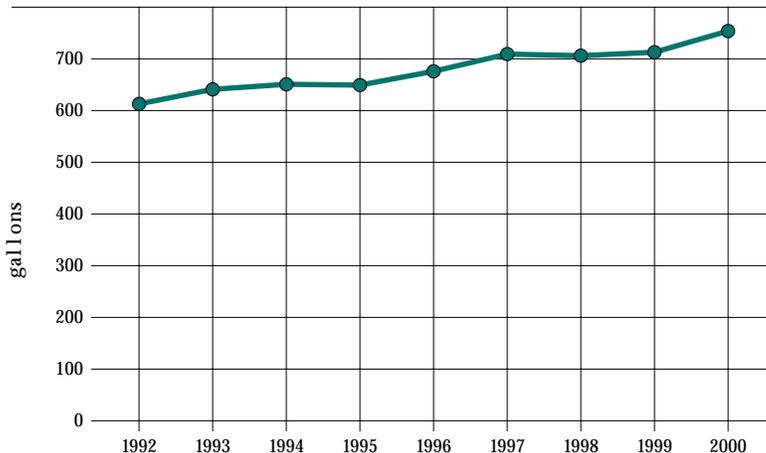


Source: National Science Foundation
*Note: Data not available for 1999

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.

Gasoline Consumption Rises to 754 Gallons per Driver

gasoline sales per driver, santa clara county



Source: Silicon Valley Environmental Partnership

WHY IS THIS IMPORTANT?

Our rate of gasoline usage tells us if we are reducing environmental impact by driving less, making more efficient use of fossil fuels and shifting to renewable energy sources. Automobiles and light trucks create over half of our region’s air pollution and are a significant “greenhouse gas” contributor to global climate change. They also contribute to water pollution through engine emissions, copper from brake pads, and runoff from roads and parking lots.

HOW ARE WE DOING?

From 1992 to 2000, gasoline sales per licensed driver increased 23% to 754 gallons. Total gasoline consumption increased 33% to almost 900 million gallons.

In 2002, three-quarters of Silicon Valley residents drove to work alone. Only 7% used public transit, walked, biked or telecommuted, while 16% carpoled.

For 19 other regional environmental indicators, see the Silicon Valley Environmental Partnership’s *2003 Silicon Valley Environmental Index* (www.svep.org).

Release of Toxic Chemicals Declines and Stabilizes

WHY IS THIS IMPORTANT?

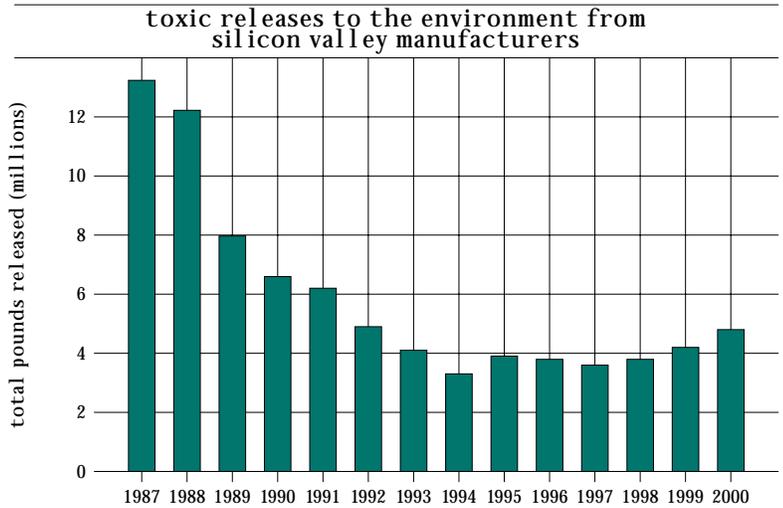
Use of toxic chemicals and their release into our environment can cause public health and environmental hazards.

The Toxic Release Inventory measures the on- or off-site release of 650 chemicals into the local air, land or water. Certain manufacturing facilities with more than 10 employees must report.

HOW ARE WE DOING?

Between 1987 and 1994, toxic releases by manufacturers in Silicon Valley declined by 75% to 3.3 million pounds. Since then, releases have remained slightly above this level.

Releases declined substantially for two reasons: a changing industry base and changing business practices. First, the number of manufacturers in the region that use and must report these chemicals declined consistently, from 159 in 1987 to 93 in 2000. Second, manufacturers have made their production processes more environmentally benign by reducing ozone-depleting compounds, substituting less dangerous chemicals and recycling waste.



Source: U.S. Environmental Protection Agency, Region 9
 Note: Release data for 1999 and 2000 are overstated due to erroneous over-reporting by one facility.

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

Permanently Protected Open Space Increases to 26%

WHY IS THIS IMPORTANT?

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

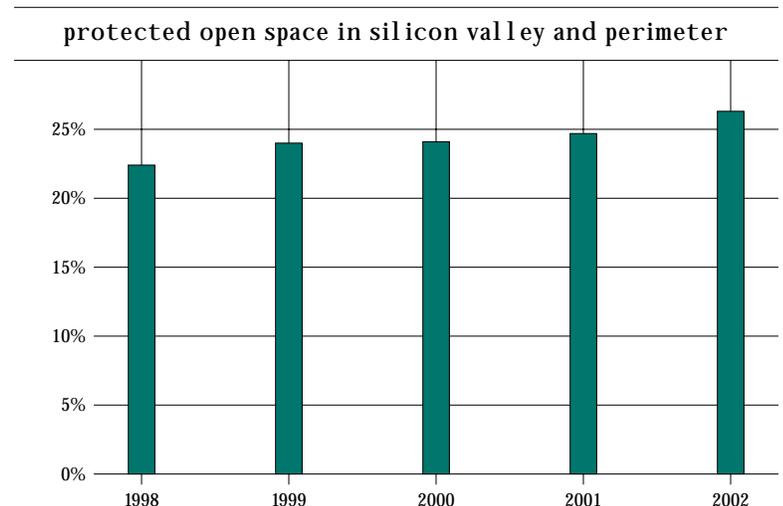
This indicator tracks lands in Silicon Valley or along its perimeter that are permanently protected through public ownership or conservation easements.

HOW ARE WE DOING?

In 2002, 26% of land in Silicon Valley and around its perimeter was permanently protected open space. This indicator is up from 25% in 2001 and has increased 4 percentage points since 1998.

The major additions in the most recent year were Rancho Corral de Tierra (4,200 acres), Driscoll Ranch (3,600 acres) and Bolsa Point (1,700 acres).

Sixty-one percent of the region's permanently protected open space is accessible to the public.

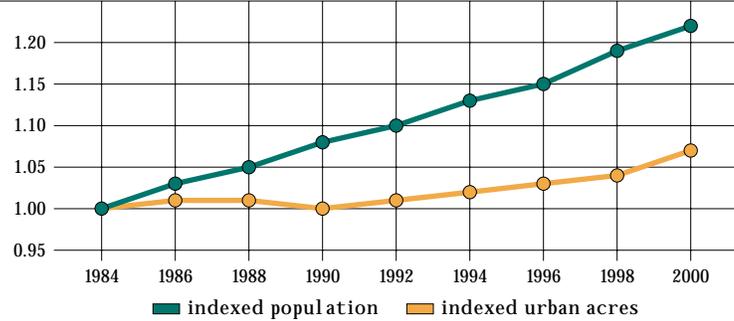


Source: GreenInfo Network

GOAL 7: EFFICIENT LAND REUSE 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.

Region Is Curtailing Urban Sprawl through Efficient Land Use

growth in urban acres compared to population growth, santa clara county



WHY IS THIS IMPORTANT?

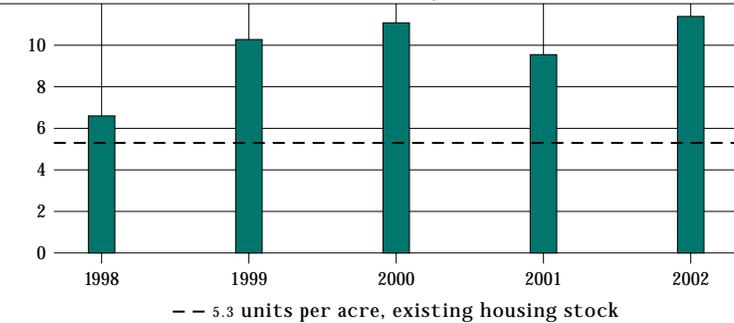
By directing growth to already developed areas, local jurisdictions can reinvest in existing neighborhoods, use transportation systems more efficiently and preserve nearby rural settings.

This section looks at two key measures of efforts to prevent sprawl: the growth in urbanized land as compared to population growth, and the average density of new residential development.

HOW ARE WE DOING?

Between 1984 and 2000, Santa Clara County’s population grew 22%, while total acres of urbanized land grew only 7%. This means that the county is using its scarce land resources more efficiently, with the newly added population during this period requiring less land than during previous years.

average units per acre of new residential development, silicon valley



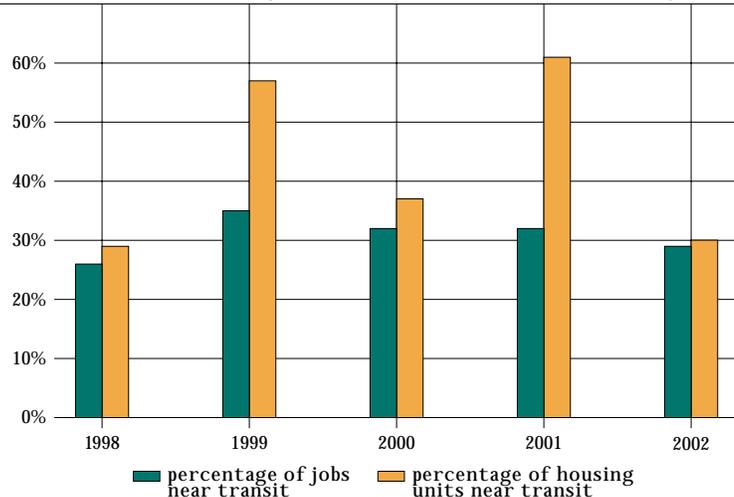
In 2002, Silicon Valley cities approved new residential development at an average density of 11.4 units per acre. This is the highest rate since the Land Use Survey was initiated in 1998. The 2002 average for newly approved developments is more than twice the overall ratio of 5.3 units per acre for existing housing stock in Santa Clara County.

Sources: Silicon Valley Environmental Partnership, City Planning and Housing Departments, California Department of Conservation

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.

Less Than One-Third of Newly Approved Housing and Workplaces Are near Transit

new housing units and new jobs within 1/4 mile of rail stations or major bus corridors, silicon valley



WHY IS THIS IMPORTANT?

Focusing new economic and housing development near rail stations and major bus corridors reinforces the creation of compact, walkable mixed-use communities linked by transit. This helps to reduce traffic congestion on freeways and preserve open space near urbanized areas.

HOW ARE WE DOING?

A survey of Silicon Valley cities found that 30% of all new housing units approved in 2002 were located within one-quarter mile of a rail station or a major bus corridor, down dramatically from 61% in 2001. This represents 2,100 new housing units.

A slightly smaller share (29%) of newly approved commercial/industrial development was located within one-quarter mile of transit. This represents space for approximately 6,300 workers. This percentage is very close to levels seen in 2000 and 2001.

Source: City Planning and Housing Departments

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.

Approvals for New Housing Drop; 29% of New Units Are Affordable

WHY IS THIS IMPORTANT?

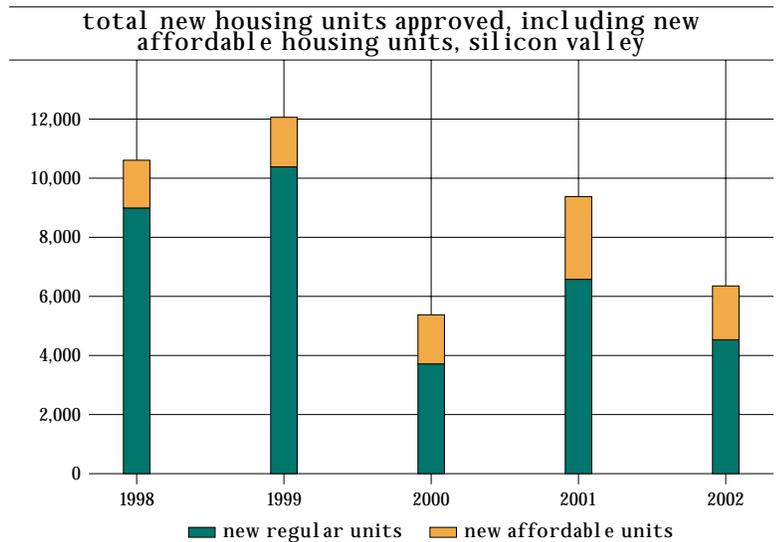
Our economy and community life depend on a broad range of jobs. Building housing that is affordable to lower- and moderate-income households provides access to opportunity and maintains balance in our communities. This indicator measures housing units approved for development by Silicon Valley cities in each fiscal year; this is a more “upstream” measure than actual housing starts.

HOW ARE WE DOING?

The number of new housing units that Silicon Valley cities approved for development fell to 6,360 in 2002 from 9,375 in 2001. Of these newly approved units, 29% (1,826 units) will be affordable.

Nearly 76% of the new affordable housing units approved in 2002 will be located in the cities of San Jose and Santa Clara.

Affordable housing is for households making up to 80% of a county’s median income. (In 2001, this income limit was \$76,800 for a family of four in Santa Clara County.) These units are developed primarily by nonprofit housing developers or are set aside as “affordable” within market-rate developments.



Source: City Planning and Housing Departments

Housing Affordability Rises for Second Year in a Row

WHY IS THIS IMPORTANT?

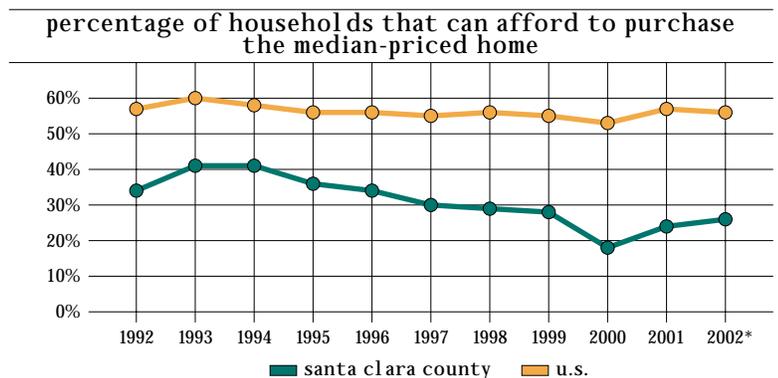
The affordability, variety and location of housing affect a region’s ability to maintain a viable economy and high quality of life. Lack of affordable housing in a region encourages longer commutes, which diminish productivity, curtail family time and increase traffic congestion. Lack of affordable housing also restricts the ability of service workers—such as teachers, registered nurses and police officers—to live in the communities in which they work.

HOW ARE WE DOING?

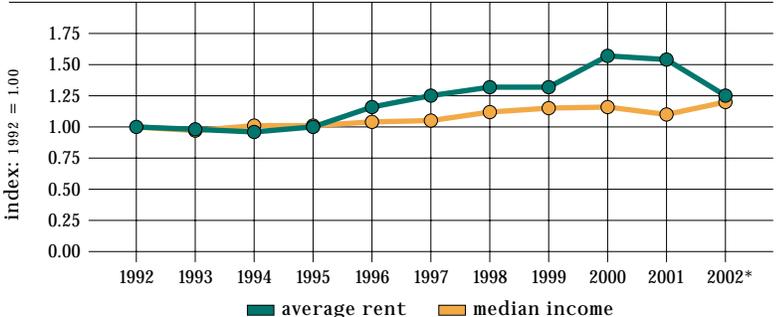
In the third quarter of 2002, 26% of all households could afford the median-priced home sold in Santa Clara County. This is a substantial increase from 18% in 2000, but is still far below the national average of 56%. Lower interest rates and the leveling off of home prices contributed to increased affordability.

Average apartment rental rates at turnover declined 18%, from \$1,700 in 2001 to \$1,400 in the third quarter of 2002. During that same period, occupancy rates fell from 95% to 93%.

According to Census 2000, the average homeownership rate in Silicon Valley was 60%, below the national rate of 66%. However, homeownership rates in the region varied widely by ethnicity. While 70% of White residents owned their homes, only 59% of Asian residents owned theirs. Hispanic residents and African American residents had the lowest rates of homeownership, at 46% and 42%, respectively.



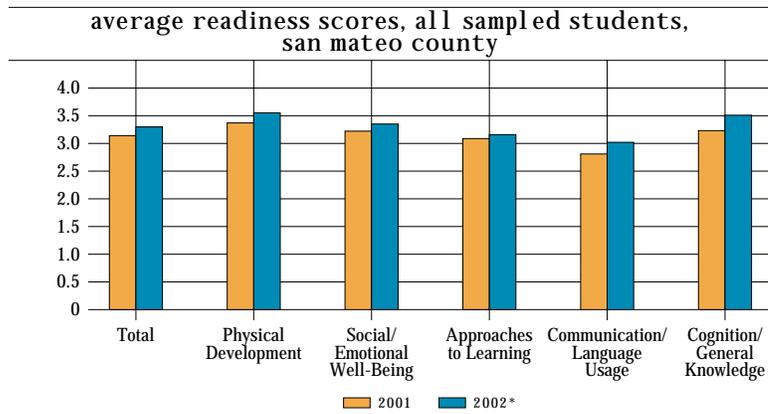
increase in apartment rental rates at turnover compared to increase in median household income, santa clara county



Sources: California Association of Realtors, RealFacts
*Estimate

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.

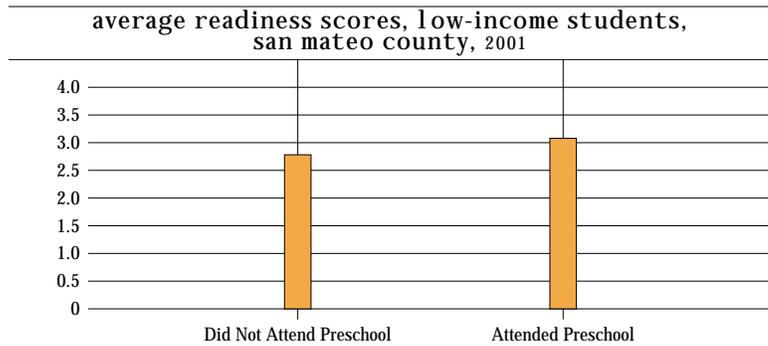
Children Entering Kindergarten Are Most Prepared in Physical Development and General Knowledge; Preschool Aids Low-Income Children



WHY IS THIS IMPORTANT?

One of our country’s national education goals—as stipulated by the National Education Goals Panel, an independent executive branch agency of the federal government charged with monitoring progress toward eight national goals—is to ensure that every child enters kindergarten ready to learn. The Panel recommended the national standard that “All children will have access to high-quality and developmentally appropriate preschool programs that help prepare children for school.”

School readiness is a proven foundation for later academic success and is a function of the stimulation and experience of the child as an infant, toddler and preschooler. Brain development that occurs during the first years of life lays the foundation for cognitive and language skills, social functioning, motor skills and emotional well-being. Preparedness for kindergarten is an important indicator of the effectiveness of our region’s early childhood development efforts.



HOW ARE WE DOING?

San Mateo County is one of the first communities in the nation to develop a systematic way of measuring progress in school readiness. Through the Peninsula Partnership for Children, Youth, and Families—an initiative of the Peninsula Community Foundation and San Mateo County in partnership with Applied Survey Research—kindergarten teachers have evaluated a representative sample of entering students in 2001 and 2002 on five dimensions of school readiness. This represents the first time since *Silicon Valley 2010* that we have been able to track school readiness.

On average, entering kindergartners scored highest on physical development and general knowledge. The weakest skill area was communication and language skills. Preliminary 2002 data suggest that readiness scores in all categories improved slightly from 2001.

The school readiness data also showed that the strongest predictor of children’s readiness for kindergarten is family income level, but that participation in a formal, curriculum-based preschool experience helps mitigate the potential disparity between low-income children and their peers. Low-income children with formal preschool experience performed significantly better than did low-income children without formal preschool.

Sources: Peninsula Community Foundation, Applied Survey Research
 Note: Scores reflect a four-point continuum of proficiency, with 1.0 being “not yet,” 2.0 being “beginning,” 3.0 being “in progress” and 4.0 being “proficient.”
 *Preliminary data

Third-Grade Reading Scores for English Learners Improve

WHY IS THIS IMPORTANT?

Research shows that students who do not achieve reading mastery by the end of third grade risk 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.

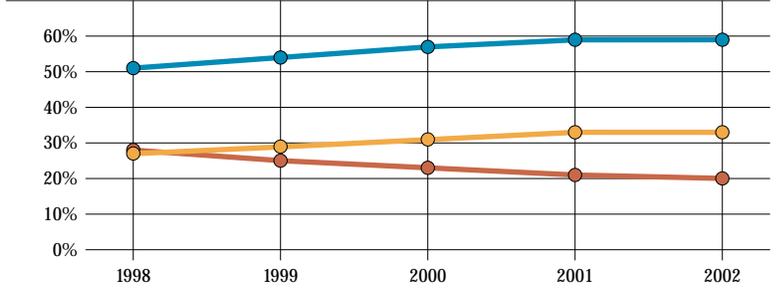
HOW ARE WE DOING?

Fifty-nine percent of Silicon Valley third-graders scored at or above the national median for reading comprehension in 2002, the same as in 2001. Thirty-three percent of the third-grade readers scored in the top quartile, also the same as in 2001. The share of students scoring in the bottom quartile declined slightly, from 21% in 2001 to 20% in 2002.

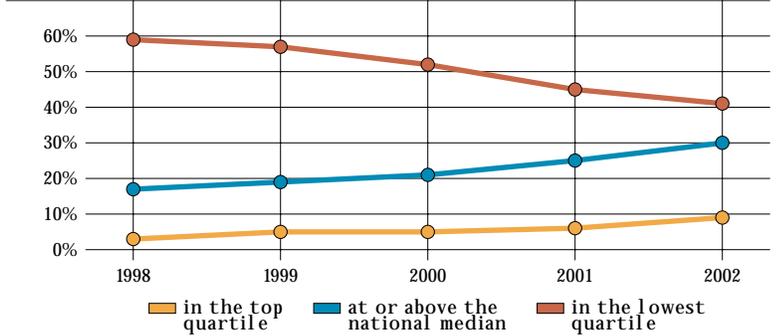
Although these data were largely unchanged in 2002, Silicon Valley third-graders' SAT 9 reading scores have improved against national benchmarks since 1998.

The reading scores for English Learners improved in 2002. Thirty percent of third-grade English Learners scored at or above the national median in 2002, compared to 25% in 2001. English Learners scoring in the top quartile grew from 6% in 2000 to 9% in 2002. The share of English Learners scoring in the lowest quartile continued trending downward to 41%.

share of silicon valley third-graders scoring at national benchmarks on sat 9 reading test



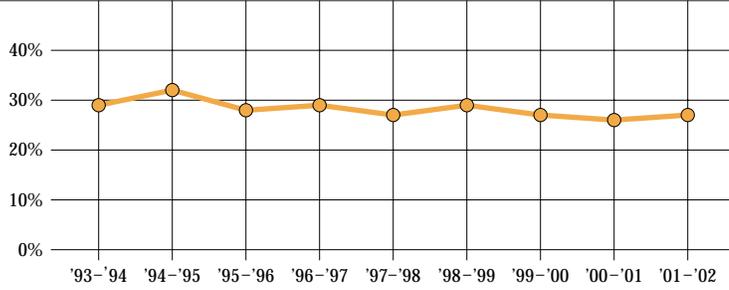
share of silicon valley third-grade english learners scoring at national benchmarks on sat 9 reading test



Source: California Department of Education

Enrollment in Intermediate Algebra Varies Widely by Ethnicity

percentage of 10th- and 11th-grade students enrolled in intermediate algebra



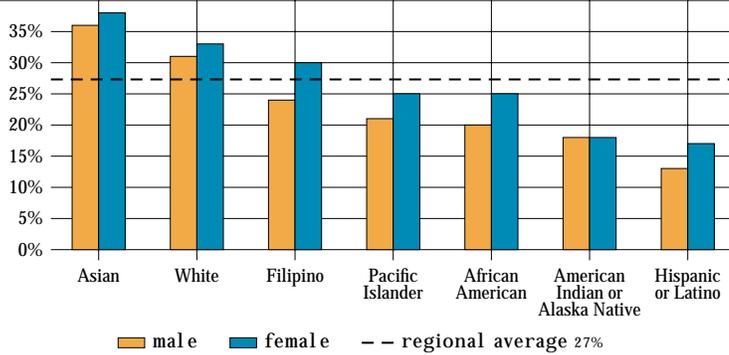
WHY IS THIS IMPORTANT?

Completing Algebra I and moving on to advanced math courses is important for students planning to enter postsecondary education as well as for students entering the workforce after high school. This indicator shows the share of 10th- and 11th-grade students enrolled in Intermediate Algebra. Intermediate Algebra is one of the courses required for UC/CSU entry.

HOW ARE WE DOING?

In school year 2001-02, 27% of Silicon Valley's 10th- and 11th-graders were enrolled in Intermediate Algebra. Since the mid-1990s, the share enrolled has hovered around 27%. This figure is slightly lower than the 2001-02 statewide level of 28.5%.

percentage of high school students enrolled in intermediate algebra, by ethnicity and gender, 2001-02

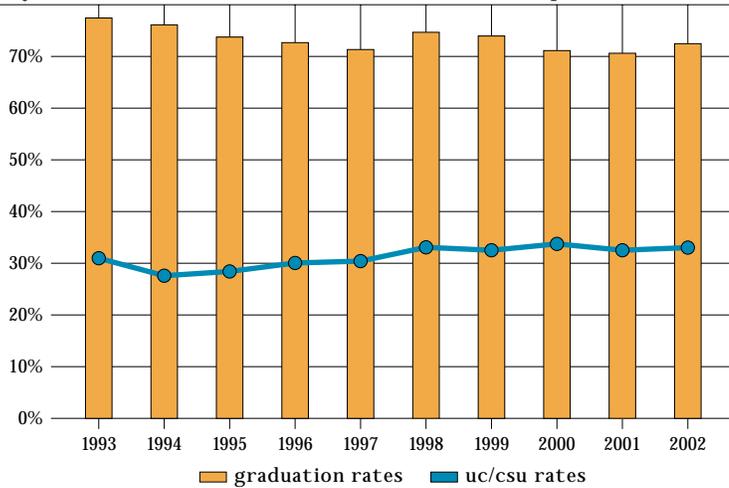


The disparity in Intermediate Algebra enrollment across ethnicities is wide. On average, only 15% of Hispanic students were enrolled in Intermediate Algebra. At the high end, 37% of Asian students were enrolled, followed by White students at 32%, Filipino students at 27%, Pacific Islander students at 23%, African American students at 22% and American Indian or Alaskan Native students at 18%.

Source: California Department of Education

Graduation Rate Increases for the First Time since 1998; Share of Students Meeting UC/CSU Requirements Remains Constant

percentage of high school freshmen who graduated in four years and those who met uc/csu course requirements



WHY IS THIS IMPORTANT?

Passing a breadth of core courses required for college entry is a measure of educational achievement and readiness for future learning. Completing some type of education beyond high school is increasingly important for participating in the medium- and higher-wage sectors of the Silicon Valley economy.

HOW ARE WE DOING?

In 2002, 72% of students who had entered high school as freshmen in 1998 graduated. The graduation rate increased 1.8 percentage points, the first increase in the regional graduation rate since 1998.

In 2002, 33% of students who had entered high school as freshmen in 1998 both graduated and met the course requirements for entrance to UC/CSU. The share of graduates completing the UC/CSU requirements rose modestly during the mid- to late 1990s, while graduation rates declined slightly. Statewide, only 25% of students who entered school as freshmen four years prior both graduated and completed the UC/CSU course requirements in 2001.

Source: California Department of Education

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

Per Capita Transit Ridership Declines by 7%

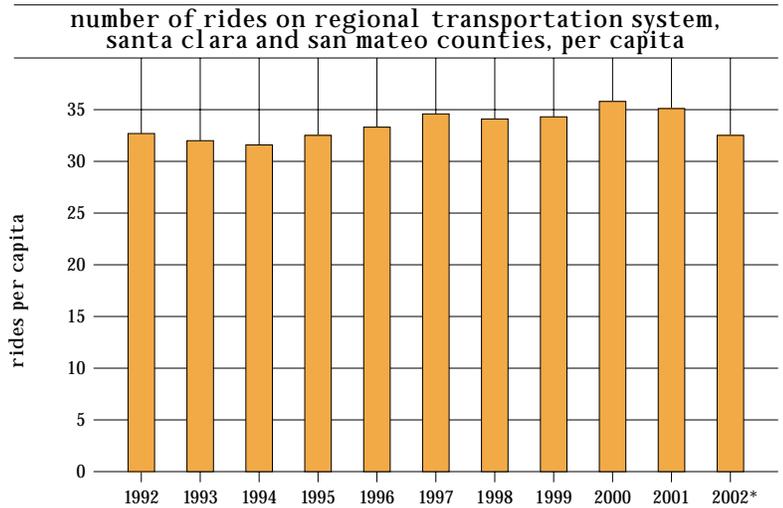
WHY IS THIS IMPORTANT?

A larger share 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 in employment and shopping centers increases opportunities for walking, bicycling and using public transportation instead of driving.

HOW ARE WE DOING?

Per capita transit ridership declined 7% in 2002, from 35.1 annual rides to 32.5 rides.

Ridership declined least on the VTA/SamTrans bus systems, and most on Caltrain, the VTA trolley/light rail and the Altamont Commuter Express. The decline in transit ridership is generally attributed to the region's drop in employment.



Sources: SamTrans, Valley Transportation Authority, Altamont Commuter Express
*Estimate

Rail Network More than Doubled between 1990 and 2002

WHY IS THIS IMPORTANT?

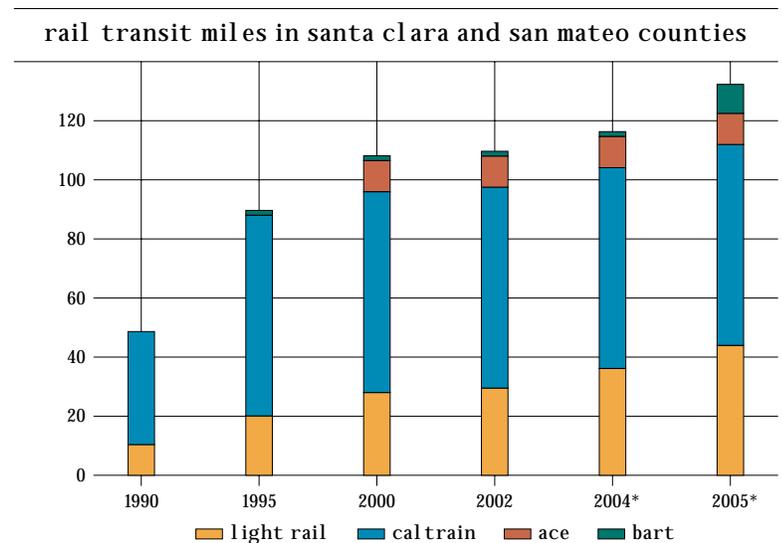
A strong Silicon Valley economy depends on a regional transportation system that can move people and goods quickly and efficiently. Expanding the geographic reach of our public transportation assets is important for increasing ridership and for safeguarding environmental quality, economic vitality and quality of life. This indicator measures expansion of the rail network, an integral part of our transportation infrastructure.

HOW ARE WE DOING?

From 1990 to 2002, rail transit miles in Santa Clara and San Mateo counties increased from 49 to 110. Driving this increase were a tripling of the light rail infrastructure and the addition of both the ACE commuter line to the South Bay and Caltrain service from San Jose to Gilroy.

By 2005, rail capacity is planned to top 132 miles with the new Vasona light rail line, additions to the Tasman line, and the BART extension from Colma to Millbrae.

The size of the VTA/SamTrans bus network increased from 2,242 miles to 2,348 miles between 1990 and 2002. Miles of service operated (a measure of bus frequency and hours of operation) decreased from 31 million miles to 30 million miles during this period.

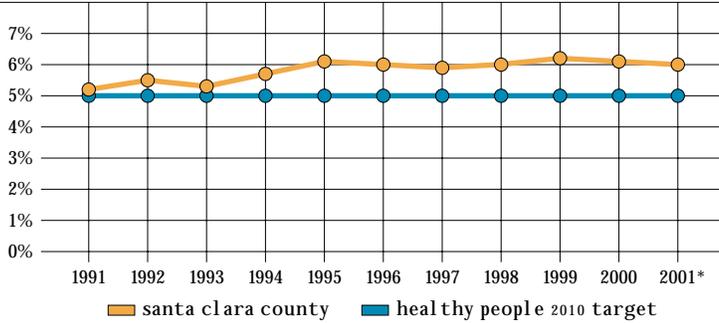


Sources: Caltrain, SamTrans, Valley Transportation Authority
*Projected

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

Hospitalization for Childhood Asthma Increases, Now Exceeds Federal Target

percentage of births that are low weight



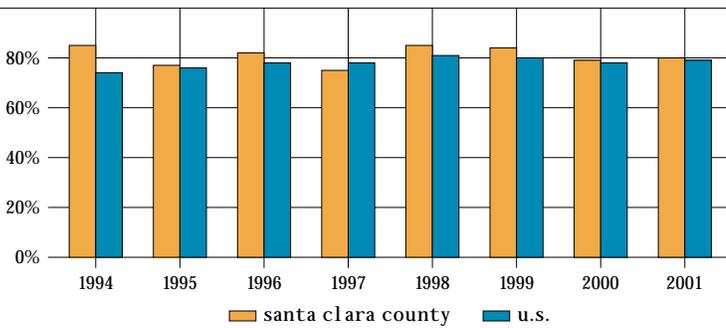
WHY IS THIS IMPORTANT?

This section reports on three key measures of children’s health: asthma hospitalization rates, low-weight births and childhood immunization rates.

Hospitalizations for childhood asthma reflect poor access to routine health care and degraded environmental quality. 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 reduce medical costs.

Poor health outcomes generally correlate with poverty, which correlates with poor access to preventive health care and education.

immunization levels of children ages 18–35 months



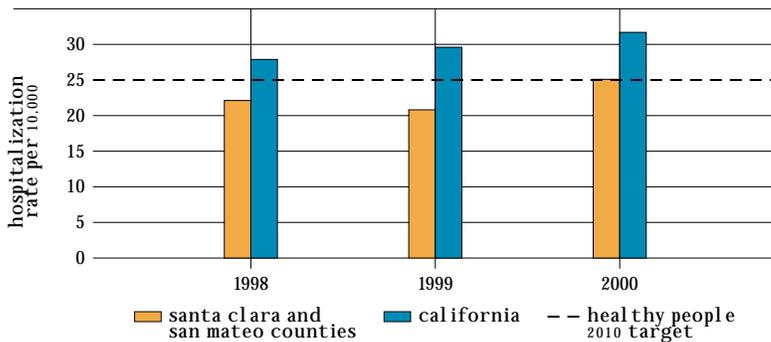
HOW ARE WE DOING?

Hospitalization rates for childhood asthma in Santa Clara and San Mateo counties increased from 21 per 10,000 in 1999 to 25 per 10,000 in 2000. Previously, our region had performed below the Healthy People 2010 Target set up by the U.S. Public Health Service. Despite the increase in asthma hospitalization rates, our region performs significantly better than the California average of 32 per 10,000.

The share of low-weight births in Santa Clara County declined very slightly from 6.1% in 2000 to an estimated 6.0% in 2001. This rate fails to meet the Healthy People 2010 Target of 5%.

Immunization rates for children aged 18–35 months in Santa Clara County went from 79% in 2000 to 80% in 2001.

childhood asthma hospitalization rates for children 0–5



Sources: California Department of Health Services, Santa Clara County Department of Public Health, Centers for Disease Control

*Estimate

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

Violent Crime Rate Increases Slightly; Juvenile Arrests Decline 22%

WHY IS THIS IMPORTANT?

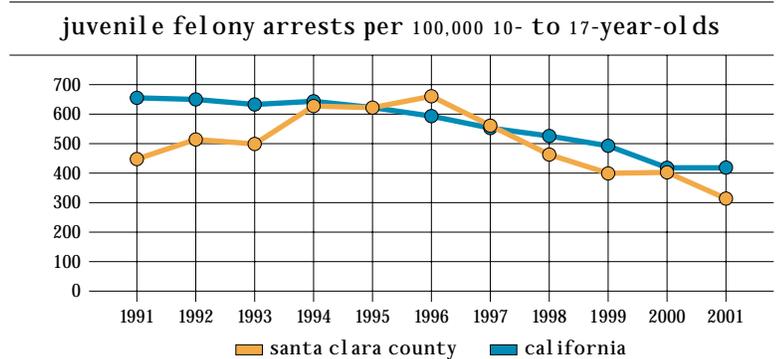
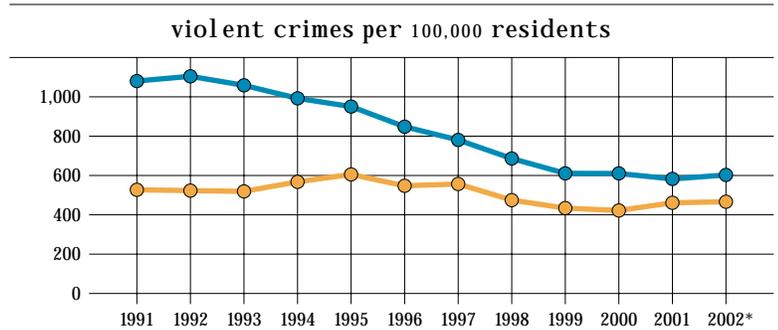
The level and perception of crime in a community are significant factors that affect quality of life. Crime has wide-ranging effects on communities. In addition to economic costs, the fear, frustration and instability resulting from crime chisel away at our sense of community and undermine people's ability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

HOW ARE WE DOING?

The violent crime rate increased slightly more than 1% in Santa Clara County, from 461 crimes per 100,000 residents in 2001 to an estimated 467 per 100,000 residents in 2002. This is the second increase in the county's violent crime rate since 1997. At the state level, preliminary estimates for 2002 indicate an increase of 3.3% in violent crime.

Juvenile felony arrest rates for violent crimes in Santa Clara County decreased 22%, from 403 crimes per 100,000 10- to 17-year-olds in 2000 to 314 per 100,000 in 2001.

Santa Clara County began the 1990s with violent crime and juvenile felony arrest rates much lower than the California average. By 2001, however, the county's crime rates more closely matched those of the state, which have been decreasing steadily.



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.

40% of Districts Align Music and Visual Arts Education with New State Standards

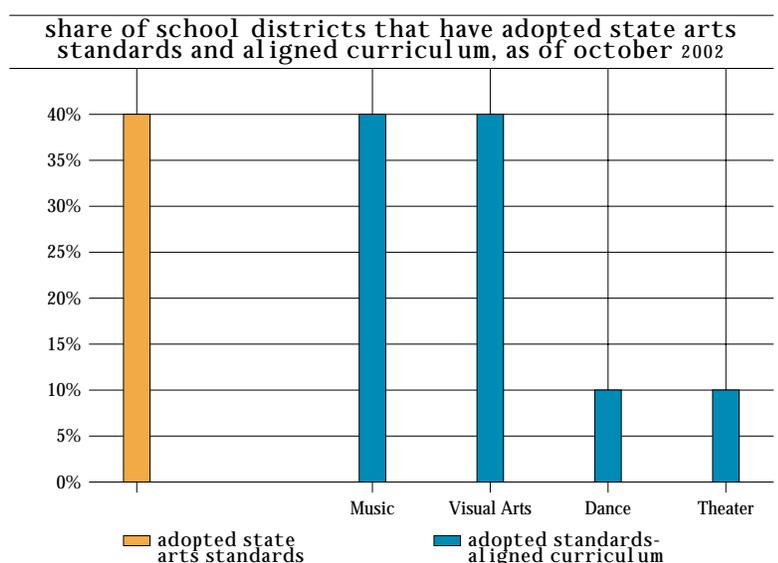
WHY IS THIS IMPORTANT?

Creative people are crucial to an economy based on innovation. Continuous, sequential arts education can play a critical role in developing the creative, intellectual and collaborative capacities of the region's young people.

As part of an increased State-level emphasis on arts education, the California State Board of Education in January 2001 adopted *Visual and Performing Arts Content Standards*, which specify what students from prekindergarten to grade 12 should know about dance, theater, music and visual arts. This indicator looks at how many Silicon Valley school districts have adopted these standards and how many have aligned their arts curricula with them.

HOW ARE WE DOING?

Forty percent of the region's 48 school districts have formally adopted the new state standards as their criteria for arts education. All districts that have adopted the content standards have taken the further step of actually aligning their curricula to the standards in visual arts and music. Only 10% of districts have aligned their curricula to the standards for dance and theatre.

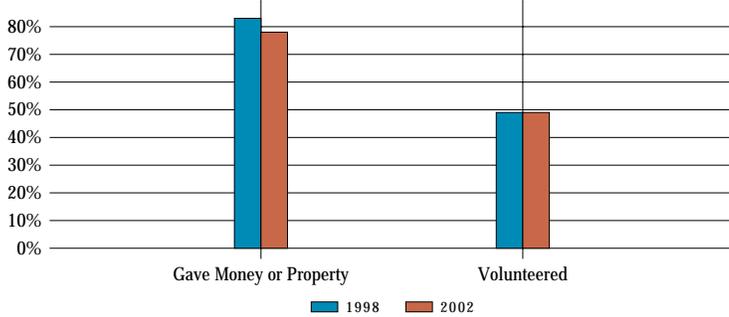


Source: Cultural Initiatives Silicon Valley

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.

Fewer Households Give, but Increased Proportion Make Large Gifts

household giving and individual volunteering in silicon valley, 1998 and 2002



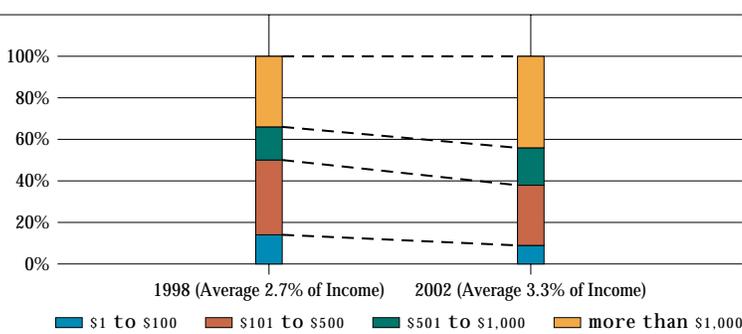
WHY IS THIS IMPORTANT?

The rates of individual giving and volunteerism are important indicators of community members’ commitment to making the region a better place to live and work. The long-term vitality of the region’s economy depends, ultimately, on the health and quality of community life.

HOW ARE WE DOING?

In 2002, 78% of households in Silicon Valley reported donating money or property to a charity or nonprofit organization, down slightly from 83% in 1998. However, the share of donating households that contributed more than \$1,000 increased from 34% to 44%. Giving as a percentage of household income rose from 2.7% to 3.3% during this period.

value of household charitable donations, 1998 and 2002



In 2002, nearly half (49%) of Silicon Valley residents reported volunteering in the community, the same as four years ago. The average number of hours volunteered per month fell from 16.1 hours in 1998 to 13.8 hours in 2002. Virtually all volunteers also gave money or property to charity. For additional information on giving and volunteering in Silicon Valley, see Community Foundation Silicon Valley’s 2002 report, *Giving Back: The Silicon Valley Way* at www.cfsv.org.

Source: Community Foundation Silicon Valley

Voter Participation Declines from Previous Midterm Elections

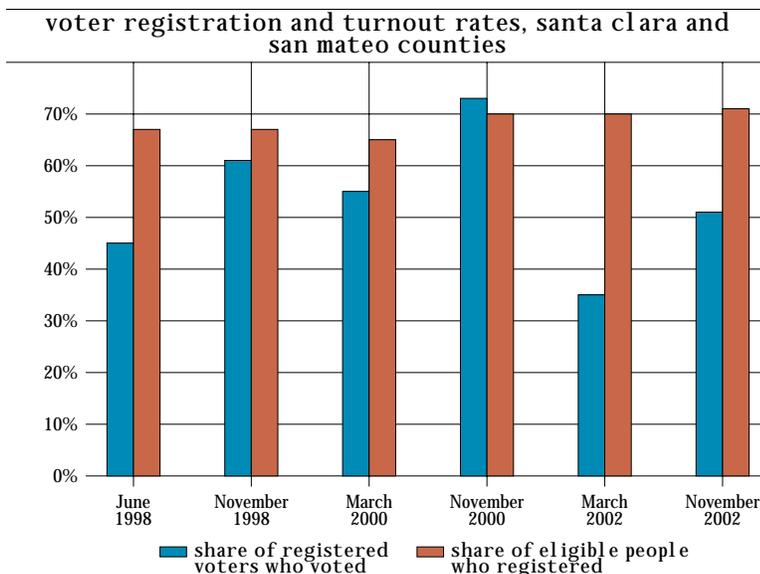
WHY IS THIS IMPORTANT?

Voter participation is an indicator of civic engagement and reflects community members' commitment to a democratic system, confidence in political institutions and optimism about the ability of individuals to affect public decision-making.

HOW ARE WE DOING?

In the most recent general election in November 2002, 52% of all registered voters in Santa Clara and San Mateo counties cast a ballot. This voter turnout is significantly lower than in the previous midterm general election (November 1998), in which 61% of registered voters in Santa Clara and San Mateo counties voted. Even with the low turnout, our region's voter turnout was slightly higher than California's (50%).

On the other hand, the share of eligible residents who are registered has increased from 67% in 1998 to 71% in November 2002 and is equivalent to California's share of registered voters.



Source: California Secretary of State

Corporations Contribute 7% of Nonprofits' Income, Half the 1998 Level

WHY IS THIS IMPORTANT?

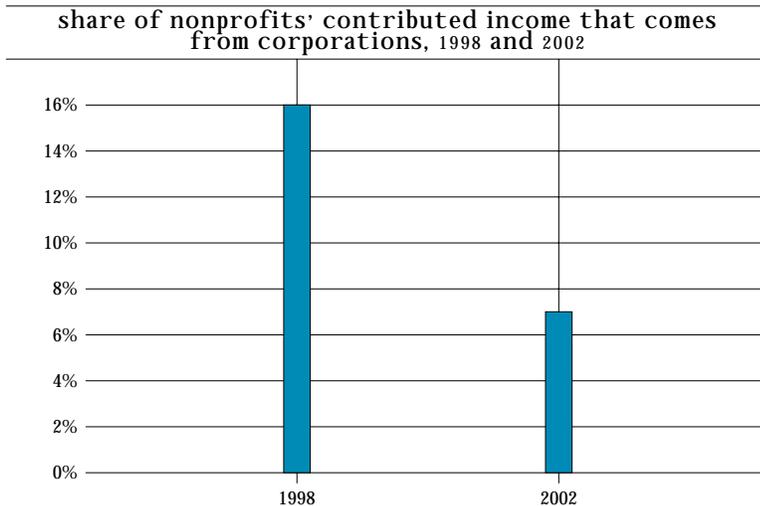
Business leaders have unique talents, perspectives and resources to contribute to building a strong region. Their ability to both identify and support strategies for addressing regional challenges is essential to effective regional stewardship. This indicator looks at corporate contributions to the public benefit (nonprofit) sector, a useful gauge of the business community's commitment to such stewardship.

HOW ARE WE DOING?

A 2002 survey of public benefit organizations in Silicon Valley found that 7% of their contributed income came from corporations. This is a decrease from 16% in 1998.

The survey also found that 46% of the organizations' board members/trustees are private-sector senior executives or business owners.

The 55 organizations that responded to the survey primarily were long-standing, stable public benefit corporations with annual budgets of between \$500,000 and \$3 million.



Sources: Community Foundation Silicon Valley, Peninsula Community Foundation

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.

Award-Winning Program Offers Incentives for Transit-Oriented Development in San Mateo County



Source: City/County Association of Governments of San Mateo County

WHY IS THIS IMPORTANT?

The City/County Association of Governments of San Mateo County—representing every city in San Mateo County, the County and the county transportation agency—has created a unique County Congestion Relief Plan that encourages local jurisdictions to develop creative solutions to reducing the traffic impacts of development.

Established in 1999, the Transit-Oriented Development (TOD) Incentive Program pays cities, or the County itself, up to \$2,000 for each bedroom they locate within one-third mile of a Caltrain or BART station at a density of at least 40 units per acre.

HOW ARE WE DOING?

Since its inception, the TOD Incentive Program has committed \$6 million for incentives, primarily by steering up to 10% of the County's state transportation funds into the program's funding pool. During the first incentive cycle, \$2.3 million in incentives was provided to five projects, which together totaled 754 units with 1,282 bedrooms. These projects are in Redwood City, in San Carlos and near the Colma BART station. The second incentive cycle attracted applications for projects in Menlo Park, Millbrae, San Bruno, San Mateo and South San Francisco.

This collaborative effort can serve as a model for local jurisdictions working together across boundaries to address critical housing and transportation issues. In November 2002, the TOD Incentive Program was recognized as one of four winners of the U.S. Environmental Protection Agency's first national "Smart Growth" award. The program has been replicated by the nine-county Bay Area's Metropolitan Transportation Commission and has become the object of inquiries from other cities, counties and states across the nation.

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.

Since Proposition 13, the Majority of Property Tax Has Not Funded City Government

WHY IS THIS IMPORTANT?

In order for cities to maintain basic services and invest in community infrastructure, local government revenues and expenditures must keep pace with population and job growth. Many people believe that most of their property tax payments fund local government services in the city in which they live. Property tax is the most stable source of local revenue. It fluctuates much less over time than do sales tax and income tax, and grows consistently with the wealth of a community.

This indicator measures the proportion of property tax revenue that goes toward city government.

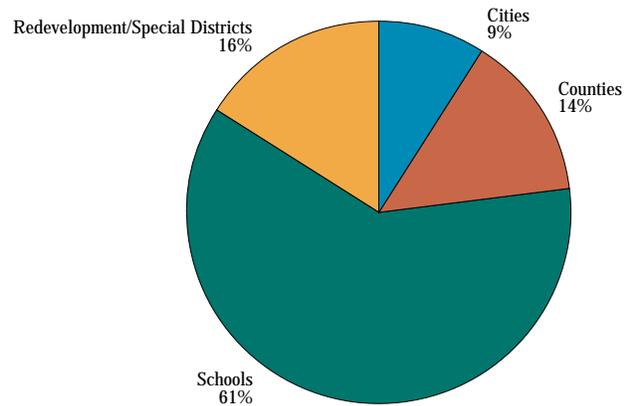
HOW ARE WE DOING?

With the passage of Proposition 13 in 1978, property taxes were capped (with a maximum of 2% annual growth) and were redistributed by the State so that a smaller proportion of property tax paid by local residents and businesses funded city government. In the early 1990s, the State shifted additional property taxes away from the cities and other local government in order to fund state contributions to education. The net result is that cities receive only a small fraction of property tax revenues. In 2000–01, for example, only 9% of property taxes in Santa Clara and San Mateo counties supported city governments; 14% funded county governments. Sixty-one percent of property taxes went to public schools, and 16% went to special districts (e.g., library systems) or redevelopment districts.

City governments are therefore increasingly dependent on sales tax and fee revenue. Reliance on sales tax, the first revenues to decline in difficult economic times, causes local government revenues to fluctuate dramatically. Moreover, reliance on sales tax forces jurisdictions to lure retail stores and businesses that generate sales tax, rather than attracting new housing, which generates property tax. An additional challenge to stable city finances is Silicon Valley's move toward an economy based on high-end services and knowledge creation, economic activities that do not generate sales tax.

Also since Proposition 13, the State has had the authority to determine how property tax revenues are allocated among political jurisdictions, leaving cities particularly vulnerable to state revenue take-backs. To balance its budget, the State—as of December 2002—had taken back 20% of the local property tax revenue that was previously allocated to cities and counties, curtailed reimbursement for State-mandated programs, and shifted a portion of redevelopment agency property tax revenues on a one-time basis, thereby reducing the funds local governments have available for community revitalization, economic development and affordable housing during 2002–03.

allocations of local property taxes to different jurisdictions, santa clara and san mateo counties, 2000–01



Sources: UC Davis, State Board of Equalization

Appendix A: Data Sources

SPECIAL ANALYSIS

ECONOMIC STRUCTURE ANALYSIS

Silicon Valley employment data are provided by the California Employment Development Department (EDD) and come from the ES-202 data series. Employment figures by industry sector comparing 1992 and 2001 data are presented using SIC-based cluster groupings as defined in the *2002 Index of Silicon Valley*. For further discussion of Silicon Valley's changing economy, see the *2002 Index of Silicon Valley* Special Analysis on pages 6 and 7.

For more information on the North American Industry Classification System, please see the U.S. Census Bureau Web site at <http://www.census.gov/epcd/www/naics.html>. Data for Silicon Valley's new industry cluster portfolio are provided by EDD and come from Joint Venture's Silicon Valley data set. National 2001 data used to calculate employment concentration for Silicon Valley in the cluster portfolio come from the Bureau of Labor Statistics, Covered Employment and Wages (CEW) data series. The CEW is directly comparable to the ES-202 data series provided by EDD.

POPULATION ANALYSIS

The question on race for Census 2000 was different from the one for the 1990 Census in several ways. Most significantly, respondents were given the option of selecting one or more race categories to indicate their racial identities. Previously the only choices were: white, Black, Hispanic, Asian, or American Indian or Alaska Native. These five categories were expanded in the Census 2000 to include: Pacific Islander or Hawaiian Native, Multiracial, or Other. Even more importantly, people were allowed to check as many categories as they thought appropriate, resulting in a matrix of 63 racial categories compared to 5 in 1990. Because of these changes, the Census 2000 data on race are not directly comparable with data from the 1990 Census or earlier censuses. Caution must be used when interpreting changes in the racial composition of the Silicon Valley population over time.

For an in-depth discussion of Census 2000 race and ethnicity categories, see the discussion of "Racial and Ethnic Classifications Used in Census 2000 and Beyond" on the U.S. Census Bureau Web site <http://landview.census.gov/population/www/socdemo/race/racefactcb.html>

Data on net migration and natural population increase were provided by the California Department of Finance. Domestic migration flow data are from the Internal Revenue Service and analyzed by Robert Cushing and Collaborative Economics. "Southern California" is San Diego, CA MSA, Los Angeles-Long Beach, CA, PMSA and Riverside-San Bernardino, CA PMSA. "New York" is the New York MSA. "Boston" is Boston, MA-NH PMSA. "Chicago" is the Chicago, IL PMSA. "Washington, D.C." is the DC-MD-VA-WV PMSA. "Detroit/Ann Arbor" is the Detroit, MI PMSA. "Other Bay Area" includes the counties of San Francisco, Santa Cruz, San Benito, Contra Costa, Alameda, Sonoma, Napa and Monterey. The "Central Valley" includes the counties of Butte, Fresno, Madera, Kern, Merced, San Joaquin, Stanislaus and Tulare. "Sacramento" is Sacramento, Yolo, Yuba and Placer counties. "Portland" is the Portland-Vancouver, OR-WA PMSA. "Seattle" is the Seattle-Bellevue-Everett, WA PMSA. "Las Vegas" is the Las Vegas, NV-AZ MSA.

IRS migration flow data count only those residents who filed income tax returns with the IRS. IRS data may undercount the total number of residents flowing in and out of Silicon Valley.

REGIONAL TREND INDICATORS

REGION LOSES JOBS FOR SECOND YEAR

The California Employment Development Department (EDD) and Joint Venture: Silicon Valley Network have constructed a unique data set to track employment and pay in the Silicon Valley region on the basis of unemployment insurance filings. This data set begins in 1992 and is updated quarterly. This data set does not include self-employment, agriculture workers or military personnel. Job data include both part-time and full-time employees, or all people on the payroll.

Joint Venture's Silicon Valley data set provides the most up-to-date employment estimates for the entire region through the second quarter of 2002.

EMPLOYMENT DECLINES ACROSS ALL CLUSTERS; SOFTWARE IS HARDEST HIT

Cluster and other industry employment estimates are drawn from the EDD/Joint Venture: Silicon Valley Network data set and are based on the North American Industry Classification System (NAICS). Appendix B provides NAICS-based definitions for each of Silicon Valley's industry clusters.

AVERAGE PAY DECLINES BY 6%

Data are derived from the EDD/Joint Venture: Silicon Valley Network data set, the Average Annual Wage Levels in Metropolitan Areas report of the Bureau of Labor Statistics, and Economy.com. This information comes from individual firm reporting of payroll amounts in compliance with unemployment insurance rules. All wages have been adjusted into 2002 dollars using the San Francisco-Oakland-San Jose Consumer Price Index (CPI) published by the Bureau of Labor Statistics.

Pay includes bonuses, stock options, the cash value of meals and lodging, and tips and other gratuities. Pay per employee is calculated by dividing annual (quarter two to quarter two) payroll for each industry by annual average employment (quarter two to quarter two).

CORPORATE OFFICES CLUSTER HAS HIGHEST AVERAGE PAY

Average pay per employee for each cluster was derived from the EDD/Joint Venture: Silicon Valley Network data set and are based on the North American Industry Classification System (NAICS). Appendix B provides NAICS-based definitions for each of Silicon Valley's industry clusters.

OFFICE VACANCY RATES REACH 20%; LEASE RATES FALL TO 1997 LEVEL

The data set for this indicator was provided by BT Commercial Real Estate. Data are for R&D and office space combined. Vacancy rate is calculated by dividing space available through either direct lease or sublease by total inventory. Data cover all the cities in Silicon Valley as defined in Appendix B. Annual vacancy rates and average asking rates are based on fourth-quarter numbers.

PROGRESS MEASURES FOR SILICON VALLEY 2010**NUMBER OF GAZELLE COMPANIES FALLS TO 9, THE LOWEST LEVEL SINCE 1992**

The data set for this indicator was provided by Standard & Poor's. Gazelles are companies with annual compound revenue of 20% or more for four consecutive years, beginning with revenues of \$1 million. This indicator uses annual average revenue reported for publicly traded companies in Silicon Valley. 2002 revenue growth is revenue for the latest 12-month period (September to September) divided by annual average revenues for 2001.

VENTURE CAPITAL INVESTMENT RETURNS TO 1998-99 LEVELS

Data are provided by the MoneyTree Survey, a partnership of PricewaterhouseCoopers, Venture Economics and the National Venture Capital Association. For the *Index of Silicon Valley*, only investments in firms located in Silicon Valley, based on Joint Venture's ZIP-code-defined region, were included. Total 2002 venture capital funding level is an estimate based on the first three quarters of data and historical growth patterns in the fourth quarter.

ALMOST 400 PUBLIC COMPANIES ARE HEADQUARTERED IN SILICON VALLEY, AN 80% INCREASE OVER 1992

Data for headquarters are provided by Standard & Poor's.

REAL PER CAPITA INCOME DECLINES BY 4%

Data are from the U.S. Census Bureau and Economy.com. Data for Santa Clara and San Mateo counties are inflation adjusted using the San Francisco–Oakland–San Jose Consumer Price Index. U.S. inflation adjustments use the All Urban Consumer CPI estimates.

VALUE ADDED PER EMPLOYEE INCREASES AGAIN

Value added is the sum of compensation paid to labor within a sector and profits accrued by firms. Value-added estimates are constructed using productivity estimates at higher geographic levels (state and national) and applying them to employment and wage/income data at the metropolitan level.

With regard to temporary employees: At the industry level, value added is shared between personnel supply companies and the companies that utilize the labor services of those contracted employees.

ANNUAL INCOME FOR LOW-INCOME HOUSEHOLDS SURPASSES 1993-94 LEVELS FOR THE FIRST TIME

Data are from the March Supplement of the Census Bureau's Current Population Survey (CPS). The CPS sample was determined to be generally representative of Santa Clara County by comparing variables of income, age, gender and race/ethnicity to data reported in the 1990 Census.

Household income includes both earned and unearned income for all persons living in the same household. Household income is adjusted for household size by doubling household income and dividing it by the square root of the number of household residents. All incomes are adjusted for inflation using the San Francisco–Oakland–San Jose CPI.

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. Household incomes are averaged over a three-year period to increase the reliability of reported income estimates. Data are more useful for tracking long-term trends than for noting specific year-to-year movements. Over time, specific households move up and down the distribution. Data on this "mobility" are not available at the regional level.

For an in-depth analysis of income distribution in California, see *The Distribution of Income in California* (Reed, Haber, Mameesh, 1996) published by the Public Policy Institute of California (PPIC). Joint Venture followed this methodology to generate this indicator. Deborah Reed of PPIC provides national household income statistics.

CONCENTRATION OF POVERTY SLIGHTLY CHANGED BETWEEN 1990 AND 2000

Data are from Summary File 3 of the 2000 Census. 1990 data were recomposed into 2000 census tract shapes using the National Change Database from Geolytics. For further discussion of geographic concentration of poverty and its impact on regions, see Pastor, M. (2000) *Regions That Work: How Cities and Suburbs Can Grow Together*. Minneapolis: University of Minnesota Press.

CHILD CARE PROVIDERS' EDUCATION LEVELS VARY BY TYPE OF CARE AND STAFF POSITION

Data on education levels of family care providers are from the California Child Care Workforce Study, a joint effort by The Center for the Child Care Workforce, The California Child Care Resource & Referral Network, and The Institute of Industrial Relations at University of California, Berkeley. The education level of child care providers in child care centers was determined by taking a weighted average of staff education levels.

HALF OF FAST-GROWTH JOBS REQUIRE BACHELOR'S DEGREES, WHILE HALF REQUIRE NO FORMAL POSTSECONDARY EDUCATION

Data are provided by California Employment Development Department. The 15 occupations with the greatest absolute job growth between 1995 and 1999 were: Electrical Equipment Assemblers; Computer Support Specialists; Computer Programmers; Computer Engineers; General Managers/Top Executives; Janitors/Cleaners (Except Maids); Laborers, Landscaping, Groundskeeping; Carpenters; Waiters & Waitresses; Production Inspectors, Testers, Graders; Systems Analysts, Electronic Data Processing; Elementary School Teachers; Truck Drivers, Light; Accountants & Auditors; Restaurant Cooks. Wage data are for Santa Clara County for 2001. Occupational training and education classifications came from the Bureau of Labor Statistics (BLS). The following definitions apply: Experience/Long-Term Training require skills obtained through work experience in a related occupation and/or more than 12 months of on-the-job training or combined work experience and formal classroom instruction for workers to develop the skills needed for average job performance. Short/Moderate On-The-Job Training includes occupations in which workers can develop skills needed after a short demonstration or up to one month of on-the-job experience and instruction (short) and/or occupations in which workers can develop average job performance after 1 to 12 months of combined on-the-job experience and informal training (moderate). Classification of technical and nontechnical bachelor's degrees was determined by Collaborative Economics. General managers were coded as nontechnical although they may work for a technical company.

NUMBER OF MATH, SCIENCE AND ENGINEERING GRADUATES INCREASED 18% IN 1990s, LED BY ASIAN STUDENTS AND WOMEN

Data are from the National Science Foundation. They include Bachelor's, Master's, and Doctorate degrees from the following educational institutions: Cogswell Polytechnical College, Menlo College, San Francisco State University, San Jose State University, Santa Clara University, Stanford University, University of California-Berkeley, University of California-San Francisco, University of California-Santa Cruz, University of San Francisco. Data are aggregated across the following disciplines: Engineering (Aerospace, Chemical, Civil, Electrical, Industrial, Materials, Mechanical, Other); Math and Computer Sciences (Mathematics and Statistics, Computer Science, Other Math Sciences); Science and Engineering Technologies (Science Technologies, Engineering Technologies, Health Technologies, Other Science and Engineering Technologies). Data for 1999 was not available from NSF.

GASOLINE CONSUMPTION RISES TO 754 GALLONS PER DRIVER

The Silicon Valley Environmental Partnership developed this indicator using data on gasoline sales provided by the State Board of Equalization. Commute modes are from the RIDES for Bay Area Commuters Annual Survey.

RELEASE OF TOXIC CHEMICALS DECLINES AND STABILIZES

Data are from the U.S. Environmental Protection Agency, Region 9 and are for the Silicon Valley region. The Toxic Release Inventory program mandates that businesses that reach certain threshold limits for a list of more than 650 chemicals and chemical categories report chemical release information. Total pounds released does not equate directly with health risk. To evaluate risk, release data must be combined with information about chemical toxicity, site-specific conditions and exposure. Release data for 1999 and 2000 are falsely high due to erroneous over-reporting from one facility. A review and preliminary correction of this error indicates that total releases in 1999 and 2000 have remained stable, rather than increased. For further information, see www.epa.gov/triexplorer and www.epa.gov/enviro.

PERMANENTLY PROTECTED OPEN SPACE INCREASES TO 26%

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. 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.

REGION IS CURTAILING URBAN SPRAWL THROUGH EFFICIENT LAND USE

Land-use data for cities in Silicon Valley were provided by city planning and housing departments as well as city managers. Data were compiled and analyzed by Joint Venture and Collaborative Economics. Participating cities include Atherton, Belmont, Campbell, Cupertino, East Palo Alto, Foster City, Fremont, Gilroy, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Newark, Palo Alto, Redwood City, San Carlos, San Jose, San Mateo, Santa Clara, Saratoga, Scotts Valley, Sunnyvale and Union City. Unincorporated Santa Clara County is also included. Data are for fiscal year 2002 (July '01–June '02). Data on urban service area were provided by California Department of Conservation, Farmland Mapping and Monitoring Program.

Average units per acre for existing residential development was calculated for Santa Clara County by dividing the total housing units by the total acres of residential development. The Association of Bay Area Governments and the California Department of Finance provide data.

LESS THAN ONE-THIRD OF NEWLY APPROVED HOUSING AND WORKPLACES ARE NEAR TRANSIT

Joint Venture conducted a land-use survey of all cities within Silicon Valley. Collaborative Economics completed survey compilation and analysis. See previous indicator. The number of new jobs near transit is a calculation that assumes differing rates of job creation per square foot of new commercial, R&D, office and light industrial space located near transit. The number of new housing units within one-quarter mile of a major transit corridor is reported directly for each of the cities participating in the survey. Places within one-quarter mile of transit are considered "walkable," within a 5- to 10-minute time frame by the average person.

APPROVALS FOR NEW HOUSING DROP; 29% OF NEW UNITS ARE AFFORDABLE

Joint Venture conducted a land-use survey of all cities within Silicon Valley. Collaborative Economics completed survey compilation and analysis. Affordable units are those units that are affordable for a four-person family earning up to 80% of the median income for a county. Cities use the U.S. Department of Housing and Urban Development's (HUD) estimates of median income to calculate the number of units affordable to low-income households in their jurisdiction.

HOUSING AFFORDABILITY RISES FOR SECOND YEAR IN A ROW

Data on housing affordability are from the California Association of Realtors (CAR). They are based on the median price of existing single family homes sold from CAR's monthly existing home sales survey, the national average effective mortgage interest rate as reported by the Federal Housing Finance Board, and the median household income as reported by Claritas/NPDC. The 2002 estimate is based on third-quarter numbers. Apartment data are from RealFacts survey of all apartment complexes in Santa Clara County of 40 or more units. Rates are the prices charged to new residents when apartments turn over and are adjusted for inflation. The 2002 estimate is based on third-quarter numbers. Homeownership rates are from the U.S. Census Bureau.

CHILDREN ENTERING KINDERGARTEN ARE MOST PREPARED IN PHYSICAL DEVELOPMENT AND GENERAL KNOWLEDGE; PRESCHOOL AIDS LOW-INCOME CHILDREN

Data are from the School Readiness Pilot Initiative of the Peninsula Partnership for Children, Youth, and Families and its evaluation partner Applied Survey Research. The 2001 data are based on a random sample of approximately 525 students, while the 2002 data are based on a sample of approximately 553 students. The samples were drawn utilizing kindergarten classrooms in eight districts. The data from these samples can be generalized to all kindergarten students within these eight school districts with a 95% confidence level and a 4% margin of error. These eight school districts represent 70% of the total kindergarten population for San Mateo County. "Low-income" kindergartners are those who are eligible for the federal free and reduced-price lunch program.

The general increases in readiness scores between 2001 and 2002 may be due to a combination of factors. Children's scores may have in general improved, but the differences may also be due to the randomness of which particular classrooms were included in the 2001 and 2002 samples, as well as slight modifications to the observation form.

THIRD-GRADE READING SCORES FOR ENGLISH LEARNERS IMPROVE

Given annually in the spring, SAT 9 is a norm-referenced test, rather than a criterion-referenced test. Students' scores are compared to national norms; they do not reflect absolute achievement. English Learner students are those students for whom there is a report of a primary language other than English on the state-approved *Home Language Survey* and who—on the basis of the State-approved oral language (grades K-12) assessment procedures, including literacy (grades 3-12 only)—have been determined to lack the clearly defined English language skills of listening comprehension, speaking, reading and writing necessary to succeed in the school's regular instructional programs.

ENROLLMENT IN INTERMEDIATE ALGEBRA VARIES WIDELY BY ETHNICITY

Data are from the California Department of Education for public schools in Silicon Valley. Data are the share of 10th- and 11th-grade students enrolled in Intermediate Algebra. Students in grades 9 and 10 are counted in the dividend if they are taking the courses, in order not to penalize schools or districts that offer these courses below grade 11.

GRADUATION RATE INCREASES FOR THE FIRST TIME SINCE 1998; SHARE OF STUDENTS MEETING UC/CSU REQUIREMENTS REMAINS CONSTANT

Data for 2002 are from the California Department of Education. Graduation rates are the number of graduates divided by ninth-grade enrollment four years prior. Rates of UC/CSU completion are the number of graduates meeting UC/CSU requirements divided by ninth-grade enrollment four years prior. The statewide UC/CSU completion rate is calculated for year 2001.

PER CAPITA TRANSIT RIDERSHIP DECLINES BY 7%

Data are the sum of the annual ridership on the light rail and bus systems in Santa Clara and San Mateo counties on Caltrain and on Altamont Commuter Express (ACE). The 2002 annual estimate is based on the first nine months of the year. Time-series data have been adjusted using population figures from Economy.com rather than California Department of Finance.

RAIL NETWORK MORE THAN DOUBLED BETWEEN 1990 AND 2002

Data are from the Santa Clara Valley Transportation Authority and SamTrans, and include miles of Light Rail, Caltrain, Capitol Corridor, BART and Altamont Commuter Express (ACE) within Santa Clara and San Mateo counties.

HOSPITALIZATION FOR CHILDHOOD ASTHMA INCREASES, NOW EXCEEDS FEDERAL TARGET

Data on childhood asthma hospitalization rates are from the California Department of Health Services. Data on low-birth-weight infants are from the Santa Clara County Department of Public Health. 2001 data is estimated due to a one-year time lag for birth data. All births that occur in 2001 have up to Dec 31, 2002 to be registered, so at the time of printing all 2001 births may not have been reported. Data on child immunizations are from the Centers for Disease Control. Children immunized with the 4:3:1 series immunizations between the ages of 18 and 35 months are included in the results.

VIOLENT CRIME RATE INCREASES SLIGHTLY; JUVENILE ARRESTS DECLINE 22%

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" report. Violent offenses include homicide, forcible rape, assault and kidnapping. Violent crime estimates for 2002 are based on *Crimes Reported for Selected California Jurisdictions*, published by the California Criminal Justice Statistics Center.

40% OF DISTRICTS ALIGN MUSIC AND VISUAL ARTS EDUCATION WITH NEW STATE STANDARDS

Data were collected by Cultural Initiatives Silicon Valley, and represent 45 of the 48 districts in the Silicon Valley region.

FEWER HOUSEHOLDS GIVE, BUT INCREASED PROPORTION MAKE LARGE GIFTS

Data are from *Giving Back: The Silicon Valley Way* by Community Foundation Silicon Valley. The new 2002 survey data is based on a telephone survey with a random sample of 1,516 adults age 18 and older living in Silicon Valley in March/April of 2002. Interviews were completed in English and in Spanish. The survey has a margin of error plus or minus 2.6 percentage points at the 95% confidence level.

VOTER PARTICIPATION DECLINES FROM PREVIOUS MIDTERM ELECTIONS

Data are from the California Secretary of State, Elections and Voter Information Division. The eligible population is determined by the Secretary of State using census data provided by the California Department of Finance.

CORPORATIONS CONTRIBUTE 7% OF NONPROFITS' INCOME, HALF THE 1998 LEVEL

The survey questions and survey sample were developed by Community Foundation Silicon Valley (CFSV) and Peninsula Community Foundation. CFSV implemented the survey in October of 2002. The sample size was 55 for the directorship question. The consistent sample surveyed in 1998 and 2002 about corporate contributions includes 29 organizations. The nonprofit organizations span a range of focus areas, including arts and culture, family/community services, housing/shelter/food, youth, environment/animal welfare, elderly/senior services, education services and employment/job training.

AWARD-WINNING PROGRAM OFFERS INCENTIVES FOR TRANSIT-ORIENTED DEVELOPMENT IN SAN MATEO COUNTY

Information on the Transit-Oriented Development Incentive Program was provided by the City/County Association of Governments of San Mateo County.

SINCE PROPOSITION 13, THE MAJORITY OF PROPERTY TAX HAS NOT FUNDED CITY GOVERNMENT

Data were provided by Professor Terri Sexton of the Center for State and Local Taxation at UC Davis from the State Board of Equalization Annual Report.

Appendix B: Definitions

SILICON VALLEY

Where possible, indicator data were collected for the economic region of Silicon Valley. This region includes all of Santa Clara County as its core and extends into various adjacent areas (ZIP-code-defined) of Alameda, San Mateo and Santa Cruz counties:

CITY ZIP CODE

Santa Clara County (all)

Campbell	95008–09, 11
Cupertino	95014–15
Gilroy	95020–21
Los Altos	94020, 23–24
Los Altos Hills	94022, 24
Los Gatos	95030–33
Milpitas	95035–36
Monte Sereno	95030
Morgan Hill	95037–38
Mtn. View	94035, 39–43
Palo Alto	94301–10
San Jose	95101–03, 06–42, 48, 50–61, 64, 70–73, 90–96
Santa Clara	95050–56
Saratoga	95070–71
Sunnyvale	94085–90

Alameda County

Fremont	94536–39, 55
Newark	94560
Union City	94587

San Mateo County

Atherton	94027
Belmont	94002–03
East Palo Alto	94303
Foster City	94404
Menlo Park	94025–29
Portola Valley	94028
Redwood City	94059, 61–65
San Carlos	94070–71
San Mateo	94401–09, 97
Woodside	94062

Santa Cruz County

Scotts Valley	95060, 66–67
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INDUSTRY CLUSTERS

Computer and Communications Hardware Manufacturing

334111*	Electronic Computer Manufacturing	334417	Electronic Connector Manufacturing
334112	Computer Storage Device Manufacturing	334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing
334113	Computer Terminal Manufacturing	334419	Other Electronic Component Manufacturing
334119	Other Computer Peripheral Equipment Manufacturing	3359	Other Electrical Equipment and Component Manufacturing
334210	Telephone Apparatus Manufacturing		
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing		
334290	Other Communications Equipment Manufacturing		
334511	Search, Detection, Navigation, Guidance, Aeronautical and Nautical System and Instrument Manufacturing		
334613	Magnetic and Optical Recording Media Manufacturing		

Semiconductor and Semiconductor Equipment Manufacturing

333295	Semiconductor Machinery Manufacturing
333314	Optical Instruments and Lens Manufacturing
334413	Semiconductor and Related Device Manufacturing
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals
334519	Other Measuring and Controlling Device Manufacturing

Electronic Component Manufacturing

334411	Electron Tube Manufacturing
334412	Bare Printed Circuit Board Manufacturing
334415	Electronic Resistor Manufacturing
334416	Electronic Coil, Transformer and Other Inductor Manufacturing

334417	Electronic Connector Manufacturing
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing
334419	Other Electronic Component Manufacturing
3359	Other Electrical Equipment and Component Manufacturing
	<i>Software</i>
334611	Software Reproducing
511210	Software Publishers
518	Internet Service Providers, Websearch Portals and Data Processing Services
541511	Custom Computer Programming Services
541512	Computer Systems Design Services
541519	Other Computer-Related Services

Biomedical

325411	Medicinal and Botanical Manufacturing
325412	Pharmaceutical Preparation Manufacturing
325413	In-Vitro Diagnostic Substance Manufacturing
325414	Biological Product (except Diagnostic) Manufacturing
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing
334516	Analytical Laboratory Instrument Manufacturing
334517	Irradiation Apparatus Manufacturing
339111	Laboratory Apparatus and Furniture Manufacturing
339112	Surgical and Medical Instrument Manufacturing
339113	Surgical Appliance and Supplies Manufacturing
339114	Dental Equipment and Supplies Manufacturing
541710	Research and Development in the Physical, Engineering and Life Sciences (50%)

Medical and Diagnostic Laboratories

Innovation Services

523910	Miscellaneous Intermediation
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5411	Legal Services
5412	Accounting, Tax Preparation, Bookkeeping and Payroll Services
54133	Engineering Services
541370	Surveying and Mapping (except Geophysical)
541380	Testing Laboratories
541611	Administrative Management and General Management Consulting Services
541612	Human Resources and Executive Search Consulting Services
541614	Process, Physical Distribution and Logistics Consulting Services
541620	Environmental Consulting Services
541690	Other Scientific and Technical Consulting Services
541710	Research and Development in the Physical, Engineering and Life Sciences (50%)

Creative Services

54131	Architectural Services
54132	Landscape Architecture Services
54134	Drafting Services
541410	Interior Design Services
541420	Industrial Design Services
541430	Graphic Design Services
541490	Other Specialized Design Services
541613	Marketing Consulting Services
5418	Advertising and Related Services
54191	Marketing Research and Public Opinion Polling
54192	Photographic Services
7111	Performing Arts Companies
711510	Independent Artists, Writers and Performers

Corporate Offices

551114	Corporate, Subsidiary and Regional Managing Offices
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*The numbers correspond to North American Industry Classification System (NAICS) codes.

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California Department of Finance	SamTrans
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California Department of Justice	San Mateo County Office of Education
California Employment Development Department	Santa Clara County Office of Education
California Secretary of State	Santa Clara County Public Health Department
Caltrain	Securities Data Corporation
Center for the Child Care Workforce	Sheriff and Police Departments of Silicon Valley
Centers for Disease Control	Silicon Valley Environmental Partnership
City/County Association of Governments of San Mateo County	Silicon Valley School Districts
City Managers of Silicon Valley	Silicon Valley Toxics Coalition
City Planning and Housing Departments of Silicon Valley	Solimar Research Group
Community Foundation Silicon Valley	Standard and Poor's
Construction Industry Research Board	State Board of Equalization
Cultural Initiatives Silicon Valley	UC Davis Center for State and Local Taxation
Economy.com	U.S. Bureau of Economic Analysis
Federal Bureau of Investigation	U.S. Bureau of Labor Statistics
Geolytics, Inc.	U.S. Census Bureau
GreenInfo Network	U.S. Department of Commerce, Exporter Location Series
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S P O N S O R S

VISIONARY LEADERS

The David and Lucile Packard Foundation
Sun Microsystems, Inc.
Therma

COMMUNITY BUILDERS

Aspect Communications
Rudolph and Sletten, Inc.

JOINT VENTURE PARTNERS

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Rosendin Electric, Inc.
Skoll Foundation
Synopsys, Inc.
Webcor Builders

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