

# i n d e x

OF

## SILICON VALLEY

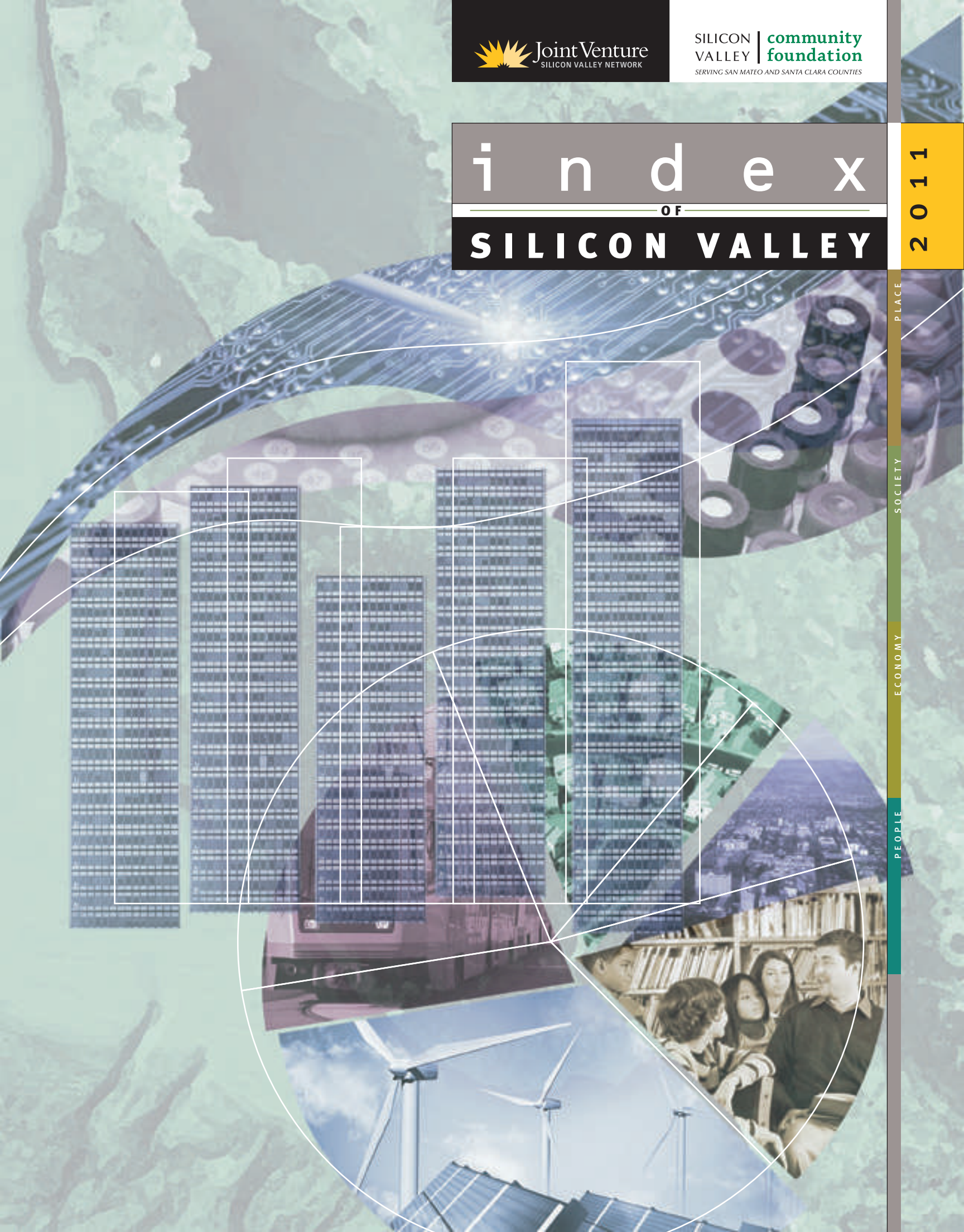
2011

PLACE

SOCIETY

ECONOMY

PEOPLE



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## ABOUT THE 2011 SILICON VALLEY INDEX

Dear Friends:

Two years after the start of the Great Recession, Silicon Valley is beginning to show some signs of economic recovery. We are seeing small gains in private sector employment as well as modest improvements in income. And yet we remain a region at risk.

This year's Index also shows that gains in private sector employment are being offset by job losses in the public sector, and we can only expect that trend to continue.

The Special Analysis carefully examines the crisis facing local government and the problems are serious: city and county revenues, long under stress, have plummeted during the recession, and public services are being severely strained. The analysis documents underlying structural issues at the state and local level that have created these problems—problems that were masked during boom years but have now reached a crisis point.

As a region, we have a choice. We can continue on our present course, in which modest improvements in the economy will not be enough to shore up the public sector, resulting in the loss of public services we currently take for granted. Or we can take steps to address the public sector financial crisis and find ways to keep investing in the education systems, infrastructure, health and safety, and community development that are essential to a healthy economy and our quality of life.

If we fail, we risk a dangerous downward spiral in which a declining public sector leads to sharper declines in employment, which in turn creates an additional drag on our economic recovery.

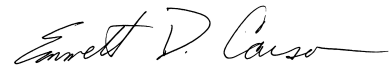
Most of the things we care most deeply about – the education of our children, the health and safety of our families and the creation of great places to live – depend on effective government. It is clear that our institutions of local government are at a critical juncture. It is also clear that we must work together to make difficult choices and at the same time explore new efficiencies and operating models responsive to the realities of the 21st century.

Joint Venture and Silicon Valley Community Foundation are dedicated to improving the future of our region. This report provides the facts that can help us grapple with our choices and act on our priorities. We're pleased to provide this crucial information and anxious to move forward.

Sincerely,



Russell Hancock, Ph.D.  
President & Chief Executive Officer  
Joint Venture: Silicon Valley Network



Emmett D. Carson, Ph.D.  
CEO & President  
Silicon Valley Community Foundation

# THE SILICON VALLEY REGION

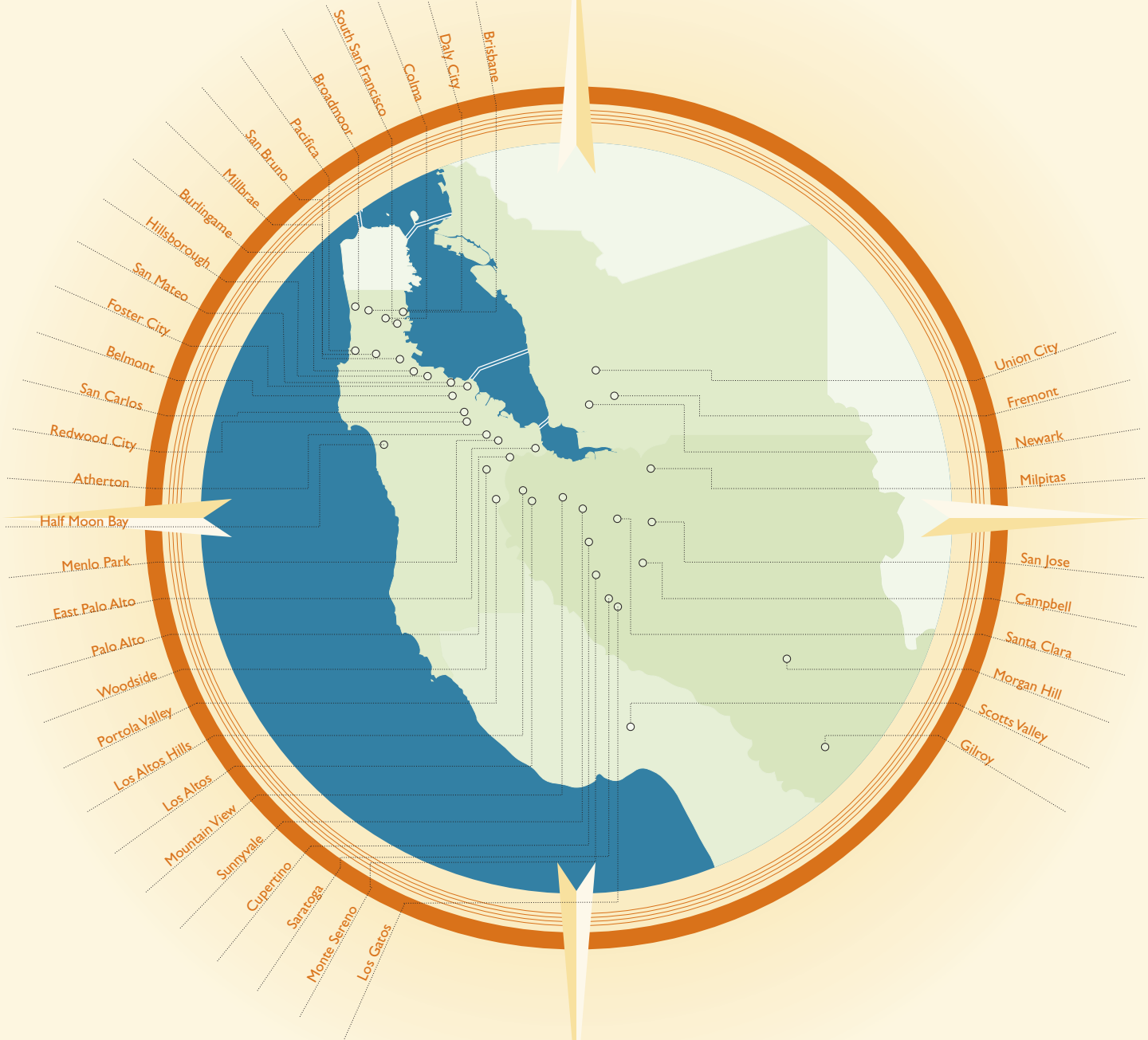
**Area:** 1,854 square miles  
**Population:** 3 million  
**Jobs:** 1,305,33  
**Average Annual Earnings:** \$78,978  
**Foreign Immigration:** +13,129  
**Domestic Migration:** -8,865

**Adult educational attainment:**  
**13%** Less than High School  
**17%** High School Graduate  
**26%** Some College  
**25%** Bachelor's Degree  
**19%** Graduate or Professional Degree

**Age distribution:**  
**14%** 0-9 years old  
**12%** 10-19  
**37%** 20-44  
**25%** 45-64  
**12%** 65 and older

**Ethnic composition:**  
**39%** White, non-Hispanic  
**29%** Asian, non-Hispanic  
**26%** Hispanic  
**2.5%** Black, non-Hispanic  
**<4%** Multiple and Other

**Foreign Born: 35%**  
**Origin:**  
**58%** Asia  
**32%** Americas  
**8%** Europe  
**1%** Oceania  
**1%** Africa



The geographical boundaries of Silicon Valley vary. The region's core has been defined as Santa Clara County plus adjacent parts of San Mateo, Alameda and Santa Cruz Counties. In order to reflect the geographic expansion of the region's driving industries and employment, the 2011 Index includes all of San Mateo County. Silicon Valley is defined as the following cities:

## Santa Clara County (all)

Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Palo Alto, San Jose, Santa Clara, Saratoga, Sunnyvale

## Alameda County

Fremont, Newark, Union City

## San Mateo County (all)

Atherton, Belmont, Brisbane, Broadmoor, Burlingame, Colma, Daly City, East Palo Alto, Foster City, Half Moon Bay, Hillsborough, Menlo Park, Millbrae, Pacifica, Portola Valley, Redwood City, San Bruno, San Carlos, San Mateo, South San Francisco, Woodside

## Santa Cruz County

Scotts Valley

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*Silicon Valley's population growth is slowing, and educational attainment is improving unevenly across racial and ethnic groups.*

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### ECONOMY

*Employment in the region is picking up ahead of the rest of the country, and key measures for innovation activity such as patenting and venture capital were up in 2010.*

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# 2011 INDEX HIGHLIGHTS

The 2011 Index of Silicon Valley reveals initial signs of recovery in our innovation economy; however, the evidence is clear that our community is still suffering the severe blows of the economic downturn as incomes stagnate, health and educational outcomes decline, and the need for public services grows. Further, as examined in the Special Analysis, Silicon Valley's communities are facing formidable challenges as local public revenues drop and expenditures rapidly rise.

**Without a doubt, Silicon Valley suffered a major blow in the recent economic downturn; however, there are positive signs that some of the key drivers of our innovation economy are back. Private employment is picking up while public employment is declining (see Special Analysis).**

- Employment gains were posted in December 2010 for the region's residents. From December 2009 to 2010, the total number of employed residents increased by 12,300, bringing employment to levels similar to 2004.
- Venture capital investment increased five percent in 2010. Remaining strong in Industry/Energy, Biotechnology and Medical Devices, funding increased 55 percent in IT Services and 196 percent in Telecom over 2009 figures. Cleantech VC investment exceeded \$1.5 billion in 2010, increasing eleven percent from 2009.
- Patent registrations increased nine percent in the region in 2009 over the prior year, and nationally, activity picked up six percent.
- In a possible sign of approaching recovery, following annual increases of three percent in the preceding two years, commercial vacancy rates across all commercial space sectors increased by only 0.5 percent from 2009 to 2010.

**Regional income losses of the last two years slowed as incomes stabilized in 2010.**

- Although creeping into positive territory overall for the first time in three years, losses in real per capita income have been felt across all educational levels and all ethnic groups since 2005. Of all groups, Hispanics reported the lowest per capita income and the largest percentage drop of 7.5 percent from 2007 to 2009.
- Since the beginning of the current economic downturn, participation in food stamp programs increased 59 percent in Silicon Valley and 56 percent in California between 2007 and 2010.

**Entrepreneurship is underway as new firm openings jump in number and the market for initial public offerings returns to life; however, businesses are still struggling for financing.**

- New firm openings increased by 48 percent from 2008 to 2009 resulting in 20,200 net new business establishments.
- Globally, initial public offerings (IPOs) have increased dramatically. In the U.S. market, the number of IPOs increased from 64 to 154 in 2010, and of that group, Silicon Valley's share edged up from one pricing in 2009 to eleven in 2010. The region accounted for two percent of the IPO pricings in 2009 and seven percent in 2010.
- From 2007 to 2009, the total value of small business loans in Silicon Valley dropped from \$3.8 billion in 2007 to \$2 billion in 2009. Over the long term (1996 to 2009) the number of small business loans more than tripled in Silicon Valley and nearly doubled in the nation.

**Important for sustaining the region's innovation system and building global connections, Silicon Valley continues to attract global science and engineering talent to the broader region's universities.**

- While undergraduate degrees conferred to foreign students in S&E disciplines have declined since 2003, graduate degrees edged up by two percent in 2008 and held steady in 2009. As of 2009, foreign students represented 35 percent of all graduate degrees conferred in S&E disciplines in the broader region.
- Although slowing over the past two years, Silicon Valley's population growth is driven by foreign immigration.

## **Attracting talent from abroad is important for our region, but it is even more essential to ensure that we are preparing our own youth for economic success in the global economy. The region is reflecting troubling signs on this point.**

- Total enrollment in the UC/CSU systems increased by less than one percent from 2008 to 2009. Relative to 1998 levels, enrollment in the UC/CSU systems increased 63 percent for foreign students and 26 percent for domestic students.
- The percentage of full-time freshmen who received financial aid to attend a university in or near Silicon Valley continues to remain below the state and national average, but increased from 2006-07 levels.
- Silicon Valley high school graduation rates improved one percent over the previous year to 87 percent, while statewide graduation rates fell two percent.
- Up from 52 percent the year before, of all Silicon Valley eighth graders tested in 2010, 55 percent scored proficient or higher on the CST Algebra I Test.

## **Signs of declining health outcomes are appearing for the region's residents.**

- Although Silicon Valley residents are more likely to have health insurance than California residents overall, the percent of residents with no health coverage leapt by four percent across the board from 2007 to 2009. In the region, the uninsured increased from 14 percent to 18 percent of all residents, and statewide, the jump was from 20 percent to 24 percent.
- While the percentage of the region's adult population classified as obese fell two points, the share reported as overweight increased five percent from 2005 to 2007.

## **Silicon Valley residents are changing their habits and improving environmental outcomes.**

- Even as gas prices fell 23 percent since 2008, Silicon Valley residents drove fewer miles than the prior year and consumed less fuel per capita than the rest of Californians. Since 2004, alternative fuel vehicles in the region have increased seven fold.
- Silicon Valley commuters continue to take up alternatives to driving alone. From 2003 to 2009, the percentage of commuters who carpooled, worked at home, walked or used other means of getting to work, such as a bicycle, each increased over the period.
- Although electricity consumption per capita is 13 percent higher in Silicon Valley than in the rest of the state, consumption in the region has been decreasing at a faster rate.
- Total added solar capacity reported by the California Solar Initiative increased by 18 percent in the past year. Permitting time required for solar installations has improved. Twenty-nine percent of Silicon Valley cities surveyed reported permitting times of a day or less for solar installations.
- Silicon Valley reduced waste disposal per capita by five percent from 2007 to 2008. While the region has made greater progress over the long term, California achieved reductions of eleven percent from 2007 to 2008.

## **The region is revealing evidence of back-sliding on progress made toward denser, transit-oriented development. Part of this can be explained by the overall slowdown in construction in the region.**

- For the five-year period between 2005 and 2009, residential density stabilized above 20 units per acre. In the most recent year, residential density dropped from roughly 21 units per acre to about 16 units per acre.
- Exceeding 50 percent the past four years, the percentage of approved housing development within walking distance of mass transit dropped from 62 percent in 2009 to 53 percent in 2010.
- The lack of progress in housing density is in part explained by the continued housing crisis and overall lack of construction activity. The number of home sales in Silicon Valley plummeted 52 percent from 2009 to 2010. After tumbling in 2008, the average sale price remained essentially unmoved from 2009 to 2010.

# THE 2011 INDEX

## AT A GLANCE

### WHAT IS THE INDEX?

The Silicon Valley Index has been telling the Silicon Valley story since 1995. Released early every year, the indicators measure the strength of our economy and the health of our community—highlighting challenges and providing an analytical foundation for leadership and decision-making.

### 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:

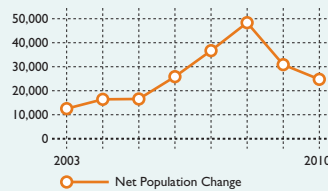
- are bellwethers that reflect fundamentals of long-term regional health;
- reflect the interests and concerns of the community;
- are statistically measurable on a frequent basis; and
- measure outcomes, rather than inputs.

Appendix A provides detail on data sources for each indicator

## PEOPLE

Silicon Valley's population growth is slowing, and educational attainment is improving unevenly across racial and ethnic groups.

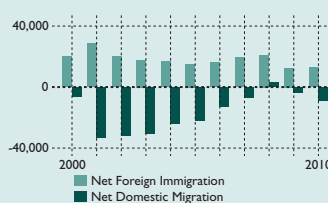
### Net Population Change



### Percent Change between 2009 and 2010

Silicon Valley **+0.94%** ↑  
California **+0.91%** ↑

### Net Migration Flows

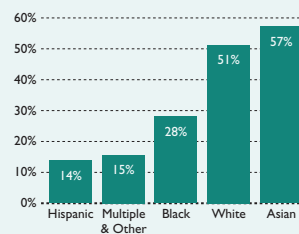


### Population Change between 2009 and 2010

Net Foreign Immigration **+3%** ↑  
Net Domestic Migration **+137%** ↑

### Educational Attainment

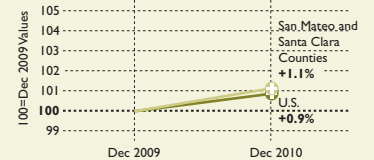
Percentage of Adults with a Bachelor's Degree or Higher, by Ethnicity 2009



## ECONOMY

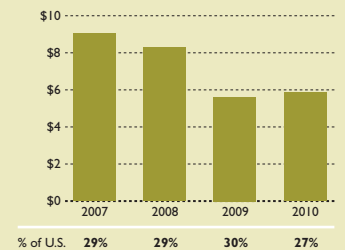
Employment in the region is picking up ahead of the rest of the country, and key measures for innovation activity such as patenting and venture capital were up in 2010.

### Change in Jobs Relative to December 2009

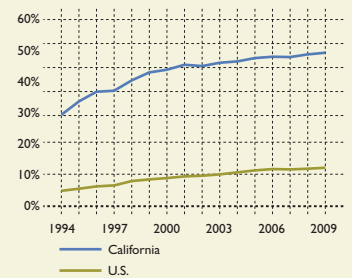


### Venture Capital Investment

Silicon Valley - Billions of Dollars Invested



### Silicon Valley's Percentage of U.S. and California Patents Registration



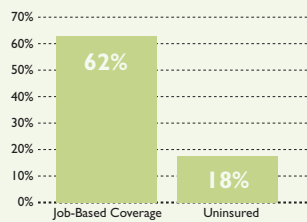


## SOCIETY

Educational and health outcomes continue to suffer increasing strain.

### Uninsured Population

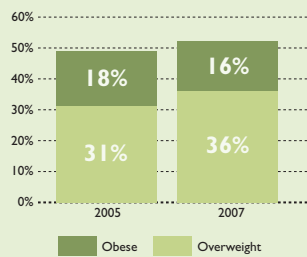
San Mateo and Santa Clara Counties  
2009



### Uninsured Population

	2007	2009
SV	14%	18%
CA	20%	24%

### Adult Obesity



### High School Graduation

Silicon Valley High Schools

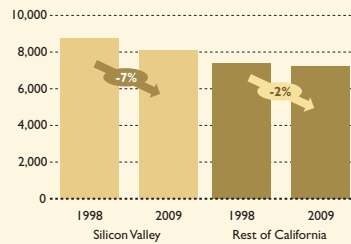


## PLACE

Progress is being made in improving environmental sustainability. The housing market is still suffering, but with vacancy rates slowing, the market for commercial space reveals initial signs of recovery.

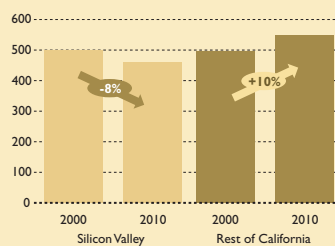
### Electricity Consumption per Capita

kWh per person



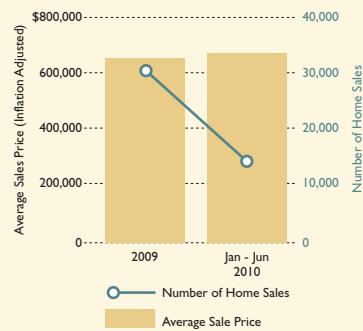
### Fuel Consumption

Gallons per Capita



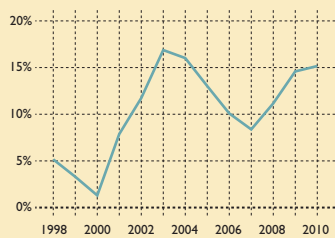
### Trends in Home Sales

Average Sale Price and  
Number of Home Sales



### Commercial Vacancy

Annual Rate of Commercial Vacancy,  
All Commercial Space - Santa Clara County



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# SPECIAL ANALYSIS

## The Crisis in Local Government and Choices Facing Our Communities

*Understanding the Challenge*

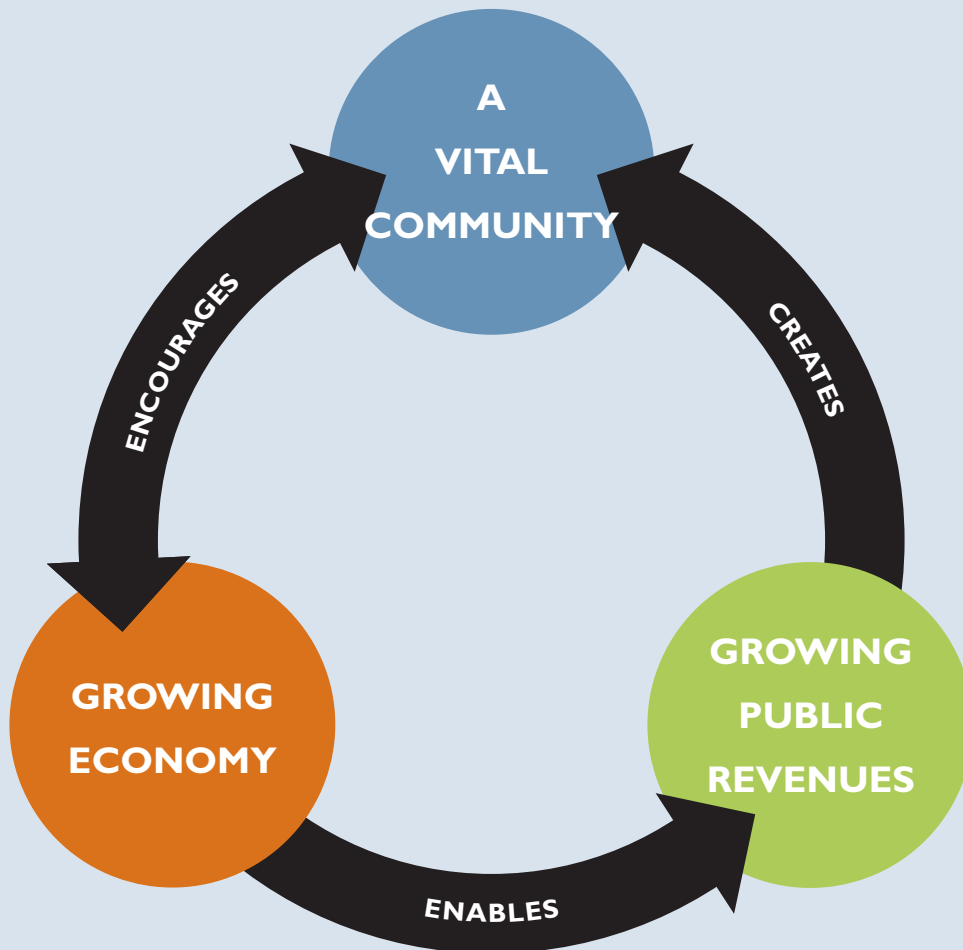
*With declining revenue and rising expenses, Silicon Valley's local governments can no longer sustain the level of services that communities have become accustomed to and rely upon.*

*An increasing number of residents are seeking social service assistance from county governments that are literally running out of money. In our cities, expenses – fueled in part by rising pension obligations – are escalating at a time when there is less money available than at the depth of the last economic downturn.*

These trends have far reaching implications. Continuing public sector layoffs are likely to offset the hiring that has begun in Silicon Valley's private sector. Without a strong economy, public revenue will not recover. More programs and services will be cut and the cycle will continue, eventually threatening the overall economic health of our region.

For Silicon Valley to thrive, businesses need strong, vibrant communities to attract and retain employees – communities with good schools, parks, infrastructure and services. Today, the building blocks that sustain those strong communities are crumbling.

This fiscal analysis examines historical trends and factors that are contributing to the crisis local governments are facing. Without confronting the hard choices that need to be made around the yawning government budget gaps that stretch before us in the years ahead, our quality of life is at risk.

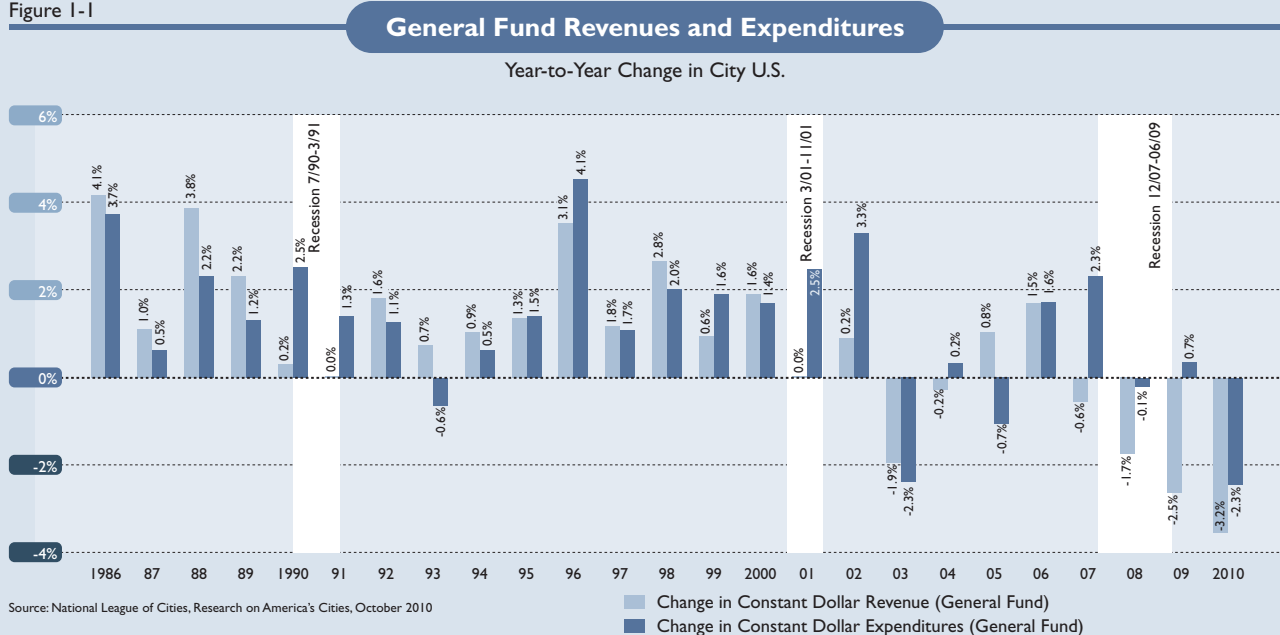


## Economic Recovery and the Lag of Public Revenue

Typically, local government revenues lag overall economic recovery over the course of a business cycle. According to a survey of the nation's cities by the National League of Cities (NLC), this gap between the change in economic conditions and city revenue collections can last from 18 months to several years.<sup>1</sup> This can be explained by a combination of problems: high unemployment has slowed consumer spending which has resulted in falling revenues from sales and personal taxes, and declining housing values have resulted in lower property taxes.

**Figure I-1** illustrates the lag of city revenues and expenditures from the historic low points of recessions as defined by the National Bureau of Economic Analysis. For example, city revenues and expenditures reached a low point in 1993, roughly two years after the bottom of the nation's 1991 recession. Similarly, the low point of city revenues and expenditures associated with the 2001 national recession hit in 2003, roughly 18 months after the trough, the end of the declining phase in November 2001 and the start of the rising phase in April 2003.

Figure I-1



This is not just a cyclical problem. The recovery of city revenues and expenditures from the current recession will likely experience an even greater lag. A National League of Cities research brief states, "The declines in 2010 represent the largest downturn in revenues and cutbacks in spending in the history of NLC's survey, with revenues declining for the fourth year in a row (since 2007)."<sup>2</sup> In addition to the tepid pace of hiring in the nation's private sector, the current recession is characterized by multiple factors that will have a dampening effect on the recovery of public revenue. Severe declines in housing markets will result in falling property tax revenues as property values are reassessed. The persistence of the financial crisis is hindering businesses' access to cash needed for growth or bridging current gaps, which in turn slows the pace of rehiring and local income growth and economic activity. Further, the blow to the financial markets has resulted in lost value in public retirement funds, which now have fewer resources to meet growing obligations.

<sup>1</sup> Christopher W. Hoene and Michael A. Pagano. "City Fiscal Conditions in 2010." National League of Cities, Research Brief on America's Cities, October 2010, Page 3. Downloaded from [http://www.nlc.org/ASSETS/AE26793318A645C795C9CD11DAB3B39B/RB\\_CityFiscalConditions2010.pdf](http://www.nlc.org/ASSETS/AE26793318A645C795C9CD11DAB3B39B/RB_CityFiscalConditions2010.pdf)

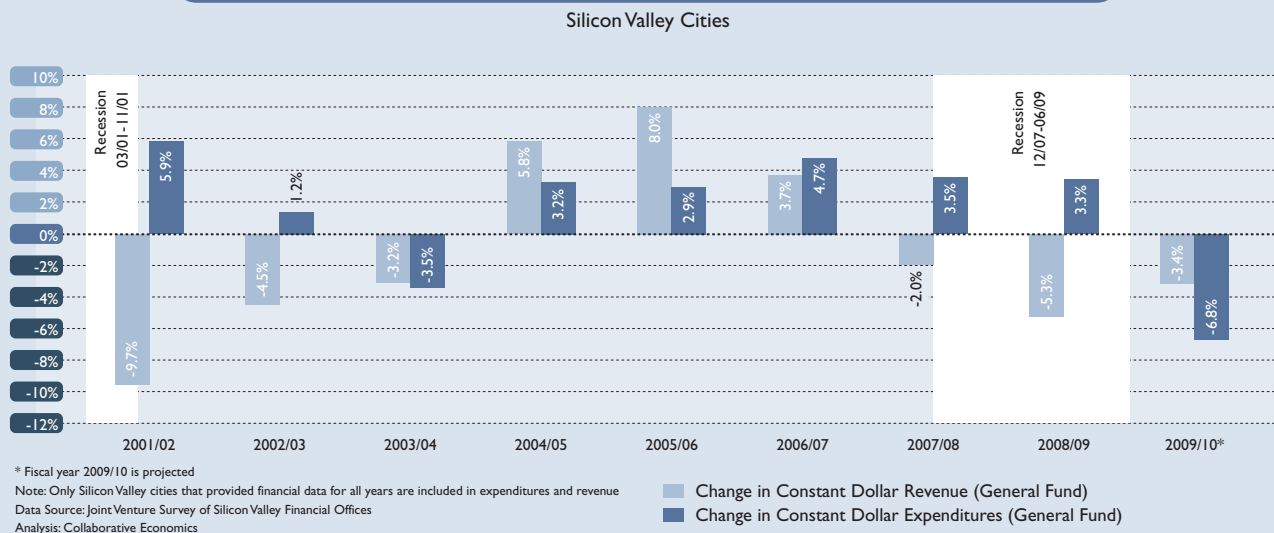
<sup>2</sup> Christopher W. Hoene and Michael A. Pagano. "City Fiscal Conditions in 2010." National League of Cities, Research Brief on America's Cities, October 2010, Page 3. Downloaded from [http://www.nlc.org/ASSETS/AE26793318A645C795C9CD11DAB3B39B/RB\\_CityFiscalConditions2010.pdf](http://www.nlc.org/ASSETS/AE26793318A645C795C9CD11DAB3B39B/RB_CityFiscalConditions2010.pdf)

<sup>3</sup> The Office of Management and Budget. *The American Recovery and Reinvestment Act of 2009*. Retrieved from Track The Money's Recipient Reported Data Download Center: [www.recovery.gov/Transparency/RecipientReportedData/Pages/RecipientDataMap.aspx](http://www.recovery.gov/Transparency/RecipientReportedData/Pages/RecipientDataMap.aspx)



Silicon Valley's experience has mirrored the national trend with public revenue growth taking longer to materialize than overall economic recovery (**Figure I-2**). However, compared to the national average, revenues in the region also have fallen more dramatically in recent years. The \$48.8 million thus far and \$204 million expected over the coming year (estimates as of September 2010) in federal American Recovery and Reinvestment Act (stimulus) funding to local cities and counties has helped ease the initial financial shortfalls from the crisis, but this funding will end in July 2011 and is not likely to be repeated.<sup>3</sup>

Figure I-2 **Year-to-Year Change in City General Fund Revenues and Expenditures**

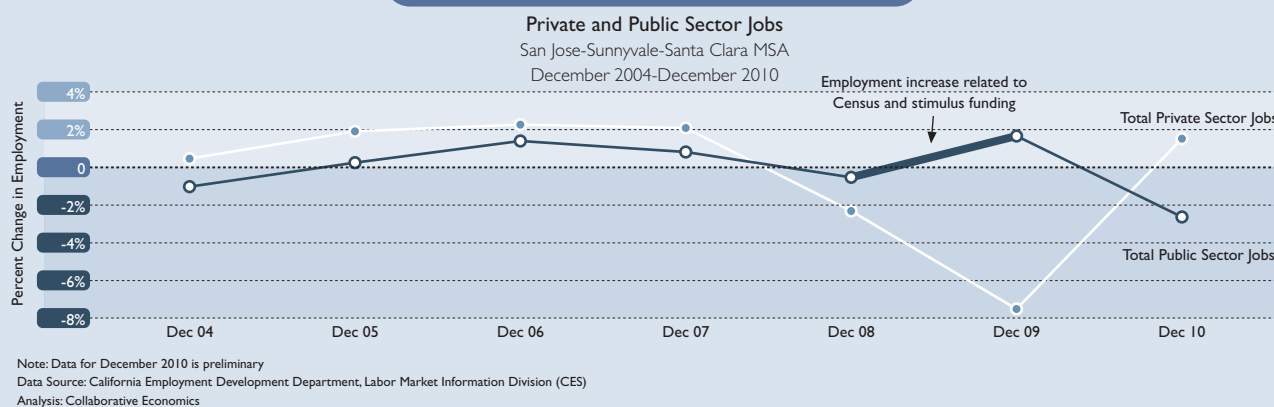


While the private sector slowly began hiring again in the third quarter of 2010, public sector employment is falling as shown in **Figure I-3**. Public sector employment growth in 2009 is attributable to temporary employment increases resulting from the Census and federal stimulus funding. Continued declines in public sector jobs present a potentially serious obstacle to the region's nascent recovery.

From December 2009 to 2010, private sector employment in the San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area (MSA) increased by 1 percent with the addition of 11,100 jobs while public sector employment dropped by 3 percent with the loss of 4,200 jobs. Most of these job losses were in education (1,200) and in city government (1,100). Given the approaching end of stimulus funding, continued job losses in the public sector are expected.

With an existing unemployment rate of 8.3 percent in San Mateo County and 10.8 percent in Santa Clara County (January 2010), this means that in the short term the oncoming layoffs in the public sector will likely offset the progress from employment gains in the private sector, contributing to a slower overall economic recovery and a slower recovery of public revenues. The Federal Reserve has recently estimated that the natural unemployment rate will not hit 8 percent until 2014.

Figure I-3 **Year-to-Year Change in Employment**



# Talent Flows and Diversity

*Silicon Valley's population growth is slowing, and educational attainment is improving unevenly across racial and ethnic groups.*

# PEOPLE

## WHY IS THIS IMPORTANT?

Silicon Valley's most important asset is its people. They drive the economy and shape the quality of life of the region. We examine population growth as a function of migration (immigration and emigration) and natural population change (the difference between the number of births and number of deaths).

The Valley is a knowledge economy, so our success depends on the talent of our population. The number of science and engineering degrees awarded regionally helps to gauge how well Silicon Valley is preparing talent for our driving, export-oriented industries. A local workforce equipped with strong skills is a valuable resource for generating new ideas and innovative products and services.

The region has benefited significantly from the entrepreneurial spirit of people drawn to Silicon Valley from around the country and around the world. In particular, immigrant entrepreneurs have contributed considerably to innovation and job creation in the region.<sup>1</sup> Traditionally, the region's universities have served as the primary port of entry of foreign talent. Examining the continued flows of foreign graduates from our universities indicates to what degree our region remains a global magnet for talent. Maintaining and increasing these flows vastly improves the region's potential for closer integration with other innovative regions and thereby bolsters its global competitiveness.

## HOW ARE WE DOING?

Expanding one percent in 2010, Silicon Valley's population continues to grow but at a slower pace. Typically consistent, natural population change (births minus deaths) has slowed the last two years and dropped eight percent from 2009 to 2010. Net migration dropped by half in 2010. Over the last decade, migration flows have been characterized by domestic out-flows and foreign in-flows. In 2009, foreign in-migration dropped by 40 percent to the lowest level in the decade and remained unchanged in 2010.

Educational attainment across all racial and ethnic groups is significantly higher in Silicon Valley than California as a whole. However, while improvements have been steady statewide, progress in the region varies by racial and ethnic group. The percentage of Blacks with a four-year degree or more jumped 13 percent from 2001 to 2005 but dropped three percent in 2009. For Hispanics and people associating with multiple groups, the percentage with a higher degree has declined since 2005.

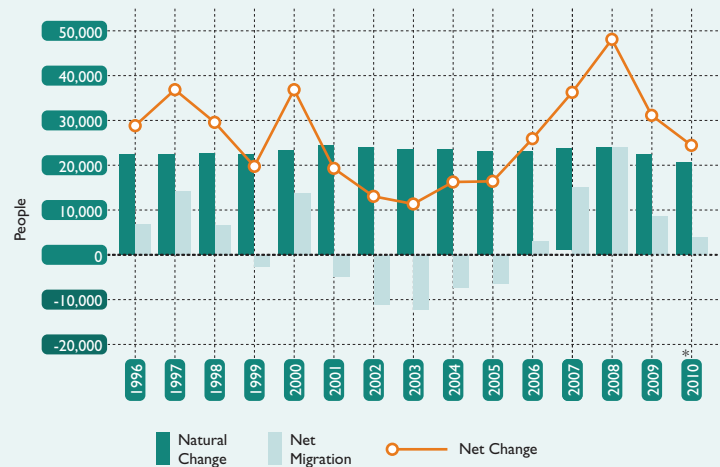
The number of science and engineering (S&E) degrees conferred in 2009 increased 2.3 percent in Silicon Valley and 1.2 percent nationally. By gender, the percentage of S&E degrees conferred to women has increased five percent since 1997 but held steady in recent years.

After peaking at 18.4 percent in 2003, S&E degrees conferred by universities in the broader region to foreign students had been on the decline until 2008. Trends vary significantly between undergraduate and graduate degrees. While undergraduates have continued to decline, graduate degrees conferred to foreign students in S&E disciplines grew by two percent in 2008 and held steady at 36 percent in 2009. Foreign students represent 35 percent of graduate and five percent of undergraduate degrees.

<sup>1</sup> AnnaLee Saxenian. 2002. Local and Global Networks of Immigrant Professionals in Silicon Valley. San Francisco: Public Policy Institute of California. See also, S. Anderson & M. Platzer. 2006. "American Made: The Impact of Immigrant Entrepreneurs and Professionals on U.S. Competitiveness." National Venture Capital Association.

### Population Change

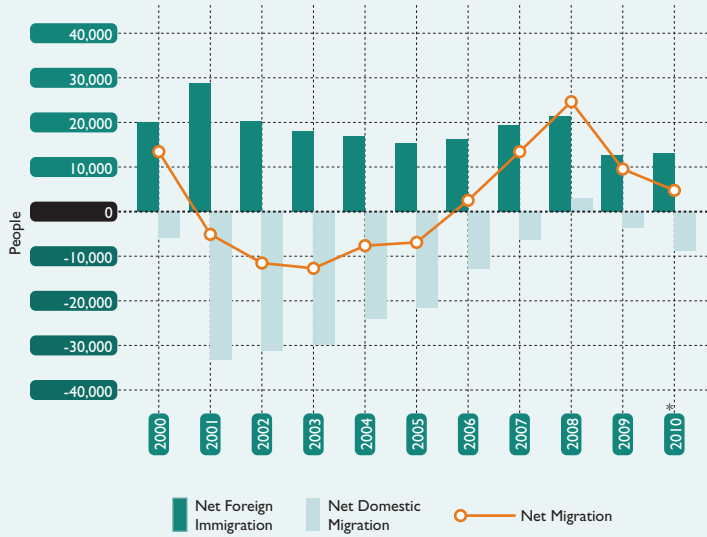
Components of Population Change  
Santa Clara & San Mateo Counties



\* Provisional population estimates for 2010  
Data Source: California Department of Finance  
Analysis: Collaborative Economics

## Net Migration Flows

Foreign and Domestic Migration  
Santa Clara & San Mateo Counties



\* Provisional population estimates for 2010  
Data Source: California Department of Finance  
Analysis: Collaborative Economics

## Educational Attainment

Percentage of Adults with a Bachelor's Degree or Higher by Ethnicity  
Santa Clara & San Mateo Counties, California



Note: Categories Black, White and Asian are non-Hispanic  
Data Sources: U.S. Census Bureau, American Community Survey  
Analysis: Collaborative Economics

### Educational Attainment by Ethnicity in 2009

	Hispanic	Multiple and Other	Black	White	Asian
Santa Clara & San Mateo Counties	14%	15%	28%	51%	57%
California	10%	11%	21%	39%	48%

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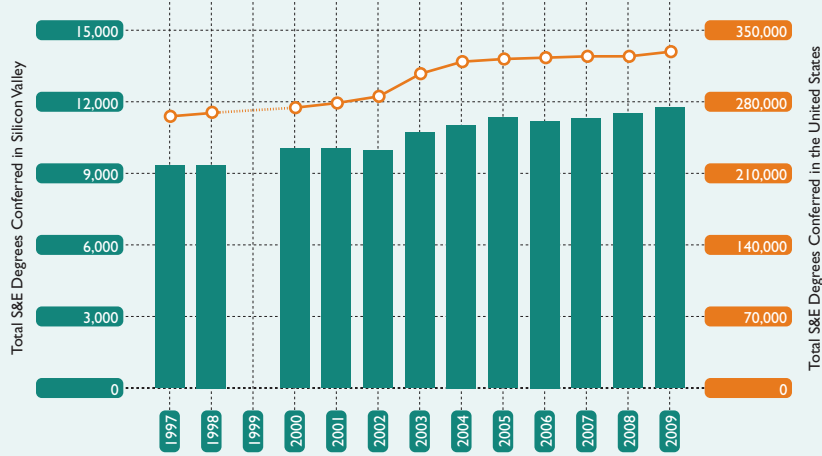
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## Total Science & Engineering Degrees Conferred

Universities In and Near Silicon Valley and the U.S.



Note: Data are based on first major and include bachelors, masters and doctorate degrees. Data for 1999 is not available.  
 Data Source: National Center for Educational Statistics, IPEDS  
 Analysis: Collaborative Economics

## Total Science & Engineering Degrees Conferred by Gender

Universities In and Near Silicon Valley

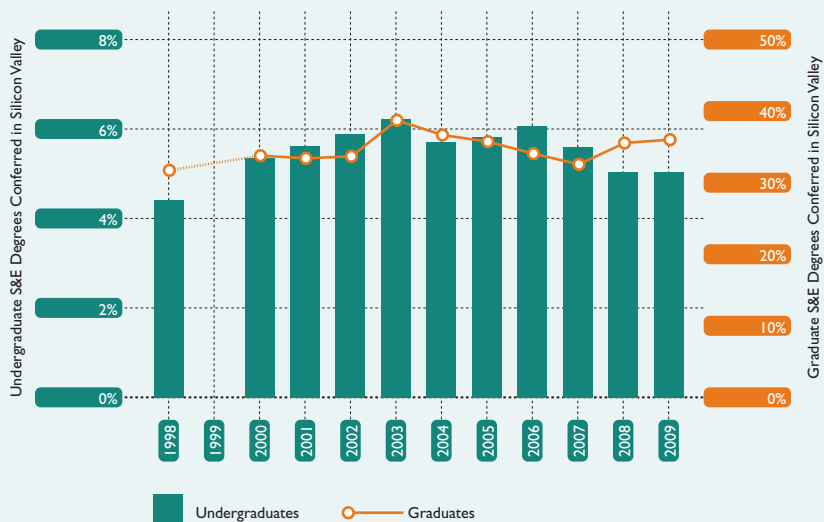


Note: Data are based on first major and include bachelors, masters and doctorate degrees. Data for 1999 is not available.  
 Data Source: National Center for Educational Statistics, IPEDS  
 Analysis: Collaborative Economics



## Science & Engineering Degrees

Conferred to Temporary Nonpermanent Residents  
Universities in and Near Silicon Valley



Note: Data are based on first major and include bachelors, masters and doctorate degrees. Data for 1999 is not available.  
Data Source: National Center for Educational Statistics, IPEDS  
Analysis: Collaborative Economics

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# Employment

*Employment gains have been reported in key industries over the past year, and declines are slowing.*

# ECONO

## WHY IS THIS IMPORTANT?

Tracking employment gains and losses is a basic measure of economic health. Shifts in employment across industries suggest structural changes in Silicon Valley's economic composition. Over the course of the business cycle, employment growth and decline across industries can be cyclical, but the permanent changes reflect how the region's industrial mix is changing. While business establishment-based employment provides the broader picture of the region's economy, observing the employment and unemployment rates of the population residing in the Valley reveals the status of the immediate Silicon Valley-based workforce. Occupational needs of the region change over time as technology changes, the region's mix of industries shifts, and markets become more specialized. How the region's occupational patterns change provides an indication for how well our economy is maintaining its position in the global economy.

## HOW ARE WE DOING?

At the outset of the recent downturn, jobs losses in Silicon Valley initially lagged the nation before overtaking national rates. Now, the region is outpacing the nation in employment gains in 2010. However, between December 2007 and 2009, the region's employment losses of 6.6 percent exceeded nationwide losses of 5.7 percent (based on data reporting employment of residents). From December 2009 to 2010, employment increased 1.1 percent while national growth lagged at 0.9 percent. Over this 12-month period, the region added 12,300 jobs, bringing employment back up to 2004 levels. Jobs were added in computer systems design, employment services, and computer and electronic product manufacturing.

In view of total employment in the broader Silicon Valley region (based on data reporting jobs at employers in the region for which there is a longer reporting lag), employment declines in the second quarter of 2010 slowed to 1.1 percent, bringing the region's total employment to 1.3 million, the lowest level in over a decade. While total employment fell, Innovation & Specialized Services expanded by two percent from the second quarter in 2009 to the second quarter in 2010. Across all other major areas of economic activity, losses slowed compared to the prior year.

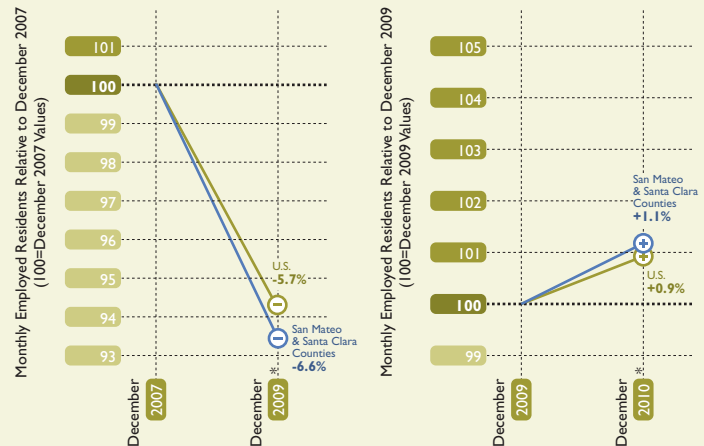
The combined unemployment rate for the two counties shaved off 0.8 percent over the prior year, bringing it down to 9.8 percent in December 2010. California remained relatively unchanged at 12.3 percent, and the U.S. unemployment rate fell to 9.1 percent. Hitting every ethnic group in 2009, the unemployment rate doubled for Hispanics, Other, White and Asians between 2007 and 2009.

When employers stop hiring, people seek other means of work through temporary employment services or consulting. In the San Jose area, Employment Services increased 27 percent from the low in April 2009. From December 2009 to 2010, Employment Services increased by 10 percent, adding 1,700 jobs.

Essential to the region's innovation economy, high-tech and Science & Engineering (S&E) talent represent 16 percent of all occupations in Silicon Valley and only six percent in the U.S. although growth is faster here. In addition to computer engineers and bioscientists, S&E talent includes the region's world-class talent in digital arts and commercial design. Since 2000, occupations in Design decreased by 14 percent while Mathematics increased 84 percent in the region.

### Change in Residential Employment

Santa Clara & San Mateo Counties, and the United States



\*Data for December 2010 is preliminary

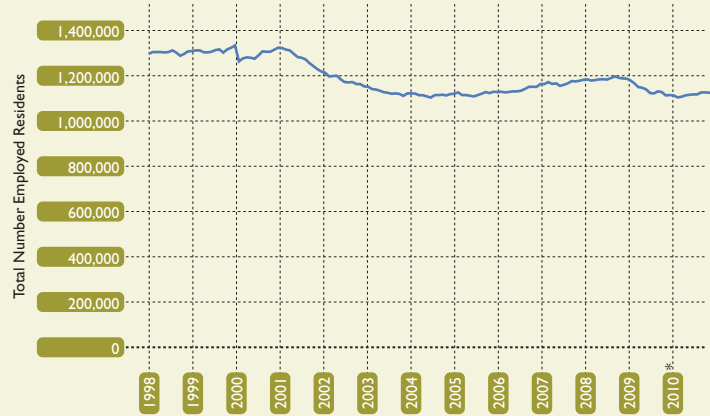
Note: Data is not seasonally adjusted.

Data Source: U.S. Bureau of Labor Statistics, Current Population Survey (CPS) and Local Area Unemployment Statistics (LAUS)

Analysis: Collaborative Economics

## Employment

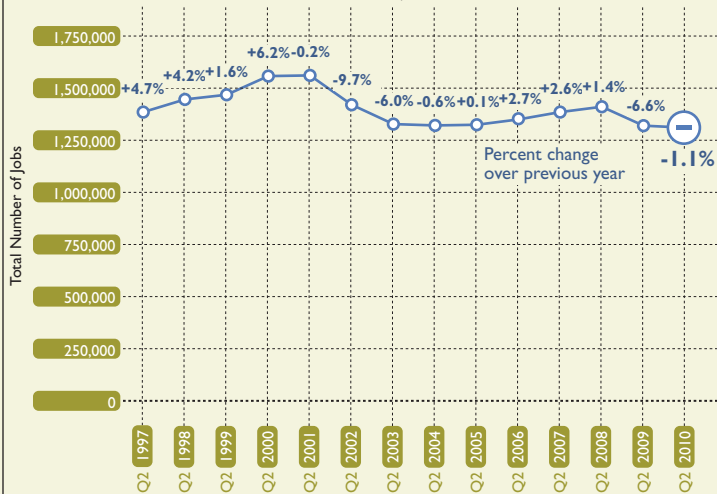
**Total Employed Residents by Month**  
San Mateo & Santa Clara Counties



\*Data for December 2010 is preliminary  
Note: Data is not seasonally adjusted.  
Data Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics (LAUS)  
Analysis: Collaborative Economics

## Quarterly Job Growth

**Number of Silicon Valley Jobs in Second Quarter with Percent Change over Prior Year**  
Silicon Valley



Data Source: California Employment Development Department, Labor Market Information Division, Quarterly Census of Employment and Wages  
Analysis: Collaborative Economics

## Silicon Valley Employment in Public Sector

	2007	2010	% Change
Local Gov. Admin.	11,870	11,659	-2%
State Gov. Admin.	79	64	-19%
<b>TOTAL EMPLOYMENT</b>	<b>11,949</b>	<b>11,723</b>	<b>-2%</b>

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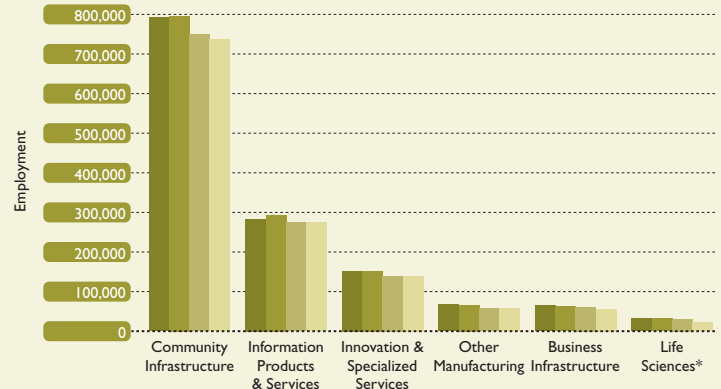
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## Silicon Valley Employment Growth by Percent Change in Quarter 2

Major Areas of Economic Activity	2008-09	2009-10
Innovation & Specialized Services	-8%	+2%
Information Products & Services	-7%	0%
Community Infrastructure	-6%	-1%
Other Manufacturing	-10%	-6%
Business Infrastructure	-7%	-6%
Life Sciences*	-6%	-36%
<b>TOTAL EMPLOYMENT</b>	<b>-7%</b>	<b>-1%</b>

## Silicon Valley Major Areas of Economic Activity

### Average Annual Employment



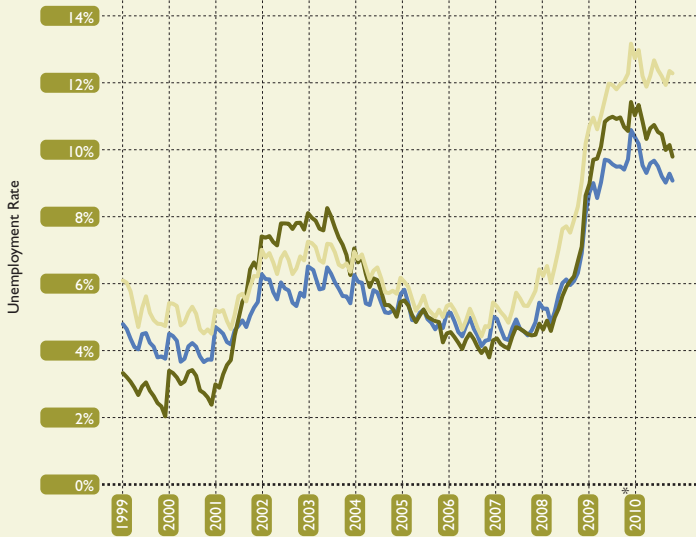
\*In 2010, employment in Pharmaceuticals was suppressed for confidentiality reasons, causing the significant drop in total Life Sciences employment.

Data Source: California Employment Development Department, Labor Market Information Division, Quarterly Census of Employment and Wages

Analysis: Collaborative Economics

## Unemployment Rate

San Mateo & Santa Clara Counties, California and the United States



\*Data for December 2010 is preliminary.

Data Source: U.S. Bureau of Labor Statistics, Current Population Survey (CPS) and Local Area Unemployment Statistics (LAUS)

Analysis: Collaborative Economics

— United States  
— California  
— San Mateo & Santa Clara Counties

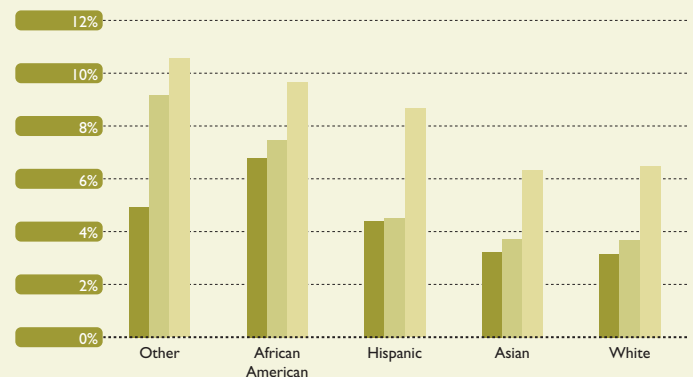
## Percent Change in Unemployed by Ethnicity

### Santa Clara County 2008-2009

Hispanic	+96%
White	+74%
Asian	+70%
African American	+34%
Other	+27%

## Percent Unemployed by Ethnicity

Santa Clara County



Note: Other includes the category Two or More Races in 2008 and 2009

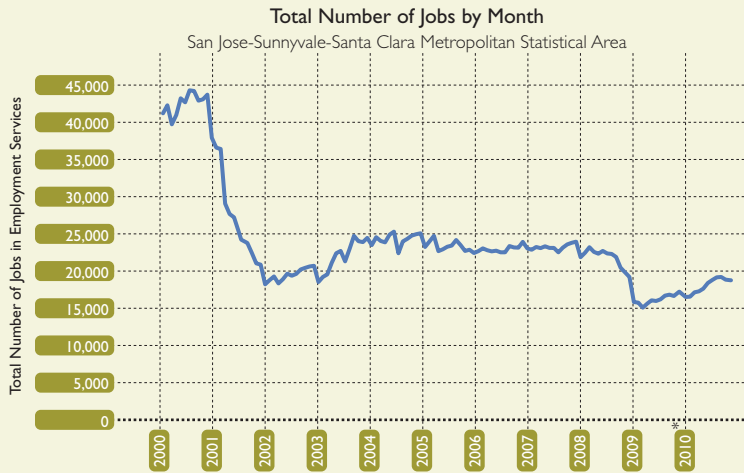
\*Date for Two or More Races is not available for 2007

Data Source: U.S. Census Bureau

Analysis: Collaborative Economics



## Monthly Jobs In Employment Services



\*Data for December 2010 is preliminary  
 Note: Data includes employment for the Employment Services Industry, and is not seasonally adjusted  
 Data Source: California Employment Development Department, Labor Market Information Division, Current Employment Statistics Survey (CES)  
 Analysis: Collaborative Economics

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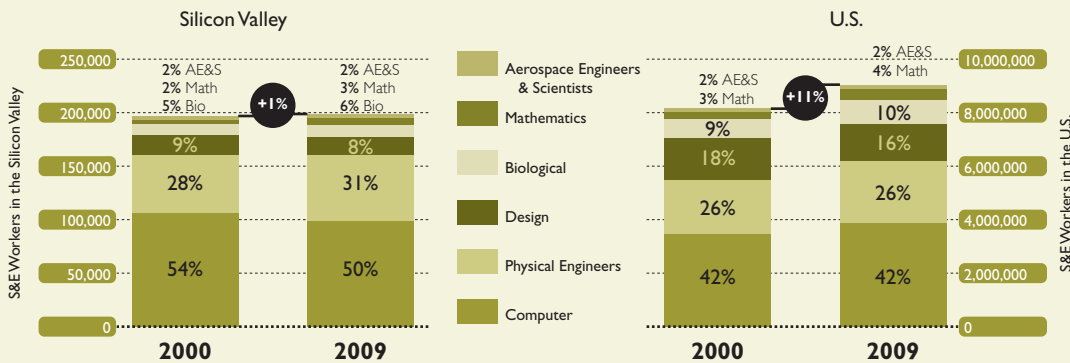
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## Science and Engineering Talent by Category



Data Source: U.S. Census Bureau, 2000 Decennial PUMS, 2009 American Community Survey PUMS  
 Analysis: Collaborative Economics

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# Innovation

*With patent registrations and investment on the rise, innovation is picking up its pace again in the region.*

# ECONO

## WHY IS THIS IMPORTANT?

Innovation drives the economic success of Silicon Valley. More than just in technology products, innovation includes advances in business processes and business models. The ability to generate new ideas, products and processes is an important source of regional competitive advantage. To measure innovation, we examine the investment in innovation, the generation of new ideas, and the value-added across the economy. Additionally, tracking the areas of venture capital investment over time provides valuable insight into the region's longer-term direction of development.

## HOW ARE WE DOING?

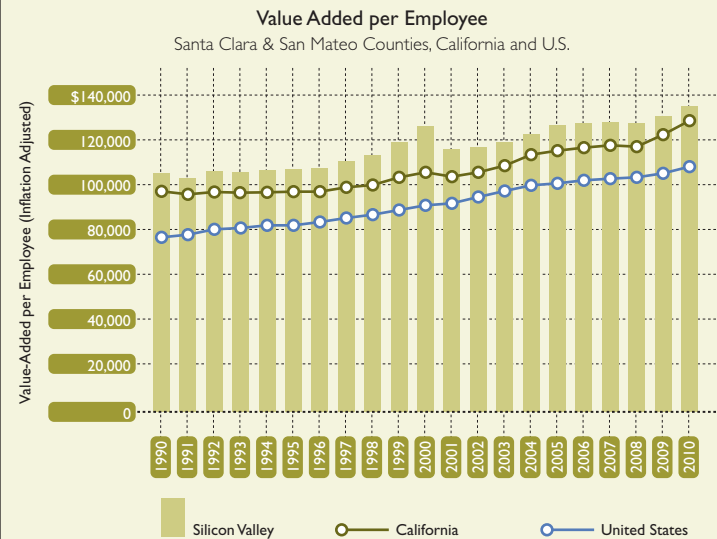
An indicator for the overall health of the region's economy is productivity. Value added per employee increased nearly four percent each year following 2008 and in 2010, reached the highest value ever reported. This growth over the last two years is based in large part on productivity gains due to companies cutting jobs and work hours. The sustainability of these gains in Silicon Valley will depend on many different factors. Since 2001, value added per employee has increased 17 percent in Silicon Valley, 24 percent in California, and 18 percent in the United States.

The number of patents registered in Silicon Valley jumped by nine percent in 2009 over the prior year, while the total number of U.S. patents increased by six percent. Silicon Valley's percentage of patent registrations in the U.S. and in California continued to increase between 2008 and 2009. By technology area, Computers, Data Processing & Information Storage represented 38 percent of the region's total patents. From 2008 to 2009 patent activity in Communications increased 23 percent.

Marking the first increase since 2007, venture capital (VC) investment in Silicon Valley rose five percent over the previous year, reaching nearly \$5.9 billion. The region accounted for 27 percent of the nation's total VC investment and 53 percent of the state's in 2010. By industry, Software attracts the largest share of total investment but funding flows are increasing in other areas. Following robust growth over the last few years, investment in Industrial/Energy remains strong. Funding continues steadily in Biotechnology and Medical Devices. Investment increased 55 percent in IT Services and 196 percent in Telecommunications from 2009 to 2010.

Up eleven percent from the prior year, cleantech venture capital investment in Silicon Valley exceeded \$1.5 billion in 2010. Although falling from the peak of \$2.2 billion in 2008, cleantech investment is strong and becoming more concentrated in Silicon Valley and the state as a whole. In 2010 the region accounted for 23 percent of total U.S. cleantech investment, up from 20 percent in 2009. Statewide, the region represented 39 percent of total investment, down from 57 percent in 2009. Reflecting Silicon Valley's strength in solar technology, Energy Generation accounted for 49 percent of the region's total cleantech VC investment in 2010, up from 35 percent in 2009. Also surging in 2010, investment in Transportation expanded as a percentage of total from 20 percent in 2009 to 27 percent.

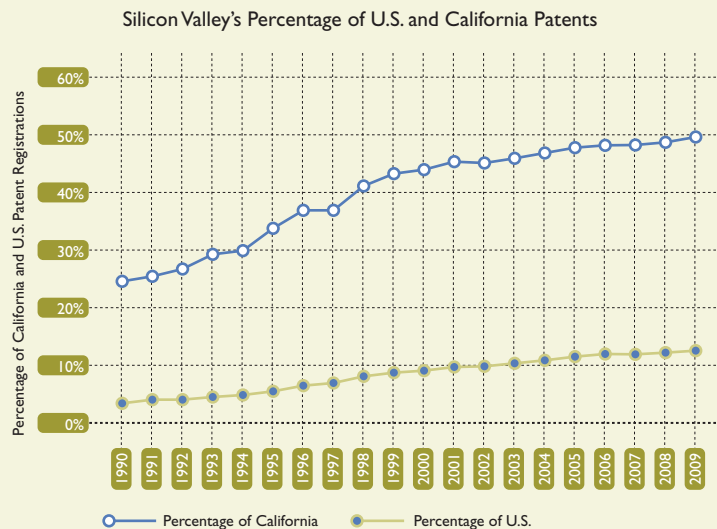
### Value Added



### Percent Change in Value Added per Employee

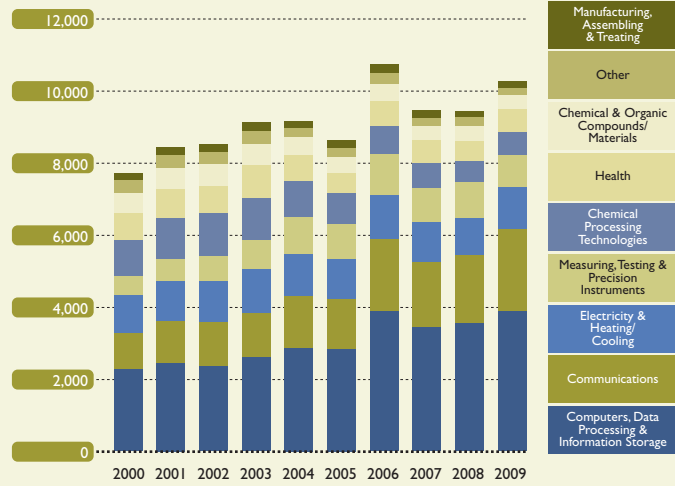
	2009-2010
Silicon Valley	<b>+3.6%</b>
California	<b>+4.8%</b>
United States	<b>+3.3%</b>

### Patent Registrations



## Patent Registrations

By Technology Area  
Silicon Valley



Data Source: U.S. Patent and Trademark Office  
Analysis: Collaborative Economics

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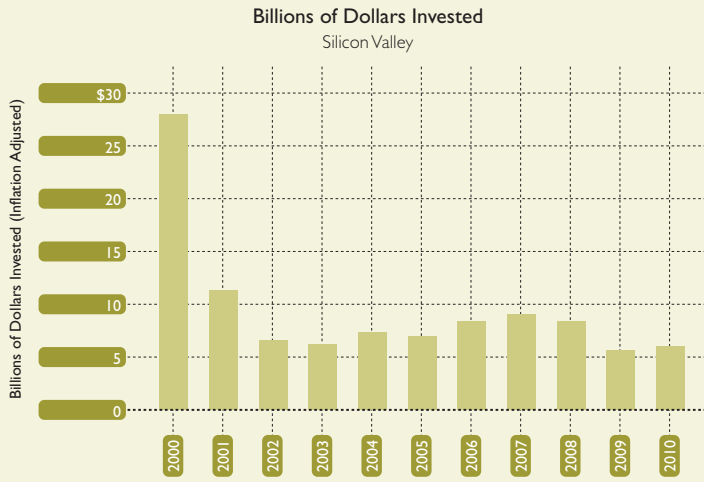
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## Venture Capital Investment

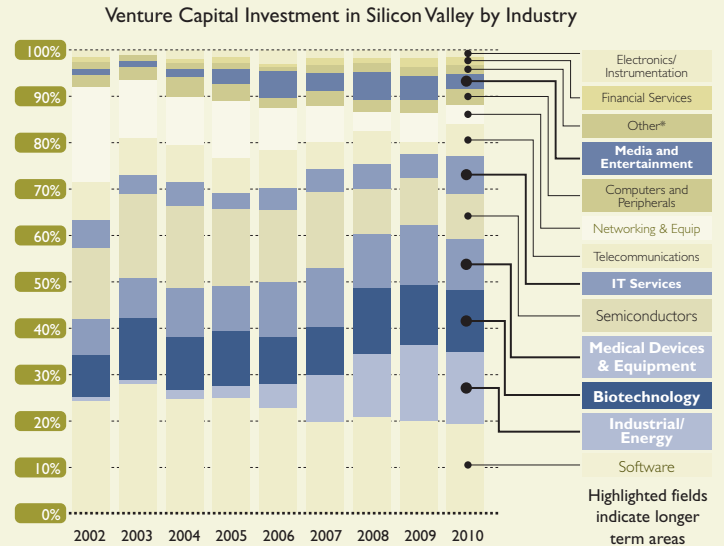


Data Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report, Data: Thomson Reuters  
Analysis: Collaborative Economics

## Silicon Valley Venture Capital Investment

	%CA	%U.S.
2000	54%	22%
2005	58%	27%
2010	53%	27%

## Venture Capital by Industry



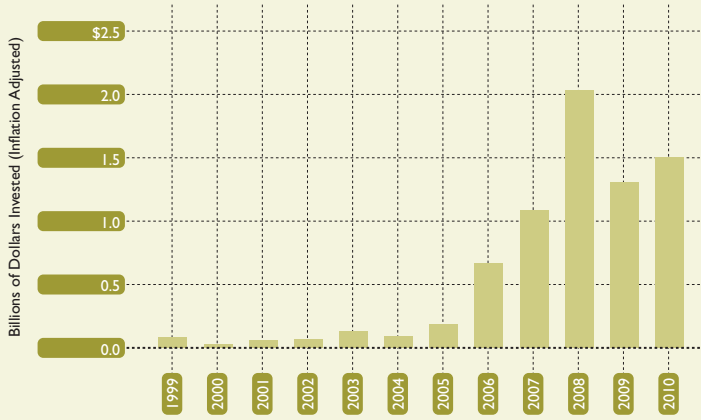
\*Other includes Financial Services, Retailing/Distribution, Business Products & Services, Consumer Products & Services, Healthcare Services, and other unclassified deals

Data Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report, Data: Thomson Reuters  
Analysis: Collaborative Economics



## Venture Capital Investment in Clean Technology

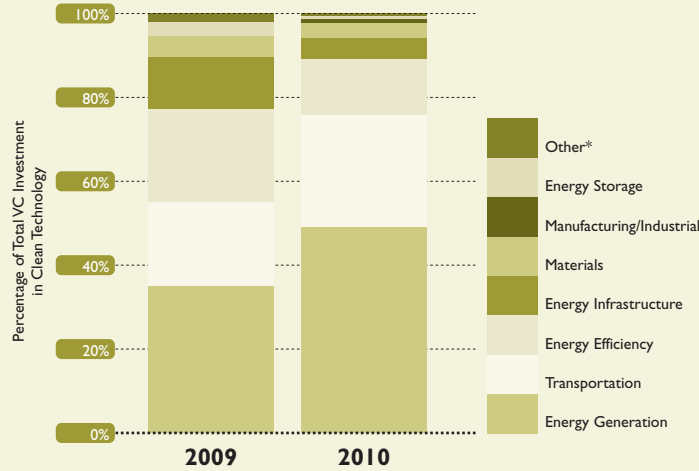
Billions of Dollars Invested  
Silicon Valley



Data Source: Cleantech Group™, LLC (www.cleantech.com)  
Analysis: Collaborative Economics

## VC Investment in Clean Technology by Segment

Percentage of Total VC Investment in Clean Technology  
Silicon Valley



\*Other includes Agriculture, Air & Environment, and Water & Wastewater  
Data Source: Cleantech Group™, LLC (www.cleantech.com)  
Analysis: Collaborative Economics

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*Entrepreneurship in the form of business starts, IPOs, mergers and acquisitions are picking up, yet business financing is still constrained.*

## WHY IS THIS IMPORTANT?

Entrepreneurship is an important element of Silicon Valley's innovation system. Entrepreneurs are the creative risk takers who create new value and new markets through the commercialization of novel and existing technology, products and services. A region with a thriving innovation habitat supports a vibrant ecosystem for businesses to start up and to grow.

The activity of mergers and acquisitions and initial public offerings indicate that a region is cultivating innovative and potentially high-value companies. The movement of business establishments to and out of the region provides some insight into the continued attractiveness of the region for business. When hiring slows, some people go into business for themselves, and structural change is evident as the growth of companies without employees (nonemployers) outpaces the growth in payroll employment. Small business financing is vital for start-ups as well as established businesses wanting to grow.

## HOW ARE WE DOING?

Over the last decade, the percentage of the population starting a business has increased regionally, statewide and nationally. (Since this is a measure by place of residence, the geographic distribution does not indicate necessarily where the business is located.) While this increase has not been as strong in the San Jose MSA (Santa Clara and San Benito Counties), the stronger growth in the rest of the Bay Area may reflect in part the growing activity related to digital media taking place in San Mateo and San Francisco Counties. This could mean that the stronger labor market in Santa Clara County presents higher opportunity costs to leaving a good job to start a business. The slight change in entrepreneurship from 1996-98 to 2007-09 can be explained in part by people turning to self-employed business ownership during the economic decline.<sup>2</sup>

Globally initial public offerings (IPOs) have increased more than two and a half times between 2009 and 2010 after plummeting in 2008. U.S. IPO pricings reached 154 in 2010, up from 64 the year before. With one IPO in 2009 and eleven in 2010, Silicon Valley's share of total U.S. IPO pricings increased from two percent to seven percent in 2010. In the vibrant cleantech sector, Silicon Valley accounted for two of the ten U.S. cleantech IPOs in 2010.

Mergers and acquisitions (M&As) increased 21 percent in 2010 (as of December 9, 2010) after falling precipitously two years after 2007. With 960 deals, activity is similar to levels in 2008 with 945 deals. In 2010, Silicon Valley accounted for over half of all M&As in California.

Robust growth in new business starts was reported for Silicon Valley between January 2008 and 2009. Up 48 percent over the prior year, the region added a total of 27,500 new establishments. Business closings increased moderately at eight percent. On average each year since 1995, the region has gained roughly 17,000 new businesses through start ups and in-migration and lost 10,000 establishments through closings and out-migration. The average net change in Silicon Valley establishments, a gain of 6,700, is the equivalent of 3.3 percent of total Silicon Valley establishments in 2009.

The percentage of businesses moving into the region increased three percent from January 2008 to 2009. Typically, migration out of the region has exceeded migration into Silicon Valley ever year from 1995 to 2009, with a majority of the movement staying within the state. This suggests that the region is a high-value "incubator," and that as companies expand, they seek out locations nearby.

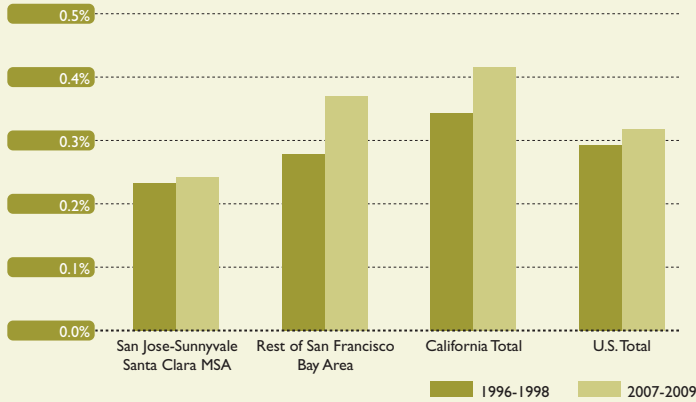
The number of nonemployers (individuals or partnerships with no employees) dropped two percent from 2007 to 2008 after expanding 19 percent between 2002 and 2008. Twenty-eight percent of the region's nonemployers are in Professional, Scientific, & Technical Services. Nationally, this sector only represents 14 percent of nonemployers. This high concentration suggests a high level of specialization in the region. From 2002 to 2008, the number of nonemployer firms grew the fastest in the industries of Healthcare & Social Assistance and Information, with gains of 36 percent and 32 percent, respectively. In the most recent observable year, Health Care as well as Educational Services jumped four percent each reporting the largest gains from 2007 to 2008.

Between 1996 and 2009, small business loans in the region increased by 56 percent in total value (from \$1.3 billion to \$2 billion in 2009) and by 210 percent in total number of loans. By both measures, the region outpaced the nation which reported growth of 30 percent in total value and 95 percent in total number of loans over the same period. After peaking in 2007 nationwide, small business loan activity in the region dropped 46 percent in value (from \$3.8 billion to \$2 billion) and 63 percent in total number of loans.

<sup>2</sup> Fairlie, R., and Chatterji, A. (2010, October) "High-Technology Entrepreneurship in Silicon Valley: Opportunities and Opportunity Costs". Page 24

## Percent of Population Starting a Business

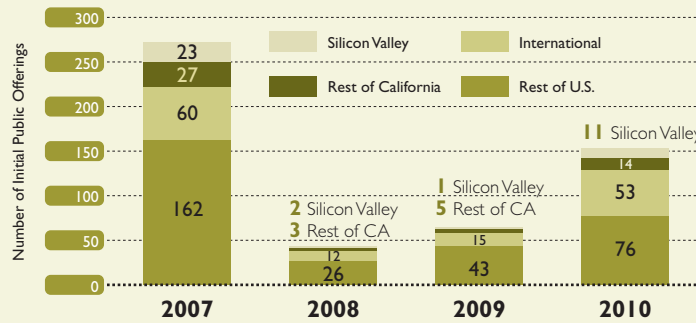
Rates by Geographical Area



Data Source: Kauffman Index; U.S. Census Bureau, Current Population Survey  
 Analysis: Robert W. Fairlie, University of California, Santa Cruz

## Initial Public Offerings

Total Number of U.S. IPO Pricings



Note: Location based on corporate address provided by IPOhome.com  
 Data Source: Renaissance Capital's IPOhome.com  
 Analysis: Collaborative Economics

## IPO Pricings in Clean Technology

	2005	2006	2007	2008	2009	2010
Silicon Valley	2	0	0	0	0	2
Rest of CA	1	3	3	1	0	3
Rest of U.S.	2	13	14	4	4	5

Data Source: Cleantech Group™, LLC  
 Analysis: Collaborative Economics

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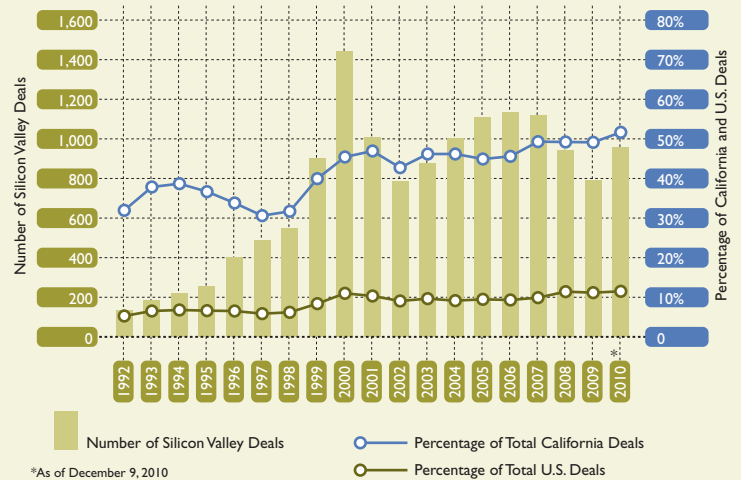
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## Mergers & Acquisitions

### Number of Deals

Silicon Valley, California and U.S.



\*As of December 9, 2010  
 Note: Deals include Buyers and Sellers  
 Data Source: Factset Mergerstate LLC  
 Analysis: Collaborative Economics

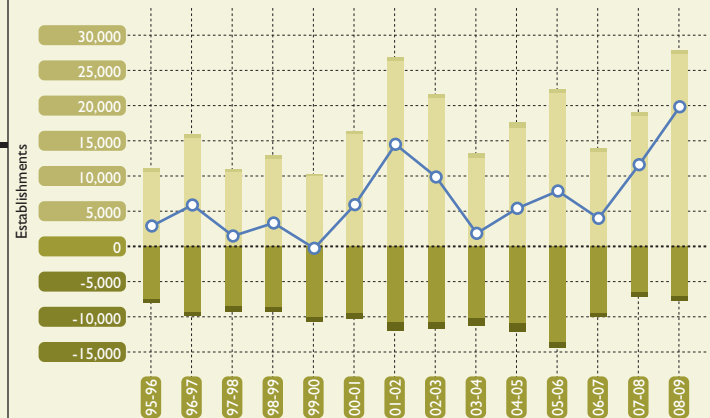
### M&As in Clean Technology – Number of Deals, by Date Closed

	2004	2005	2006	2007	2008	2009	2010
Silicon Valley	0	1	1	4	2	0	0
Rest of CA	0	3	7	10	14	6	0
Rest of U.S.	1	22	51	74	66	9	1

Data Source: Cleantech Group™, LLC  
 Analysis: Collaborative Economics

## Establishment Churn

Santa Clara & San Mateo Counties



Data Source: National Establishment Time Series Database (NETS)  
 Analysis: Collaborative Economics

Firms Moving In (Firm Openings)  
 Firms Closing (Firms Moving Out)  
 Net Establishment Churn (Gain - Loss)

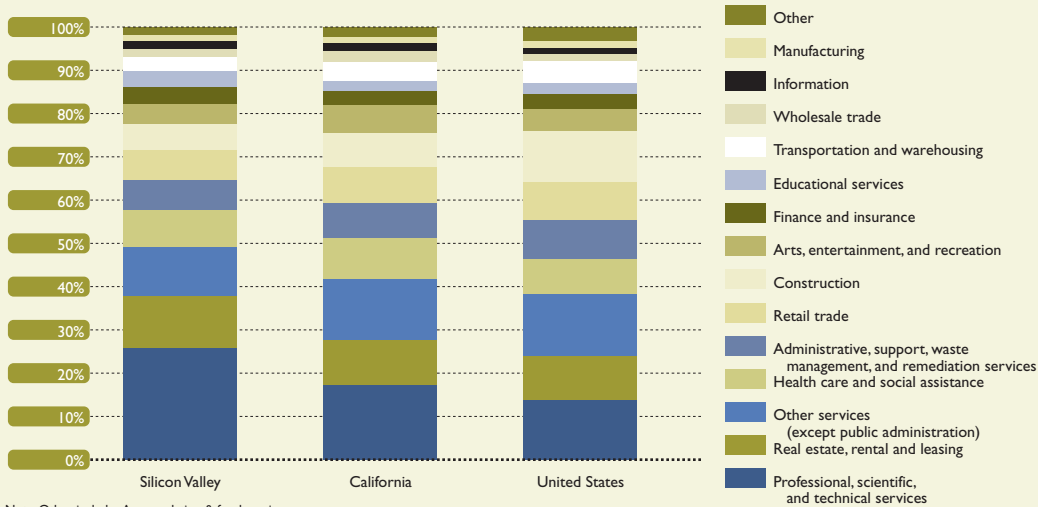
### Santa Clara and San Mateo Counties – Percent of Total

	Establishments		Jobs	
	1995-1996	2008-2009	1995-1996	2008-2009
From Rest of CA	88%	56%	73%	56%
From Rest of U.S.	12%	44%	27%	44%
To Rest of CA	82%	54%	55%	29%
To Rest of U.S.	18%	46%	45%	71%

Data Source: Cleantech Group™, LLC  
 Analysis: Collaborative Economics

## Percentage of Nonemployers by Industry, 2008

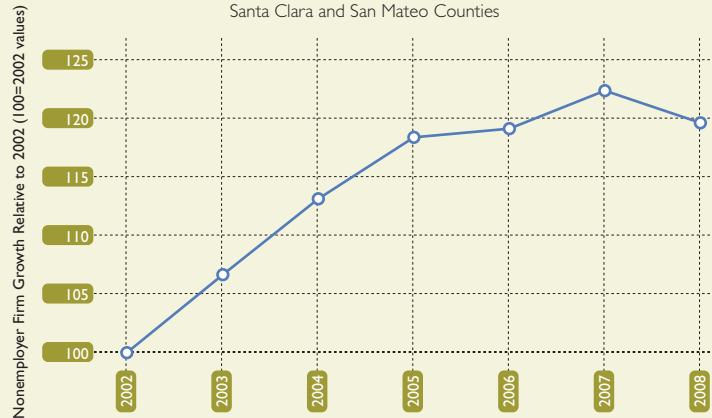
Silicon Valley, California, and the U.S.



Note: Other includes Accommodation & food services, mining, quarrying and oil & gas extraction, agriculture, forestry, fishing & hunting, and utilities  
 Data Source: U.S. Census Bureau  
 Analysis: Collaborative Economics

## Nonemployer Firm Growth Relative to 2002

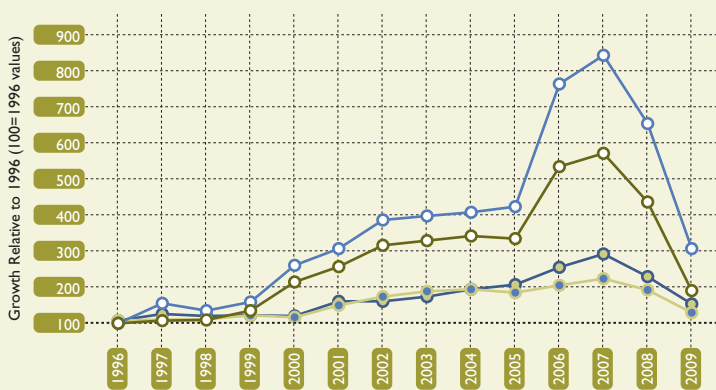
Santa Clara and San Mateo Counties



Data Source: U.S. Census Bureau  
 Analysis: Collaborative Economics

## Relative Growth of Small Business Loans

Santa Clara & San Mateo Counties



Data Source: Federal Financial Institutions Examination Council (FFIEC)  
 Analysis: Collaborative Economics

**Total Value (in Billions)**      **Percent Change**  
 1996    2007    2009      96-09    07-09

Silicon Valley	\$1.29	\$3.76	\$2.02	+56%	-46%
U.S.	\$147.40	\$327.78	\$191.62	+30%	-42%

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# ECONOMY

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# Income

*After falling two years in a row, incomes have stabilized at 2005 levels.*

# ECONO

## WHY IS THIS IMPORTANT?

Earnings growth is as important a measure of Silicon Valley's economic vitality as job growth. A variety of income measures presented together provides an indication of regional prosperity and the distribution of prosperity. Real per capita income rises when a region generates wealth faster than its population increases. The median household income is the income value at the middle of all income values. Examining median income by educational attainment and ethnicity reveals the complexity of our income gap. The Gini Index is the standard measure for income inequality. Tracking trends in food stamp participation provides an additional indication for economic stress in the region.

## HOW ARE WE DOING?

The region's real per capita income ended its two-year long fall in 2010, stabilizing at roughly \$62,400. Similar patterns were reported statewide and nationally, returning income to 2005 values. By ethnic group, per capita income fell for all groups between 2007 and 2009 except for Black and Multiple & Other groups, which reported gains of two and six percent, respectively. Whites reported the highest earnings across all three years and took the biggest hit (in dollars) in 2009. Hispanics maintained the lowest per capita income and experienced the largest percentage drop of 7.5 percent from 2007 to 2009.

Silicon Valley's median household income dropped three percent in 2009 to \$86,400. Statewide median income inched up less than one percent, while nationally, income slipped two percent. Across all educational levels, real median household income in 2009 sunk to below 2005 levels, and regional losses outpaced those for the state and nation. High school graduates witnessed the greatest income drop of 13 percent over the four-year period. Median income fell only three percent for people with graduate and professional degrees.

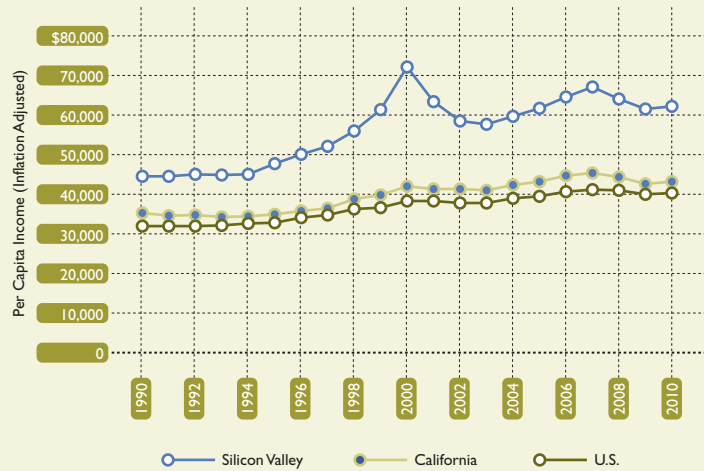
Income inequality in Silicon Valley, as measured by the Gini Index, appears to be diminishing at a faster rate than in the state and nation. The Gini Index is measured on a scale of zero to one, where perfect income equality is represented by zero and maximum income inequality is represented by one. In 2009, Silicon Valley measured 0.45 on the Gini Index, 0.02 points below both the state and the nation at 0.47. Since 2006, the region has made progress toward greater income equality, with a 1.4 percent drop on the Gini Index. This small improvement stands out when compared to the state's 0.2 percent increase and the nation's 1.1 percent increase over the same time period.

Food stamp participation in the region is increasing. Since 2007, the percentage of the population participating in the Food Stamp Program increased from 2.6 percent to four percent. Statewide, participation surged from 5.3 percent in 2007 to 8.1 percent in 2010. Nationwide food stamp participation as a percentage of total population reached 13 percent in 2010, compared with only two percent in 1970.



## Real Per Capita Income

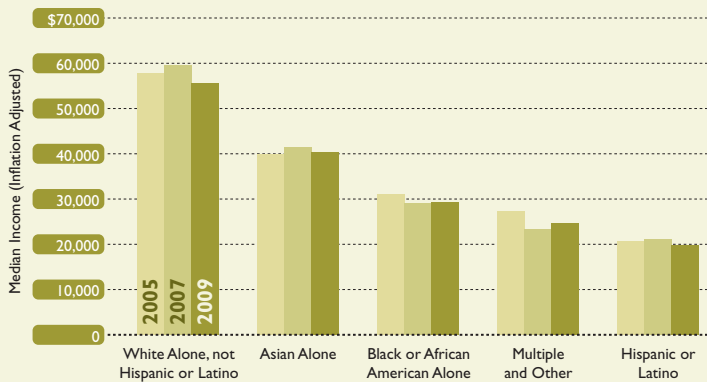
Santa Clara & San Mateo Counties and U.S.



Note: Personal income is defined as the sum of wage and salary disbursements (including stock options), supplements to wages and salaries, proprietors' income, dividends, interest, and rent, and personal current transfer receipts, less contributions for government social insurance  
 Data Source: Moody's Economy.com  
 Analysis: Collaborative Economics

## Per Capita Income by Race & Ethnicity

Santa Clara & San Mateo Counties



Note: Multiple & Other includes Native Hawaiian & Other Pacific Islander Alone, American Indian & Alaska Native Alone, Some Other Race Alone, and Two or More Races  
 Data Source: U.S. Census Bureau, American Community Survey  
 Analysis: Collaborative Economics

## Percent Change in Per Capita Income – 2007-2009

	Silicon Valley	California	United States
White, non-Hispanic	-7%	-6%	-4%
Asian, non-Hispanic	-3%	-2%	-3%
Black, non-Hispanic	+2%	-2%	-3%
Multiple & Other	+6%	-12%	-6%
Hispanic	-7%	-7%	-7%

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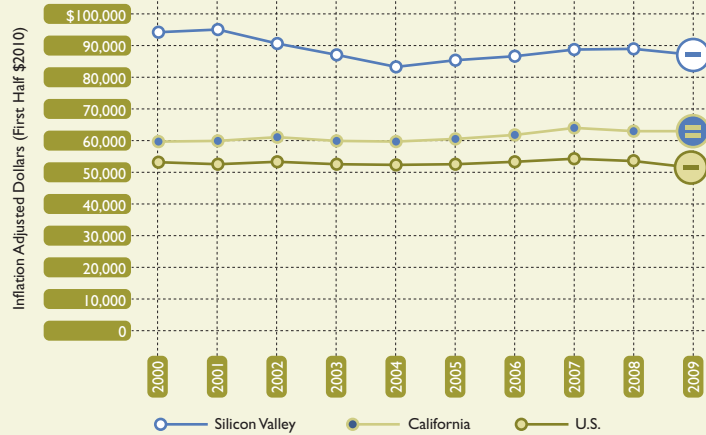
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## Median Household Income

Santa Clara & San Mateo Counties, California and U.S.



Note: Household income includes wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income from estates and trusts; Social Security or railroad retirement income; Supplemental Security income; public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income; excluding stock options.

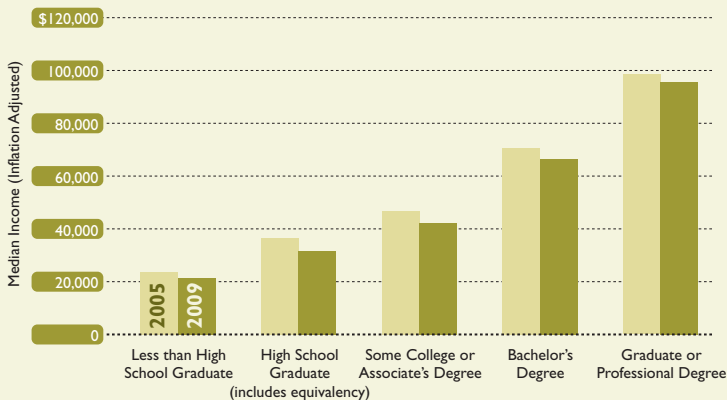
Data Source: U.S. Census Bureau, American Community Survey  
Analysis: Collaborative Economics

### Percent Change in Median Household Income 2008-2009

- Silicon Valley -3%
- California 0%
- United States -2%

## Median Income by Educational Attainment

Santa Clara & San Mateo Counties



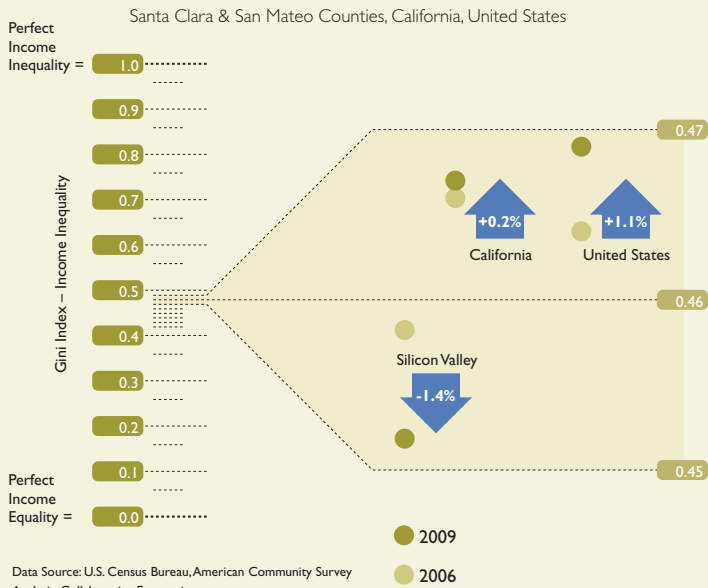
Note: Some College includes Less than 1 year of college; Some college, 1 or more years, no degree; Associate degree; Professional certification

Data Source: U.S. Census Bureau, American Community Survey  
Analysis: Collaborative Economics

### Percent Change in Median Income by Educational Attainment - 2005-2009

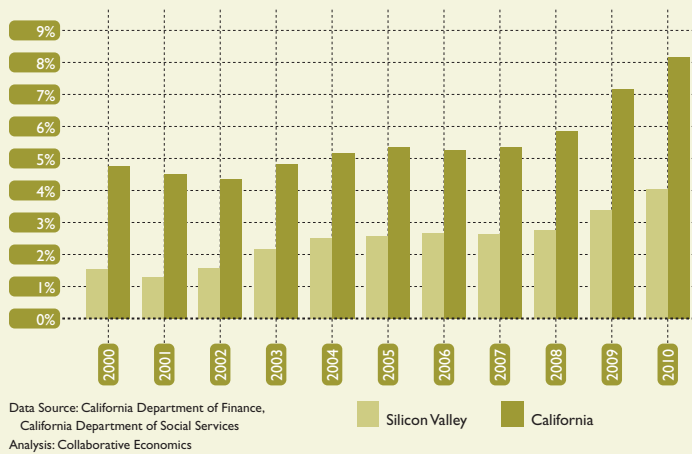
	Silicon Valley	California	United States
Less than High School	-12%	-8%	-9%
High School Graduate	-13%	-10%	-8%
Some College	-9%	-10%	-8%
Bachelor's Degree	-7%	-6%	-2%
Graduate or Professional Degree	-3%	-2%	-1%

## Gini Index – Income Inequality



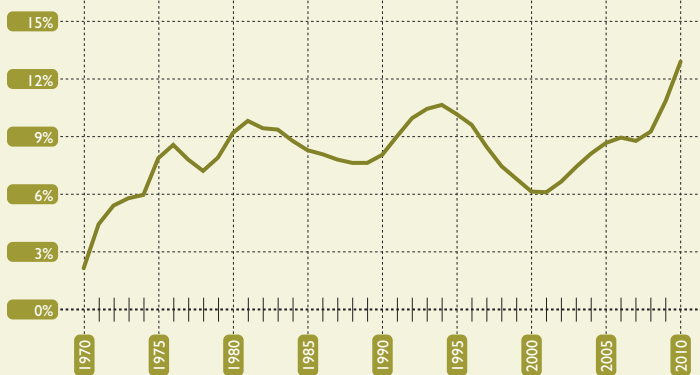
## Food Stamps

Food Stamp Participants as a Percent of Resident Population  
Santa Clara & San Mateo Counties and California



## Food Stamps

Food Stamp Participants as a Percent of U.S. Population



Data Source: U.S. Department of Agriculture; U.S. Census Bureau  
Analysis: Collaborative Economics

### Food Stamp Participation as Percent of U.S. Population

1970	2010	Growth 1970-2010
+2%	+13%	+11%

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# Preparing for Economic Success

*The region's youth are making progress on multiple measures of achievement, but gaining access to higher education is becoming more challenging.*

## WHY IS THIS IMPORTANT?

The future success of the region's young people in a knowledge-based economy will be determined largely by how well elementary and secondary education in Silicon Valley prepares its students for higher levels of education.

How well the region is preparing its youth for postsecondary education can be observed in graduation rates and the percentage of graduates completing courses required for entrance to the University of California (UC) or California State University (CSU). Likewise, high school dropouts are significantly more likely to be unemployed and earn less when they are employed than high school graduates. Indicators in gateway skills such as algebra proficiency are highly correlated with later academic success. As tuition rises in both the CSU and UC systems statewide, paying for college becomes a growing barrier to obtaining a university-level education.

## HOW ARE WE DOING?

Graduation rates improved one percent in the region and fell two percent statewide from 2007-08 academic year to 2008-09. Up from three percent from the prior year, 50 percent of high school graduates in Silicon Valley met UC/CSU requirements in the 2008-09 school year. Compared with California, 15 percent more graduates met these requirements in the region.

African Americans showed the greatest improvement over the previous year with a three percent increase in overall graduation rates and an eight percent increase in those graduates meeting UC/CSU requirements. Asian (95%), White (93%) and Filipino (92%) groups reported the highest graduation rates and American Indians reported the lowest at 73 percent.

Of all Silicon Valley eighth graders tested in 2010, 55 percent scored proficient or higher on the California Standards Test (CST) Algebra I Test. After falling from a peak of 61 percent in 2006 to 53 percent in 2007, 55 percent represents gradual progress.

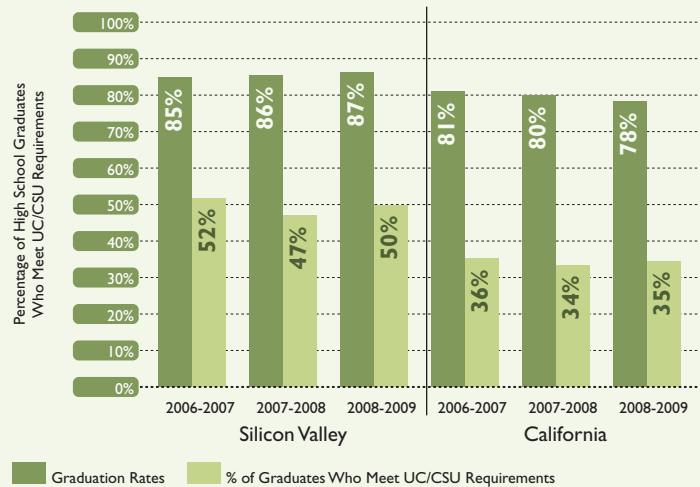
Total enrollment in the UC and CSU schools is slowing, and the percentage of enrolled foreign students is growing. Following a dramatic drop in 2004, enrollment in the UC/CSU schools increased ten percent over the five-year period. Possibly a result of increasing tuition costs, total enrollment slowed to less than one percent from 2008 to 2009 - the smallest increase in the last five years. UC enrollment has grown at a faster rate than the CSU system since 2004, but CSU comprises approximately two thirds of total enrollment. Foreign enrollment increased 26 percent from 2004 to 2009 and three percent just in the last year. In 2009, foreign students accounted for six percent of UC enrollment and five percent of CSU enrollment.

After falling in the 2006-07 academic year, the percentage of full-time freshmen with student loans or some form of financial aid in 2007-08 jumped nationwide. In terms of loans and financial aid, a smaller percentage of students receive financial aid.

# SOCIETY

## High School Graduation

Rate of Graduation and Share of Graduates Who Meet UC/CSU Requirements  
Silicon Valley High Schools

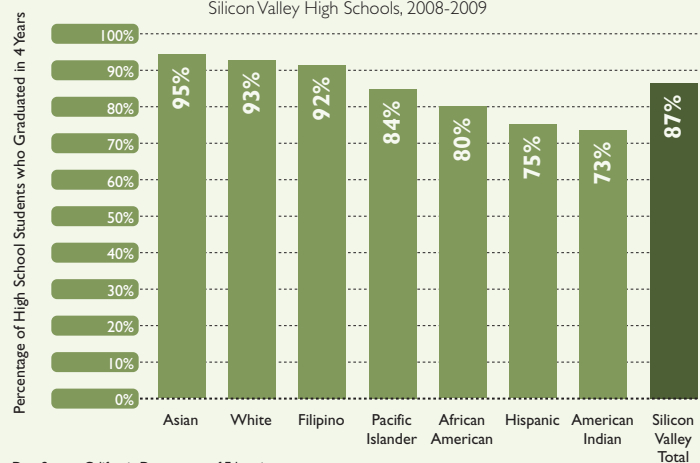


Notes: 2006-07 marks the first year in which the CDE derived graduate and dropout counts based upon student level data  
Data Source: California Department of Education  
Analysis: Collaborative Economics

## High School Graduation Rates

### By Ethnicity

Silicon Valley High Schools, 2008-2009

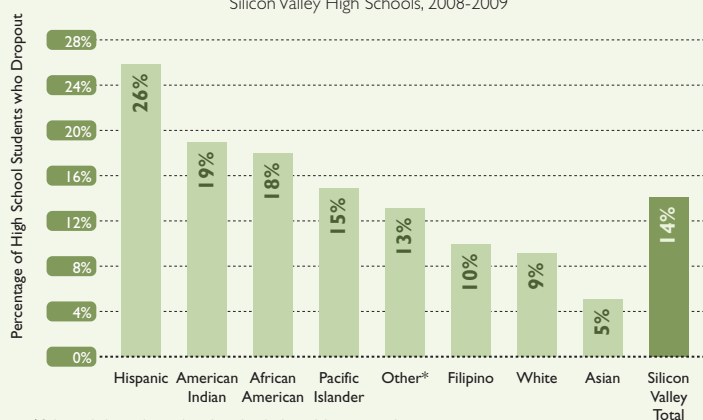


Data Source: California Department of Education  
Analysis: Collaborative Economics

## High School Dropout Rates

### by Ethnicity

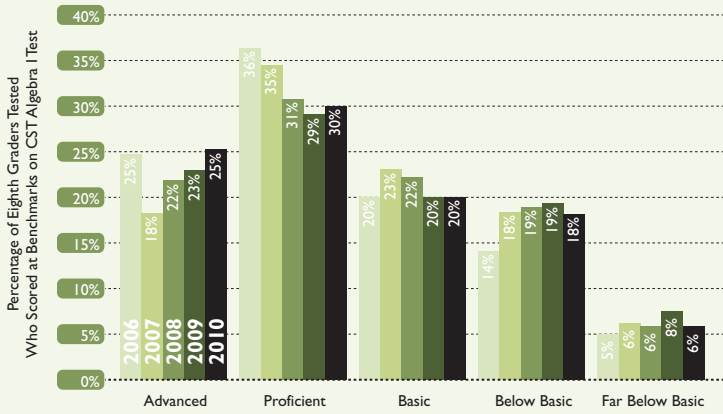
Silicon Valley High Schools, 2008-2009



\*Other includes students who selected multiple or did not respond  
Data Source: California Department of Education  
Analysis: Collaborative Economics

## Algebra I Scores

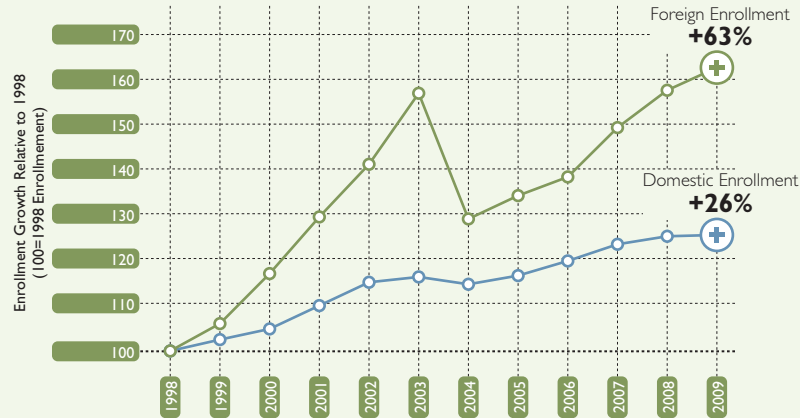
Percentage of Eighth Graders Tested Who Scored at Benchmarks on CST Algebra I Test  
Silicon Valley Public Schools



Data Source: California Department of Education  
Analysis: Collaborative Economics

## Enrollment Growth

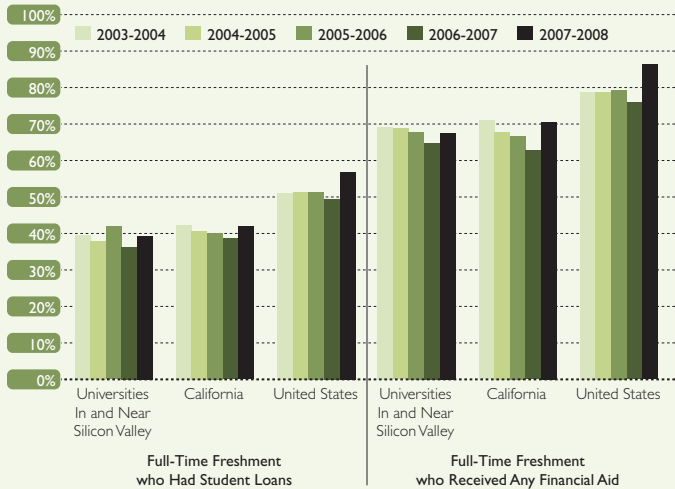
Enrollment Growth Relative to 1998  
University of California and California State Universities



Data Source: RAND California Education Statistics  
Analysis: Collaborative Economics

## College Student Debt

Percentage of Full-Time Freshmen who Received Student Loans and Financial Aid  
Universities in and near Silicon Valley, California, and United States



Note: Data for the universities in and near Silicon Valley has been averaged together for a regional total.  
Data is only for 4-year colleges or above.

Data Source: The Institute for College Access and Success; College Insight  
Analysis: Collaborative Economics

## Average Amount of Student Loans Received by Full-time Freshmen Who Borrowed

Region	2003-04	2007-08	% Change
Silicon Valley	\$4,167	\$5,332	+28%
California	\$4,290	\$4,846	+13%
Nation	\$4,591	\$5,606	+22%

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# Early Education

*Disparities persist by ethnicity in English-language arts proficiency.*

# SOCIETY

## WHY IS THIS IMPORTANT?

When children are subject to positive early childhood experiences – including attendance in high quality preschool programs – that enhance their physical, social, emotional and academic wellbeing and skills, they enter school ready to learn and are more likely to perform better in later school years. Children’s school success is in part a function of increasing literacy. Research shows that children who read well in the early grades are far more successful in later years; and those who fall behind often stay behind when it comes to academic achievement.<sup>3</sup> Success and confidence in reading are critical to long-term success in school.

## HOW ARE WE DOING?

The Silicon Valley region reflects the highest rate of preschool enrollment for children aged three to five. Forty-three percent of this age group was enrolled in preschool in the Silicon Valley, compared with 41 percent nationally and 38 percent statewide. Rebounding from a decline in 2008, preschool enrollment in the region increased one percent.

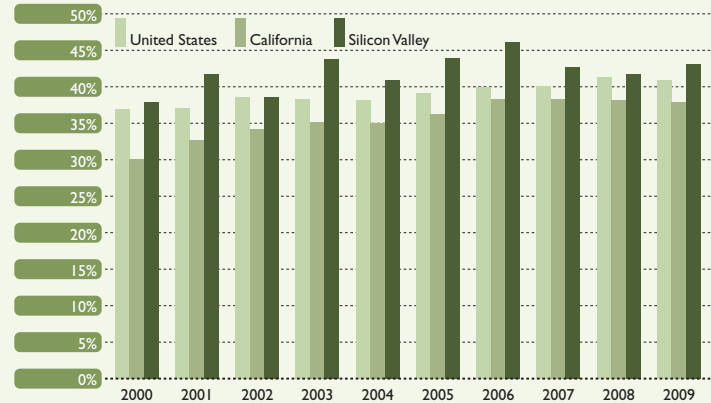
Disparities exist in English-Language Arts proficiency by race and ethnicity: 70 percent of Latinos and 60 percent of African American students scored at the basic, below basic or far below basic benchmark levels. Although among the lowest performing groups, African American students scoring proficient or better improved by nine percent. Of all ethnic groups, Chinese children accounted for the largest share (58%) in the advanced level with an additional 25 percent scoring at the Proficient level.

The percentage of students between the ages of five and 17 receiving free lunch has been on the rise statewide and in Silicon Valley. A measure of growing economic stress, participation has increased five percent in the region and seven percent statewide since 2007. In Silicon Valley, 30 percent of students received free lunch in 2009, and in California, participation reached 47 percent.

Primary and secondary public school enrollment Silicon Valley increased five percent between 2003 and 2010 at a relatively steady annual rate. In contrast, enrollment in private schools has fluctuated with the overall economy. As the economy recovered in 2005, private school enrollment increased until falling in 2008 in the economic downturn.

### Preschool Enrollment

Percentage of Population 3 to 5 Years of Age Enrolled in Preschool  
Santa Clara & San Mateo Counties, California, and the United States



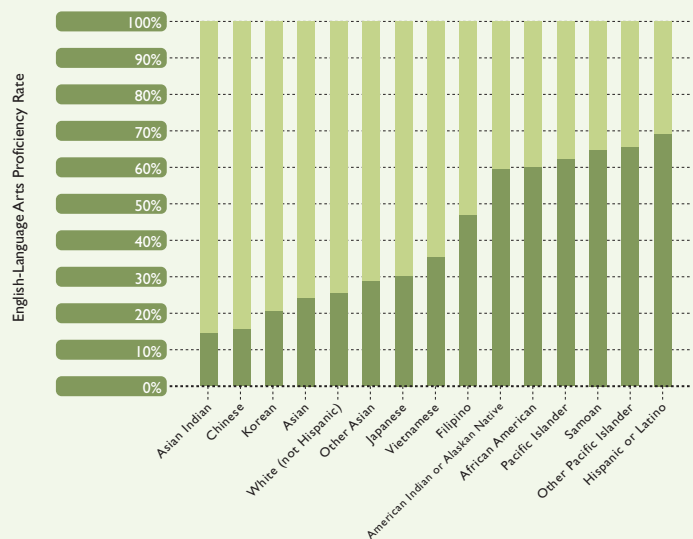
Note: Data includes enrollment in preschool and nursery school, and population for children three to five years of age.  
Data Source: U.S. Census Bureau, 2002-2009 American Community Survey and 2000-2001 Supplementary Survey  
Analysis: Collaborative Economics

Percentage of Population Enrolled in Preschool (Ages 3 to 5) 2009

Silicon Valley	43%
California	38%
United States	41%

### Third Grade English-Language Arts Proficiency by Race/Ethnicity

San Mateo & Santa Clara Counties, 2010



Note: Ethnic groups not included did not have data available  
Data Source: California Department of Education  
Analysis: Collaborative Economics

<sup>3</sup> Snow, C., M.S. Burns & P. Griffin. 1998. Preventing Reading Difficulties in Young Children. Washington, D.C.: National Academy Press.

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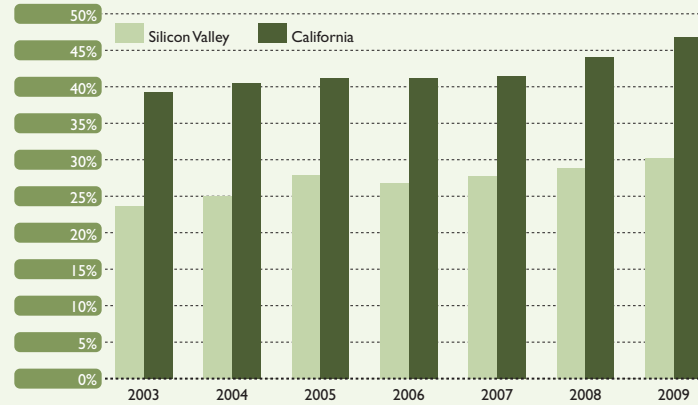
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### Free School Meals

Percent of Students Receiving Free Meals  
 California and Silicon Valley



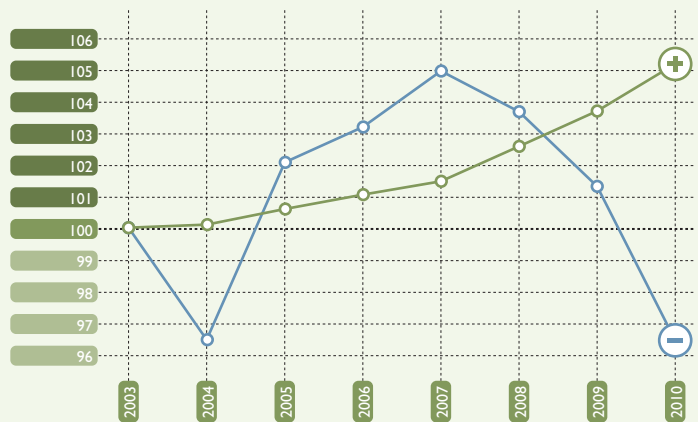
Data Source: California Department of Education  
 Analysis: Collaborative Economics

### Percentage of Students Receiving Free Meals 2009

Silicon Valley	30%
California	47%

### Public/Private School Enrollment

Relative Growth in Public and Private School Enrollment  
 Santa Clara & San Mateo Counties



Data Source: California Department of Education  
 Analysis: Collaborative Economics

Public Schools Private Schools



# Arts and Culture

*Silicon Valley's cultural and social offerings contribute to building community attachment.*

# SOCIETY

## WHY IS THIS IMPORTANT?

Art and culture are integral to Silicon Valley's economic and civic future. Participation in arts and cultural activities spurs creativity and increases exposure to diverse people, ideas and perspectives. Creative expression is also important to an economy based on innovation. How well the region supports its arts and cultural organizations—especially in relation to household income—is an important measure of our overall vitality. A vital arts community is also a factor in a region's attraction and retention of talent.

Over the past three years, the John S. and James L. Knight Foundation and Gallup have gathered insights from nearly 43,000 individuals across 26 American communities about people's emotional attachment to their community. According to the Knight Foundation, the drivers behind creating emotional bonds are common across places. Higher than jobs, the economy, and safety, people highly value an area's physical beauty, opportunities for socializing, and a community's openness to all people.

## HOW ARE WE DOING?

A healthy cultural scene includes both successful and supported nonprofit arts organizations as well as a vibrant commercial entertainment and nightlife sector. How residents rate these offerings is telling of their sense of attachment to place. In general, the survey results reveal that residents of other comparable regions rate the quality of local art and cultural offerings more highly than Silicon Valley's residents. The survey polled residents on how they rated the arts and cultural offerings broadly, the vibrancy of nightlife, and social and community events in their regions. Residents were also asked how welcoming their region is to young, talented college graduates.

When considering local arts and cultural offerings in general, 28 percent of Silicon Valley (San Jose MSA) residents gave the region high marks. In contrast, based on the nation-wide average of the 26 communities examined, 35 percent of residents in other places gave their regions high scores. Social and community events scored high ratings by 31 percent of Silicon Valley residents compared to 33 percent of polled residents in the other regions.

In Gallup's survey of Silicon Valley, residents were asked to rate the quality of "a vibrant nightlife with restaurants, clubs, bars, etc." in each of the past three years. While still trailing many comparative regions, improvement was evidenced in 2010. After dropping from 23 percent to 18 percent between 2008 and 2009, 22 percent of residents polled in 2010 gave the region a high rating. In contrast, 28 percent of polled residents in other places gave their regions high marks.

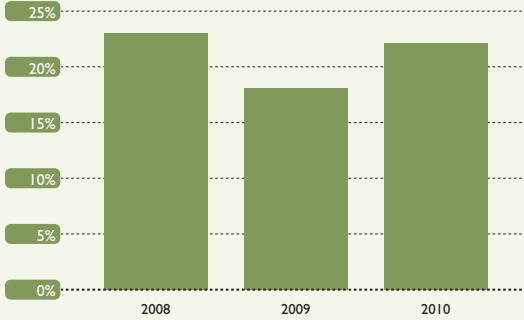
While reflecting only one facet of a vibrant cultural sector, nightlife has strong appeal for talented young college graduates – a driving force in our innovation-driven economy. Outpacing other regions, 19 percent of respondents scored Silicon Valley highly in terms of how welcoming the region is to young, talented college graduates in 2010. However, this represents a drop from 30 percent of respondents in 2008.



Data Source: Knight Soul of the Community, A Project of John S. and James L. Knight Foundation and Gallup  
Analysis: 1st ACT

### Vibrant Nightlife

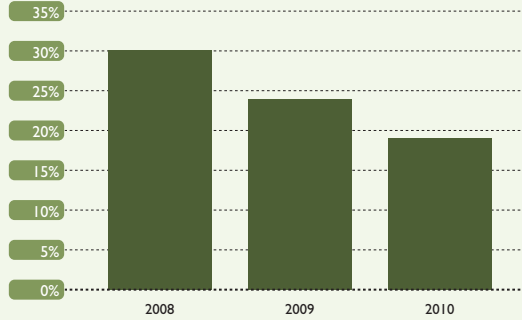
San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area



Data Source: Knight Soul of the Community, A Project of John S. and James L. Knight Foundation and Gallup  
Analysis: 1st ACT

### Openness to Young, Talented College Graduates

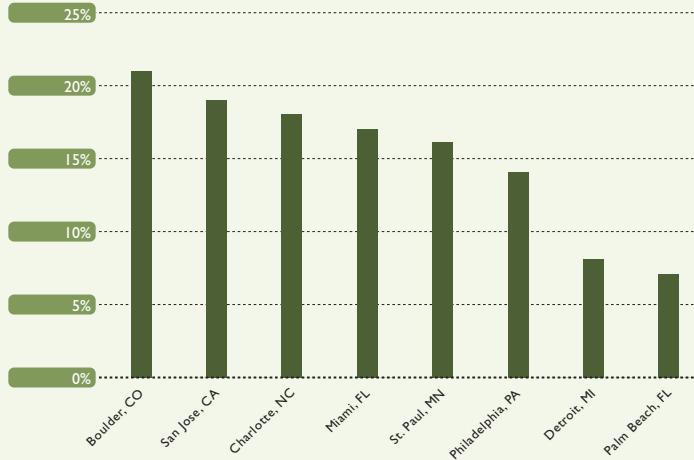
San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area



Data Source: Knight Soul of the Community, A Project of John S. and James L. Knight Foundation and Gallup  
Analysis: 1st ACT

### Openness to Young, Talented College Graduates

Percentage of Residents Rating Highly of a Region  
2010



Data Source: Knight Soul of the Community, A Project of John S. and James L. Knight Foundation and Gallup  
Analysis: 1st ACT

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# Quality of Health

*The region's residents exhibit signs of improved health. However, health insurance coverage is waning.*

# SOCIETY

## WHY IS THIS IMPORTANT?

Poor health outcomes generally correlate with poverty, poor access to preventative health care, lifestyle choices, and education. Early and continued access to quality, affordable health care is important to ensure that Silicon Valley's residents are healthy and prosperous. For instance, timely childhood immunizations promote long-term health, save lives, prevent significant disability and reduce medical costs. Health care is expensive, and individuals with health insurance are more likely to seek routine medical care and to take advantage of preventative health-screening services.

Infant and maternal mortality rates, obesity, and diabetes are fundamental indicators of public health. Over the past two decades, obesity has risen dramatically in the United States and its occurrence is not limited to adults. Being overweight or obese increases the risk of many diseases and health conditions, including Type 2 diabetes, hypertension, coronary heart disease, stroke and some types of cancers. These conditions have significant economic impacts on the nation's health care system as well as the overall economy due to declines in production.

## HOW ARE WE DOING?

The percentage of kindergarten students who have received all required immunizations is higher in Silicon Valley than in the state as a whole in every year reported. However, rates have fallen since 2006 in both geographies.

Although Silicon Valley residents are more likely to have health insurance than California residents overall, the percent of the population without health insurance increased by four percent between 2007 and 2009 in Silicon Valley and the state as a whole. In the region, the uninsured increased from 14 percent to 18 percent of all residents, and statewide, the jump was from 20 percent to 24 percent. Job-based coverage declined by five percent during the same period in Silicon Valley and six percent statewide. Sharp increases in unemployment have contributed to falling rates of job-based coverage.<sup>4</sup>

Silicon Valley reports higher rates of health insurance coverage for children and adults. Since 2008, coverage has improved one percent for children under age 18 across all geographies. For adults between the ages of 18 and 64, coverage dropped one percent in the region to 84 percent. Health insurance coverage is highest for individuals age 65 and older due to Medicare and Medicaid programs.

Obesity among the region's residents appears to be slowing; however, the percentage of the region's adult population classified as overweight has increased. Down from 18 percent two years before, in 2007, 16 percent of the adult population in Silicon Valley had a body mass index value classifying them as obese. The percentage of adults in the region classified as overweight increased by five percent between 2005 and 2007. Statewide, obese individuals increased steadily by four percent over this period while the percentage of the population classified as overweight dropped by two percent.

Six percent of Silicon Valley's adult population in 2009 had been diagnosed with diabetes at some time. Related directly to obesity, adult rates of diabetes have risen consistently since 2003 in California reaching eight percent in 2009. Over this period, the percentage of adults with diabetes in California grew by 2.2 percent.

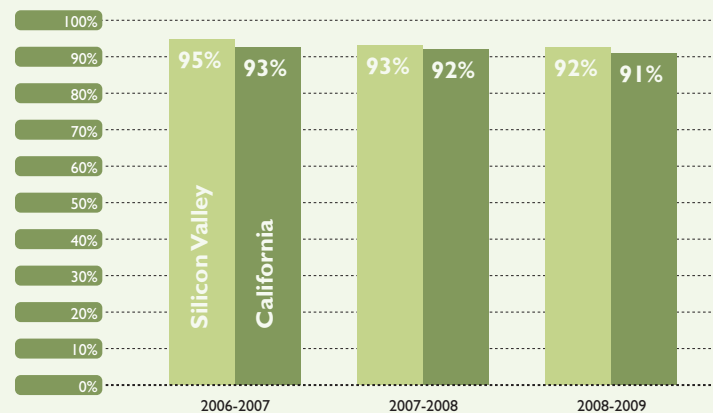
In 2007, 12 percent of Silicon Valley residents had ever been diagnosed with asthma, compared with 14 percent statewide. The percentage of the population diagnosed with asthma has fluctuated slightly in the region since 2005 and increased slightly each year statewide.

Teen birth rates declined substantially in Silicon Valley and California. After a slight rise in 2006, teen births declined 11.7 percent in Silicon Valley and nine percent in the state as a whole in 2009.

While little progress is being made in maternal mortality rates, infant mortality rates are dropping. Peaking in the 2006, the maternal mortality rate increased 33 percent in Silicon Valley, and 114 percent in the state as a whole between 1999 and 2008. In the most recent reported year, the maternal mortality rate remained constant in Silicon Valley and increased 15 percent statewide. The infant mortality rate in Silicon Valley dropped from 4.0 to 3.4 deaths per 1,000 live births in 2008. The infant mortality rate in California rose to seven per thousand in 2007, and dropped to 5.1 per thousand births in 2008.

### Kindergarten Immunizations

Percent of Kindergarten Students with All Required Immunizations  
Santa Clara & San Mateo Counties, and California

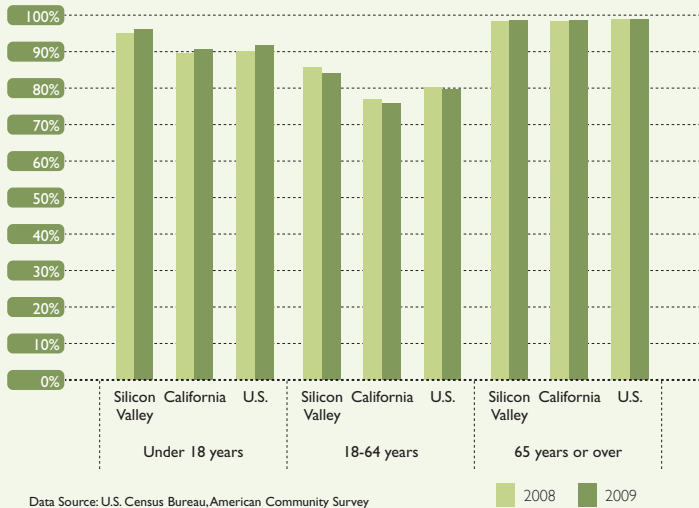


Data Source: California Department of Public Health, Kindergarten Immunization Assessment  
Analysis: Collaborative Economics

<sup>4</sup> Lavarreda, S.A., Chia, Y.J., Cabezas, L. and Roby, D. (2010, August). California's Uninsured by County. Retrieved from <http://www.healthpolicy.ucla.edu/NewsReleaseDetails.aspx?id=61>

### Percentage of Population with Health Insurance

Santa Clara & San Mateo Counties, California and the U.S.



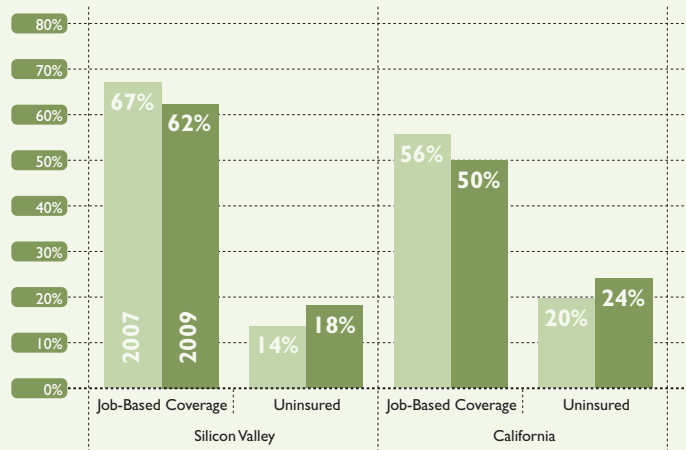
Data Source: U.S. Census Bureau, American Community Survey  
Analysis: Collaborative Economics

### Silicon Valley Percent with Health Insurance

	2008	2009
Under 18 years	95%	96%
18 to 64 years	85%	84%
65 years or more	98%	98%

### Percent of Uninsured Population

San Mateo & Santa Clara Counties, and California



Note: Uninsured includes the population that was uninsured all or part of the year  
Data Source: UCLA Center for Health Policy Research, California Health Insurance Survey  
Analysis: Collaborative Economics

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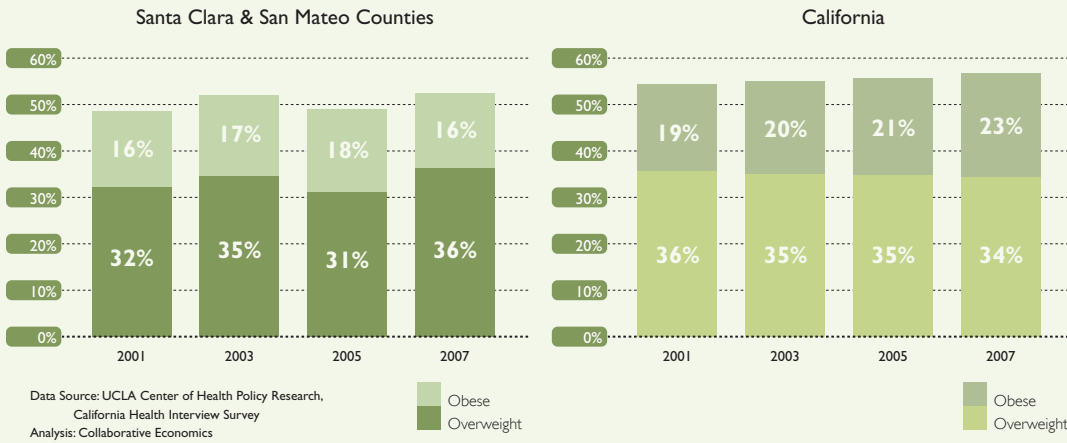
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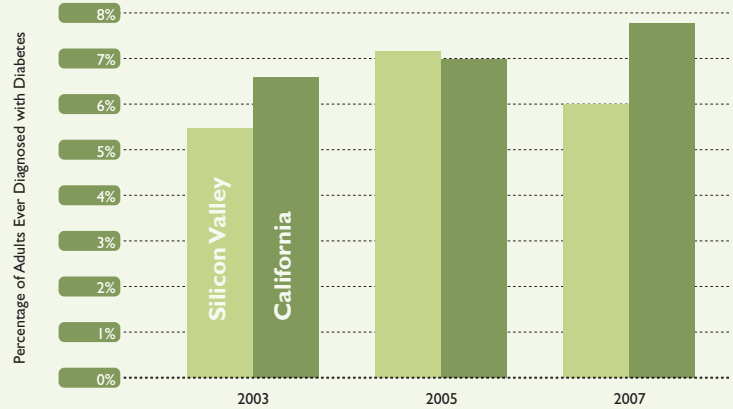
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## Percentage of Population that is Overweight or Obese



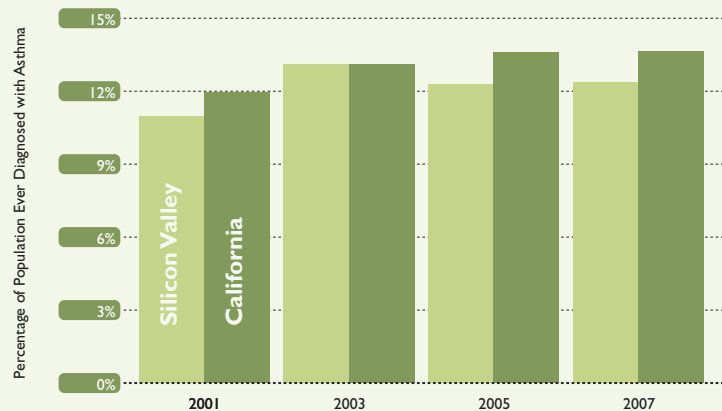
## Adult Diabetes

Percentage of Adults Ever Diagnosed with Diabetes  
Santa Clara & San Mateo Counties, and California



## Asthma

Percentage of Population Ever Diagnosed with Asthma  
Population 1 year of Age and Older  
Santa Clara & San Mateo Counties, and California



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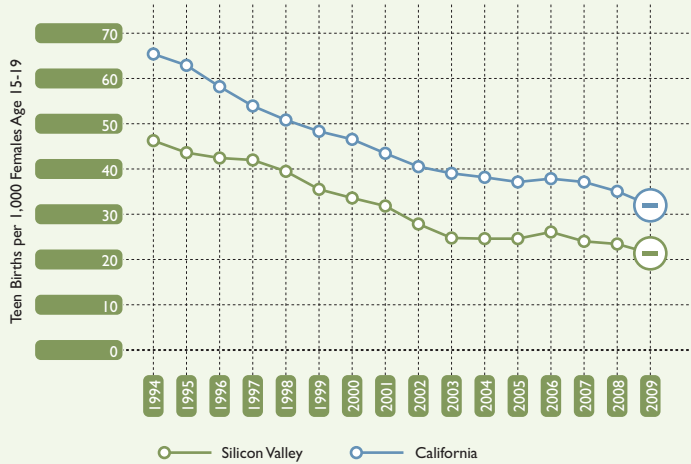
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### Teen Births

Teen Births per 1,000 Females Age 15-19  
Santa Clara & San Mateo Counties, and California



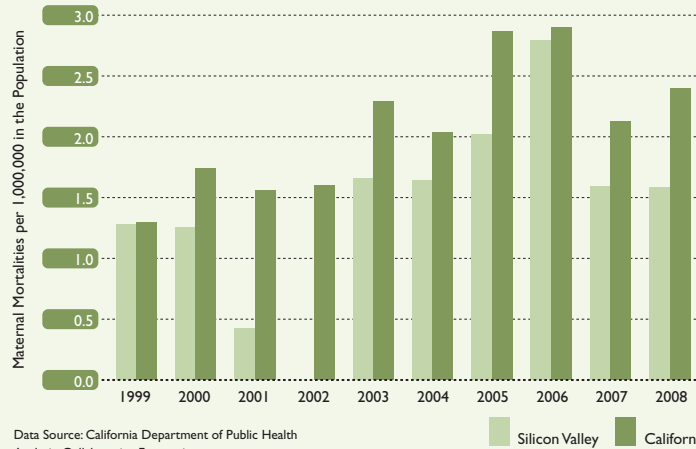
### Teen Birth Rate 2006-2009

Silicon Valley	-11.7%
California	-9.4%

Data Source: California Department of Public Health  
Analysis: Collaborative Economics

### Maternal Mortalities

Maternal Mortalities per 1,000,000 in the Population  
Santa Clara & San Mateo Counties, and California



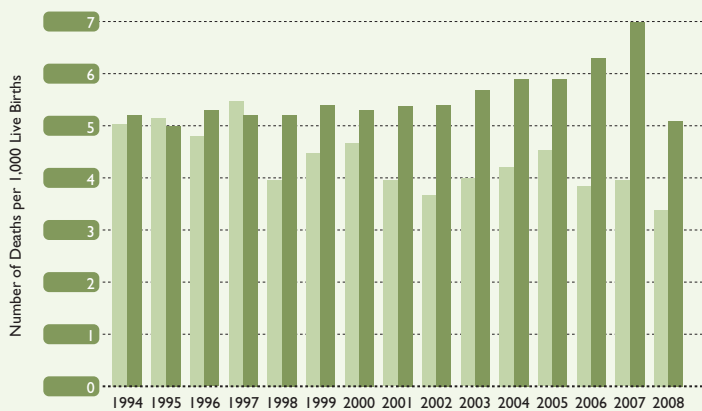
Data Source: California Department of Public Health  
Analysis: Collaborative Economics

### Maternal Mortality Rate 2006-2008

Silicon Valley	-43%
California	-15%

### Infant Mortality Rate

Number of Deaths per 1,000 Live Births  
Santa Clara & San Mateo Counties, California



Data Source: California Department of Public Health, Center for Health Statistics  
Analysis: Collaborative Economics

Adult and youth felony offenses continue to drop, but child welfare services are faced with shrinking budgets.

## WHY IS THIS IMPORTANT?

The level of crime is a significant factor affecting the quality of life in a community. Incidence of crime not only poses an economic burden, but also erodes our sense of community by creating fear, frustration and instability. Occurrence of child abuse/neglect is extremely damaging to the child and increases the likelihood of drug abuse, poor education performance and of criminality later in life. Research has also linked adverse childhood experiences, such as child abuse/neglect, to poor health outcomes including heart disease, depression, and liver and sexually transmitted diseases. Safety for the community starts with safety for children in our homes.

## HOW ARE WE DOING?

Until 2003, the rate of substantiated cases of child abuse in Silicon Valley consistently trailed statewide rates. Since then, regional rates have risen as California rates fell. The most recent year's data report a steep, two-year decline in Silicon Valley's rate of substantiated cases, dropping from 6.8 per 1,000 children in 2007 to 3.6 in 2009. The recent decline in cases from 2007 to 2008 can be explained in part by large funding cuts in social services programs for children. As the State cuts the number of social workers in child welfare programs, fewer reports of child abuse and neglect are investigated and more abused children are left without help.<sup>5</sup> Over the past few years, statewide cuts in child welfare and foster care programs<sup>6</sup> are estimated to cost the state 1,318 social workers in the Emergency Response program, resulting in roughly 250,000 reports of child abuse and neglect that will not be investigated in the coming year.<sup>7</sup>

Continuing a downward trend that began in 2006, adult and juvenile felony offenses declined in 2009. Silicon Valley juvenile felony offenses dropped eight percent from 2008 levels to 915 offenses per 100,000 juveniles, while statewide, juvenile felonies fell nine percent to 960 cases. Over the past decade, Silicon Valley and California adult felony offenses have followed a nearly identical pattern of rises and falls with statewide offenses consistently 50 percent above the region's.

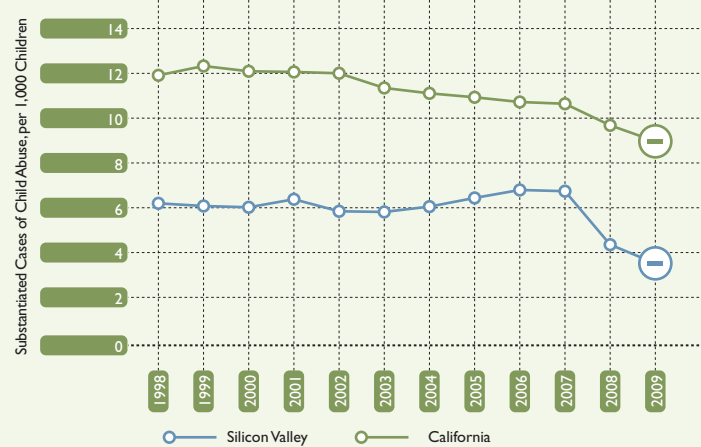
For the fourth consecutive year, adult drug offenses dropped to an all-time low of 312 per 100,000 adults, a decrease of five percent from 2008 to 2009. The number of patients checked into a drug and rehabilitation center dropped eight percent over the recent year.

The number of juvenile drug offenses has changed little over the past few years. After falling 19 percent in 2008, the number of juvenile clients entering drug and alcohol rehabilitation centers jumped 14 percent in 2009, bringing the total to just over 1,200.

After decreasing gradually over the previous two years, the 2009-10 academic year marked a jump in public school expulsions due to violence or drugs. Expulsions increased by 0.4 per 1,000 enrolled students in the Silicon Valley and by 0.2 statewide. In the region, expulsions peaked at 2.4 per 1,000 students, closing in on the state average of 2.9.

### Child Abuse

Substantiated Cases of Child Abuse per 1,000 Children  
Silicon Valley and California



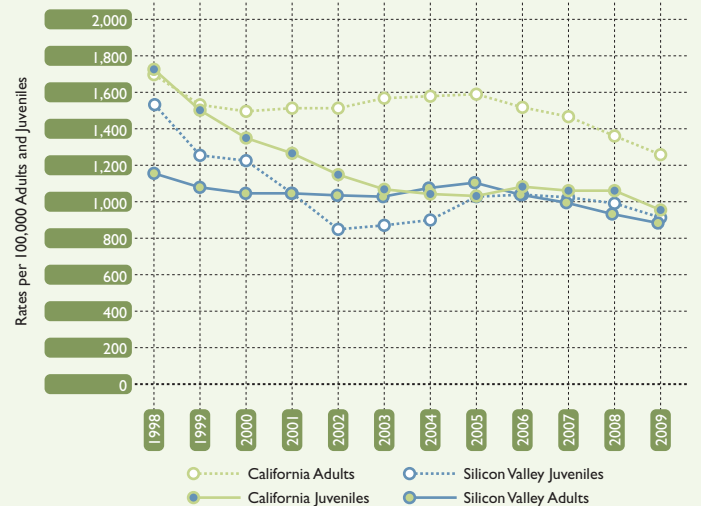
Note: The recent decline in cases from 2007 to 2009 can be explained in part by large funding cuts to social service programs for children.  
Data Source: California Department of Social Services, UC Berkeley Center for Social Services Research  
Analysis: Collaborative Economics

### Substantiated Cases

	2007	2009	% Change
Silicon Valley	4,169	2,191	-47%
California	107,471	90,472	-16%

### Felony Offenses

Felony Offenses per 100,000 Adults and Juveniles  
Santa Clara & San Mateo Counties, and California



Note: Felony offenses include violent, property, and drug offenses  
Data Source: California Department of Justice  
Analysis: Collaborative Economics

### Felony Offenses in the Region

	2008	2009	% Change
Adults	937	887	-5%
Juveniles	992	915	-8%

<sup>5</sup> Mecca, FJ. (2008, January 25). Child welfare services funding cut. Retrieved from <http://www.cwda.org/downloads/priorities/budget2008/BudgetMemo9.pdf>  
<sup>6</sup> Mecca, FJ. (2009, October 13). Cuts in California how billions in budget cuts will affect the Golden State. Retrieved from <http://projects.nytimes.com/california-budget/Social%20Services>  
<sup>7</sup> As a result of the state budget passed in October 2010, child welfare services sustained a direct cut of \$80 million and an additional loss of \$53 million in federal matching funds in 2010 which will continue in 2011. While Assembly Bill 12 was signed into law in the same week extending foster care services from the age of 18 to 21, mounting funding cuts will limit the impact of this new legislation. In addition, a \$256 million veto to CalWORKS child care programs for low-income families will increase pressure on the state's vulnerable populations making it difficult for low income families to return to work.  
Mecca, FJ. (2009, May 22). Child welfare services and foster care program cuts for abused and neglected children. Retrieved from [http://www.cwda.org/downloads/priorities/budget2009/BudgetMemo\\_07.pdf](http://www.cwda.org/downloads/priorities/budget2009/BudgetMemo_07.pdf)  
County Welfare Directors Association of California (CWDA) Statement in response to the Governor's 2010-11 budget vetoes (2010, October 8). "Governor's Vetoes Seal His Legacy: Hypocrite." Retrieved from [http://cwda.org/downloads/about/Gov\\_vetoes\\_10\\_8\\_10.pdf](http://cwda.org/downloads/about/Gov_vetoes_10_8_10.pdf)



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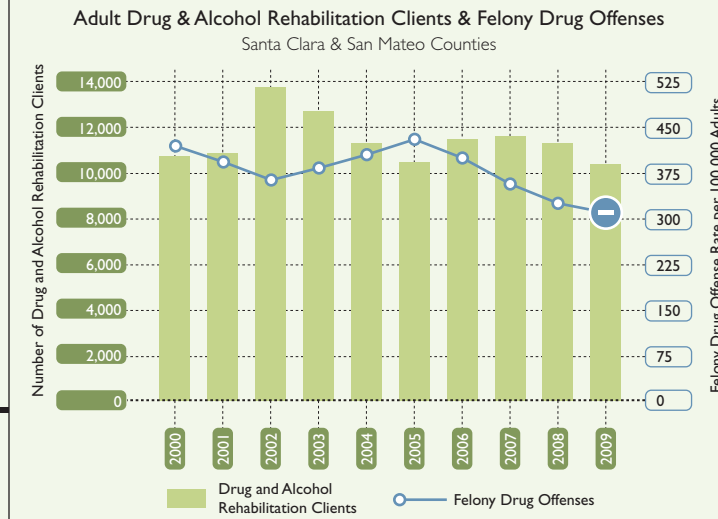
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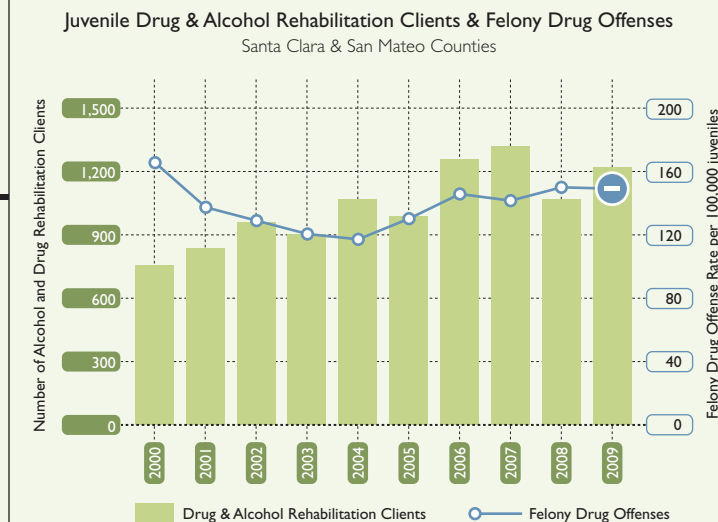
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### Drug Offenses & Services – Adult



Note: Data is in fiscal years  
Data Source: California Department of Justice; Santa Clara County Department of Alcohol & Drug Services; Alcohol & Drug Services Research Institute; San Mateo County Human Services Agency, Planning & Evaluation  
Analysis: Collaborative Economics

### Drug Offenses & Services – Juvenile



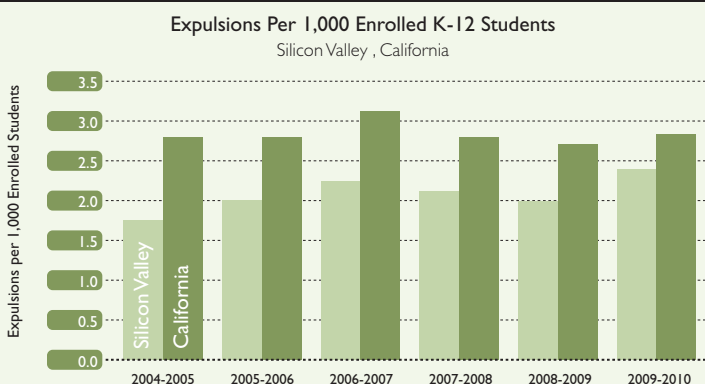
Note: Data is in fiscal years  
Data Source: California Department of Justice; Santa Clara County Department of Alcohol & Drug Services; Alcohol & Drug Services Research Institute; San Mateo County Human Services Agency, Planning & Evaluation  
Analysis: Collaborative Economics

### Total Number of Felony Drug Offenses and Drug & Alcohol Rehabilitation Clients in the Region

	FY2008	FY2009	% Change
<b>Felony Drug Offenses</b>			
Adult	327	312	-5%
Juvenile	150	149	-1%

	FY2008	FY2009	% Change
<b>Drug &amp; Alcohol Rehabilitation Clients</b>			
Adult	11,291	10,376	-8%
Juvenile	1,071	1,222	+14%

### Public School Expulsions Due to Violence/Drugs



Data Source: California Department of Education  
Analysis: Collaborative Economics

# Environment

*Progress is being made in improving the region's environmental sustainability, but more gains are necessary.*

# PLACE

## WHY IS THIS IMPORTANT?

Environmental quality directly affects the health of all residents and the ecosystem in the Silicon Valley region, which is in turn affected by the choices that residents make about how to live—how we chose to access work, other people, goods and services; where we build our homes; how we use our natural resources; and how we enforce environmental guidelines.

Water is one of the region's most precious resources, serving a multitude of needs, including drinking, recreation, supporting aquatic life and habitat, and agricultural and industrial uses. Water is also a limited resource because water supply is subject to changes in climate and state and federal regulations. Sustainability in the long run requires that households, workplaces and agricultural operations efficiently use and reuse water.

Energy consumption impacts the environment with the emissions of greenhouse gases and atmospheric pollutants through the combustion of fossil fuels. Sustainable energy policies include increasing energy efficiency and the use of clean renewable energy sources. For example, more widespread use of solar generated power diversifies the region's electricity portfolio, increases the share of reliable and renewable electricity, and reduces greenhouse gasses and other harmful emissions. Electricity productivity illustrates the degree to which the region's production of economic value is linked with its electricity consumption.

## HOW ARE WE DOING?

Waste disposal per capita in Silicon Valley has dropped steadily since the late 1990s, decreasing 24 percent from 1995 to 2008. Since 2007, Silicon Valley waste disposal per capita decreased by five percent, while the rest of California saw a reduction of eleven percent.

Silicon Valley residents are making progress towards reducing water consumption. From 2000 to 2009, gross per capita consumption dropped eleven percent. In the past year alone, water consumption per capita in the region fell by seven percent. In 2009, 3.3 percent of the total water consumed in Silicon Valley was from recycled sources, up from 1.3 percent in 2000.

Electricity consumption per capita is a measure of efficiency, and from 2008 to 2009, per capita consumption dropped four percent in the region and three percent in the rest of the state. Although electricity consumption per capita is 13 percent higher in Silicon Valley than in the rest of California, over the long-term, consumption per capita is decreasing at a faster rate in the region than in the rest of the state.

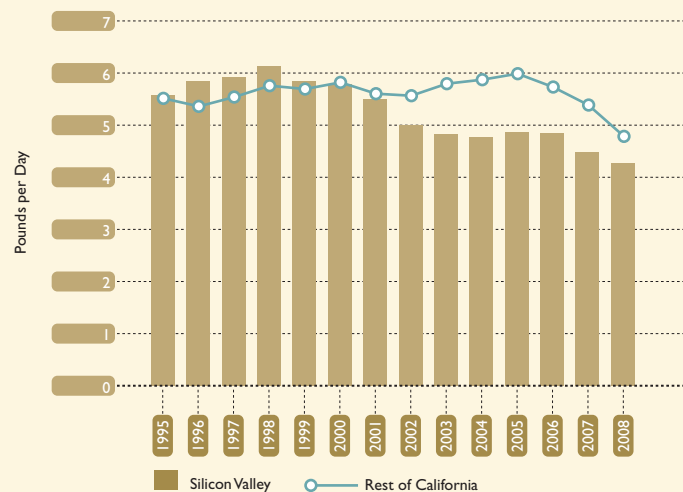
The economic value produced per megawatt hour consumed is a measure of the region's electricity productivity. From 2008 to 2009, electricity productivity fell by 0.7 percent in the region while growing 1.5 percent in the rest of the state. Eleven percent higher than the rest of California in 2009, electricity productivity in Silicon Valley has increased one percent since 2003, while increasing by four percent in the rest of California.

The region's total added solar capacity through the California Solar Initiative increased 18 percent from 2009 to 2010, and added capacity increased 35 percent in the rest of the state. This growth has been driven by the residential sector since 2007. Between 2009 and 2010, residential solar increased 23 percent. Growth has not been as consistent for commercial solar installations. After peaking in 2008, added capacity slowed due to changes in public incentives and the economic downturn. Continued growth in residential installations is in part the result of changes in the federal tax credit implemented January 1, 2009 in which the cap of \$2,000 was removed and credit given for 30 percent of the total installation cost.<sup>8</sup>

<sup>8</sup> California Public Utilities Commission. "CPUS California Solar Initiative: 2009 Impact Evaluation Final Report." June 2010

### Waste Disposal per Capita

Santa Clara & San Mateo Counties



Data Source: California Integrated Waste Management Board and the State of California, Department of Finance  
Analysis: Collaborative Economics

### Waste Disposal per Capita Percent Change

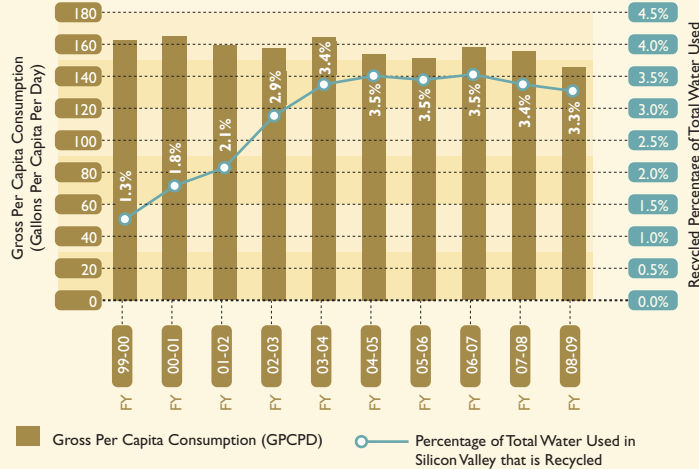
	95-08	07-08
Silicon Valley	<b>-24%</b>	<b>-5%</b>
Rest of CA	<b>-13%</b>	<b>-11%</b>

## Per Capita Water Consumption % Change, 2008-2009

**-7%**

### Water Resources

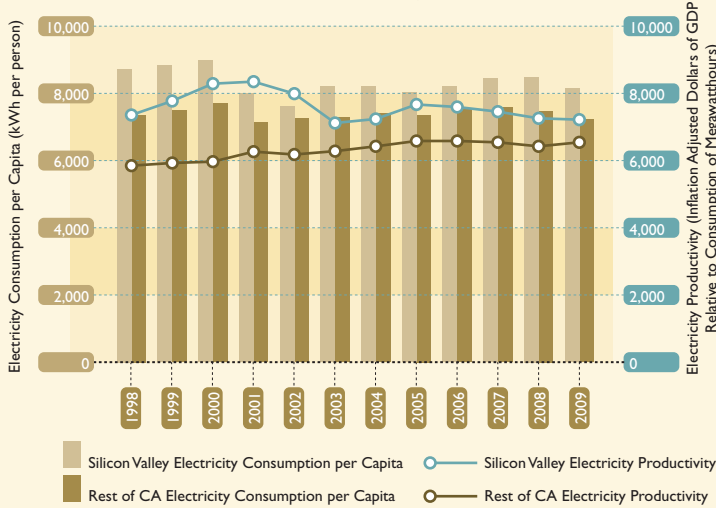
Gross Per Capita Consumption & Share of Consumption from Recycled Water  
Silicon Valley BAWSCA Members



Data Source: Bay Area Water Supply & Conservation Agency Annual Survey  
Analysis: Collaborative Economics

### Electricity Productivity & Consumption per Capita

Santa Clara & San Mateo Counties, Rest of California



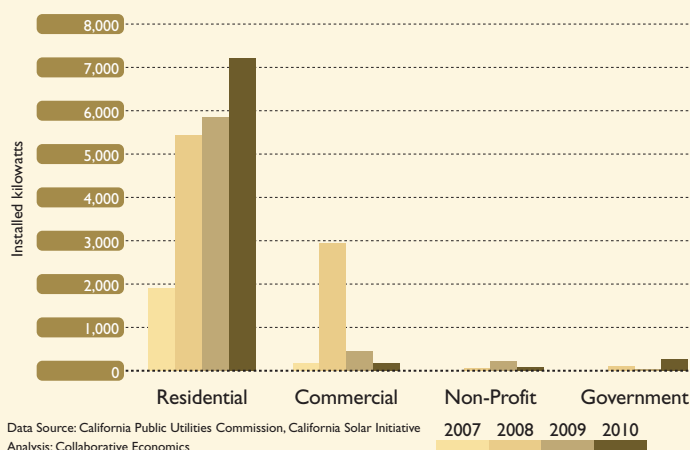
Data Source: Moody's Economy.com, California Energy Commission; State of California, Department of Finance  
Analysis: Collaborative Economics

## Growth in Solar Capacity (kW) added through the California Solar Initiative 2009-2010

Silicon Valley	<b>+18%</b>
Rest of California	<b>+35%</b>

### Solar Installations by Sector

Capacity (kW) Installed Through the California Solar Initiative  
Silicon Valley



Data Source: California Public Utilities Commission, California Solar Initiative  
Analysis: Collaborative Economics

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PLACE

# Transportation

*Silicon Valley drivers continue to drive less and shift to cleaner vehicles and means of commute.*

## WHY IS THIS IMPORTANT?

The modes of transportation we use, including the type of cars we drive, impacts the quality of our air and the region's transportation infrastructure. Motor vehicles are the major source of air pollution for the Bay Area. By utilizing alternative modes of transportation, such as public transit and walking, as well as choosing vehicles that are more fuel-efficient or use alternative sources of fuel, residents can reduce their ecological footprint.

Shifting from carbon-based fuels to renewable energy sources and reducing consumption together have the potential for wide-reaching impact on our environmental quality in terms of local air quality and global climate change.

## HOW ARE WE DOING?

Silicon Valley residents continued to drive less in 2009 even as gas prices dropped. The 23 percent plunge in gas prices from the previous year marked the first price decline since 2002. VMT per capita has fallen 15 percent since 2001 and reached an all time low of just over 8,100 miles per capita in 2009.

On a per capita basis, fuel consumption has continued to slide in Silicon Valley and continued to rise in the rest of the state. From 2000 to 2010, fuel consumption per capita in the region dropped eight percent, while growing by ten percent in the rest of California over this period. In 2010, Silicon Valley residents consumed roughly 85 gallons of fuel less per capita than the rest of Californians.

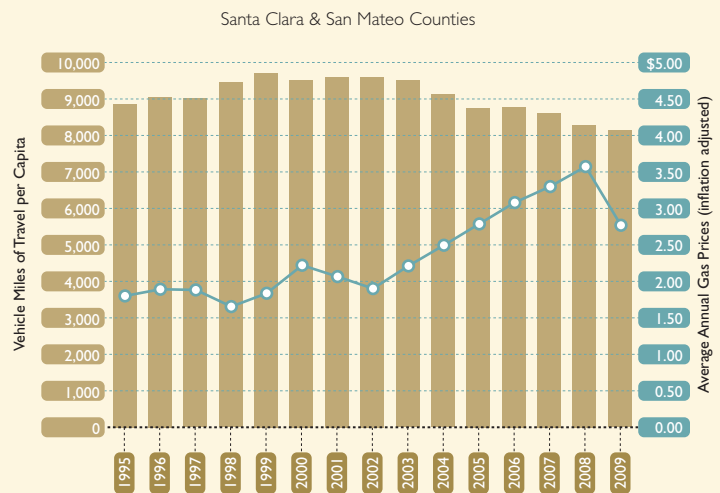
Silicon Valley commuters are using more alternatives to driving alone. In 2009, 74 percent of commuters drove to work alone, down four percent from 2003 figures. In turn, the percentage of commuters who carpooled, worked at home, walked, or used other means of getting to work, such as a bicycle, each increased over the same time period.

From 2009 to 2010, transit ridership in Silicon Valley dropped from 28 to 26 rides per capita. This shows the first significant decline in ridership since 2004 when ridership plummeted 13 percent.

Alternative fuel vehicles comprise a growing percentage of total Silicon Valley operational vehicles. In 2009, an additional 6,800 alternative fuel vehicles were registered in the Silicon Valley region, a 17 percent increase from the previous year. Since 2004, alternative fuel vehicles in the region have increased seven fold and now account for 2.4 percent of all vehicles. Alternative fuel vehicles also increased in the rest of the state but only represented 1.5 percent of total operational vehicles in 2009.

# PLACE

## Vehicle Miles of Travel per Capita and Gas Prices



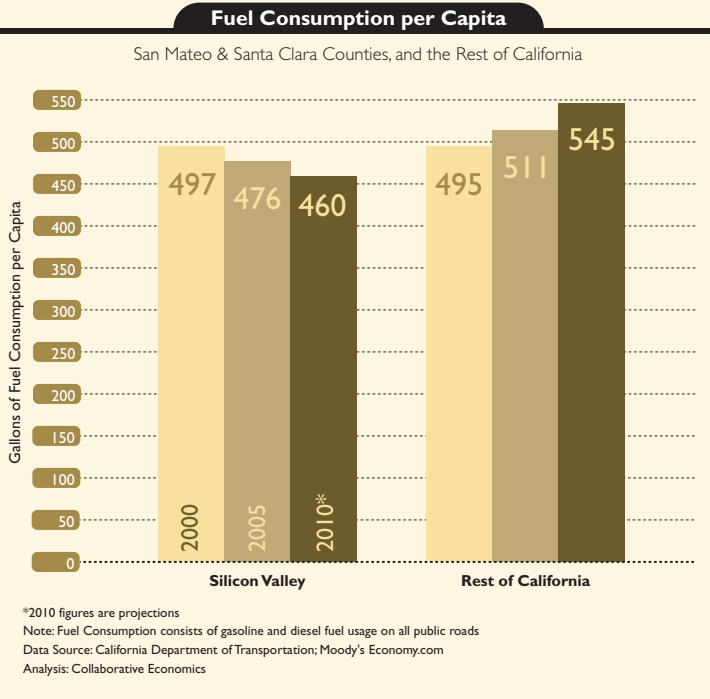
Note: Gas prices are average annual retail gas prices for California  
Data Source: California Department of Transportation; Energy Information Administration, U.S. Department of Energy; California Department of Finance  
Analysis: Collaborative Economics

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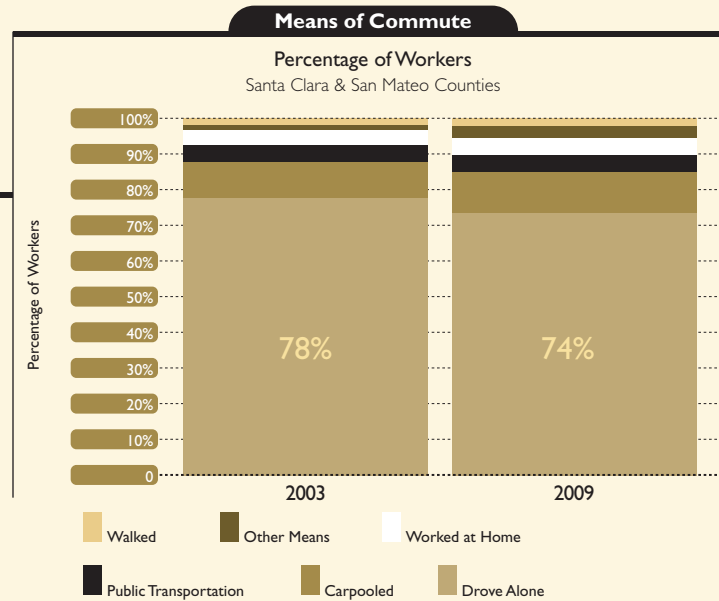


### Per Capita Fuel Consumption 2000–2010

Silicon Valley	<b>-8%</b>
Rest of California	<b>+10%</b>

### Means of Commute Change in Distribution 2003-2009

Drove Alone	<b>-3.8%</b>
Carpooled	<b>+0.6%</b>
Public Transportation	<b>+0.4%</b>
Worked at Home	<b>+0.7%</b>
Other Means	<b>+1.5%</b>
Walked	<b>+0.5%</b>



Note: Other means includes taxicab, motorcycle, bicycle and other means not identified separately within the data distribution.  
 Taxicabs are included in 2003 Public Transportation data and 2009 Other Means data.  
 Data Source: U.S. Census Bureau, American Community Survey  
 Analysis: Collaborative Economics

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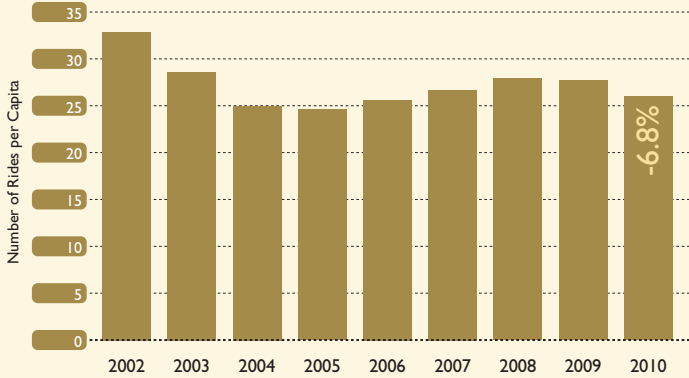
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## Transit Use

Number of Rides per Capita on Regional Public Transportation Systems  
Santa Clara & San Mateo Counties



### Transit Use per Capita

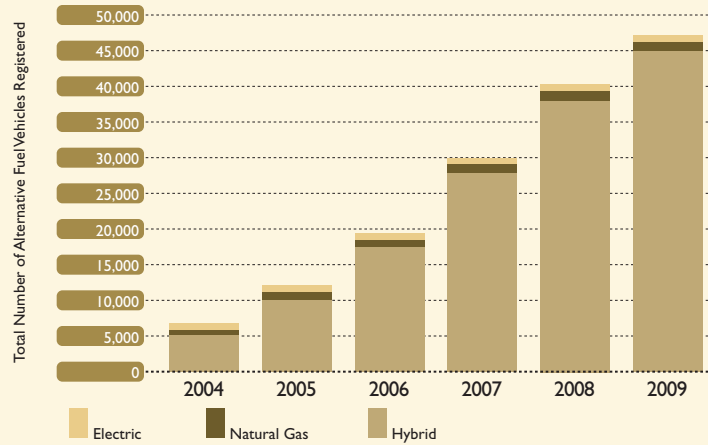
2009-2010

Silicon Valley **-6.8%**

Note: Date is in fiscal years  
Data Source: Altamont Commuter Express, Caltrain, Sam Trans, Valley Transportation Authority, California Department of Finance  
Analysis: Collaborative Economics

## Alternative Fuel Vehicle Registrations

Total Number of Alternative Fuel Vehicles Registered  
Santa Clara & San Mateo Counties



Data Source: California Energy Commission  
Analysis: Collaborative Economics

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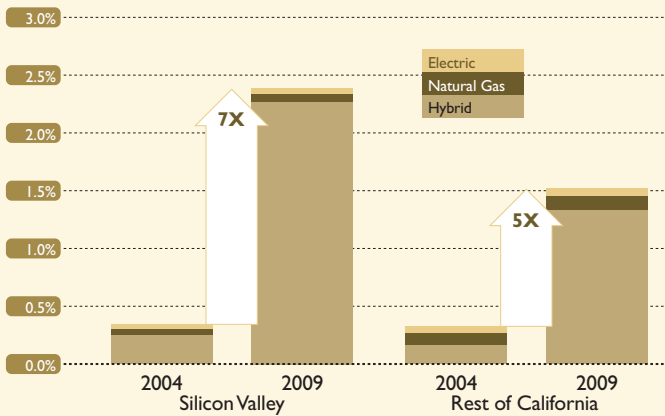
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**Alternative Fuel Vehicles**

Alternative Fuel Vehicles as a Share of all Operational Vehicles  
 Silicon Valley and the Rest of California



Data Source: California Energy Commission  
 Analysis: Collaborative Economics



# Land Use

*Progress toward denser, transit-oriented development is receding.*

# PLACE

## 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 the character of adjacent rural communities. Focusing new commercial and residential developments near rail stations and major bus corridors reinforces the creation of compact, walking distance, mixed-use communities linked by transit. This helps to reduce traffic congestion on freeways, preserve open space near urbanized areas, and improve energy efficiency. By creating mixed-use communities, Silicon Valley gives workers alternatives to driving and increases access to workplaces.

In recent years, residents and businesses have become increasingly interested in investing in renewable energy installations. The length of a municipality's required permitting process can pose significant barriers especially to the widespread adoption of renewable energy installations. We examine our region's permitting requirements.

## HOW ARE WE DOING?

Increased residential density is a sign of reduced urban sprawl. For the five-year period between 2005 and 2009, residential density stabilized above 20 units per acre. In the most recent year, residential density dropped from 20.6 units per acre to 16.2 units per acre. Despite recent slippage, significant progress has been made since 1998, when residential density of approved residential units was 6.6 units per acre.

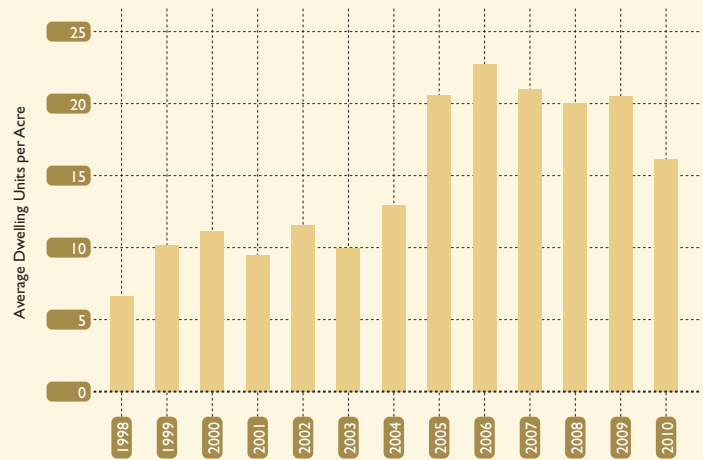
Residential and commercial development near public transit reduces need for personal vehicles for transportation, decreasing road congestion and harmful emissions. The share of housing units approved to be built near mass transit decreased from 62 percent in 2009 to 53 percent in 2010. Over the past four years, the percentage of approved housing development within walking distance of mass transit has remained above fifty percent.

Although net square feet of non-residential development near transit decreased from 2009, for the second year in a row, non-residential development near public transit was greater than non-residential development beyond walking distance from public transit. Nearly 114,000 square feet of non-residential buildings was developed in 2010.

The permitting time for renewable energy installations varies greatly across cities and by installation type. Permitting times were shortest for both solar systems and electric vehicle charging stations. The average permitting times for each of these projects were eleven and ten days respectively. Geothermal systems and wind turbine projects required on average three weeks for permitting. The longer time period is due to greater environmental considerations associated with construction of these projects versus solar or electrical vehicle systems. Twenty-nine percent of the cities reported permitting times of a day or less for solar installations.

### Residential Density

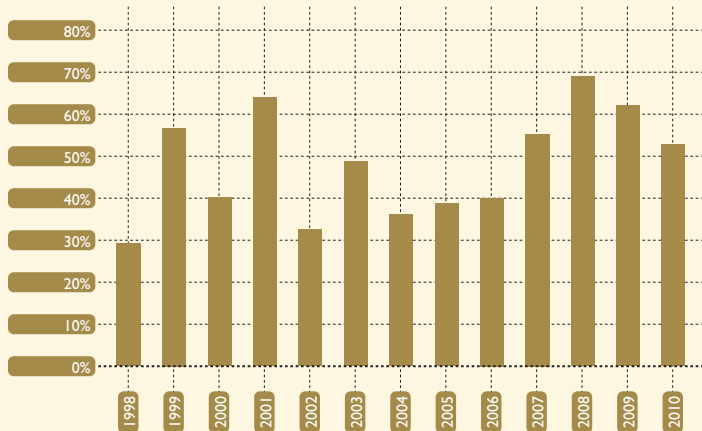
Average Units per Acre of Newly Approved Residential Development  
Silicon Valley



Note: Beginning in 2008, the Land Use Survey expanded its geographic definition of Silicon Valley to include cities northward along the U.S. 101 corridor (Brisbane, Burlingame, Millbrae, San Bruno and South San Francisco)  
Data Source: City Planning and Housing Departments of Silicon Valley  
Analysis: Collaborative Economics

### Housing Near Transit

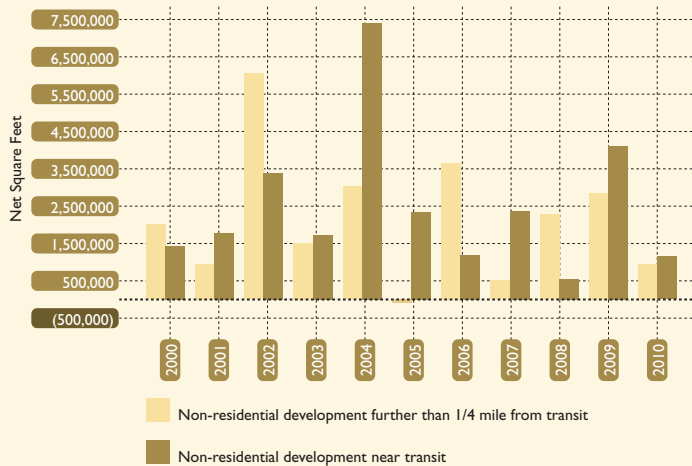
Share of New Housing Units Approved That Will Be Within 1/4 Mile of Rail Stations or Major Bus Corridors  
Silicon Valley



Note: Beginning in 2008, the Land Use Survey expanded its geographic definition of Silicon Valley to include cities northward along the U.S. 101 corridor (Brisbane, Burlingame, Millbrae, San Bruno and South San Francisco)  
Data Source: City Planning and Housing Departments of Silicon Valley  
Analysis: Collaborative Economics

### Development Near Transit

Change in Non-Residential Development Near Transit  
Silicon Valley



Note: Beginning in 2008, the Land Use Survey expanded its geographic definition of Silicon Valley to include cities northward along the U.S. 101 corridor (Brisbane, Burlingame, Millbrae, San Bruno and South San Francisco)  
Data Source: City Planning and Housing Departments of Silicon Valley  
Analysis: Collaborative Economics

### Time Required for Permitting of Renewable Energy Installations

Installation Type	Average Permitting Length (Days)	Shortest Permitting Length (Days)	Longest Permitting Length (Weeks)	Number of Cities Above Average	Number of Cities Below Average
<b>Solar Systems</b>	11	0	12	9	12
<b>Wind Turbines</b>	22	21	4-6	1	3
<b>Geothermal Systems</b>	21	7	6-8	3	4
<b>Electric Vehicle Charging Stations</b>	10	0	6-8	6	6

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# Housing

# PLACE

*The region is still bearing the impact of the housing crisis as home sales plummet and foreclosures slow.*

## WHY IS THIS IMPORTANT?

The affordability of housing affects 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 crucial service providers—such as teachers, registered nurses and police officers—to live in the communities in which they work. The current financial crisis has greatly added to housing pressures in the region.

## HOW ARE WE DOING?

Achieving a seven-year high, affordable housing units accounted for 23 percent of approved new housing construction in 2010. While this value represents a doubling over the prior year, variability from year to year is based in large part on total new housing approvals. In 2009, 53 percent fewer total new housing units were approved than in 2008. And in 2010, 83 percent fewer total new housing units were approved than in 2009.

In 2010, average monthly rents declined for the second consecutive year to \$1,575, following a three year period of steadily increasing rates. This accounts for a nine percent decline since 2008, but only a one percent drop from 2009 levels. Following a similar pattern, median household income decreased two percent in 2009.

After increasing since 2007, home affordability for first-time homebuyers leveled off in 2010 in most regions and dropped in Silicon Valley and Santa Barbara. The year 2010 marked the third consecutive year that Silicon Valley was the least affordable California region for first-time home buyers. Sacramento home affordability continued to outpace other California regions, reaching a high of 81 percent in 2010.

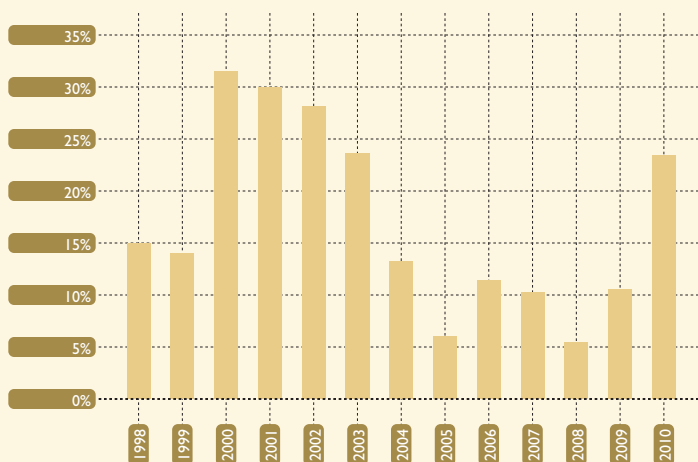
The housing cost burden ticked up in Silicon Valley and California for renters and improved slightly for homeowners in 2009. Thirty-seven percent of Silicon Valley renters had housing costs greater than 35 percent of their income in 2009, a three percent increase from 2008 levels. Up one percent from the prior year, for 43 percent of California renters, housing costs represented more than 35 percent of their total income in 2009. For homeowners, 2009 marked the first year since 2002 in which the housing cost burden declined by one percent.

The number of home sales in Silicon Valley dropped 46 percent between 2004 and 2009. In addition, from June 2009 to 2010, sales increased ten percent. The region's average sale price slid following 2007 and remained essentially unmoved from 2009 to 2010.

After peaking in 2008 at 8,830, Silicon Valley foreclosures continued to drop in 2010. The number of foreclosures in Silicon Valley fell 17 percent in 2009 to nearly 7,300 foreclosures. California foreclosures followed a similar pattern, falling 20 percent to 189,792 foreclosures in 2009.

### Building Affordable Housing

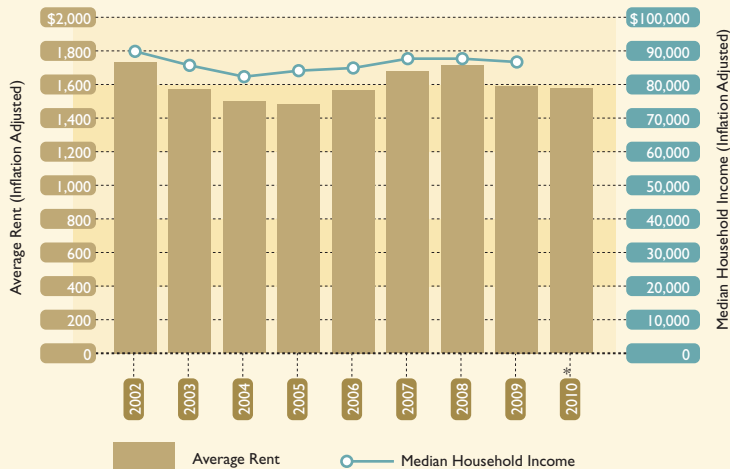
Affordable Units as a Percentage of Total Approved New Residential Units  
Silicon Valley



Note: Beginning in 2008, the Land Use Survey expanded its geographic definition of Silicon Valley to include cities northward along the U.S. 101 corridor (Brisbane, Burlingame, Millbrae, San Bruno and South San Francisco)  
Data Source: City Planning and Housing Departments of Silicon Valley  
Analysis: Collaborative Economics

## Rental Affordability

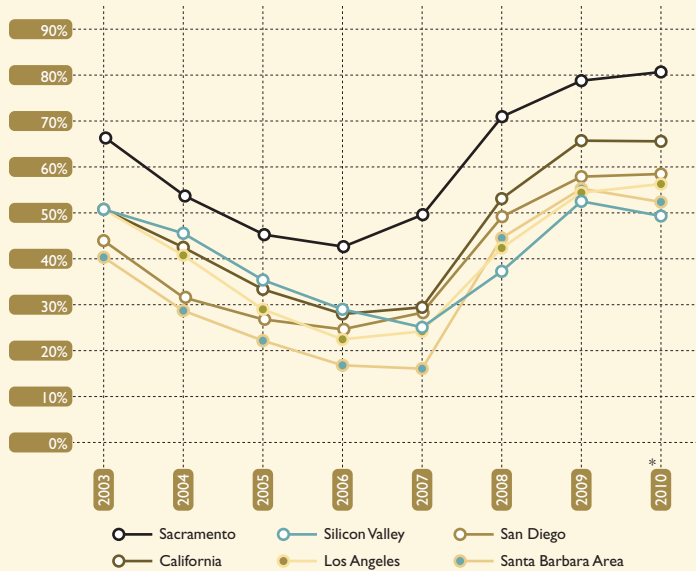
### Apartment Rental Rates at Turnover Compared to Median Household Income Santa Clara & San Mateo Counties



\* Estimate based on Quarters 1-3, 2010  
Data Source: Real Facts; United States Census Bureau, American Community Survey  
Analysis: Collaborative Economics

## Home Affordability

### Percentage of Potential First-Time Homebuyers That Can Afford to Purchase a Median-Priced Home Silicon Valley and Other California Regions



\* Estimate based on Quarters 1-3, 2010  
Data Source: California Association of Realtors, Home Affordability Index; RAND California Statistics  
Analysis: Collaborative Economics

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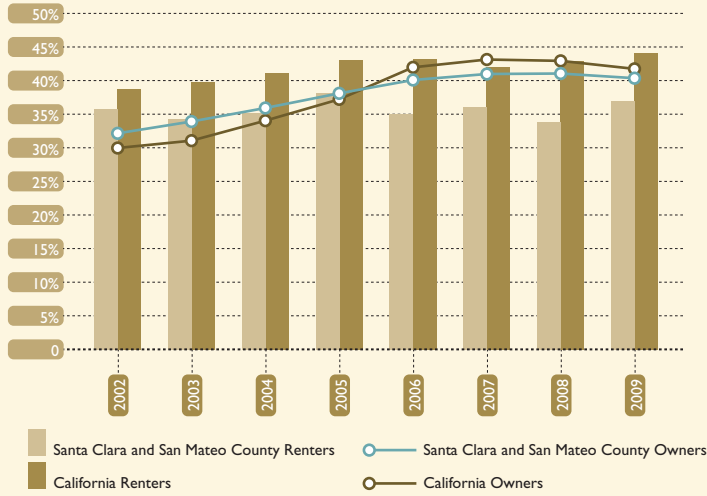
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## Housing Costs

Percent of Households with Housing Costs Greater than 35% of Income  
Renters and Owners

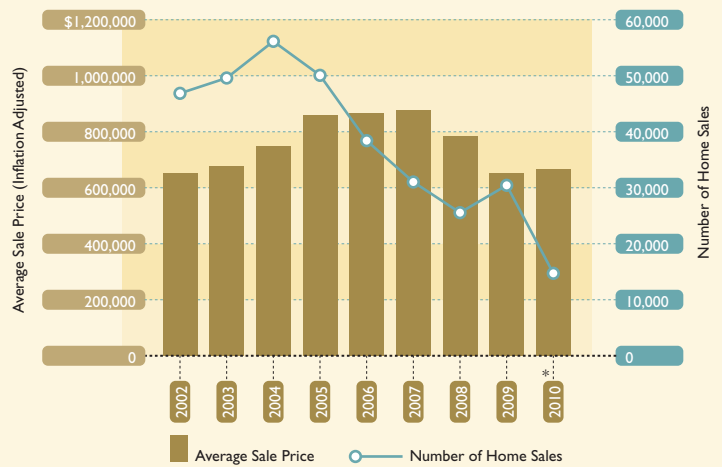
Santa Clara & San Mateo Counties, California



Data Source: U.S. Census Bureau, American Community Survey  
Analysis: Collaborative Economics

## Trends in Home Sales

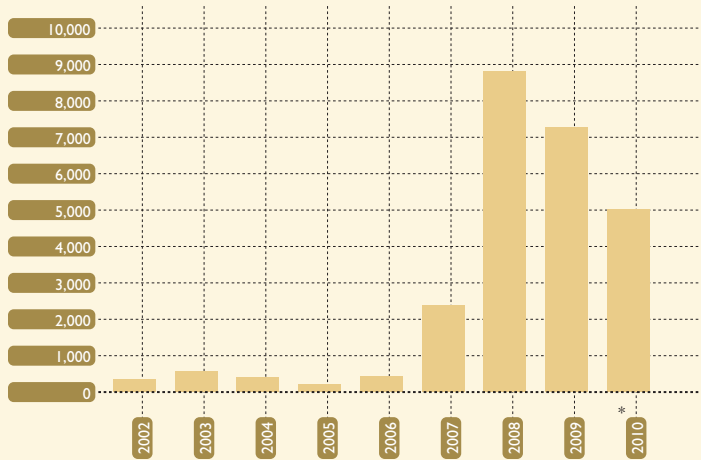
Average Sale Price and Number of Home Sales  
Silicon Valley



\*The Year 2010 includes data through June 2010  
Data Source: RAND California Statistics  
Analysis: Collaborative Economics

### Residential Foreclosure Activity

Annual Number of Foreclosures  
Silicon Valley



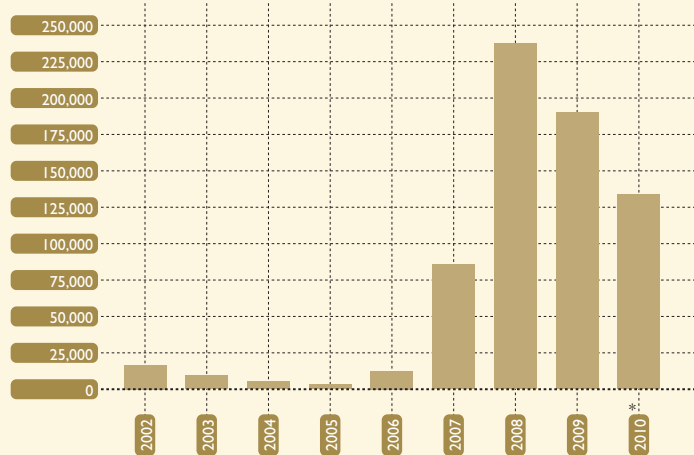
\*The year 2010 includes data through September 2010  
Data Source: RAND California Statistics  
Analysis: Collaborative Economics

### Number of Silicon Valley Foreclosures January – September

	2008	2010	% Change
Silicon Valley	<b>6,845</b>	<b>5,017</b>	<b>-27%</b>
California	<b>191,714</b>	<b>134,139</b>	<b>-30%</b>

### Residential Foreclosure Activity

Annual Number of Foreclosures  
California



\*The year 2010 includes data through September 2010  
Data Source: RAND California Statistics  
Analysis: Collaborative Economics

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# Commercial Space

*Vacancy rates have slowed across all sectors as business closings decline and confidence builds.*

## WHY IS THIS IMPORTANT?

This indicator tracks the supply of commercial space, rates of commercial vacancy and cost, and new development, which are leading indicators of regional economic activity. In addition to office space, commercial space includes R&D, industrial, and warehouse space. The change in the supply of commercial space, expressed as the absorption rate, reflects the amount of space rented, becoming available, and added through new construction. Gross absorption is a measure for total activity over a period while net absorption is the outcome. A negative change in the supply of commercial space shows a tightening in the commercial real estate market. The vacancy rate measures the amount of space that is not occupied. Increases in vacancy, as well as declines in rents, reflect slowing demand relative to supply.

## HOW ARE WE DOING?

Early reporting indicates a strong turnaround in vacancy rates in the fourth quarter of 2010 (fourth quarter data was not available for this analysis). Primarily driven by the decrease in new commercial construction (down by 80 percent from 2009) and a four percent increase in gross absorption in the past year, the amount of space available continued to expand in 2010 (as of October) but at a rate 59 percent slower than in 2009.

After jumping three percent in each of the preceding years, vacancy rates across all commercial space sectors increased by just 0.5 percent from 2009 to 2010 (as of October). By sector, vacancy rates in R&D space continued the strongest growth of 0.9 percent while all other sectors remained relatively unchanged from the previous year.

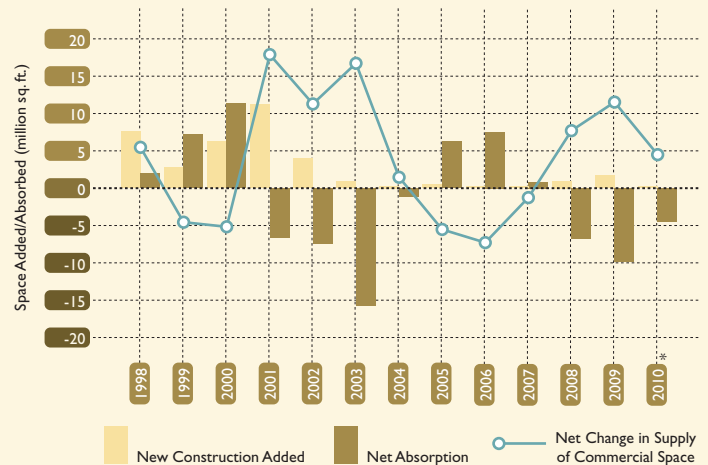
Across all sectors, adjusted rents declined from 2008 to 2009: R&D (18%), Office (14%), Warehouse (9%), and Industrial (7%).

As of October 2010, 343,000 square feet of new commercial space construction had been added in Santa Clara County. Representing an 80 percent drop from 2009, all of this added new space was in office space.

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## Commercial Space

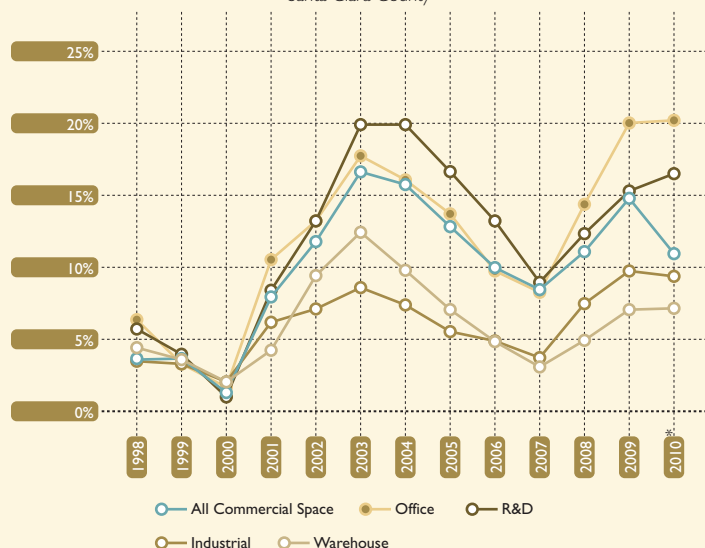
Change in Supply of Commercial Space  
Santa Clara County



\* As of October 2010  
Data Source: Colliers International  
Analysis: Collaborative Economics

## Commercial Vacancy

Annual Rate of Commercial Vacancy  
Santa Clara County

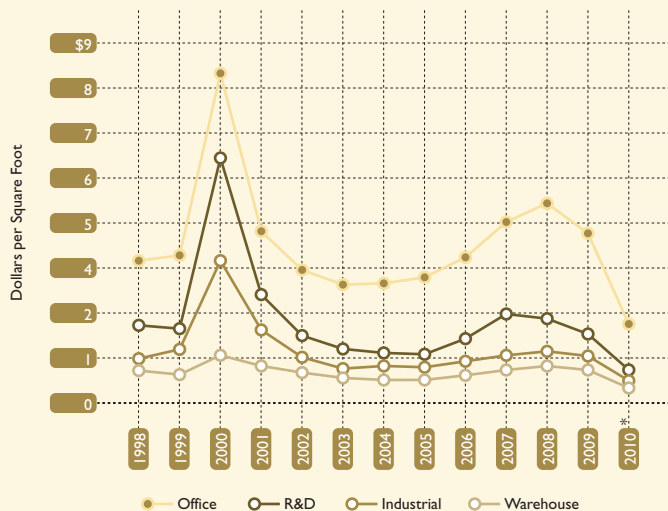


\* As of October 2010  
Data Source: Colliers International  
Analysis: Collaborative Economics



## Commercial Rents

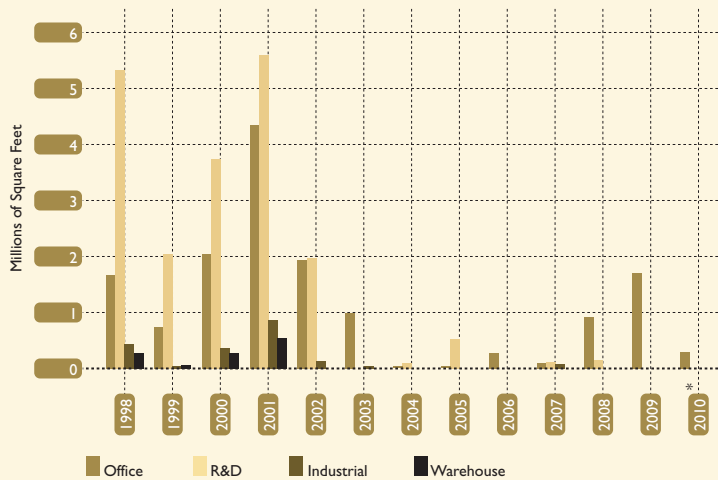
Annual Average Asking Rents  
Santa Clara County



\*As of October 2010  
Data Source: Colliers International  
Analysis: Collaborative Economics

## New Commercial Development

By Sector  
Santa Clara County



\*As of October 2010  
Data Source: Colliers International  
Analysis: Collaborative Economics

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## Local Finance Trends: Revenues, Spending, and Deficits

City and county governments provide essential public services that enable a thriving community and growing economy. These services include public safety (police, fire, and emergency services), the justice system, social services, parks and recreation, and land use planning. City and county governments both maintain roads, water systems and sewers, waste disposal and in some cases electric utilities. County governments have the additional role of administering state and federal programs, such as child protective services, public health, adult and juvenile detention and probation, and elections. Funding for these services comes from a variety of sources. The actual mix of funding is different for cities and counties based on the different roles they play in our system of government and can vary from county-to-county and city-to-city.

The current economic downturn has put tremendous pressure on city and county governments that are faced with declining revenues and increasing demand for public services. Maintaining a mix of stable and more elastic revenue sources has traditionally helped communities buffer themselves from the ups and downs of the business cycle. While sales tax revenue declines when the economy slows (as consumer spending declines), property tax revenue has traditionally served as a significant and stable source of local revenue until the latest recession. Unfortunately, the bursting of the housing bubble and the related foreclosure crisis has led to steep declines in property values and county revenue from property taxes.

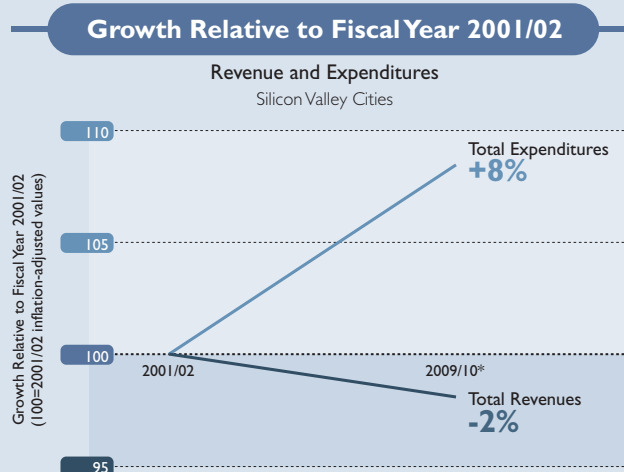
In addition to the increased exposure to economic cycles, communities made substantial commitments in the way of salaries and benefits to attract employees during the economic expansion of the late 1990s. These are long-term commitments that are difficult to roll back without affecting current and future employees, but the resulting problem of future unfunded pension and retiree health obligations is hitting local governments across the nation.<sup>4</sup>

## Trends in City Revenue and Expenditures

Silicon Valley's cities are facing an unsustainable financial situation: falling revenues and increasing expenditures. Projected revenue for the fiscal year 2009/10 is estimated to be 2 percent lower than in 2001/02, while total expenditures are projected to increase 8 percent over those of 2001/02 (**Figure 2-1**). In dollars, this has meant a drop of \$24 million in revenue and an increase of \$119 million in expenditures over this period; and this is only for the ten cities in the region which provided comparable information.

The largest source of city revenue is service fees and charges for city services, including sewer and water and solid waste disposal. But the use of this revenue is limited to the delivery of these services. As a result, the daily operations of a city government are funded through a variety of taxes such as sales and use tax, property tax, business license tax, transient occupancy tax and utility user tax.<sup>5</sup>

Figure 2-1



	2001/02	2009/10*	Change
Total Expenditures	\$1,444,052,924	\$1,563,920,519	\$119,867,595
Total Revenues	\$1,389,148,720	\$1,364,736,426	-\$24,412,294

\*Fiscal year 2009/10 is projected

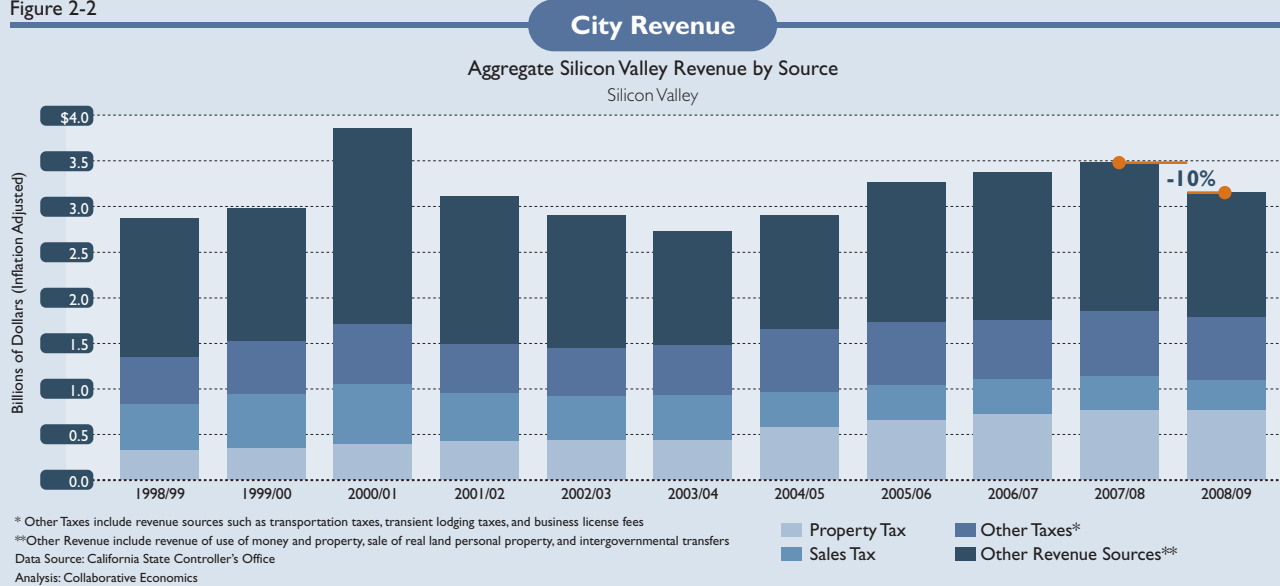
Note: Only Silicon Valley cities that provided financial data for all years are included (Atherton, Belmont, Daly City, East Palo Alto, Half Moon Bay, Menlo Park, Millbrae, Pacifica, San Mateo, Woodside, Campbell, Cupertino, Milpitas, Morgan Hill, Mountain View, San Jose, Santa Clara, and Sunnyvale)

Data Source: Joint Venture Survey of Silicon Valley Financial Officers  
Analysis: Collaborative Economics

<sup>4</sup> "All Economics is Local," The Economist (November 18, 2010). Downloaded from <http://www.economist.com/node/17525731>

<sup>5</sup> A use tax is a fee on the use of a product which was purchased outside the state and a sales tax does not apply. See Charles Summerell, "Understanding the Basics of County and City Revenues." The Institute for Local Government, 2008.

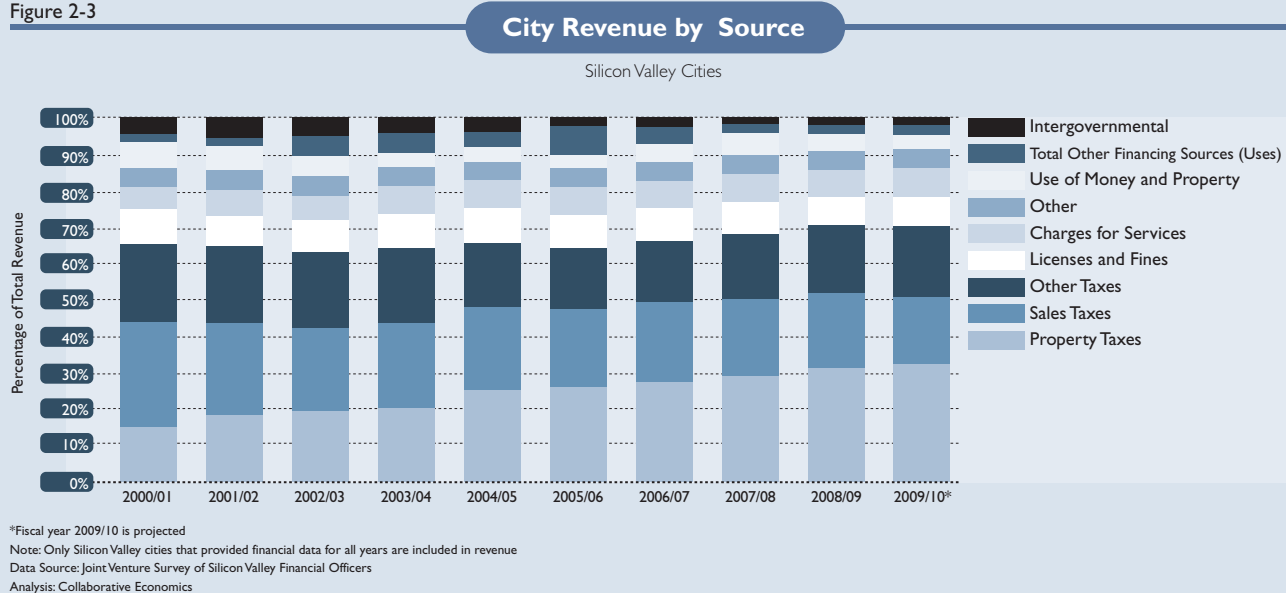
Figure 2-2



In fiscal year 2008/09, city revenues fell 10 percent from the prior year, marking the first decline since revenue hit a low point in 2003/04 (**Figure 2-2**). Sales tax and other revenue sources have not recovered to the levels of 2000/01, and while property tax revenue has climbed since 2004, it remained essentially stagnant from fiscal year 2007/08 to 2008/09.

Revenue from sales taxes as a percentage of total city revenue declined from 18 percent to 10 percent over the past decade (**Figure 2-3**). Intergovernmental transfers from the State have also decreased for Silicon Valley cities since 2003/04. Property tax was the fastest growing revenue source for Silicon Valley cities, increasing between 10 percent and 24 percent since 2000/01. However, because property tax collections lag the real estate market, the full effects of the downturn in the real estate market will become increasingly evident in lower city property tax revenues.

Figure 2-3



Over the last ten years, city revenues from property taxes increased 140 percent (Figure 2-4). However, it took the previous decade for property tax revenues (in real terms) to return to levels preceding the enactment of Proposition 13 (although a portion of the reported gains is the result of revenue swapping with the State).<sup>6</sup> While property tax revenue data was not available from cities for 2009/10, San Mateo and Santa Clara Counties have reported a drop of 3 percent as a result of reduced assessments reflecting the continued fallout of the housing crisis (Figure 2-5). A similar drop of 3 percent is projected for Silicon Valley's cities in 2009/10 according to local city financial officers. Property taxes are distributed across a variety of public bodies (Figure 2-6) with 54 percent flowing to school districts, 12 percent to County General Funds and 1 percent to city governments.

Figure 2-4

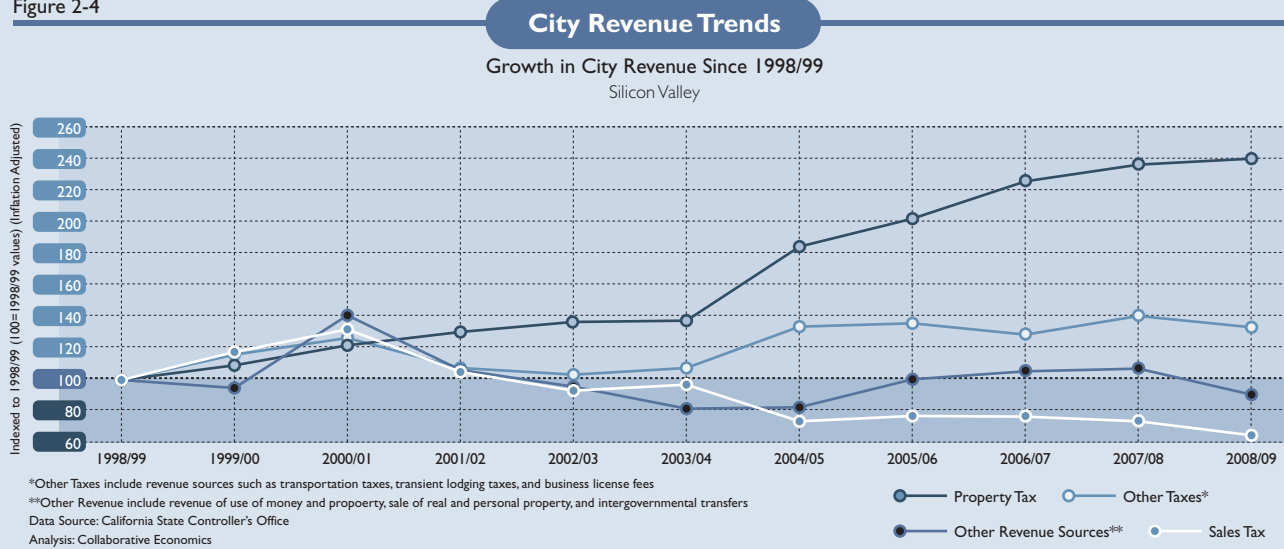
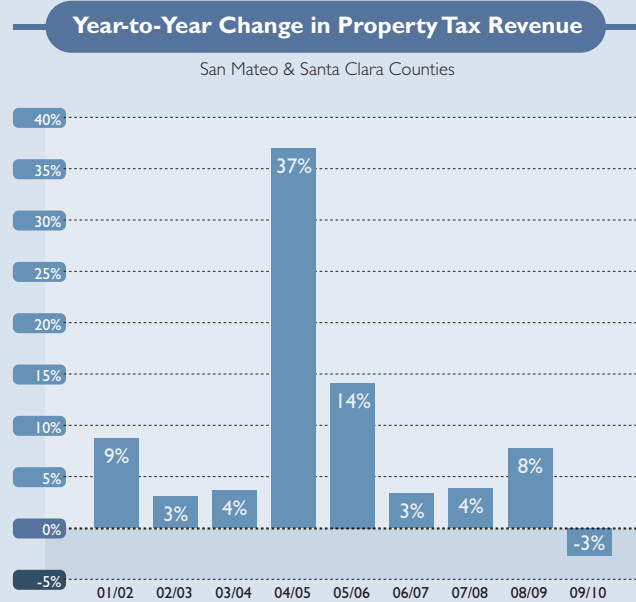
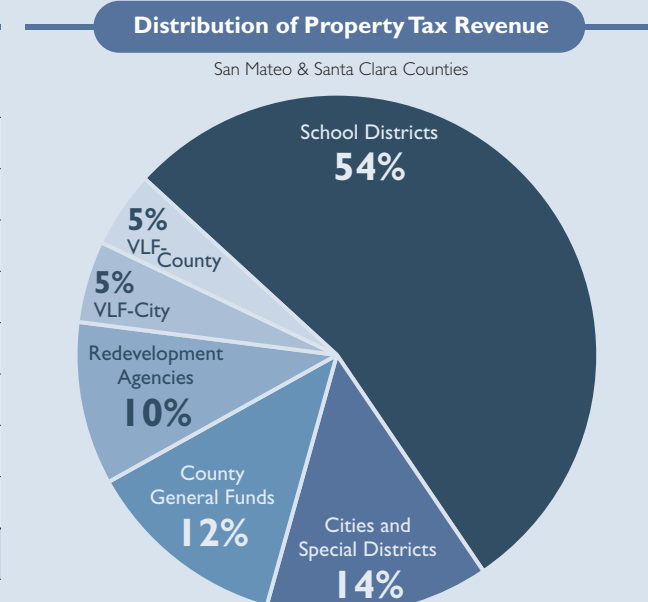


Figure 2-5



Data Source: San Mateo County and Santa Clara County Comprehensive Annual Financial Reports  
 Analysis: Collaborative Economics

Figure 2-6



Note: Vehicle License Fee is represented by VLF. School Districts include schools K-12 and community colleges  
 Data Source: San Mateo and Santa Clara Counties  
 Analysis: Collaborative Economics

<sup>6</sup> The jump in Property Tax revenue in 2004-2005 with the corresponding drop in Sales Tax revenue reflects the State's implementation of the "Triple-Flip" revenue swapping procedures that allowed the State to issue \$15 billion of Economic Recovery Bonds in 2004 and 2008 secured by 1/4 of the 1 percent Sales Tax revenue that otherwise would flow to local agencies. The Triple-Flip is implemented by shifting 1/4 of the 1 percent local sales and use tax to the State to guarantee the bonds (Flip 1). Then, the revenue lost through the shift is backfilled to local agencies with property tax revenue from the County Education Revenue Augmentation Fund (ERAF) (Flip 2). Any shortfall in County ERAF monies needed to meet the minimum funding requirement for schools is backfilled from the State general fund (Flip 3). The triple flip will continue until the bonds are retired (probably no earlier than 2016). Because the triple flip is a temporary revenue swap, figure 2-4 actually overstates the revenue growth attributable to Property Tax and understates the growth attributable to Sales Tax. Further, a portion of the Property Tax revenue jump in 2004-2005 is attributable to the permanent backfill to local governments of the reduced revenue resulting from the State's reduction of Motor Vehicle License Fees. Because this backfill is permanent, it should be shown as Property Tax, but it must be noted that a portion of the jump in 2004-2005 is unrelated to property values.

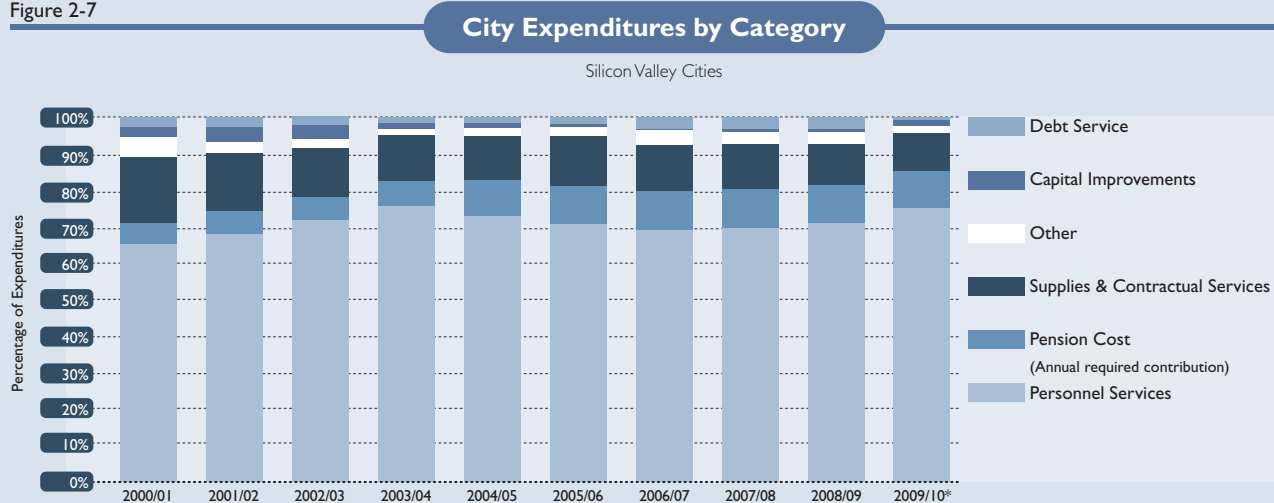
These trends indicate that all major sources of city revenues are in decline. While sales taxes should increase again as the economy slowly recovers, the majority of business transactions in the economy are for services that are not taxed (e.g. accounting, insurance and personal services like hair dressing). Property taxes should also eventually increase, but homes which have lost assessed value due to the housing market crash and economic downturn will take many years to return to pre-recession levels.

In addition to business cycle fluctuations, cities have limited options for increasing revenues because of fundamental issues with the current tax structure. Over the past 30 years, substantial restrictions have been placed on cities and counties to control their major fiscal resources through taxes. Most notable among these is Proposition 13, which set the general purpose property rate tax at 1 percent of assessed value and a two-thirds vote requirement for the passage of any new taxes in California. With the passage of Proposition 26 last November, cities are now limited in terms of their ability to enact new fees. This new law stipulates that fees cannot be enacted for anything other than a direct charge for a service, which means many current fees will be reclassified as taxes and require a two-thirds vote to be changed or extended.<sup>7</sup> The current revenue structure has placed local government in a very difficult position.<sup>8</sup>

## City Expenditures

Meanwhile, total city expenditures have increased 15 percent since fiscal year 2000/01, and to keep up with rising costs related to personnel and pension services, other categories of spending are being cut back. As illustrated in **Figure 2-7**, personnel services, which consist of salaries and wages, health care costs for employees and retired workers, and compensation insurance charges are the largest category of total city expenditures. In fiscal year 2009/10, personnel services accounted for 76 percent of total city expenditures and increased 7 percent since 2000/01. In contrast, expenditures for supplies and contractual services dropped to 11 percent of total expenditures and decreased 9 percent over the ten-year period. Expenditures in capital improvement dropped to 2 percent of total expenditures in 2009/10 despite a 0.4 percent increase from 2008/09, related in part to federal stimulus funding.

Figure 2-7



\*Fiscal year 2009/10 is projected  
 Note: Only Silicon Valley cities that provided financial data for all years are included in expenditures  
 Data Source: Joint Venture Survey of Silicon Valley Financial Officers  
 Analysis: Collaborative Economics

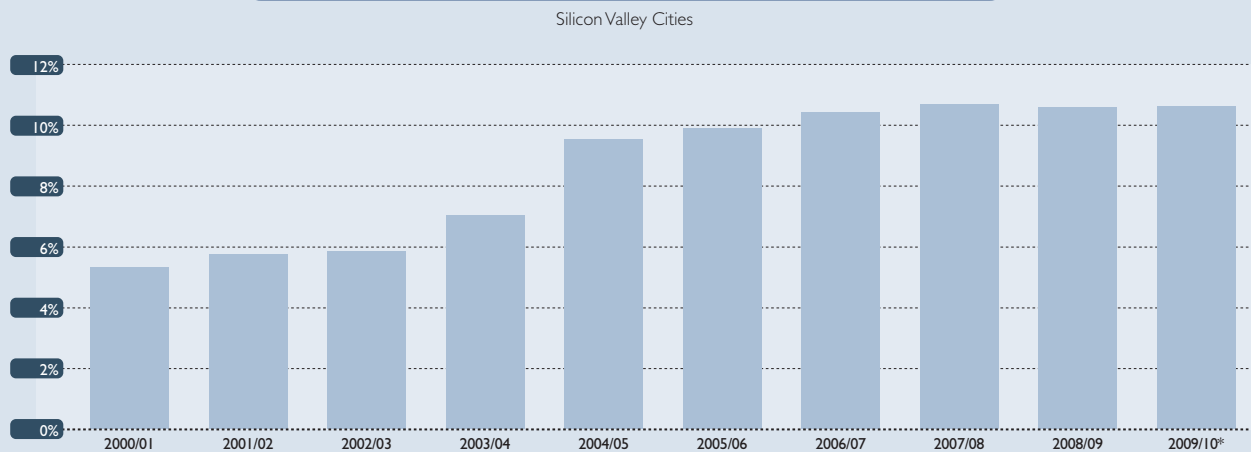
<sup>7</sup> Existing fees will need to meet the new requirement when considering increases or extensions. The types of fees that would now require a two-thirds majority vote by the people include new regulatory fees to pay for oil spill or hazardous waste clean-up, health effects of cigarettes, pesticides, or alcohol, or the environmental costs of air pollution, used tires, and carbon emissions.  
<sup>8</sup> Proposition 26 also requires a 2/3 vote of the Legislature for any measure that "results in any taxpayer paying a higher tax," such as tax enforcement and collection measures, legislative tax bills that raise some taxes and lower others, and the state's conforming with federal tax changes. Therefore, Proposition 26 could also make it more difficult to collect taxes that are owed to state and local governments.

Rising public employee costs and pension obligations are putting significant and growing pressure on Silicon Valley cities. As a percentage of total city expenditures, pension costs (annual required contribution) have doubled since 2000 (**Figure 2-8**), from 5.2 percent in fiscal year 2000/01 to 10.6 percent in 2009/10. The largest jump, of 2.5 percent, took place between fiscal years 2003/04 and 2004/05.

These revenue and expenditure trends paint a worsening picture for Silicon Valley's cities. Many cities are less able to meet fiscal needs. Many have made a variety of personnel cuts, delayed or cancelled infrastructure projects, or have cut or outsourced basic city services, such as police and fire. For example, the City of Half Moon Bay has made \$2.3 million in cuts over the past two fiscal years by reducing the number of police officers by 20 percent and reducing the Chief of Police position from full-time to 60 percent time.<sup>9</sup> The City of San Jose faces its tenth year in a row of budget deficits, and must pursue more service reductions/eliminations, labor cost concessions, and alternative, lower-cost service delivery models; downsizing has reduced city staffing levels back to 1994 levels while the population of the City is 20 percent greater today.<sup>10</sup>

Figure 2-8

### Pension Costs as a Percentage of Total City Expenditures



\*Fiscal year 2009/10 is projected

Note: Only Silicon Valley cities that provided financial data for all years are included in expenditures

Data Source: Joint Venture Survey of Silicon Valley Financial Officers

Analysis: Collaborative Economics

<sup>9</sup> Half Moon Bay Review, November 3, 2010. Downloaded from <http://www.hmbreview.com>

<sup>10</sup> Office of Mayor Chuck Reed Web Site. "Fiscal Responsibility Requires Tough Decisions in Difficult Times." Downloaded from <http://www.sanjosca.gov/mayor/goals/budget/budget.asp>

## Trends in County Revenue and Expenditures

The economic downturn has created increased demand for vital safety net services, many of which are provided by county government. The rising demand, combined with increasing expenses, has resulted in growing deficits in San Mateo and Santa Clara Counties and resulting cuts of public programs and services at precisely the time these services are most needed.

County governments provide public services similar to those provided by cities, but operate as agents of state government within constitutional and statutory restrictions that limit their ability to raise new revenues. This characterizes a major difference between city and county governments. Because they administer largely state-mandated health and human service programs, the region's counties are increasingly squeezed as revenues drop while demand for services continues to rise.

County spending in Silicon Valley is outpacing revenues. Since 1998/99, expenditures have increased by 67 percent and revenues by only 34 percent (Figure 2-9). Revenues have exceeded expenditures in six of the past eleven years. During the economic expansion beginning in the late 1990s, the region's revenues exceeded expenditures; however, this changed after 2002. In fiscal year 2008/09, expenditures surpassed revenues by \$62 million (Figure 2-10).

Figure 2-9

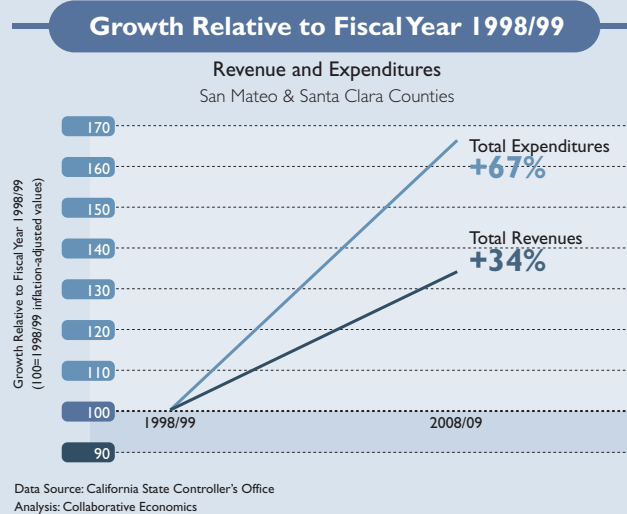


Figure 2-10

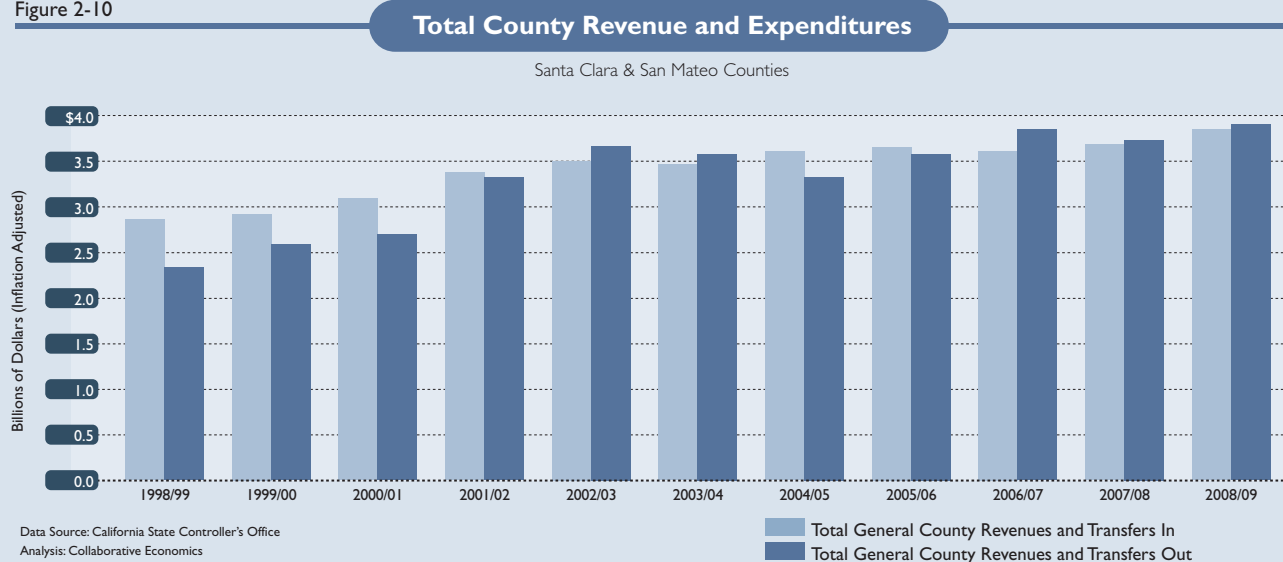
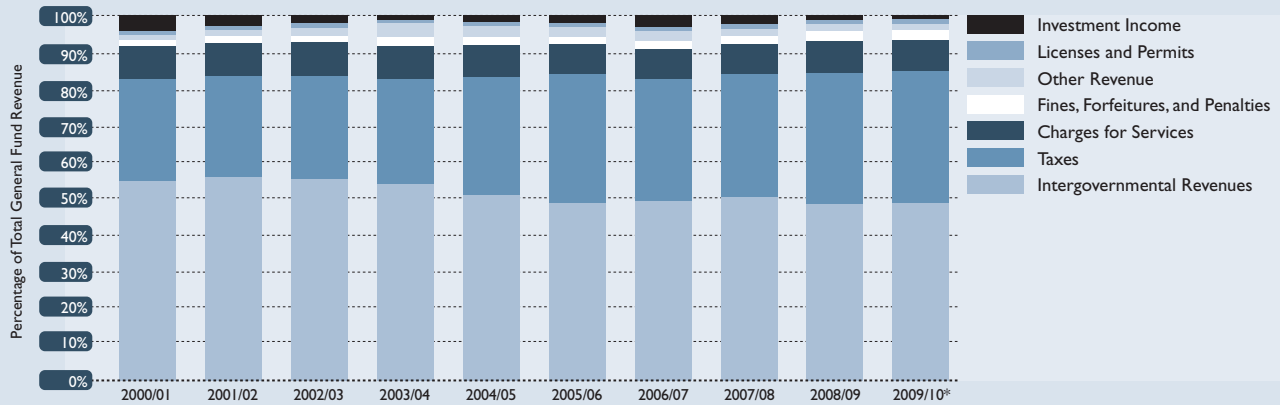


Figure 2-11

### County Revenue by Source

San Mateo & Santa Clara Counties



\*Fiscal year 2009/10 is projected

Note: Two County revenue sources, Rents and Concessions and Securities Lending Activities, represent less than one percent of total revenue; therefore it is not shown on the chart.

Data Source: San Mateo and Santa Clara Counties

Analysis: Collaborative Economics

Over half of county government funding comes from state and federal sources (intergovernmental transfers) and is directed toward health and human services. State and federally mandated programs cover essential services such as adult and juvenile detention and probation, parks, public health, child welfare services, homeless shelters, street maintenance, street lighting, water and sewer, and building inspection and enforcement. Funding for county services without dedicated state or federal sources comes from property taxes, sales and use taxes and vehicle license fees.

While intergovernmental transfers represent the largest source of county revenue, the percentage of total county revenues from this source is dropping (**Figure 2-11**). Between fiscal years 2000/01 and 2009/10, Intergovernmental Revenues decreased from 55 to 49 percent of total general fund revenues. Total revenue from taxes increased 38 percent over the period, and in 2009/10, accounted for 37 percent of total county revenue. This shift in revenue is due in part to the State “realignment” policy reducing State revenue sources in exchange for a greater share of property tax for county government.



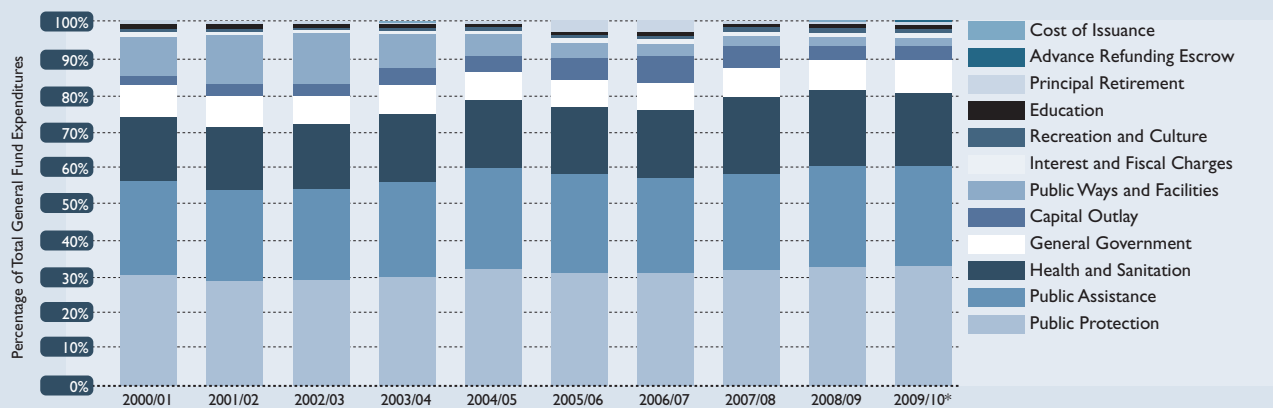
## County Expenditures

In terms of county expenditures, Public Safety accounts for the largest share of total expenditures in San Mateo and Santa Clara Counties (**Figure 2-12**). In 2009/10, public safety represented 33 percent of total expenditures, rising from 30 percent in 2000/01. Public assistance is the second largest expenditure category, representing 27 percent in 2009/10. Education is a small county expenditure category, because the school districts are separate entities with their own revenue streams from the State and not managed by counties.<sup>11</sup>

Figure 2-12

### County Expenditures by Category

San Mateo & Santa Clara Counties



\*Fiscal year 2009/10 is projected  
 Data Source: San Mateo and Santa Clara Counties  
 Analysis: Collaborative Economics

Investment in infrastructure is captured in Capital Outlay and Public Ways and Facilities (**Figure 2-12**). As a percentage of total expenditures, Capital Outlay increased 1.4 percent and Public Ways and Facilities decreased 8.7 percent over the decade.

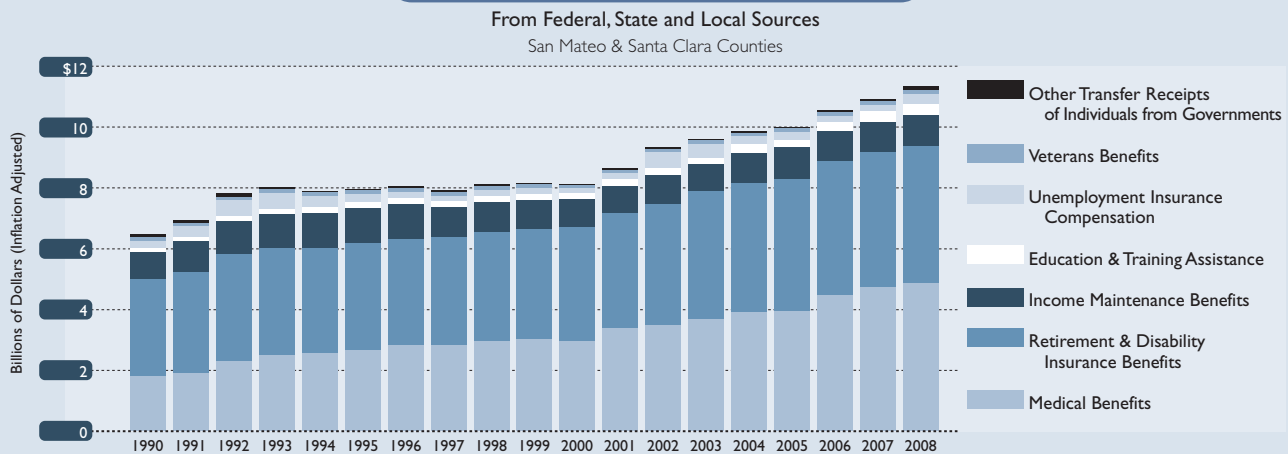
The four expenditure categories Interest and Fiscal Charges, Principal Retirement, Advance Refunding Escrow, and Cost of Issuance in **Figure 2-12** represent debt service of the region's counties. In recent years, counties have increasingly turned toward the issuance of debt to help finance basic infrastructure projects, such as schools, roads and hospitals. In dollar values, debt service increased 33 percent between 2000/01 and 2009/10 and 19 percent between 2008/09 and 2009/10. As a percentage of total expenditures, debt service in the region's counties increased 0.3 percent over the decade and by 0.4 from 2008/09 to 2009/10.

<sup>11</sup> The County Office operates Special Education programs for students with severe disabilities, Court and Community Schools for 2,000 at-risk students, and Regional Occupational Program (ROP) career technical preparation courses for 5,000 high school students and adults. <http://www.smcoe.k12.ca.us/Pages/default.aspx>

Government spending for all individuals (combined city, county, state, and federal spending) increased 75 percent between 1990 and 2008 in Silicon Valley, reaching \$11.3 billion in 2008 (Figure 2-13). The escalation in spending was driven primarily by the category of Medical Benefits which represented 43 percent of total transfers in 2008. Consisting mostly of social security insurance, medical benefits spending increased 169 percent from 1990 to 2008. Retirement and disability insurance benefits, which represents the second largest share (40 percent) of total transfer spending, increased 43 percent over the same period. Much smaller in scope, spending on education and training assistance, which largely consists of CalWORKS, increased 140 percent. During the same period, total personal transfer receipts decreased for Veterans Benefits by 5 percent, to \$105.8 million.

Figure 2-13

**Government Spending for Individuals**



Note: Income maintenance benefits consist largely of supplemental security income payments, family assistance, food stamp payments, and other assistance payments, including general assistance  
Data Source: U.S. Bureau of Economic Analysis  
Analysis: Collaborative Economics

As a percentage of total expenditures, pension costs increased from 2 percent to 7 percent from 2000/01 to 2009/10 in San Mateo and Santa Clara Counties.

In Silicon Valley, demand for public assistance has continued to grow (Figure 2-15). Between 2007 and 2010, the percentage of the population receiving some form of public assistance rose from 11 percent to almost 14 percent. These services include CalWORKS, Food Stamps, Medi-Cal and General Assistance.

Figure 2-14

**Growth in Pension Cost in Silicon Valley**

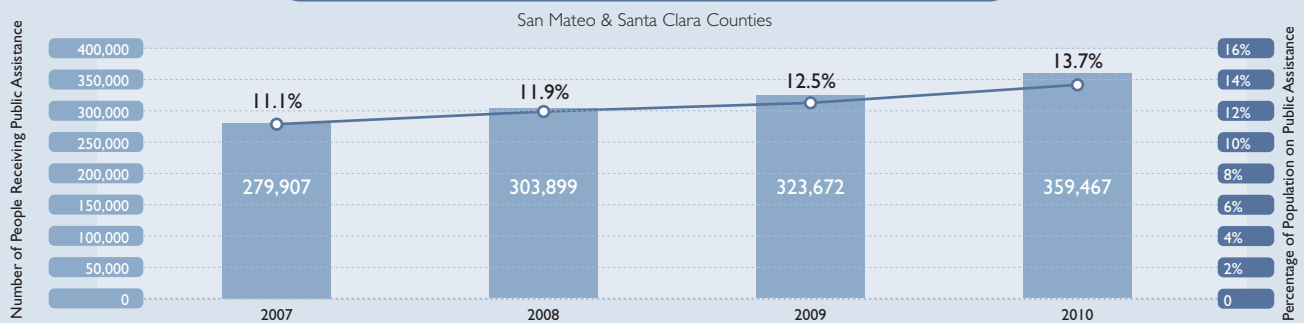
(Inflation Adjusted)

Fiscal Year	Pension Cost*	Total Expenditures	Percent of Expenditures
2000/01	\$48,496,425	\$2,695,299,184	2%
2001/02	\$44,098,997	\$3,154,021,706	1%
2002/03	\$47,276,329	\$3,271,076,160	1%
2003/04	\$80,325,224	\$3,149,819,279	3%
2004/05	\$170,526,399	\$2,962,433,511	6%
2005/06	\$192,218,903	\$3,167,303,126	6%
2006/07	\$223,163,281	\$3,269,225,538	7%
2007/08	\$268,551,450	\$3,164,106,050	8%
2008/09	\$230,820,486	\$3,202,578,951	7%
2009/10	\$232,528,172	\$3,194,919,000	7%

\*Pension cost is annual required contribution by San Mateo and Santa Clara County  
Data Source: San Mateo and Santa Clara Counties  
Analysis: Collaborative Economics

Figure 2-15

**Silicon Valley's Population Receiving Public Assistance**

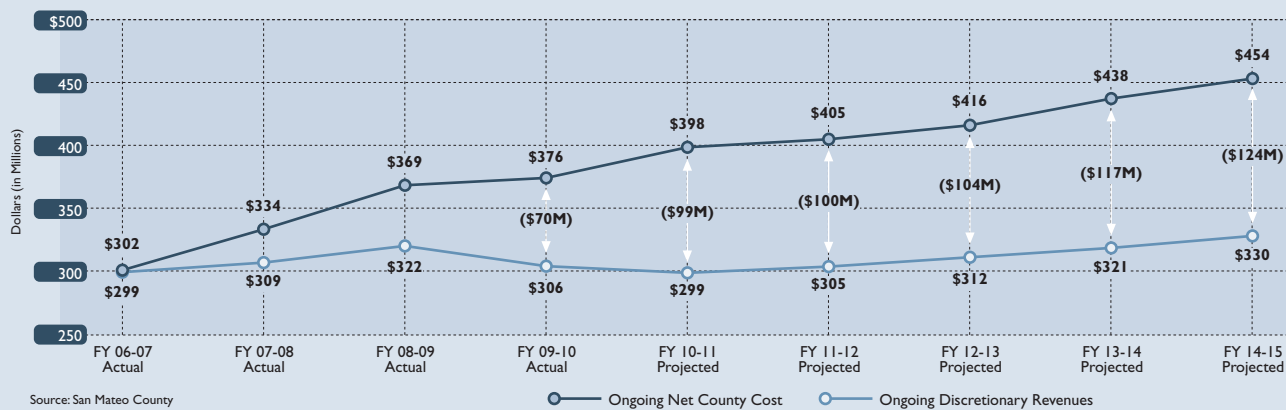


Note: San Mateo County's data is provided for the fiscal year, and Santa Clara County's data is a point in time (July). Both sets of data are an unduplicated count. Public assistance services include CalWORKS, Food Stamps, Medi-Cal, and General Assistance  
Data Source: San Mateo and Santa Clara Counties  
Analysis: Collaborative Economics

Based on San Mateo County June 2010 year-end financial status, annual deficits by fiscal year 2014/15 could reach \$124 million in San Mateo County (**Figure 2-16**) primarily due to decreasing tax revenues, state budget reductions and investment losses as opposed to increasing costs and greater demand for county services. San Mateo County balanced the 2010/11 budget by cutting \$36 million from programs and using \$90 million in reserves. Since the 2007/08 fiscal year, the County has used \$248 million from its reserve fund.<sup>12</sup> Without changes to the current revenue and spending levels, the General Fund reserves in San Mateo County risk depletion in the near future. Similar information was not available for Santa Clara County.

Figure 2-16

### San Mateo Projected Deficit in General Fund



<sup>12</sup> San Mateo County's Adopted Budget, San Mateo County, July 2010.

## Choices for the Future

While the federal deficit is a well known problem, another equally challenging financial crisis is looming involving local governments.

Meredith Whitney, one of the most respected financial analysts on Wall Street, who was among the first to warn of the impact the subprime mortgage meltdown would have on banks, is warning that she sees similar problems with state and local government finances.

Silicon Valley communities face considerable challenges in financing their future. Local and regional economies characterized by struggling housing markets, slow consumer spending, and high levels of unemployment are driving declines in city revenues at a time when they face ballooning employee health care costs and pension fund obligations. In response, counties and cities are cutting personnel, infrastructure investments and key services.

Any effort to significantly reduce the growth of our deficit or debt over the long-term will require further cuts to reduce or eliminate services, increases in revenue, and more likely than not, some combination of the two.

These are difficult choices because further cuts would impact the very programs that have fueled past cycles of economic growth while providing a safety net for those in need and yet, increasing revenues is challenging with restrictions on local government's ability to raise taxes and fees in a politically unfavorable climate.

### We are at a challenging moment in time. We need to ask ourselves a critical set of questions:

- What kind of government do we want, now and in the future?
- What is the appropriate role of public institutions in securing broadly shared prosperity and opportunity for all?
- What role should government play in providing a safety net for vulnerable families and individuals?
- What changes are needed in state and local government's budget rules, taxing, and spending in order to promote our vision for California's future?
- What autonomy should counties and cities have to control revenue sources for services that they provide?
- What role should local government play in enabling economic development—to generate jobs for residents and revenue for community services?

This Special Analysis has outlined the facts facing Silicon Valley. There are no silver bullets or short cuts that we can take to avoid the tough choices that lie ahead. But these choices must be made to restore the vital cycle that links our economy and community.

## FRONT PAGE STATISTICS

### Area

Data are for Santa Clara and San Mateo Counties, Fremont, Newark, Union City, and Scotts Valley. Land Area data (except for Scotts Valley) is from the U.S. Census Bureau State and County QuickFacts. Data is derived from Population Estimates, 2000 Census of Population and Housing, 1990 Census of Population and Housing, Small Area Income and Poverty Estimate, County Business Patterns, 1997 Economic Census, Minority and Women-Owned Business, Building Permits, Consolidated Federal Funds Report, Census of Governments. Scotts Valley data is from the Scotts Valley Chamber of Commerce.

### Population

Data for the Silicon Valley population come from the E-6: City/County Population Estimates with Annual Percent Change report by the California Department of Finance and are for Silicon Valley cities. Population estimates are for 2010.

### Jobs

Silicon Valley employment data are provided by the California Employment Development Department and are from Joint Venture: Silicon Valley Network's unique data set. The data set counts jobs in the region and uses data from the Quarterly Census of Wages and Employment program that produces a comprehensive tabulation of employment and wage information for workers covered by State unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program. Employment data exclude members of the armed forces, the self-employed, proprietors, domestic workers, unpaid family workers, and railroad workers covered by the railroad unemployment insurance system. Covered workers may live outside of the Silicon Valley region. Multiple jobholders (i.e., individuals who hold more than one job) may be counted more than once. Data for Quarter 2 2010 are preliminary-revised. Data is for Santa Clara and San Mateo Counties, Scotts Valley, Fremont, Newark, and Union City.

### Average Annual Earnings

Figures were derived from the EDD/Joint Venture Silicon Valley Network data set and are reported for Fiscal Year 2010 (Q3 & Q4 2009, Q1 & Q2 2010). Wages were adjusted for inflation and are reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Data for Quarter 2 2010 are preliminary-revised. Data is for Santa Clara and San Mateo Counties, Scotts Valley, Fremont, Newark, and Union City.

### Foreign Immigration and Domestic Migration

Data are from the E-6: Population Estimates and Components of Change by County - July 1, 2000-2010 reported by the California Department of Finance and are for San Mateo and Santa Clara Counties. Estimates for 2010 are provisional. Net migration includes all legal and unauthorized foreign immigrants, residents who left the state to live abroad, and the balance of hundreds of thousands of people moving to and from California from within the United States.

### Age Distribution, Adult Educational Attainment, Foreign Born, and Ethnic Composition

Data for age distribution, adult educational attainment, and foreign born (front page statistics) are for Santa Clara and San Mateo Counties and are derived from the United States Census Bureau, 2009 American Community Survey. For educational attainment, Some College includes Some college, less than 1 year of college; Some college, 1 or more years, no degree; Associate's degree.

## PEOPLE

### Talent Flows and Diversity

#### Population Change and Net Migration Flows

Data are from the E-6: Population Estimates and Components of Change by County - July 1, 2000-2010 and July 1, 1990-2000 reported by the California Department of Finance and are for San Mateo and Santa Clara Counties. Estimates for 2010 are provisional. Net migration includes all legal and unauthorized foreign immigrants, residents who left the state to live abroad, and the balance of hundreds of thousands of people moving to and from California from within the United States.

#### Educational Attainment by Ethnicity

Data for adult educational attainment are for Santa Clara and San Mateo Counties and are derived from the United States Census Bureau, 2005 and 2009 American Community Survey and 2001 Supplementary Survey. Data reflects the educational attainment of the population 25 years and over whose highest degree received was either a bachelor's degree or a graduate degree. Multiple and Other includes American Indian and Alaska Native Alone, Native Hawaiian and Other Pacific Islander Alone, Some Other Race Alone, and Two or More Races.

#### Total Science & Engineering Degrees Conferred; by Gender; and to Temporary Nonpermanent Residents

State and regional data for 1995-2008 are from the National Center for Education Statistics. Regional data for the Silicon Valley includes the following post secondary institutions: Menlo College, Cogswell Polytechnic College, University of San Francisco, University of California (Berkeley, Davis, Santa Cruz, San Francisco), Santa Clara University, San Jose State University, San Francisco State University, Stanford University, Golden Gate University. The academic disciplines include: computer and information sciences, engineering, engineering-related technologies, biological sciences/life sciences, mathematics, physical sciences and science technologies. Data were analyzed based on 1st major gender, and level of degree (bachelors, masters or doctorate).

## ECONOMY

### Employment

#### Change in Residential Employment and Total Employed Residents by Month

Monthly jobs data are from the Bureau of Labor Statistics, Current Population Survey (CPS) and Local Area Unemployment Statistics (LAUS). Data is not seasonally adjusted. Data is for the San Mateo and Santa Clara Counties. December data is preliminary.

#### Quarterly Job Growth; and Major Areas of Economic Activity

Silicon Valley employment data are provided by the California Employment Development Department and are from Joint Venture: Silicon Valley Network's unique data set. The data set counts jobs in the region and uses data from the Quarterly Census of Wages and Employment program that produces a comprehensive tabulation of employment and wage information for workers covered by State unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program. Employment data exclude members of the armed forces, the self-employed, proprietors, domestic workers, unpaid family workers, and railroad workers covered by the railroad unemployment insurance system. Covered workers may live outside of the Silicon Valley region. Multiple jobholders (i.e., individuals who hold more than one job) may be counted more than once. Data for Quarter 2 2010 are preliminary-revised. Data is for Santa Clara and San Mateo Counties, Scotts Valley, Fremont, Newark, and Union City.

#### Unemployment Rate; and by Ethnicity

number of unemployed persons in each race, by gender, for age groups ranging from 16 years of age to 75 years of age and older. Ethnicity breakdowns include Black or African American, Asian, Some Other Race, Two or More Race, White (Not Hispanic or Latino), and Hispanic or Latino. Data are limited to the household population and exclude the population living in institutions, college dormitories, and other group quarters. Data is for Santa Clara County in the years 2007 through 2009. San Mateo County data is unavailable due to insufficient sample sizes for some ethnicity categories.

#### Monthly Jobs in Employment Services, Total Number of Jobs by Month

Data is not seasonally adjusted and includes only employment for the Employment Services industry. Monthly jobs data are from the Bureau of Labor Statistics, Current Employment Statistics Survey (CES). Data is for the San Jose-Sunnyvale-Santa Clara MSA. November data is preliminary.

#### Science & Engineering Talent by Categories

Data for Science & Engineering (S&E) Talent provided by the United States Census Bureau, 2000 Decennial Census and 2009 American Community Survey Public Use Microdata Samples (PUMS). A list of S&E occupations were divided into six categories: Computer, Physical Engineers, Design, Biological, Mathematics, and Aerospace Engineers & Scientists. Design includes Designers and Artists & Related Workers. Both were added to the S&E occupations to try to capture the employment in Graphic Designers and Multi-Media Artists & Animators. According to the U.S. Bureau of Labor Statistics Occupation Employment Statistics (May 2009), both occupations represent almost 60 percent of employment in both Designers and Artists & Related Workers for the San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area.

### Innovation

#### Value Added per Employee

Value added per employee is calculated as regional gross domestic product (GDP) divided by the total employment. GDP estimates the market value of all final goods and services. GDP and employment data are from Moody's Economy.com. Employment data does not include farming. All GDP values are inflation-adjusted and reported in first half 2009 dollars, using CPI for the U.S. City Average from the Bureau of Labor Statistics. Silicon Valley data is for Santa Clara and San Mateo Counties.

#### Patent Registrations; Patents Registrations by Technology Area

Patent Data is provided by the U.S. Patent and Trademark Office and consists of Utility patents granted by inventor. Geographic designation is given by the location of the first inventor named on the patent application. Silicon Valley patents include only those patents filed by residents of Silicon Valley cities. Data are based on Joint Venture's city defined region of Silicon Valley.

#### Venture Capital Investment: Total Share of U.S., by industry

the National Venture Capital Association based on data from Thompson Reuters. 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. Values are inflation-adjusted and reported in 2010 dollars using the CPI for the U.S. City Average from the Bureau of Labor Statistics.

#### Cleantech Venture Capital: Total & by Segment

Data provided by Cleantech Group™, LLC. For this analysis, venture capital is defined as disclosed clean tech investment deal totals. Data are based on Joint Venture's ZIP-code-defined region of Silicon Valley. The Cleantech Group describes cleantech as new technology and processes, spanning a range of industries that enhance efficiency, reduce or eliminate negative ecological impact, and improve the productive and responsible use of natural resources. See box for cleantech industry segments. All values are inflation-adjusted and reported in first half 2010 dollars, using the CPI for the U.S. City Average from the Bureau of Labor Statistics.

### Entrepreneurship

#### Percent of Population Starting a Business

Kauffman Index and U.S. Census Bureau, Current Population Survey. The underlying datasets that are used to create the entrepreneurship measure are the basic monthly files to the Current Population Survey (CPS). By linking the CPS files over time, longitudinal data can be created which allows for the examination of business creations. These surveys, conducted monthly by the U.S. Bureau of the Census and the U.S. Bureau of Labor Statistics, are representative of the entire U.S. population and contain observations for more than 130,000 people. The regions displayed in the chart are San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area (MSA), Rest of San Francisco Bay Area (San Francisco-Oakland-Fremont MSA), California, and the United States.

#### Initial Public Offerings

Data is from Renaissance Capital's IPOHome.com and the location based on corporate address provided by IPOHome.com. The data was pulled from the website on November 17, 2010.

#### Mergers & Acquisitions

Data provided by FactSet Mergerstat LLC. Data are based on Joint Venture's ZIP-code-defined region of Silicon Valley. Not all merger and acquisition deals disclose value. Total values are based on all the deals with values disclosed. All forms of mergers and acquisitions are included in count except for joint ventures.

#### Initial Public Offerings and Mergers & Acquisitions in Clean Technology

Data provided by Cleantech Group™, LLC. For this analysis, venture capital is defined as disclosed clean tech investment deal totals. Data are based on Joint Venture's ZIP-code-defined region of Silicon Valley. The Cleantech Group describes cleantech as new technology and processes, spanning a range of industries that enhance efficiency, reduce or eliminate negative ecological impact, and improve the productive and responsible use of natural resources. See box for cleantech industry segments. IPO Count is based on IPO pricing each year. M&A count is based on number of closed merger and acquisition deals each year, by year of deal closing.

## Cleantech Industry Segments

### Energy Generation

- Wind
- Solar
- Hydro/Marine
- Biofuels
- Geothermal
- Other

### Energy Storage

- Fuel Cells
- Advanced Batteries
- Hybrid Systems

### Energy Infrastructure

- Management
- Transmission

### Energy Efficiency

- Lighting
- Buildings
- Glass
- Other

### Transportation

- Vehicles
- Logistics
- Structures
- Fuels

### Water & Wastewater

- Water Treatment
- Water Conservation
- Wastewater Treatment

### Air & Environment

- Cleanup/Safety
- Emissions Control
- Monitoring/Compliance
- Trading & Offsets

### Materials

- Nano
- Bio
- Chemical
- Other

### Manufacturing/Industrial

- Advanced Packaging
- Monitoring & Control
- Smart Production

### Agriculture

- Natural Pesticides
- Land Management
- Aquaculture

### Recycling & Waste

- Recycling
- Waste Treatment

Source: Cleantech Group™, LLC

## Establishment Churn

The National Establishment Time-Series Database (NETS), prepared by Walls & Associates using Dun & Bradstreet establishment data, was sourced for jobs data and establishment counts. Silicon Valley is defined as Santa Clara and San Mateo Counties in this analysis.

## Percentage of Nonemployers by Industry; Nonemployer Firm Growth Relative to 2002

Data for Nonemployers is from the U.S. Census Bureau. Nonemployer statistics originate from tax return information of the Internal Revenue Service. The data are subject to nonsampling error such as errors of self-classification by industry on tax forms, as well as errors of response, nonreporting and coverage. Values provided by each firm are slightly modified to protect the respondent's confidentiality. Data is for Santa Clara and San Mateo Counties. Employment data is from the California Employment Development Department. Employment data is non-seasonally adjusted and annual average values.

## Relative Growth of Small Business Loans

The data for Small Business Loan Origination comes from Federal Financial Institutions Examination Council (FFIEC), specifically from the Community Reinvestment Act (CRA) data products. Small business loans are defined as those whose original amounts are \$1 million or less and were reported as either loans secured by nonfarm or nonresidential real estate or Commercial and Industrial loans in Part I of the Consolidated Reports of Condition and Income (Schedule RC-C, Part I) or the Thrift Financial Report (Schedule SB).

## Income

### Real per Capita Income

Total personal income and population data are from Economy.com. Income values are inflation-adjusted and reported in first half 2010 dollars, using the CPI for the U.S. City Average from the Bureau of Labor Statistics. Silicon Valley data includes Santa Clara and San Mateo Counties.

### Per Capita Income by Race and Ethnicity

Data for Distribution of Per capita Income are from the 2000-2009 American Community Survey from the U.S. Census Bureau. All income values are inflation-adjusted and reported in first half 2010 dollars, using CPI for the U.S. City Average from the Bureau of Labor Statistics. Silicon Valley data includes Santa Clara and San Mateo Counties. Per capita income is the mean money income received in 1999 computed for every man, woman, and child in a geographic area. It is derived by dividing the total income of all people 15 years old and over in a geographic area by the total population in that area.

Money income includes amounts reported separately for wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income (SSI); public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income.

### Median Household Income

Data for Distribution of Income and Median Household Income are from the American Community Survey from the U.S. Census Bureau. All income values are adjusted into 2010 U.S. dollars for the first half of the year, using CPI for the U.S. City Average from the Bureau of Labor Statistics. Silicon Valley data includes Santa Clara and San Mateo Counties.

### Median Earned Income by Educational Attainment

Data for Distribution of Income and Median Household Income are from the 2000-2009 American Community Survey from the U.S. Census Bureau. All income values are inflation-adjusted and reported in first half 2010 dollars, using CPI for the U.S. City Average from the Bureau of Labor Statistics. Silicon Valley data includes Santa Clara and San Mateo Counties. Household Income includes wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income from estates and trusts; Social Security or railroad retirement income; Supplemental Security Income; public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income; excluding stock options.

### Gini Index Income Inequality

Data on the Gini index of income inequality is from the American Community Survey from the U.S. Census Bureau. The Gini index of income inequality measures the dispersion of the household income distribution and is measured on a scale of zero to one, where income equality is equal to zero and one represents the maximum income inequality. Negative incomes are converted to zero. Data are based on a sample and are subject to sampling variability. Silicon Valley data includes Santa Clara and San Mateo Counties. Data for the number of households from the American Community Survey from the U.S. Census Bureau was used to calculate the average of Santa Clara and San Mateo Counties.

### Food Stamp Participants as a Percentage of Resident Population

Data for food stamp participants is from the State of California, Department of Social Services. Data is for the number of food stamp participants in the month of July by county and state. Data for population figures are from the State of California, Department of Finance. Provisional state and county population estimates for July 1, 2009; revised estimates for July 1, 2000 through July 1, 2008; and components of population change by year for fiscal years 1999-00 through 2008-09.

# SOCIETY

## Preparing for Economic Success

### High School Graduation Rate & Share Who Meet UC/CSU Entrance Requirements; High School Graduation Rates by Ethnicity

Data for the 2008/09 academic year are provided by the California Department of Education. This is the third year statistics have been derived from student level records. California Legislature enacted SB1453, which establishes two key components necessary for a long-term assessment and accountability system: Assignment of a unique, student identifier to each K-12 pupil enrolled in a public school program or in a charter school that will remain with the student throughout his or her academic 'career' in the California public school system; and Establishment of a longitudinal database of disaggregated student information that will enable state policy-makers to determine the success of its program of educational reform. Historical data are final and are from the California Department of Education. The methodology used calculates an approximate probability that one will graduate on time by looking at the number of 12th grade graduates and number of 12th, 11th, 10th and 9th grade dropouts over a four year period. The SV data adheres to the nonadjusted protocol given that the data has to be combined across SV districts and counties, and the adjusted numbers are not offered at that level. The CA data reflects the adjusted numbers which is a more accurate reflection of the dropout numbers as it includes lost transfers and re-enrolled students. The unique student identifier established in 2006/07 allows for this adjusted calculation.

### High School Dropout Rate

Data for the 2008/2009 academic year are provided by the California Department of Education. This is the third year that statistics have been derived from student level records. California Legislature enacted SB1453, which establishes two key components necessary for a long-term assessment and accountability system: Assignment of a unique, student identifier to each K-12 pupil enrolled in a public school program or in a charter school that will remain with the student throughout his or her academic 'career' in the California public school system; and Establishment of a longitudinal database of disaggregated student information that will enable state policy-makers to determine the success of its program of educational reform. The 4-year derived dropout rate is an estimate of the percent of students who would drop out in a four year period based on data collected for a single year. Dropout Formulae: (Adjusted Gr. 9-12 Dropouts/Gr. 9-12 Enrollment)\*100 4 Year Derived Rate Formula: (1-(1-(Reported or Adjusted Gr. 9 Dropouts/Gr. 9 Enrollment)))\*(1-(Reported or Adjusted Gr. 10 Dropouts/Gr. 10 Enrollment))\*(1-(Reported or Adjusted Gr. 11 Dropouts/Gr. 11 Enrollment))\*(1-(Reported or Adjusted Gr. 12 Dropouts/Gr. 12 Enrollment))\*100. The 4-year derived dropout rate is an estimate of the percent of students who would drop out in a four year period based on data collected for a single year. The SV data adheres to the nonadjusted protocol given that the data has to be combined across SV districts and counties, and the adjusted numbers are not offered at that level. The CA data reflects the adjusted numbers which is a more accurate reflection of the dropout numbers as it includes lost transfers and re-enrolled students. The unique student identifier established in 2006/07 allows for this adjusted calculation.

### Algebra I Scores

Data are from the California Department of Education, California Standards Tests (CST) Research Files for San Mateo and Santa Counties. In 2003, the California Standards Tests (CST) replaced the Stanford Achievement Test, ninth edition (SAT/9). The CSTs in English-language arts, mathematics, science, and history-social science are administered only to students in California public schools. Except for a writing component that is administered as part of the grade four and grade seven English-language arts tests, all questions are multiple-choice. These tests were developed specifically to assess students' knowledge of the California content standards. The State Board of Education adopted these standards, which specify what all children in California are expected to know and be able to do in each grade or course. The 2010 Algebra I CSTs were required for students who were enrolled in the grade/course at the time of testing or who had completed a course during the 2009-2010 school year, including 2009 summer school. The following types of scores are reported by grade level and content area for each school, district, county, and the state: % Advanced, % Proficient, % Basic, % Below Basic and % Far Below Basic is the percentage of students in the group whose scores were at this performance standard. The state target is for every student to score at the Proficient or Advanced Performance Standard.

### Enrollment Growth Relative to 1998, UC/CSU

Data represent fall total enrollment figures for CSU campuses from 1998 to 2009. Total enrollment reflects part-time (fewer than 12 credit hours) and full-time students (12 or more credit hours). Student participating in CSU study abroad programs are not included. Dominguez Hills enrollment statistics include students enrolled in the statewide nursing program. The sources of these data are CSU Analytic Studies Statistical Reports. Data are based upon fall enrollment of all students. Data represent total fall enrollment figures for UC campuses from 1998 to 2009. Total enrollment reflects part-time (fewer than 12 credit hours) and full-time students (12 or more credit hours). The source of these data is Information Management, UC Office of the President. Note: UC Merced opened for enrollment in the fall of 2005.

### College Student Debt

Data are provided by The Institute for College Access & Success, College InSight. Most college-level data are taken directly from U.S. Department of Education sources and the Common Data Set (CDS). Student debt and undergraduate financial aid data are licensed from Peterson's Undergraduate Financial Aid and Undergraduate Databases. (c) 2009 Peterson's, a Nelnet company, all rights reserved. College loan figures are inflation-adjusted and reported in first-half 2010 dollars, using the CPI for the U.S. City Average from the Bureau of Labor Statistics. Universities in and near Silicon Valley are 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-Davis, University of California-Santa Cruz, and University of San Francisco.

## Early Education

### Preschool Enrollment

Data for preschool enrollment are for San Mateo and Santa Clara Counties, California, and the United States. The data is derived from the United States Census Bureau, 2002-2009 American Community Surveys and the 2000-2001 Supplementary Surveys. The population of children is for people age three to five years old. The age of the population in preschool and nursery schools are three years old and older.

### Third Grade English-Language Arts Proficiency by Race/Ethnicity

Data is from the California Department of Education, California Standards Tests (CST) Research Files for San Mateo and Santa Counties. The CSTs in English-Language Arts for third graders was administered only to students in California public schools and all questions were multiple-choice. These tests were developed specifically to assess students' knowledge of the California content standards, set by the State Board of Education. The 2010 English Language Arts CSTs were required for students who were enrolled in the grade/course at the time of testing or who had completed a course during the 2009-10 school year, including 2009 summer school. The following types of scores are reported by grade level and content area for each school, district, county, and the state: % Advanced, % Proficient, % Basic, % Below Basic and % Far Below Basic is the percentage of students in the group whose scores were at this performance standard. The state target is for every student to score at the Proficient or Advanced Performance Standard.

### Percent of Students Receiving Free Meals

Free and Reduced Meal Program (FRMP) information is submitted by schools to the Department of Education in January; however, the data is current as of October (previous year). Data files include public school enrollment and the number of students eligible for free or reduced price meal programs. Data for Silicon Valley includes Santa Clara and San Mateo Counties.

### Relative Growth in Public and Private School Enrollment

Public and private school enrollment data comes from the California Department of Education. Kindergarten through twelfth grade are included in enrollment totals. Data for Silicon Valley includes Santa Clara and San Mateo Counties.

## Arts & Culture

### Percentage of Residents who Rate the Quality of Cultural Offerings in a Region Highly; Vibrant Nightlife; Openness to Young, Talented College Graduates

The Gallup study was 15-minute phone survey conducted in both English and Spanish and via both landlines and cell phones. Each year, a random sample of at least 400 residents, aged 18 and older, were interviewed in each community. In 2010, 15,200 interviews were conducted. One thousand interviews were conducted in the Silicon Valley (the San Jose MSA combination of both Santa Clara and San Benito Counties). In addition the 2010 study included 200 interviews among residents 18 to 34 in Silicon Valley to give Gallup more information about that age group. Overall data were adjusted to ensure an accurate presentation of the real demographic makeup of each community based on U.S. Census Bureau data. All charts were provided by IStACT of Silicon Valley.

### Art Course Enrollment; Total and per Pupil

Data is from the California Department of Education. Data includes total Kindergarten through 12th grade art course enrollment. Per pupil data includes the number of art course enrollment divided by the total number of K-12 enrolled students. Silicon Valley includes data for Santa Clara and San Mateo Counties. Total art courses include the following art courses: Advanced dance study (independent or studio), Advanced placement (AP) History of art, AP Studio Art, Advanced Theater, Advertising design, Animation, AP Art History, AP Music theory, Apparel and accessories, Apparel manufacturing, production and maintenance, Art (Support Teaching Assignment), Art appreciation, Art appreciation (elementary school standards), Art appreciation (secondary school standards), Art history, Articulated apparel construction, Ballet, modern, jazz, dance, Band, Basic art, Ceramics, Chamber/madrigal/vocal ensemble, Chorus/choir, Cinematography, Commercial art, Commercial photography, Composition/songwriting, Computer art/graphics, Computers and Electronics in music, Crafts, Dance choreography and production, Dance fundamentals, Dance, all phases, Dance, movement and rhythmic activities, Dance, movement and rhythmic activities (elem), Dance, movement and rhythmic activities (sec), Design, Digital animation, Digital Art/computer art/graphics, Drama/creative dramatics, Drawing, Electronic music, Fashion and textile design, Fashion design, Fashion merchandising, Fashion textiles and apparel, Fibers and textiles, Folk/ethnic dance, Printmaking, Classroom/general/exploratory music, Yearbook, Broadcast production, Broadcasting technology, Sculpture, Fundamentals of art (elem), Fundamentals of Art (sec), General/classroom/exploratory music (elementary), General/exploratory/introduction to music (sec, Graphic arts technology, Graphic communications, History/appreciation of drama/theater arts, IB Art/Design, IB Music, IB Theater Arts, Instrumental ensemble, Instrumental music lessons, Instrumental music lessons (elementary schools, Instrumental music lessons (secondary school st, Interior design, furnishings, and maintenance, Jazz band, Jazz/Stage band, Jewelry, Lettering/calligraphy, Media arts (individual or inclusive), Media/film/video/television production, Multicultural art/folk art, Multimedia production, Music (Support Teaching Assignment), Music appreciation/history/literature, Music theory, Musical theater, MYP-IB-Drama (IB Middle Years Program), MYP-IB-Visual Arts (IB Middle Years Program), Orchestra, Orchestra/symphony, Other arts, media, and entertainment, Other dance course, Other drama/theater course, Other music course, Other visual communications, graphics course, Painting, Percussion Ensemble, Photo production and technology, Photographic laboratory and darkroom, Photography, Photography, lithography, and plate making, Recorder ensemble, SE Secondary arts (art, music, dance, drama), Secondary arts-art, music, dance, drama (thru), Silk screen making and printing, STAE Art, STAE Music, Stage band, Swing/show choir, Technical illustration, Technical theater, Technical theater/stagecraft, Television production, Theater workshop, Theater/creative dramatics (elem schl standards, Theater/play production, Theater/play production (sec schl standards), Three-dimensional design, Video production, Vocal jazz/jazz choir, Voice class.



## Quality of Health

### Percent of Kindergarten Students with All Required Immunizations

Data for kindergarten immunization rates come from the kindergarten assessment, which measures compliance with the school immunization law, conducted in all schools with kindergartens. Immunizations required by law include: All required immunizations include 5 doses of DTP/DaP/DT vaccine (4 doses meets the requirement if at least one was given on or after the fourth birthday); 4 doses of polio vaccine (3 doses meets the requirement if at least one was given on or after the fourth birthday); 2 doses of MMR vaccine (may be given separately or combined, but both doses must be given on or after the first birthday); 3 doses of hepatitis B vaccine; and 1 dose of varicella vaccine (or physician documented varicella disease history or immunity). In the fall, every school with a kindergarten class in California must provide information on the total enrollment, the number of students who have or have not received the immunizations required, and the number of exemptions. In the spring, local and state public health personnel visit a sample of licensed schools with kindergarten classes, to collect the same information for comparison.

### Percentage of Population with Health Insurance Coverage by Age Group

Data for those with health insurance is from the U.S. Census Bureau American Community Survey. Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2000 data. Boundaries for urban areas have not been updated since Census 2000. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization. Silicon Valley data includes Santa Clara and San Mateo Counties.

### Percent of Uninsured Population

Data is provided by the UCLA Center for Health Policy Research through the California Health Interview Survey (CHIS), 2007. CHIS provided rates that were predicted estimates from a simulation model based on the 2007 California Health Interview Survey and 2007/2009 California Employment Development Department data. Data was published the August 2010 Health Policy Fact Sheet, titled "California's Uninsured by County".

### Percent of Adult Population that is Overweight or Obese

Data on adult obesity are based on results from the California Health Information Survey, UCLA Center for Health Policy Research. Overweight include the respondents who have a Body Mass Index (BMI) of 25-29.99. Obese include the respondents who have a BMI of 30 or greater. Data are for Santa Clara and San Mateo Counties.

### Percent of Adult Population Ever Diagnosed with Diabetes

All data on diabetes instances are drawn from the California Health Interview Survey, UCLA Center for Health Policy Research. Data are for Santa Clara and San Mateo Counties. The survey question asks respondents 18 years of age and older if they were ever diagnosed with diabetes.

### Percent of Adult Population Ever Diagnosed with Asthma

All data on asthma instances are drawn from the California Health Interview Survey, UCLA Center for Health Policy Research. Data are for Santa Clara and San Mateo Counties. The survey question asks respondents 1 year of age and older if they were ever diagnosed with asthma.

### Teen Births per 1,000 Females Age 15-19

Data is from the California Department of Public Health, Vital Statistics Query System. Data is defined as rate of live births per 1,000 female population aged 15 to 19 across all ethnicities. Data for Silicon Valley is composed of Santa Clara and San Mateo Counties.

### Maternal Mortalities per 1,000,000 in the Population

Data for maternal mortality is defined by death by pregnancy, childbirth and the puerperium. Regional numbers are based on residence of the mother, are classified by ethnicity of the mother, and include all ages. Silicon Valley data is comprised of San Mateo and Santa Clara Counties.

### Infant Mortality Rate

Data is provided by the California Department of Health, Center for Health Statistics, 1994-2008. Silicon Valley estimates are for San Mateo and Santa Clara Counties.

## Safety

### Substantiated Cases of Child Abuse per 1,000 Children

Child maltreatment data are from the California Children's Services Archive, CWS/CMS 2009 Quarter 4 Extract. Data are downloaded from the Center for Social Services Research at the University of California at Berkeley. Population Data Source: California Department of Finance annual population projections (Based on the 2000 U.S. Census).

### Felony Offenses: Adult and Juvenile

Crime data are from the FBI's Uniform Crime Reports, as reported by the California Department of Justice in their annual "Criminal Justice Profiles". Data are reported for Santa Clara and San Mateo Counties, and California. Felony offenses include violent, property and drug offenses.

### Drug Offenses & Services: Adult and Juvenile

Felony drug offenses are from the FBI's Uniform Crime Reports, as reported by the California Department of Justice in their annual "Criminal Justice Profiles". Drug rehabilitation data include the number of clients across all modalities utilizing residential and outpatient drug and alcohol rehabilitation services provided by Santa Clara and San Mateo counties. This data reflects total number of cases in each modality and does not present unique client numbers. Some clients have sought assistance in more than one modality or more than once during a fiscal year. A person served could be double counted in terms of age because <18 clients can become >18 in another treatment episode in the same report period. Data is provided by the Santa Clara County Department of Alcohol and Drug Services, and by the San Mateo County Behavioral Health and Recovery Services. San Mateo County rehabilitation data prior to fiscal year 2004 cannot be updated, as the Behavioral Health and Recovery Services adopted a new data system in July 2003.

### Public School Expulsions due to Violence/Drugs

Data is obtained from the California Department of Education, DataQuest site. Numbers reflect violence and drug related expulsions across all grades (K-12) and are presented as a percentage of enrollment. Data was collected for Santa Clara County, San Mateo County and California.

## PLACE

### Environment

#### Waste Disposal per Capita

Data are provided by the California Integrated Waste Management Board and the State of California, Department of Finance. Santa Clara County, San Mateo County and statewide disposal figures are reported as annual figures. The daily estimates are calculated according to a 365 day calendar. Pursuant with Chapter 993, Statutes of 2002 (Chavez, AB 2308), disposal figures exclude waste processed at three inert mine-reclamation facilities in Southern California from 2001 to 2005. Beginning in 2006, disposal excludes waste sent to two of these facilities - representing roughly two percent of diversion. Starting in 2007, the California Integrated Waste Management Board adopted a new per capita disposal measurement system (Chapter 343, Statutes of 2008 [Wiggins, SB 1016]) to make the process of goal measurement as established by the Integrated Waste Management Act of 1989 (AB 939) simpler, more timely, and more accurate. SB 1016 builds on AB 939 compliance requirements by implementing a simplified measure of jurisdictions' performance. SB 1016 accomplishes this by changing to a disposal-based indicator—the per capita disposal rate—which uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities.

#### Water Resources

Data for this indicator were provided by the Bay Area Water Supply and Conservation Agency (BAWSCA). Data is compiled annually among BAWSCA agencies to update key information and assist in projecting suburban demand and population. Gross per capita consumption includes residential, non-residential, recycled and unaccounted for water use among the Santa Clara and San Mateo County BAWSCA agencies.

#### Electricity Productivity and Electricity Consumption per Capita

Electricity Consumption data is from the California Energy Commission. Inflation adjusted Gross Domestic Product (GDP) data (2000 chained dollars) is from Moody's Economy.com. Silicon Valley data includes Santa Clara and San Mateo Counties.

#### Solar Installations by Sector

Data on the Solar Installation by Sector is from The California Solar Initiative (CSI) as part of the Go Solar California campaign. The data shows calculated CEC PTC Rating, a measure of alternating current output of photovoltaic system under PVUSA Test Conditions as calculated by PowerClerk.

## Transportation

### Vehicle Miles of Travel per Capita & Gas Prices

Vehicle Miles Traveled (VMT) is defined as total distance traveled by all vehicles during selected time period in geographic segment. VMT estimates for 1995 – 2007 are from the California Department of Transportation's "2009 California Motor Vehicle Stock, Travel, and Fuel Forecast." VMT data for 2008 and 2009 is from the California Department of Transportation's, Highway Performance Monitoring System's "California Public Road Data." Data includes annual statewide total VMT on State highways and non-state highways. In order to calculate VMT, Caltrans multiplies the road section length (length in miles along the centerline of the roadway) by Average Annual Daily Traffic (AADT). AADT are actual traffic counts that the city, county, or state have taken and reported to the California Department of Transportation. To compute per-capita values, Revised County Population Estimates, 1970-2009, December 2009 from the California Department of Finance were used. Gas prices are average annual retail gas prices for California, and come from the Weekly Retail Gasoline and Diesel Prices (Cents per Gallon, Including Taxes) dataserries reported by the U.S. Department of Energy, Energy Information Administration. Gas prices are All Grades All Formulations Retail Gasoline Prices (including taxes) and have been adjusted into first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics.

### Fuel Consumption per Capita

Fuel consumption data are from the Caltrans, 2008 "California Motor Vehicle Stock, Travel, and Fuel Forecast" and include estimates for diesel and gasoline. Figures for 2010 are projections. Population figures are from Economy.com. Silicon Valley data is for Santa Clara and San Mateo Counties. To compute per-capita values, Revised County Population Estimates, 1970-2008, December 2008 from the California Department of Finance were used.

### Means of Commute

Data on the means of commute to work are from the United States Census Bureau, 2003 and 2009 American Community Survey. Data are for workers 16 years old and over residing in Santa Clara and San Mateo Counties commuting to the geographic location at which workers carried out their occupational activities during the reference week whether or not the location was inside or outside the county limits. The data on employment status and journey to work relate to the reference week; that is, the calendar week preceding the date on which the respondents completed their questionnaires or were interviewed. This week is not the same for all respondents since the interviewing was conducted over a 12-month period. The occurrence of holidays during the relative reference week could affect the data on actual hours worked during the reference week, but probably had no effect on overall measurement of employment status. People who used different means of transportation on different days of the week were asked to specify the one they used most often, that is, the greatest number of days. People who used more than one means of transportation to get to work each day were asked to report the one used for the longest distance during the work trip. The category, "Car, truck, or van," includes workers using a car (including company cars but excluding taxicabs), a truck of one-ton capacity or less, or a van. The category, "Public transportation," includes workers who used a bus or trolley bus, streetcar or trolley car, subway or elevated, railroad, or ferryboat, even if each mode is not shown separately in the tabulation. The category "Other Means" includes taxicab, motorcycle, bicycle and other means that are not identified separately within the data distribution.

### Transit Use

Estimates are the sum of annual ridership on the light rail and bus systems in Santa Clara and San Mateo Counties, and rides on Caltrain. Data are provided by San Trans, Valley Transportation Authority, Altamont Commuter Express, and Caltrain. Revised County Population Estimates, 1970-2009, December 2009 from the California Department of Finance were used to compute per-capita values.

### Total Number of Alternate Fuel Vehicles Registered; Alternative Fuel Vehicles as a Share of all Operational Vehicles

Data are from the California Energy Commission (CEC), compiled using vehicle registration data from the California Department of Motor Vehicles and are for San Mateo and Santa Clara Counties. Alternative fuel-types include all hybrid, electric and natural gas vehicles.

## Land Use

### Residential Density

Joint Venture: Silicon Valley Network conducted a land-use survey of all cities within Silicon Valley. Collaborative Economics completed the survey compilation and analysis. Participating cities included: Atherton, Belmont, Burlingame, Campbell, Cupertino, East Palo Alto, Gilroy, Hillsborough, Los Altos, Los Altos Hills, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Newark, Palo Alto, Portola Valley, Redwood City, San Carlos, San Jose, Saratoga, South San Francisco, Sunnyvale, and Union City. Santa Clara and San Mateo Counties are also included. In 2008, the survey was expanded to include more cities along the I01 corridor: Belmont, Brisbane, Burlingame, Millbrae, San Bruno, and South San Francisco. Most recent data are for fiscal year 2010 (July '09-June '10). The average units per acre of newly approved residential development are reported directly for each of the cities and counties participating in the survey.

### Housing and Development Near Transit

Data are from Joint Venture: Silicon Valley Network of Survey Cities. The number of new housing units and the square feet of commercial development within one-quarter mile of transit are reported directly for each of the cities and counties participating in the survey. Places with one-quarter mile of transit are considered "walkable" (i.e. within a 5- to 10-minute walk, for the average person).

## Time Required for Permitting of Renewable Energy Installations

Data are from Joint Ventures: Silicon Valley Network of Survey Cities. In recent years, residents and cities have begun investing substantially in renewable energy technology to provide electricity for their property and homes. In order to track achievements in this area, this year's survey included questions related to the renewable energy portfolios of the surveyed cities and its residents.

## Housing

### Building Affordable Housing

Data are from Joint Ventures: Silicon Valley Network of Survey Cities. Affordable units are those units that are affordable for a four-person family earning up to 80 percent 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.

### Rental Affordability

Data on average rental rates are from RealFacts survey of all apartment complexes in Santa Clara and San Mateo Counties of 50 or more units. Rates are the prices charged to new residents when apartments turn over and have been adjusted into 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Median household income data is from the United States Census Bureau, American Community Survey.

### Home Affordability

Data are from the California Association of Realtors' (CAR) Housing Affordability Index. The data for Silicon Valley includes Santa Clara and San Mateo County and is 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. Beginning in the first quarter of 2009, the Housing Affordability Index incorporates an effective interest rate that is based on the one-year, adjustable-rate mortgage from Freddie Mac's Primary Mortgage Market Survey. Quarterly Sales Volume for Existing Single Family Detached Home Sales data were provided by RAND California Statistics sourced by DataQuick News.

### Housing Costs

Data for owners and renters housing costs are from the United States Census Bureau, American Community Survey. This indicator measures the share of owners and renters spending 35% or more of their monthly household income on housing costs. Renter data are calculated percentages of gross rent to household income in the past 12 months. Owner data are calculated percentages of selected monthly owner costs to household income in the past 12 months. Owners data are solely based on housing units with a mortgage. According to the U.S. Department of Housing and Urban Development, housing costs greater than 30% of household income pose moderate to severe financial burdens.

### Trends in Home Sales

Data provided by RAND California Statistics and sourced by DataQuick News. For average sale price and number of transactions, all homes (including condos/townhomes) were included in calculations. Sales price are inflation-adjusted and reported in half-year 2010 dollars, using the U.S. City Average Consumer Price Index (CPI) of all urban consumers, published by the U.S. Bureau of Labor Statistics. Data is for Atherton, Belmont, Brisbane, Burlingame, Daly City, East Palo Alto, El Granada, Half Moon Bay, La Honda, Loma Mar, Menlo Park, Millbrae, Montara, Moss Beach, Pacifica, Pescadero, Portola Valley, Redwood City, San Bruno, San Carlos, San Mateo, South San Francisco, Alviso, Campbell, Cupertino, Gilroy, Los Altos, Los Gatos, Milpitas, Morgan Hill, Mount Hamilton, Mountain View, Palo Alto, San Jose, San Martin, Santa Clara, Saratoga, Stanford, Sunnyvale, Fremont, Newark, Union City and Scotts Valley.

### Residential Foreclosure Activity

Data was compiled by RAND California on behalf of DataQuick News. Data reflects total foreclosures for townhomes, condominiums and single family homes. The foreclosure numbers are strictly recorded Trustee's Deeds, or when the property is actually taken back by the bank. 2010 data includes foreclosures through September. Data is for Atherton, Belmont, Brisbane, Burlingame, Daly City, East Palo Alto, El Granada, Half Moon Bay, La Honda, Loma Mar, Menlo Park, Millbrae, Montara, Moss Beach, Pacifica, Pescadero, Portola Valley, Redwood City, San Bruno, San Carlos, San Mateo, South San Francisco, Alviso, Campbell, Cupertino, Gilroy, Los Altos, Los Gatos, Milpitas, Morgan Hill, Mount Hamilton, Mountain View, Palo Alto, San Jose, San Martin, Santa Clara, Saratoga, Stanford, Sunnyvale, Fremont, Newark, Union City and Scotts Valley.

## Commercial Space

### Commercial Space; Vacancy; Rents; and New Commercial Development

Data is from Colliers International. Commercial space includes office, R&D, industrial and warehouse space. The vacancy rate is the amount of unoccupied space and is calculated by dividing the sum of the direct vacant and sublease vacant space by the building base. The vacancy rate does not include occupied space that is presently being offered on the market for sale or lease. Net absorption is the change in occupied space during a given time period. Average asking rents are inflation-adjusted and reported in first-half 2010 dollars, using the CPI for the U.S. City Average from the Bureau of Labor Statistics.

## SPECIAL ANALYSIS

### General Fund Revenues and Expenditures

Chart is from the National League of Cities, Research on America's Cities (October 2010).

### Year-to-Year Change in City General Fund Revenues and Expenditures

Data from the Joint Venture Survey of Silicon Valley Financial Officers. Only cities that provided general fund data for all years are included in expenditures and revenue. Data for fiscal year 2009/10 is projected. Revenue and expenditures were adjusted for inflation and are reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Cities included in the chart are Atherton, Belmont, Daly City, East Palo Alto, Half Moon Bay, Menlo Park, Millbrae, Pacifica, San Mateo, Woodside, Campbell, Cupertino, Milpitas, Morgan Hill, Mountain View, San Jose, Santa Clara, and Sunnyvale.

### Year-to-Year Change in Employment

Data provided by the California Employment Development Department, Labor Market Information Division, Current Employment Statistics (CES). Data is for total industry jobs in San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area (MSA). November 2010 is preliminary.

### Growth Relative to Fiscal Year 2001/02

Data from the Joint Venture Survey of Silicon Valley Financial Officers. Only cities that provided general fund data for all years are included in expenditures and revenue. Data for fiscal year 2009/10 is projected. Revenue and expenditures were adjusted for inflation and are reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Cities included in the chart are Atherton, Belmont, Daly City, East Palo Alto, Half Moon Bay, Menlo Park, Millbrae, Pacifica, San Mateo, Woodside, Campbell, Cupertino, Milpitas, Morgan Hill, Mountain View, San Jose, Santa Clara, and Sunnyvale.

### City Revenue Aggregate: Silicon Valley Revenue by Source

Data provided by the California State Controller's Office, Cities Annual Report. Fiscal year 2008/09 is preliminary. Revenue is adjusted for inflation, and reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Data is for cities in San Mateo and Santa Clara Counties, Fremont, Newark, and Union City. Other Taxes include revenue sources such as transportation taxes, transient lodging taxes, and business license fees. Other Revenue include revenue sources such as revenue of use of money and property, sale of real and personal property, and intergovernmental transfers.

### City Revenue by Source

Data from the Joint Venture Survey of Silicon Valley Financial Officers. Only cities that provided general fund data for all years are included. Data for fiscal year 2009/10 is projected. Revenue is adjusted for inflation, and are reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Cities included in the chart are Atherton, Belmont, Daly City, East Palo Alto, Half Moon Bay, Menlo Park, Millbrae, Pacifica, Redwood City, San Mateo, Woodside, Campbell, Cupertino, Milpitas, Morgan Hill, Mountain View, Palo Alto, San Jose, Santa Clara, and Sunnyvale.

### City Revenue Trends Growth in City Revenues since 1998/99

Data provided by the California State Controller's Office, Cities Annual Report. Fiscal year 2008/09 is preliminary. Revenue is adjusted for inflation, and reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Data is for cities in San Mateo and Santa Clara Counties, Fremont, Newark, and Union City. Other Taxes include revenue sources such as transportation taxes, transient lodging taxes, and business license fees. Other Revenue include revenue sources such as revenue of use of money and property, sale of real and personal property, and intergovernmental transfers.

### Year-to-Year Change in Property Tax Revenue

Data provided by San Mateo and Santa Clara Counties' Comprehensive Annual Financial Reports (CAFRs).

### Distribution of Property Tax Revenue

Data provided by San Mateo and Santa Clara Counties. School Districts include schools k-12 and community colleges. Data is for fiscal year 2009/10.

### City Expenditures by Category

Data from the Joint Venture Survey of Silicon Valley Financial Officers. Only cities that provided general fund data for all years are included. Data for fiscal year 2009/10 is projected. Expenditures are adjusted for inflation, and are reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Cities included in the chart are Atherton, Belmont, East Palo Alto, Half Moon Bay, Menlo Park, Millbrae, Pacifica, San Mateo, Woodside, Campbell, Cupertino, Milpitas, Morgan Hill, Mountain View, San Jose, Santa Clara, and Sunnyvale. Pension Cost is the Annual required contribution of cities that responded.

### Pension Costs as a Percentage of Total City Expenditures

Data from the Joint Venture Survey of Silicon Valley Financial Officers. Only cities that provided general fund data for all years are included. Data for fiscal year 2009/10 is projected. Expenditures are adjusted for inflation, and are reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Cities included in the chart are Atherton, Belmont, East Palo Alto, Half Moon Bay, Menlo Park, Millbrae, Pacifica, San Mateo, Woodside, Campbell, Cupertino, Milpitas, Morgan Hill, Mountain View, San Jose, Santa Clara, and Sunnyvale. Pension Cost is the Annual required contribution of cities that responded.

### Growth Relative to Fiscal Year 1998/99

Data provided by the California State Controller's Office, Counties Annual Report. Fiscal year 2008/09 is preliminary. Revenue and expenditures were adjusted for inflation, and reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics.

### Total County Revenue and Expenditures

Data provided by the California State Controller's Office, Counties Annual Report. Fiscal year 2008/09 is preliminary. Revenue and expenditures were adjusted for inflation, and reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics.

### County Revenue by Source

Data from the Joint Venture Survey of Silicon Valley Financial Officers. Data for San Mateo and Santa Clara counties are included. Data for fiscal year 2009/10 is projected. Revenue was adjusted for inflation, and are reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics.

### County Expenditures by Category

Data from the Joint Venture Survey of Silicon Valley Financial Officers. Data for San Mateo and Santa Clara counties are included. Data for fiscal year 2009/10 is projected. Expenditures were adjusted for inflation, and are reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics.

### Government Spending for Individuals

Data provided by U.S. Bureau of Economic Analysis, CA35 - Personal current transfer receipts (April 2010). Data was adjusted for inflation, and are reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics.

### Growth in Pension Cost in Silicon Valley

Data provided by San Mateo and Santa Clara Counties. Pension cost is annual required contribution by San Mateo and Santa Clara Counties. Data was adjusted for inflation, and are reported in first half of 2010 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics.

### Silicon Valley's Population Receiving Public Assistance

Data provided by San Mateo and Santa Clara Counties' Social Services Agency. San Mateo County's data is provided for the fiscal year, and Santa Clara County's data is a point in time (July). Both sets of data are an unduplicated count. Public assistance services include CalWORKS, Food Stamps, Medi-Cal, and General Assistance.

### San Mateo County Projected Deficit in General Fund

Data provided by San Mateo County.

Silicon Valley Major Areas of Economic Activity

	Employment 2010 Q2	Percent of Total Silicon Valley Employment	Percent Change	
			2007 - 2010	2009 - 2010
<b>Total Employment</b>	<b>1,305,331</b>	<b>100.0%</b>	<b>1.4%</b>	<b>-6.4%</b>
<b>Community Infrastructure</b>	<b>749,311</b>	<b>57.9%</b>	<b>-5.7%</b>	<b>-1.0%</b>
Health & Social Services	130,554	10.1%	7.0%	2.4%
Retail	123,111	9.5%	-10.2%	0.3%
Accommodation & Food Services	103,224	8.0%	-3.0%	-0.5%
Education	100,416	7.8%	-1.1%	-2.1%
Construction	53,286	4.1%	-30.1%	-5.9%
Consumer Services	38,796	3.0%	-11.3%	-1.0%
Wholesale Trade	33,684	2.6%	-11.4%	-2.0%
Federal Government Administration	27,786	2.1%	7.1%	6.6%
Transportation	26,099	2.0%	-5.8%	-3.3%
Arts, Entertainment, & Recreation	25,778	2.0%	-1.9%	-5.0%
Goods Movement	19,190	1.5%	-18.5%	-7.1%
Consumer Financial Services	19,182	1.5%	-22.3%	-7.6%
Other (Private Households & Unclassified Industries)	18,776	1.4%	80.0%	-2.9%
Local Government Administration	11,659	0.9%	-1.8%	-4.5%
Nonprofits	10,520	0.8%	-11.8%	-15.4%
Utilities	5,057	0.4%	-2.0%	-3.4%
Warehousing & Storage	2,129	0.2%	-3.6%	-1.3%
State Government Administration	64	0.0%	-19.0%	-3.0%
<b>Information Products &amp; Services</b>	<b>273,377</b>	<b>21.1%</b>	<b>-3.7%</b>	<b>-0.2%</b>
Software	85,588	6.6%	-1.0%	2.6%
Computer Hardware	40,587	3.1%	5.7%	-2.7%
Semiconductor & Semiconductor Equipment Manufacturing	35,842	2.8%	-7.9%	-1.7%
Internet & Information Services	25,935	2.0%	19.0%	5.0%
Electronic Component Manufacturing	22,129	1.7%	-24.5%	-2.4%
I.T. Wholesale Trade	19,785	1.5%	-11.4%	-2.1%
Communications Services & Equipment Manufacturing	19,304	1.5%	1.0%	0.4%
Instrument Manufacturing	16,596	1.3%	-24.0%	-10.1%
Other Media & Broadcasting	5,065	0.4%	30.8%	-1.1%
I.T. Repair Services	2,546	0.2%	33.6%	34.0%
<b>Innovation &amp; Specialized Services</b>	<b>141,012</b>	<b>10.9%</b>	<b>-6.9%</b>	<b>1.6%</b>
Technical & R&D	48,609	3.8%	-2.1%	1.5%
Management Offices	26,249	2.0%	5.9%	-1.0%
Personnel	25,754	2.0%	-20.2%	11.5%
Specialized Financial Services	20,796	1.6%	-5.7%	-0.8%
Legal	10,022	0.8%	-11.8%	-4.1%
Marketing/Ad/PR	6,274	0.5%	-3.3%	-0.2%
Design	3,308	0.3%	-33.0%	-9.1%
<b>Business Infrastructure</b>	<b>55,843</b>	<b>4.3%</b>	<b>-12.8%</b>	<b>-5.7%</b>
Facilities	35,642	2.8%	-10.5%	-4.4%
Administrative Services	20,201	1.6%	-16.7%	-7.9%
<b>Other Manufacturing</b>	<b>54,663</b>	<b>4.2%</b>	<b>-17.2%</b>	<b>-6.2%</b>
Other Primary & Fabricated Metal Manufacturing	14,017	1.1%	-17.3%	13.5%
Diversified Ag & Food Manufacturing	13,852	1.1%	-7.7%	-0.3%
Other Misc. Manf. & Space & Defense Manufacturing	10,696	0.8%	-7.7%	-10.8%
Other Machinery & Equipment Manufacturing	7,089	0.5%	-35.6%	-33.4%
Other Petrochemical Manufacturing	4,310	0.3%	-17.1%	-6.9%
Textile, Wood, & Furniture Manufacturing	2,847	0.2%	-29.5%	-3.0%
Paper & Packaging Manufacturing	1,655	0.1%	-14.2%	-0.5%
Mining	197	0.0%	-41.7%	-7.1%
<b>Life Sciences*</b>	<b>20,807</b>	<b>1.6%</b>	<b>-36.9%</b>	<b>-36.1%</b>
Medical Devices	11,107	0.9%	-15.1%	0.5%
Biotechnology	9,700	0.7%	3.2%	11.2%
Pharmaceuticals	***	*	*	*

\*In 2010, employment in Pharmaceuticals was suppressed for confidentiality reasons, causing the significant drop in total Life Sciences employment  
 Note: Data is for San Mateo and Santa Clara Counties, Scotts Valley, Fremont, Newark, and Union City.  
 Data Source: California Employment Development Department, Labor Market Information Division, Quarterly Census of Employment and Wages  
 Analysis: Collaborative Economics



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California Department of Transportation  
California Employment Development Department  
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California Public Utilities Commission  
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## JOINT VENTURE: SILICON VALLEY NETWORK

Established in 1993, Joint Venture: Silicon Valley Network provides analysis and action on issues affecting our region's economy and quality of life. The organization brings together established and emerging leaders—from business, government, academia, labor and the broader community—to spotlight issues, launch projects, and work toward innovative solutions.

## SILICON VALLEY COMMUNITY FOUNDATION

As a comprehensive center for philanthropy serving all of San Mateo and Santa Clara Counties, our mission is to strengthen the common good, improve the quality of life and address the most challenging problems.

## Joint Venture: Silicon Valley Network Investors Council

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City of Gilroy  
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City of Los Altos  
City of Menlo Park  
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City of Watsonville  
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Town of Portola Valley  
Town of Los Altos Hills  
Town of Los Gatos  
Town of Woodside



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